



Office of Consolidated Hearings

Case No.: 08-030

Re Nelson Aggregate Co.

In the matter of an application by Nelson Aggregate Co. filed June 18, 2008 for a Hearing before a Joint Board pursuant to section 3 of the *Consolidated Hearings Act*, R.S.O. 1990, c. C.29, as amended, regarding a proposal to extend Nelson Aggregate Co.'s existing "Burlington Quarry" onto Part of Lots 17 and 18, Concession 2, N.D.S., in the City of Burlington, and Regional Municipality of Halton for the purpose of extracting aggregate material (primarily dolostone) Category 2— Quarry Below Water, and to provide for all activities to be carried out at the existing "Burlington Quarry" located at Part Lots 1 and 2, Concession 2 and 3, in the City of Burlington relating to the production of aggregate from the proposed extension located on Part of Lots 17 and 18, Concession 2, N.S.D., in the City of Burlington; and

In the matter of a hearing commencing on November 17, 2010 in Oakville, Ontario.

Before:

Susan de Avellar Schiller, Panel Chair
Heather I. Gibbs, Panel Member
Dirk VanderBent, Panel Member

Appearances:

- | | | |
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| Jonathan Kahn and Catherine Powell | - | Counsel for the Proponent, Nelson Aggregate Co. |
| Roger Beaman and David Germain | - | Counsel for the Regional Municipality of Halton |
| Rodney Northey, Blake Hurley, K. Stavrakos and Y. Flores | - | Counsel for the City of Burlington |
| Jane Thompson, Robert Ratcliffe and E. Machado | - | Counsel for the Niagara Escarpment Commission |
| Brian Wilkie and Scott Dunsmuir | - | Counsel for the Ministry of Natural Resources |

David Donnelly, L. Valin and Lia Magi - Counsel for the Protecting Escarpment Rural Land
Robert Edmondson - Representative for the Halton Region Conservation Authority

Dated this 11th day of **October, 2012**

Reasons for Decision

Background and overview:

Nelson Aggregate Co. (Nelson) has an existing, licensed quarry on the Mount Nemo Plateau section of the Niagara Escarpment within the City of Burlington (City) and Regional Municipality of Halton (Region). The southern boundary of the existing quarry is No. 2 Side Road. Nelson wishes to extend the existing quarry on to Part of Lots 17 and 18, Concession 2, opposite the existing quarry and on the south side of No. 2 Side Road. Nelson's proposal comes before the Joint Board pursuant to the *Consolidated Hearings Act*, R.S.O. 1990, c. C.29.

This matter was the subject of several preliminary hearings, and the hearing of the merits itself stretched over several months and included nearly 300 exhibits.

Throughout the preliminary hearings all commenting agencies who were parties to these proceedings appeared in opposition to Nelson. At the outset of the hearing of the merits, the Ministry of Natural Resources (MNR) advised the Joint Board that it was satisfied with changes Nelson made to its application and MNR withdrew as a party. The City, the Region, Conservation Halton, and the Niagara Escarpment Commission (NEC) continued as parties appearing in opposition to Nelson. Also appearing as a party in opposition to Nelson was a citizen group Protecting Escarpment Rural Land (PERL).

Prior to the start of the hearing of the merits Paletta International Corporation (Paletta) withdrew as a party but remained as a participant. Paletta had advised the Joint Board previously at a preliminary hearing that it intended to observe the proceedings and did not anticipate taking an active part. Paletta did not file any participant statement and did not appear at the hearing of the merits.

The Joint Board heard from 60 witnesses, of whom 13 were members of the public and 47 were experts called by the parties. Both the City and Region filed bound compendia of their respective expert witness statements as exhibits in these proceedings. As the hearing progressed, the City and the Region advised the Joint Board that they would not be calling certain of the expert witnesses that had been on their respective witness lists and whose expert witness statements were in the compendia that had been filed. On consent, the Board struck the witness statement of Mr. Robin van de Lande from Exhibit 51C, the City's compendium of planning witness statements, and the witness statements of Messrs. Chris Neville, Tony Van der Vooren and Dave Matchett from Exhibit 101, the Region's compendium of witness statements.

The Joint Board considered carefully all of the evidence and argument presented in this extensive examination of Nelson's proposal.

The existing quarry

The existing quarry operates with two *Aggregate Resources Act (ARA)* Licences covering 218.3 ha with an extraction footprint of 210 ha. The existing quarry is bounded on the north by Colling Road, on the south by No. 2 Side Road, and on the east by Guelph Line with the exception of a small area at the northwest intersection of Guelph Line and No. 2 Side Road. Adjacent to the existing quarry on the west is the Burlington Springs Golf and Country Club. On the Colling Road edge of the existing quarry, Nelson has provided dedicated access along 1.5 km to the Bruce Trail Association.

Nelson's existing quarry has been in operation since 1953, initially under the former owner. Nelson has operated the quarry since 1983. The site is being progressively rehabilitated. Approximately 125 ha have already been rehabilitated, leaving approximately 85 ha that are used for active extraction, processing, and future extraction. Final rehabilitation is to be a 185 ha lake with an island, exposed cliff face, vegetated shoreline and shoreline wetlands. In addition to processing material mined at the site, the existing quarry receives concrete and asphalt from off-site for recycling with its asphalt plant. The asphalt plant is on the floor of the existing quarry and has been in operation since the 1970's. Nelson intends to continue to operate the asphalt plant during the life of the existing quarry.

Licensed aggregate reserves at the existing quarry have approximately 7 million tonnes of material remaining. Nelson has also indicated that it will continue to extract and process the remaining reserves of aggregate at the existing quarry during and after the aggregate extraction operation in the extension, if approved.

The proposed extension

Like the existing quarry, the proposed extension would extract the aggregate material below water.

The extension site currently has some houses fronting on No. 2 Side Road, open farm fields in the middle, wetlands and some wooded areas. The wooded areas include deciduous and coniferous plantations as well as an old successional orchard. The cascading wetlands on the eastern side include some ponded areas.

The proposed extension, while still substantial, is much smaller than the existing quarry. The application is for a licensed area of 82.3 ha, with an extraction footprint of approximately half that size. The extension is expected to generate approximately 26,000,000 tonnes of aggregate. Nelson intends to process this aggregate in the processing plant at the existing quarry.

No. 2 Side Road is the northern boundary of the proposed extension. Adjacent to the west is the Camisle Golf Course. To the east are lands known as the Wong property. Currently in agricultural use, Nelson has proposed an ecological restoration plan for the Wong property to offset the proposed loss of some of the ecological features on the lands within the proposed extraction footprint. Further to the east is the Mount Nemo Christian Nursing Home. To the south are lands known as the Harmer property. The Harmer property includes two known Jefferson Salamander breeding ponds near the boundary of the Nelson lands.

In general, the area around both the existing quarry and proposed extension can be described as a mix of commercial, institutional, residential, recreational, and agricultural uses.

On October 8, 2004, Nelson submitted applications for a variety of approvals that are necessary for it to develop the extension to its existing quarry. The applications are made under different statutes, amend various instruments, rest on a large number of highly technical studies, and engage a number of government agencies. To facilitate the necessary technical review, a Joint Agency Review Team (JART) was established with representatives from the MNR, the NEC, the Region, the City, and Conservation Halton.

Two key changes impacting the proposed extension

Since Nelson's first filing in October of 2004, there have been two key changes to the context for the applications which resulted in changes to the proposed extraction footprint.

The first key change was the designation in February, 2007, by MNR of certain wetlands within the proposed extraction footprint of the extension as Provincially Significant Wetlands (PSW).

The second key change related to the Jefferson Salamander, a species listed under the *Endangered Species Act, 2007*, S.O. 2007, c.6 (ESA). Initially listed as "threatened", the Jefferson Salamander is now listed as "endangered" – the highest risk status for species in Ontario.

There are two known Jefferson Salamander breeding ponds adjacent to the Nelson extension lands. O.Reg. 242/08 describes Jefferson Salamander habitat for the purposes of the ESA. In April, 2010, MNR considered the Jefferson Salamander habitat description in the regulation and applied it to the proposed quarry extension site and adjacent lands. The result is a map that reflects the MNR delineation of the Jefferson Salamander prescribed habitat for the purposes of the ESA.

As a result of these developments, Nelson amended its application for the extension by reducing the size of the extraction footprint within the proposed licensed area. The proposed licensed area remains 82.3 ha, but the area proposed to be extracted has been reduced from 73.2 ha to 42.3 ha.

Legal framework

The following matters are before the Joint Board for determination:

- an amendment to the Niagara Escarpment Plan (NEP) pursuant to section 10(3) of the *Niagara Escarpment Planning and Development Act* (NEPDA), to change the designation of the extension lands from “Escarpment Rural Area” to “Mineral Resource Extraction Area” (proposed NEP Amendment 153) and to permit processing of aggregate from the extension lands at the existing quarry site, notwithstanding NEP permitted uses;
- Niagara Escarpment Development Permits pursuant to section 25 of the NEPDA, to permit extraction as proposed on the extension lands, and to permit processing of aggregate from the extension lands at the existing quarry;
- a Class A licence to permit a quarry below water pursuant to section 11(5) of the ARA;
- an amendment to Regional Municipality of Halton Official Plan (“ROP”) pursuant to section 22(7) of the *Planning Act*, for aggregate extraction purposes;
- an amendment to the City of Burlington Official Plan (“BOP”) pursuant to section 22(7) of the *Planning Act*, for aggregate extraction purposes; and

The several instruments before the Board need to be decided before the proposed extension can become an operating quarry. While they are different instruments, under different statutes, they interact in a very particular way.

The ARA requires that regard be given to a number of matters when consideration is being given to whether a license should be issued or refused. The ARA specifically directs that regard be given to "...any planning and land use considerations..." The City's Official Plan must conform to the Region's Official Plan, and neither may conflict with the NEP.

Nelson's existing quarry and its proposed extension are subject to the NEP. The Plan contemplates new mineral resource extraction operations of the size of the extension proposed by Nelson, but only by way of amendment to the Plan from Escarpment Rural Area to Mineral Resource Extraction Area. The existing quarry is designated Mineral Resource Extraction Area. The proposed extension requires an amendment to the NEP to redesignate the lands Mineral Resource Extraction.

The NEP amendment is the keystone instrument.

Without such an amendment to the NEP no Development Permit may issue, and a Development Permit is required for any development including extraction. Section 14 of the NEPDA and subsection 3(5) of the *Planning Act* both require that official plan amendments not conflict with the NEP. Without an amendment to the NEP to designate the lands Mineral Resource Extraction the Joint Board could not find that Nelson's requested amendments for aggregate extraction purposes to the City's Official Plan and to the Region's Official Plan do not conflict with the NEP. Finally, without these various instruments in place, the Joint Board could not find that an ARA licence should be issued since such issuance would conflict with the full planning regime, beginning with the NEP, which would not permit an aggregate extraction operation on the subject lands.

As a result of a referral from an Ontario Municipal Board proceeding on consent of the parties, the Joint Board also has before it a determination on Nelson's appeal of ROP Amendment 25 ("ROPA 25") with respect to Policy 277, the definition of "significant woodlands", as it applies to the extension lands.

The Joint Board begins its analysis by considering the appropriateness of an amendment to the NEP to permit mineral resource extraction on the subject site.

Discussion, analysis and findings:

Niagara Escarpment Plan Amendment

The Joint Board finds that the question of whether an amendment to the NEP is appropriate turns on the impact on the Jefferson Salamander.

Part 1.2.1 of the NEP sets out the requirements for proposed amendments to the Plan and states:

It must be demonstrated that the proposed amendment and the expected impacts resulting from the proposed amendment do not adversely affect the purpose and objectives of the Niagara Escarpment Planning and Development Act. The proposed amendment must be consistent with the purpose and objectives of the Niagara Escarpment Planning and Development Act and the Niagara Escarpment Plan and shall be consistent with other relevant Provincial policies.

By reference to other Provincial policies, the NEP engages the PPS as part of the analysis of any proposed amendment along with the purpose and objectives of the NEPDA and the NEP.

The Joint Board finds that it has not been demonstrated that an amendment to the NEP to redesignate the proposed extension lands to Mineral Resource Extraction Area will not adversely affect the purpose and objectives of the NEPDA. The Joint Board further finds that the proposed amendment is not consistent with the purpose and objectives of the NEPDA and the NEP and is not consistent with the Provincial Policy Statement (PPS). Here are the Joint Board's reasons.

Purpose of the NEP and NEPDA

The purpose of the NEPDA and the purpose of the NEP are the same, except that the NEPDA refers to the purpose of the Act and the NEP refers to the purpose of the Plan. As set out in the NEP:

The purpose of this Plan is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment.

Parties opposing Nelson's amendment application assert that the purpose gives priority to the preservation of the natural environment over development, describing it as an "environment first" approach. While it is clear that the purpose of the Plan is to provide for the maintenance of a continuous natural environment, this requirement is qualified by the term "substantially", and the purpose also expressly contemplates compatible development. As noted at paragraph 251 in *Barlow v. Niagara Escarpment Commission*, 2010 CarswellOnt 10792 (Niagara Escarpment Hearing Office), in a case involving hydro transmission lines:

The Appellants argue that development which encroaches on the landscape and its features cannot be compatible with the natural environment, particularly as the proposed Development is so large in scale. However, the wording of the Purpose clearly contemplates that development can be compatible with the natural environment.

Accordingly, under the NEP's regime of development control, compatibility must be measured in the context of the capacity of the proposed Development to co-exist with the other features and functions of the natural environment. Furthermore, the NEPDA could have excluded contemplation of hydro transmission lines as being compatible with the natural environment, and if so, such development would not have been included as a Permitted Use under Part 1. [emphasis added]

The Joint Board adopts this interpretation of the purpose of the NEPDA and the NEP, and finds that this analysis is equally applicable to the proposed quarry extension which, like the hydro transmission corridor development in *Barlow*, is a large scale development.

Objectives of the NEP and NEPDA

Pursuant to section 8 of the NEPDA, the objectives to be sought in the consideration of amendments to the Plan, are also the objectives of the NEP. These objectives are set out in the NEP itself:

Objectives

The objectives of the Plan are:

1. To protect unique ecologic and historic areas;
2. To maintain and enhance the quality and character of natural streams and water supplies;
3. To provide adequate opportunities for outdoor recreation;
4. To maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery;
5. To ensure that all new development is compatible with the purpose of the Plan;
6. To provide for adequate public access to the Niagara Escarpment; and
7. To support municipalities within the Niagara Escarpment Plan Area in their exercise of the planning functions conferred upon them by the *Planning Act*.

Not all of the objectives are relevant or achievable with every application for amendment to the NEP. In this case, objective #1 stands out as particularly relevant and applicable.

The Joint Board finds that the habitat of an endangered species, the Jefferson Salamander, is a unique ecologic area that must be protected. How it is to be protected, and whether the proposed protections are sufficient in the context of the proposed quarry extension are at the centre of this matter.

Whether the NEP encourages or discourages mineral aggregate extraction

The Joint Board heard opposing opinions on the question of whether the provisions of the NEP indicate a policy encouraging mineral aggregate extraction or discouraging mineral aggregate extraction.

Those suggesting mineral aggregate extraction is encouraged ask the Board to note that the NEP allows for new pits and quarries, by amendment, in areas initially designated Escarpment Rural. The Board is also then asked to consider that an objective of Part 1.9, Mineral Resource Extraction Area, is “To designate licensed Mineral Resource Extraction Areas.”

Those suggesting that mineral aggregate extraction is discouraged ask the Board to note that new operations of the size proposed by Nelson are permitted only by amendment to the Plan, and that such an amendment may only be considered if the subject site is within the Escarpment Rural designation.

The Joint Board does not find either line of reasoning persuasive.

The NEP clearly contemplates mineral resource extraction operations and just as clearly sets requirements for such operations. The NEP neither encourages nor discourages mineral aggregate development; it simply allows for such development, subject to the requirements and policies of the NEP. Although the NEP directs that new pits and quarries should be located outside the more sensitive areas of the Escarpment, designated Escarpment Natural and Escarpment Protection, the Joint Board finds that this is simply a measure to further the NEP’s purpose to ensure that development is located so that it is compatible with the natural environment.

Whether the requirement to be consistent with the Provincial Policy Statement lends additional weight to the proposed amendment

The Joint Board also heard opposing opinions on the question of whether the wording of the PPS lends weight to the proposal.

Section 2.5 of the PPS is devoted to mineral aggregate resources. At subsection 2.5.2.1, the PPS states:

As much of the *mineral aggregate resources* as is realistically possible shall be made available as close to markets as possible.

While this subsection is an important statement of provincial intention, it cannot be read alone or read as having primacy over other relevant policies. The PPS must be read as a whole, and all relevant policies applied to a matter.

Subsection 2.5.2.2 of the PPS goes on to say:

Extraction shall be undertaken in a manner which minimizes social and environmental impacts.

When considering whether to make available certain mineral aggregate resources, the PPS clearly requires the minimization of environmental impacts.

Even the entire section 2.5 on mineral aggregate extraction cannot be read in isolation. With the specific direction to minimize environmental impacts, it is appropriate to consider the application of other PPS policies, specifically policies on natural heritage in section 2.1.

At subsection 2.1.1, the PPS states:

Natural features and areas shall be protected for the long term.

At subsection 2.1.3, the PPS states:

Development and site alteration shall not be permitted in:

a) *significant habitat of endangered species...*

At subsection 2.1.6, the PPS states:

Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas...unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

In addition to reading the PPS as a coherent whole, the PPS must be read with the understanding that it applies to the entire Province. In any given area of the Province, the PPS must be read in conjunction with any applicable provincial plan for that given area. The NEP is one such provincial plan.

When the PPS sections on mineral aggregate resources are read in context with the sections on natural heritage and in conjunction with the NEP, the PPS and the NEP echo and reinforce each other when contemplating mineral resource extraction while requiring that such operations be compatible with other features and functions in the natural environment.

The Joint Board finds that there is no conflict between the PPS and the NEP. The requirement to be consistent with the PPS does not mean that subsection 2.5.1 overrides other sections. The requirement for consistency with the PPS provides no additional weight in favour of the proposed amendment to the NEP.

Other sections of the NEP to be considered

There are three sections of the NEP that specifically deal with mineral resource extraction: Part 1.5 Escarpment Rural, Part 1.9 Mineral Resource Extraction Area, and Part 2.11 Development Criteria Mineral Resources.

As previously noted, new licenced quarries of the size proposed by Nelson are permitted only in areas initially designated Escarpment Rural where the NEP is then amended to designate the lands Mineral Resource Extraction Area. Specifically, a permitted use under Part 1.5, Escarpment Rural, is:

21. New licensed pits or quarries producing more than 20,000 tonnes (22,000 tons) annually subject to Part 1.9 (requiring an amendment to the Niagara Escarpment Plan), and Part 2.11.

As intimated in the language of permitted use #21, the Joint Board finds that Part 1.9 is relevant in the matter now before the Joint Board only insofar as it requires that new quarries of the size proposed by Nelson require an amendment to the NEP. The Joint Board's attention will focus on other sections of the NEP.

1. Development Policies for Mineral Extraction:

Part 1.5 includes a section titled Development Policies for Mineral Extraction (Development Policies) that is distinct from Part 2.11 which deals with Development Criteria for Mineral Resources.

The Development Policies section of Part 1.5 provides:

1. In evaluating applications for amendment to the Niagara Escarpment Plan to redesignate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters will be considered:
 - a) Protection of the natural and cultural environment, namely:
 - i) Groundwater and surface water systems on a watershed basis;
 - ii) Habitat of endangered (regulated), endangered (not regulated), rare, special concern and threatened species;
 - iii) Adjacent Escarpment Protection and Escarpment Natural Areas;
 - iv) Adjacent Rural Area natural features;
 - v) Existing and optimum routes of the Bruce Trail;
 - vi) Provincially significant wetlands;
 - vii) Provincially significant ANSIs; and
 - viii) Significant cultural heritage features.

- b) Opportunities for achieving the objectives of Section 8 of the Niagara Escarpment Planning and Development Act through the final rehabilitation of the site;
- c) Maintenance and enhancement of the quality and character of natural systems, water supplies, including fish habitat; and
- d) Capability of the land for agricultural uses and its potential for rehabilitation for agricultural uses.

The Development Policies do not indicate that one matter should be considered in priority to another. Similarly, there is no indication that a matter may be considered to be of lesser weight or importance, based on an assumption, for example, that mineral aggregate extraction is either encouraged or discouraged under the NEP.

Consideration of the matter is not the equivalent of a criterion or test that every amendment for mineral resource extraction must meet.

For example, consideration of potential for rehabilitation for agricultural uses in item 1(d) for an application for a quarry below water would result in the conclusion that the site cannot be rehabilitated for agricultural uses. If that alone were to be sufficient to turn down such an application, then the interpretation of this section of the NEP would be that no quarry below water is permitted in the Niagara Escarpment. The NEP does not say that no such quarry is permitted.

The Joint Board finds that a more nuanced analysis is necessary. It is only if the consideration of the matters set out in section 1 of the Development Policies in Part 1.5, whether considered individually or considered together, results in the conclusion that the application would adversely affect the purpose or general objectives of the NEP, or would not be consistent with them or with the PPS, that the amendment application should be denied.

Given the status of the Jefferson Salamander, the Joint Board begins with a consideration of Development Policy 1(a)(ii) above: the protection of the natural and cultural environment, namely, the habitat of the Jefferson Salamander as an endangered species.

2. Development Criteria for Mineral Resources:

The Development Criteria are found in Part 2.

In its introduction to this Part, the NEP states:

The development criteria are to be applied to all development within the area of the Niagara Escarpment Plan in conjunction with the other policies of the Plan. These criteria deal with development in a variety of situations, and, therefore, all the criteria will not apply to every development.

Part 2.11 sets out the Development Criteria for Mineral Resources. In assessing a proposed amendment for mineral resource extraction in light of Part 2, the place to start is Part 2.11. Starting with Part 2.11 does not mean that this is the only set of Development Criteria that applies to mineral resource extraction operations.

Part 2.11 Mineral Resources states:

The objective is to minimize the impact of new mineral extraction operations and accessory uses on the Escarpment environment.

1. Extractive operations...shall not conflict with the following criteria:
 - a. The protection of sensitive ecological...sites or areas.

Protecting sensitive ecological sites and areas in an application such as this one, with an endangered species identified on adjacent lands, quite reasonably takes the Joint Board to Part 2.8 Wildlife Habitat in addition to Part 2.11.

The Joint Board agrees that it must consider the directed set of Development Criteria for any given activity. The Joint Board does not agree that the existence of a directed set of Development Criteria excludes consideration of other sets of relevant Development Criteria. Accordingly, the Joint Board finds that all relevant Part 2 Development Criteria, and not just Part 2.11, apply to quarries which qualify under Part 1.5 Permitted Use #21.

Habitat of the Jefferson Salamander

In considering the habitat of the Jefferson Salamander, and impacts on that habitat, the Joint Board highlights the evidence of two biologists: Mr. John Pisapio and Dr. James Bogart. Mr. Pisapio is a Management Biologist with the MNR and Dr. James Bogart is a Professor Emeritus at the University of Guelph and Chair of the Jefferson Salamander Recovery Team.

The Joint Board qualified each of these gentlemen to give the Joint Board independent expert opinion evidence. In doing so, the Joint Board considered their specialized expertise with the Jefferson Salamander, which exceeded that of any other expert witness addressing the Joint Board on Jefferson Salamander matters. As with all expert witnesses qualified by the Joint Board in these proceedings, the Joint Board also considered their acknowledgement of an expert's duty. That duty includes the primacy of the requirement to provide evidence that is fair, objective and non-partisan to assist the Joint Board.

Dr. Bogart was called as a witness by the City of Burlington. Mr. Pisapio filed an expert witness statement and was on the witness list to be called by the MNR.

On the first day of the hearing, MNR withdrew as a party to these proceedings. The Joint Board subsequently approved a summons to be issued to Mr. Pisapio by the Region. In authorizing this summons, the Joint Board made clear that its primary interest was to ensure a full and fair hearing of the matters before it and to ensure it received the best evidence on the Jefferson Salamander.

On matters relating to the Jefferson Salamander, the Joint Board found that the Region, and all other parties opposite Nelson, had a similar or like interest. As such, the Joint Board limited the Region's examination of Mr. Pisapio to questions in chief, and limited the examination of the remaining parties opposite Nelson to questions in support of the examination in chief. Nelson had a full right of cross-examination of Mr. Pisapio.

Ms. Cathy Douglas had also filed an expert witness statement and had been on the witness list to be called by MNR. With the withdrawal of MNR, the Joint Board also approved a summons to be issued to Ms. Douglas by the Region. The Joint Board imposed the same ruling regarding the parties' rights to examination of Ms. Douglas that the Joint Board had imposed for Mr. Pisapio and for the same reasons.

Habitat under the *Endangered Species Act*

The Jefferson Salamander is an endangered species.

The ESA prohibits damage or destruction of habitat, subject to applicable sections.

For a species where the habitat has been prescribed by regulation, the ESA defines habitat in section 2(1) as:

- (a) with respect to a species of animal, plant or other organism for which a regulation made under clause 55 (1) (a) is in force, the area prescribed by that regulation as the habitat of the species...

For the purposes of the ESA, the Jefferson Salamander habitat is prescribed in O.Reg. 242/08 under the ESA:

Jefferson salamander habitat

28. For the purpose of clause (a) of the definition of "habitat" in subsection 2 (1) of the Act, the following areas are prescribed as the habitat of the Jefferson salamander:

1. In the City of Hamilton, the counties of Brant, Dufferin, Elgin, Grey, Haldimand, Norfolk and Wellington and the regional municipalities of Halton, Niagara, Peel, Waterloo and York,
 - i. a wetland, pond or vernal or other temporary pool that is being used by a Jefferson salamander or Jefferson dominated polyploid or was used by a Jefferson salamander or Jefferson dominated polyploid at any time during the previous five years,

- ii. an area that is within 300 metres of a wetland, pond or vernal or other temporary pool described in subparagraph i and that provides suitable foraging, dispersal, migration or hibernation conditions for Jefferson salamanders or Jefferson dominated polyploids,
- iii. a wetland, pond or vernal or other temporary pool that,
 - A. would provide suitable breeding conditions for Jefferson salamanders or Jefferson dominated polyploids,
 - B. is within one kilometre of an area described in subparagraph i, and
 - C. is connected to the area described in subparagraph i by an area described in subparagraph iv, and
- iv. an area that provides suitable conditions for Jefferson salamanders or Jefferson dominated polyploids to disperse and is within one kilometre of an area described in subparagraph i. O. Reg. 436/09, s. 1.

In April, 2010, Mr. Pisapio considered this definition and applied it to the proposed quarry extension and adjacent lands. The result is a map of Jefferson Salamander habitat for ESA purposes. This habitat map overlaps the boundaries of some of the PSW identified on the Nelson lands but is not the same as those boundaries.

While the map itself may appear to be quite precise, the process of applying the description of the habitat to produce a map involves substantial amounts of discretionary judgement. This is at the centre of the principal point at issue between Dr. Bogart and Mr. Pisapio.

Dr. Bogart has no disagreement with the lands Mr. Pisapio included but Dr. Bogart would have included a much larger area, potentially encompassing virtually all of the proposed quarry extension lands. Mr. Pisapio's professional judgement led him to settle on a much smaller area.

Both experts agree that there are two known Jefferson Salamander breeding ponds close to the proposed quarry extension. One is to the south and one is to the southeast. Both known breeding ponds are on lands known as the Harmer lands, adjacent to the Nelson lands. Both experts also agree that there is a pond in the PSW in the northeast area of the Nelson lands that is identified as a potential breeding pond for Jefferson Salamander.

There is a deciduous wooded area on the Nelson lands that is near the potential breeding pond but currently within the proposed extraction footprint. Both experts agree that this area, as distinct from the nearby coniferous wooded area, could provide terrestrial habitat for the Jefferson Salamander. This is the area Mr. Pisapio identified as being a candidate for inclusion in his mapping but which MNR decided ultimately to exclude.

Mr. Pisapio was clear that the reason for excluding this wooded area rested on the fact that the nearest pond was considered to be a *potential* breeding pond and had not been identified as actually being used as a breeding pond. As a potential breeding pond, it meets the requirement of subsection 28(1)(iii)(A) in the regulation and has been included within the boundaries of the mapped habitat. The 300 m reference in the regulation quoted above is tied to a *known* breeding pond and not to a potential breeding pond. If the potential breeding pond had been identified as an actual breeding pond the deciduous wooded area identified as suitable terrestrial habitat would have been included in the prescribed habitat for the Jefferson Salamander when the limits of the prescribed habitat were mapped.

Mr. Pisapio was candid in his evidence that his mapping decisions were based on the regulation as written and not on the regulation as one might prefer it to be with respect to the inclusion of suitable terrestrial habitat within 300m of a potential breeding pond.

Habitat under the Provincial Policy Statement

The PPS has two definitions for habitat that are relevant in this matter. The first definition deals with significant habitat of endangered species. The Jefferson Salamander meets the PPS definition of an endangered species. Subsection 2.1.3 (a) bars development or site alteration in *significant* habitat of endangered species. Significant is a defined term:

Significant...

- b) in regard to the habitat of *endangered species*...means the habitat, as approved by the Ontario Ministry of Natural Resources, that is necessary for the maintenance, survival, and/or the recovery of naturally occurring or reintroduced populations of *endangered species* and where those areas of occurrence are occupied or habitually occupied by the species during all or any part(s) of its life cycle...

Reading this definition together with the prescribed habitat of the Jefferson Salamander, the Joint Board finds that significant habitat in the PPS should be understood as being consistent with the prescribed habitat under the ESA. No extraction is proposed within the prescribed habitat.

The PPS also has a definition of wildlife habitat:

Wildlife habitat: means areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations. Specific wildlife habits of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species.

There is nothing in this definition that suggests endangered species are excluded or that the habitat is confined to habitat that is approved by MNR. Based on the expert opinion evidence of Mr. Pisapio and Dr. Bogart described above, the Joint Board finds that the deciduous wooded area adjacent to the prescribed habitat and near the potential breeding pond meets this definition when applied to the Jefferson Salamander.

Habitat under the Niagara Escarpment Plan

The NEP has a single definition for wildlife habitat, which it defines broadly:

Wildlife Habitat - areas of the natural environment where plants, animals, and other organisms, excluding fish, survive in self-sustaining populations, and from which they derive services such as cover, protection, or food.

The NEP does recognize endangered species in its definitions:

Endangered Species (Regulated) - any indigenous species of fauna or flora that, on the basis of best available scientific evidence, is indicated to be facing imminent extinction or extirpation throughout all or a significant portion of its Ontario range. These Endangered species are identified in regulations under the *Endangered Species Act*.

The current list of endangered species is found in Schedule 2 of O.Reg. 230/08, Species at Risk in Ontario List.

The NEP sets out the following objective in Part 2.8 Wildlife Habitat:

The objective is to protect the habitat of endangered (regulated) as prescribed by the *Endangered Species Act*, endangered (not regulated), rare, special concern and threatened, plant and animal species, and minimize the impact of new development on wildlife habitat.

There are two places where habitat is addressed in the ESA. The first is a very general description found in the *Act* itself. The second is the specific description for the Jefferson Salamander found in O.Reg. 242/08 under the ESA and quoted above. It is this prescribed Jefferson Salamander habitat that Mr. Pisapio applied in preparing the MNR map of Jefferson Salamander on and adjacent to the subject lands.

Part 2.8 of the NEP goes on to say:

1. New development will not be permitted in identified habitat of endangered (regulated) plant or animal species...

The language of the NEP includes an objective of protecting the habitat of endangered species as well as a prohibition on new development in identified endangered species habitat.

The Joint Board finds that the prescribed habitat under the ESA is not necessarily the same as the identified habitat under the NEP. Identified habitat must include the prescribed habitat but may include other areas as well. In this case the deciduous wooded area near the northern potential breeding pond has been identified by both Jefferson Salamander experts as suitable terrestrial habitat for the Jefferson Salamander even though the regulated habitat under the ESA excludes this area.

In February, 2010, MNR issued the Jefferson Salamander Recovery Strategy prepared under the ESA. The Chair of the Recovery Strategy team was Dr. Bogart. Mr. Pisapio was a member of the team.

The experts agree that while research continues to advance knowledge of the Jefferson Salamander, there is still a great deal that is not known. In section 1.7, the Recovery Strategy itself identified key knowledge gaps as follows:

Key knowledge gaps relating to the Jefferson salamander include (but are not limited to) the following:

- the effectiveness of mitigation efforts to address threats and means of reducing road mortality
- the refinement of the species' distribution and range...
- juvenile dispersal patterns, timing and distances
- fall migration
- overwintering sites...

Because there are such significant knowledge gaps, and because the Jefferson Salamander is an endangered species, the Joint Board finds that particular care must be taken when assessing impacts.

In section 2.2 Protection and Recovery Objectives, habitat protection is cited as critical to the survival of the species. The Recovery Strategy emphasizes the protection of habitat for existing populations, including both the known habitat and the potentially suitable habitat which is the recovery habitat.

The prescribed habitat under the ESA focuses on the known habitat, particularly the confirmed breeding ponds and associated habitat. The prescribed habitat also includes potential breeding ponds but not their associated suitable terrestrial habitat. The Recovery Strategy includes potentially suitable habitat such as potential breeding ponds and associated suitable terrestrial habitat.

While the ESA and PPS are instruments of general application across the province, the NEP offers an additional aspect of environmental protection through its own special legislation and plan that allows for compatible development.

The identification of endangered species habitat under Part 2.8(1) of the NEP is not assigned to the MNR. The NEP approach also differs from the MNR approval approach of the PPS for significant habitat or the regulated habitat approach of the *ESA*.

The NEP does not limit its habitat definition to areas around confirmed breeding ponds. Applying the NEP's broader approach to protected habitat is consistent with the Recovery Strategy and provides for the inclusion of suitable terrestrial habitat associated with identified potential breeding ponds. Applying the NEP's broader definition is also consistent with the PPS. In this area as well the Joint Board finds that there is no conflict between the PPS and the NEP.

Protection of the Jefferson Salamander habitat

The objective of protection of unique ecological areas, sensitive ecological areas and the quality of the environment generally is found throughout the NEP. The habitat of the Jefferson Salamander, as an endangered species, may be described fairly as both a unique and a sensitive ecological area that requires protection.

The development policies for mineral resources, cited above in Part 1.5.1(a)(ii), specifically address protection of the habitat of endangered species. The NEP development criteria in Part 2.11 Mineral Resources, also cited above, is unambiguous in requiring that extractive operations shall not conflict with the protection of sensitive ecological areas.

Protection is a defined term in the NEP:

Protection – ensuring that human activities are not allowed to occur which will result in the unacceptable degradation of the quality of an environment.

Applied in this case, protection requires that Nelson establish that the proposed development will not result in unacceptable degradation of the quality of the natural conditions which influence and act upon the Jefferson Salamander. Given this broad scope, the Joint Board finds that protection includes:

- the preservation of the current population; and
- the maintenance of the areas on or adjacent to the subject lands which support, or are capable of supporting, the Jefferson Salamander's ability to continue to survive in self-sustaining populations.

The stated purpose of the NEP requires that only such development occurs as is compatible with the natural environment. Many forms of development will introduce change in varying degrees to the natural environment. Compatibility must be measured in the context of the capacity of the proposed development to co-exist and blend, conform or be harmonious with the features and functions of the natural environment.

The introduction of change to the natural environment does not necessarily indicate an incompatibility. The issue is whether the natural environment will be protected with such change. In some cases unacceptable degradation of the quality of the natural environment can be avoided through the implementation of mitigation measures. Protection requires that such measures achieve more than simply halting further degradation. Particularly in circumstances where an endangered species is involved, the measures must be capable of correcting the degradation and restoring the quality of the natural conditions which influence the Jefferson Salamander.

The Joint Board views protection of habitat as having three elements:

1. Direct protection by prohibiting development within the habitat;
2. Indirect protection by prohibiting development outside the habitat that would negatively affect the habitat; and
3. Corrective protection that attempts to restore habitat that has been degraded.

The Joint Board finds that a proponent is not required to establish with absolute certainty that a proposed development will ensure that a species and its habitat will be protected. The Joint Board accepts Nelson's submission that it would be virtually impossible for any proponent of a quarry development to provide such an absolute guarantee, given the complex nature of the proposed development and the ecosystems that would be impacted. A threshold of absolute certainty would negate all quarry development, which is not consistent with the intent of the NEP which includes consideration of this type of development.

While absolute certainty may not be achievable, the level of certainty must be very high when dealing with an endangered species. In the case at hand, the Joint Board finds that Nelson must establish with a substantial degree of certainty that implementation of the proposed development will ensure that the Jefferson Salamander and its habitat will be protected.

1. Direct protection:

In the proposal before the Joint Board, Nelson reduced its extractive footprint to avoid the area identified by MNR under the ESA as prescribed habitat of the Jefferson Salamander. Direct protection of the prescribed habitat is met by this reduction.

Still within the extraction footprint is the deciduous wooded area identified by both Dr. Bogart and Mr. Pisapio as suitable Jefferson Salamander terrestrial habitat that is

associated with the northern potential breeding pond. The Board finds this deciduous wooded area, at a minimum, meets the definition of wildlife habitat in the NEP when considering the habitat needs of the Jefferson Salamander and the appropriate priority to be placed on potential breeding ponds and their surroundings. Extraction of this deciduous wooded area fails to achieve direct protection of Jefferson Salamander habitat.

Evidence and submissions regarding this deciduous wooded area focussed on whether it should be considered as Jefferson Salamander habitat. This deciduous wooded area is within an area that includes a coniferous plantation. The Joint Board did not have before it evidence on proposals for indirect protection or corrective protection of this area. The Joint Board did have evidence on whether a proposed restoration of an adjacent property would constitute a net gain to replace the proposed extraction of both the deciduous wooded area and the coniferous plantation that is also near the potential breeding pond.

Jefferson Salamanders like deciduous wooded areas, not coniferous ones. The coniferous plantation is not suitable terrestrial habitat for the Jefferson Salamander. The proposal for restoration of adjacent lands focussed on plantings that would make up suitable terrestrial habitat for the Jefferson Salamander and include a much larger area than the small deciduous wooded area near the potential breeding pond.

Nelson takes the position that the proposed restoration of adjacent lands constitutes a net gain over the deciduous and coniferous wooded area Nelson proposes to extract.

The NEP does not include the concept of net gain as a replacement for the removal of wooded areas or wildlife habitat.

Evidence regarding this restoration proposal was brought forth in the context of evidence regarding a separate instrument before the Board, namely the appeal of ROPA 25 dealing with the question of significant woodlands. The Board will deal with the proposed restoration on adjacent lands in the section below on ROPA 25.

The Joint Board did have evidence and submissions on both indirect protection and corrective protection as they relate to the Jefferson Salamander habitat prescribed under the ESA and mapped by MNR.

2. Indirect protection:

For the area within the prescribed habitat of the Jefferson Salamander, particular concern focuses on the maintenance of an appropriate environment within the known breeding ponds.

A Jefferson Salamander breeding pond needs water but it must not contain predatory fish.

There are certain requirements the experts in this matter agree upon regarding the water in breeding ponds to encourage and assist successful breeding:

1. the water needs to be the right quality;
2. the water needs to be the right temperature;
3. the water needs to be sufficient in quantity; and
4. the water needs to last long enough in sufficient quantity so that part of the life cycle from fertilized eggs to juveniles exiting the breeding pond can occur.

Water is key.

Nelson has undertaken extensive field testing and modelling in an effort to determine the source of water in the known breeding ponds and, from that, to infer the likely impact of quarrying within the proposed extraction footprint.

Nelson acknowledges that the proposed quarrying will lower the water table. Nelson takes the position that this is unlikely to impact the breeding ponds since Nelson's conclusions from field tests and modelling is that the breeding ponds are fed by surface water and not by groundwater. Specifically, Nelson infers from its technical work that the ponds are underlain by an extremely dense layer with a negligible degree of outflow from the ponds through this dense layer to the bedrock below. Nelson concludes from this that the ponds are not fed by ground water from the water table in the bedrock but are fed by surface water. The surface water includes:

- precipitation;
- surface runoff from higher land; and
- surface water that has seeped into the overburden above the bedrock and, due to changes in elevation, has travelled more horizontally toward the ponds. This water was referred to as interflow.

In support of this conclusion, Nelson notes the physical characteristics of the two known breeding ponds. One is located to the south of the Nelson lands within wetland 13033. Its location at the south end of a system of cascading wetlands lends some support to Nelson's conclusion that it is fed by surface water. The other breeding pond appears to be raised. It is known as the hilltop pond and is in wetland 13032. Nelson infers that its

raised profile suggests that this breeding pond is also fed by surface water, in this case primarily precipitation and perhaps some interflow.

Given these observations and inferences, Nelson then concludes that the quarrying that will lower the water table will not impact either breeding pond.

Parties opposite reach a different conclusion.

Nelson and parties opposite all agree that there is some porosity in the very dense layer of material that appears to underlay the breeding ponds. They disagree on how much porosity there is and whether the centimetres per second flow of water forecasted to drain from the bottom of the breeding ponds is so small as to be negligible, and whether such drainage could create a reasonable apprehension of measurable degradation to the breeding pond habitat.

Parties opposite also disagreed with Nelson on the extent to which the bedrock groundwater interacts with the overburden, contributing to interflow that may feed the breeding ponds if not directly to the breeding ponds through the dense layer of material. Some uncertainty on this point is brought into sharper perspective by the fact that the south breeding pond dries out as the summer progresses but the hilltop pond appears to maintain water for extensive periods.

Nelson acknowledges that its quarrying activity will likely reduce the hydro period in the south breeding pond that is connected to the wetland system on the Nelson lands. The hydro period is the length of time that water remains in the breeding pond. The length of the hydro period is vital to the ability of the Jefferson Salamander to secure a successful breeding period. Nelson acknowledges that the hydro period is likely to be reduced by a few days as a result of quarrying but suggests this is not a matter for concern and there will still be a sufficient hydro period to allow successful breeding.

Parties opposite do not agree that one can have sufficient confidence that a shortened hydro period of even a few days will not impact successful breeding. If the weather results in breeding conditions coming to fruition a bit late and quarrying results in the hydro period being shortened, there is little or no margin for error. Rather than a naturally occurring bad breeding year, the results could be an artificially created bad breeding year.

Additionally, Nelson acknowledges that the quarrying will likely result in a delay of about two weeks in the autumn when re-wetting occurs. Nelson does not consider this delay significant, noting instead that the critical period is in the late winter and early spring

when snowmelt and rain replenish the breeding ponds and prepare them for the Jefferson Salamanders' breeding activity. Parties opposite disagree with this analysis and take the position that re-wetting in the fall is an important component of additional certainty that the breeding ponds will have the moisture they need for successful Jefferson Salamander breeding in the spring.

Parties opposite have raised a number of concerns and posited possible outcomes much less supportive of a continuing and healthy Jefferson Salamander population than the outcomes predicted by Nelson. In an area where perfect confidence in the proponent's view is not possible, the question becomes how much confidence should the Joint Board place in Nelson's projection of no, or negligible, impact on the Jefferson Salamander as a result of quarrying on the subject lands?

The answer to this question does not lie in an extensive critique of opposing evidence. Instead, it lies in the answer to a further question: has Nelson made sufficient provision for corrective protection in the event that Nelson's projections regarding impact are wrong?

Nelson has proposed an Adaptive Management Plan (AMP) to supplement its application for an ARA licence. There is no statutory requirement for an AMP. AMPs are a relatively recent additional instrument to deal with contingencies that may arise in the event that a proponent's projections regarding the impact of quarrying are wrong.

For the Jefferson Salamander, the AMP proposed by Nelson in this case is designed to monitor impacts and introduce mitigation measures under circumstances where degradation to the habitat in the breeding ponds is identified. The Joint Board now turns to an analysis of the proposed corrective protection and the AMP.

3. Corrective protection and the Adaptive Management Plan:

The experts all agree that there may be natural variations in the water of breeding ponds and that some years produce successful breeding efforts and other years do not. The experts also agree that Jefferson Salamanders are very loyal to their breeding ponds and return to them to breed year after year. The experts have a general sense of the conditions that a Jefferson Salamander both needs and likes for breeding. That general sense makes it possible to identify potential breeding ponds such as the one on the Nelson lands. One of the things the experts do not know is precisely why a Jefferson Salamander chooses one pond over another to breed.

Proper monitoring is essential:

- to understand changes in a known breeding pond;
- to inform appropriate mitigation measures when changes are identified that have degraded the habitat of the breeding pond; and
- to track and assess the effectiveness of mitigation measures to restore the breeding pond habitat such that Jefferson Salamanders continue to breed in that breeding pond and continue to thrive.

As water is one of the central elements for successful breeding, the AMP provides for water level monitoring and a series of triggers for action.

MNR required certain changes to the AMP initially presented by Nelson. Nelson accepted those changes. In his evidence, Mr. Pisapio identified some further concerns he had with the AMP as amended. These concerns focused on monitoring water levels with telemetric gauges, rather than non-telemetric gauges as initially proposed, and with immediate reports to MNR if the water levels dropped below a certain percentage of full. Since successful breeding is so dependent on water, Mr. Pisapio did not wish to see any delay in reporting a drop in water levels to MNR. Nelson accepted these changes as well.

There are three separate features within the prescribed habitat of the Jefferson Salamander that require monitoring, only one of which is found on the Nelson lands. The three features are:

- the Provincially Significant Wetlands (PSW) that are the cascading wetlands on the east side of the Nelson lands and which contain the Jefferson Salamander potential breeding pond at the top end;
- the known breeding pond to the south of the Nelson lands that is entirely on adjacent lands but is located within wetland 13033 that straddles the property line between the Nelson lands and the adjacent lands; and
- the known breeding pond to the southeast of the Nelson lands, known as the hilltop pond. This breeding pond is within wetland 13032, both of which are located entirely on adjacent lands and do not cross over into the Nelson lands.

To ensure that appropriate water levels are maintained within the cascading PSW containing the potential breeding pond, the water level monitoring is to occur on the Nelson lands. The primary mitigation measure being suggested is the direct dispersal discharge of supplementary water into the cascading wetlands. This direct dispersal discharge system is to be tested prior to approval. Water quality is to be monitored and the dispersal system is to be designed to allow slow progress to the wetlands such that any temperature difference is mitigated by the time the water reaches the wetlands.

Any mitigation measures, including this proposal for direct discharge to replenish the cascading wetlands, are to be approved by MNR.

Monitoring is key to understanding whether the habitat is being degraded. It is also key to understanding whether proposed mitigation measures, approved by MNR, are successful in restoring the habitat.

The Joint Board finds that the proposed monitoring on the Nelson lands is satisfactory to understand changes to water levels and hydro periods, and the effectiveness of any mitigation measures, for the wetlands on the Nelson lands.

For both known breeding ponds, the AMP also requires telemetric monitoring gauges to be placed in the breeding ponds. Since neither breeding pond is on the Nelson lands, the requirement in the AMP is qualified repeatedly by the phrase “subject to landowner permission”.

There is no landowner permission for Nelson to place monitoring gauges in the breeding ponds that are not on the Nelson lands.

The AMP goes on to suggest that if an unanticipated draw-down occurs, Nelson is to undertake an assessment to determine the cause. If Nelson finds that quarrying is the cause, then quarrying is to cease and appropriate mitigation measures satisfactory to MNR are to be implemented.

With no landowner permission for Nelson to place gauges in the known breeding ponds, the question arises: how will Nelson, and subsequently MNR, know that there has been a drawdown of water in the breeding ponds that may endanger the Jefferson Salamander?

For the breeding pond to the south that is part of the cascading wetlands, Nelson’s answer is that the water level in the breeding pond may be inferred from the gauge located to the north on the Nelson lands. Further, Nelson takes the position that the water level in this breeding pond may be seen by someone standing at the edge of the Nelson lands and looking over into the adjacent lands at this breeding pond.

The principal mitigation measure proposed for this breeding pond is the direct dispersal discharge system designed to replenish the cascading wetlands. By replenishing the cascading wetlands, Nelson takes the position that this breeding pond would then also be replenished and the habitat of the breeding pond would be restored.

There is no alternate monitoring plan and no mitigation plan for the hilltop breeding pond that is located to the southeast.

While the Joint Board is not entirely persuaded that a gauge on the Nelson lands and observation of the south breeding pond across a property line is sufficient, Nelson acknowledges that the raised breeding pond to the southeast cannot even be seen from the Nelson property line. Instead of a monitoring plan, Nelson takes the position that this breeding pond is not fed by any groundwater and is separate from the breeding pond to the south that is fed in part by the cascading system of wetlands that begins on the Nelson lands.

In correspondence filed with the Joint Board as Exhibit 279 in these proceedings, MNR wrote to Nelson as follows:

The proposed AMP does not include any monitoring, mitigation or contingency plans to address the possibility of unanticipated impacts from extraction to this [hilltop Jefferson Salamander breeding] pond. The belief being that ground water impacts to this pond are not likely. MNR staff also note that this pond has little or no catchment basin, yet often contains water, even in dry years. It is recognised that the hill top pond is removed from the proposed licence site and that access to the lands on which the pond is located may be problematic. **However, monitoring and contingency planning for this Jefferson Salamander breeding pond should be required.** [emphasis added]

The letter went on to say:

Appended to this document are a number of changes to the text of the AMP recommended by MNR. **These changes would satisfactorily address the issues identified in this letter.** [emphasis added]

Nelson accepted the recommended changes to the AMP.

The AMP language MNR recommended to deal with the hilltop breeding pond includes the following:

If access is not permitted on adjacent lands and unanticipated drawdown occurs within wetland 13032 [the southeast hilltop breeding pond], Nelson is required to immediately undertake an assessment to determine the cause of the drawdown. If the drawdown is determined to be the result of quarry-related activities, extraction must cease in the affected areas until a solution acceptable to MNR is implemented.

The Joint Board is at a loss to understand how this clause – recommended by MNR and accepted by Nelson - is of any value whatsoever in monitoring and protecting significant, prescribed habitat of an endangered species.

For the south breeding pond, the Joint Board is not persuaded that a gauge on the Nelson lands and occasional viewing of a breeding pond across a property line are sufficient to monitor degradation of the habitat of the breeding pond of an endangered species. The Joint Board further finds that these same initiatives are not sufficient to monitor the impacts on the breeding pond habitat of any corrective or mitigation measures that may be undertaken.

For the southeast breeding pond, where there will be no monitoring at all, the Joint Board finds the proposal in the AMP to undertake certain steps if an unanticipated draw-down is found to have occurred to be a requirement without any discernible means of implementation.

The Joint Board finds that direct monitoring of water levels through the placement of telemetric gauges in each known breeding pond on the lands adjacent to the Nelson site is a clear prerequisite to the implementation of appropriate corrective protection. Such gauges are only the first step in corrective protection. The next step is mitigation approved by MNR which, in turn, must be monitored to ensure that such corrective protection is actually achieved. The point of this exercise is not simply the addition of water. The point of this exercise is the protection of the habitat of an endangered species to ensure the survival and recovery of that species.

The telemetric gauges to be installed on adjacent lands that contain the known breeding ponds cannot be installed without landowner permission. The requirement of landowner permission to install such gauges is not a casual suggestion to be ignored when disputes between owners prevent agreement. The Joint Board finds that the requirement is a condition of the installation, which is, in turn, a condition of effective and appropriate monitoring.

While Nelson provides direct protection to the prescribed Jefferson Salamander habitat through the revised extraction footprint, the application does not demonstrate that sufficient indirect or corrective protection of this area will be implemented.

For protection of the unique and sensitive ecologic areas of the Jefferson Salamander habitat, particularly the two known breeding ponds within the prescribed habitat area, the Joint Board finds that Nelson has not made sufficient provision for the protection of these unique ecologic and environmentally sensitive areas in the event that Nelson's projections are wrong.

Conclusion on the proposed NEP amendment

The Joint Board finds that the proposed NEP amendment to permit mineral resource extraction on the subject lands adversely impacts the purpose and objectives of the NEPDA and is not consistent with those purposes and objectives or with the PPS.

The application for the Niagara Escarpment Plan Amendment to redesignate the subject lands to Mineral Resource Extraction Area and permit processing of aggregate from the subject lands at the existing quarry is dismissed.

Since the NEP amendment regarding redesignation is necessary for the other approvals for the proposed quarry under the NEPDA, ARA and *Planning Act*, those other applications are also dismissed.

Regional Official Plan Amendment 25

Application of Policy 277 to the Nelson lands

Nelson has appealed against certain provisions of ROPA 25, particularly policy 277 regarding significant woodlands. This matter comes before the Joint Board as a referral from an Ontario Municipal Board proceeding on consent of the parties and as a result of the circumstances described in the Joint Board's order issued on December 11, 2009.

Discussions to scope Nelson's appeal of ROPA 25 resulted in agreement between the parties that the matter now before the Joint Board is the question of whether policy 277 should apply to the subject lands in these proceedings and, if so, whether the woodlands on the Nelson lands meet the criteria in this policy.

The Region called Mr. Ho-Kwan Wong, a qualified land use planner, to provide expert opinion evidence regarding policy 277. The City sought leave of the Joint Board to cross-examine Mr. Wong. The Joint Board denied the request. The Joint Board had been told repeatedly by the parties opposite that they were co-operating, collaborating and co-ordinating their cases against Nelson. There was no perceptible distance or difference between the Region and the City on the question of whether ROP policy 277 was appropriate and should apply to the Nelson lands. The City, as each other party opposite Nelson, was given the right to examine Mr. Wong in support of the Region's examination in chief. Nelson had a full right of cross-examination.

Policy 277 sets out the definition of significant woodlands in the ROP, and reads as follows:

SIGNIFICANT WOODLAND means a Woodland 0.5ha or larger determined through a Watershed Management Plan, a Subwatershed Study or a site specific Environmental Impact Assessment to meet one or more of the four following criteria:

- (1) the Woodland contains forest patches over 99 years old,
- (2) the patch size of the Woodland is 2 ha or larger if it is located in the Urban Area, or 4 ha or larger if it is located outside the Urban Area but below the Escarpment Brow, or 10 ha or larger if it is located outside the Urban Area but above the Escarpment Brow,
- (3) the Woodland has an interior core area of 4 ha or larger, measured 100m from the edge, or

- (4) the Woodland is wholly or partially within 50m of a major creek or certain headwater creek or within 150m of the Escarpment Brow.

For woodlands on the Nelson site, criteria (2) and (4) are the only ones that would apply if the Joint Board agrees that the policy as written should apply to the Nelson lands. Criterion (2) would capture the eastern woodland; criterion (4) would capture the northwest woodland.

The part of criterion (2) that would apply to the eastern woodland is the criterion of 10 ha or larger. Nelson challenged this criterion on what may be grouped into three assertions:

1. the size is too small to be significant;
2. the eastern woodland on the Nelson site does not have a social, educational, cultural, historical or ecological value or function; and
3. the eastern woodland is predominantly a plantation under a managed forest plan.

Nelson has suggested that a 20 ha size is more appropriate for a woodland to be designated as significant. The principal effect of setting the size at 10 ha rather than 20 ha is that more woodlands would be captured by the policy. The evidence before the Joint Board is that the Region set the size precisely to increase the protection for a greater number of woodlands.

The Joint Board heard no evidence to suggest that the Region's policy intent to protect a greater number of woodlands by selecting the 10 ha size in this criterion would be met by altering the size to 20 ha. The Joint Board is not persuaded that a change to the size criterion is appropriate.

On the second basis for Nelson's challenge, the Joint Board has already found that parts of the eastern woodland are suitable terrestrial habitat for Jefferson Salamanders, near the potential breeding pond at the north end of the cascading PSW. The Jefferson Salamander is an endangered species. On this basis, the Joint Board finds that parts of the eastern woodland have an important ecological value and function.

Finally, on the application of criterion (2) to the eastern woodland, Nelson references the intention of the managed forest plan to harvest the plantation when it matures to an appropriate state. The Joint Board notes that the managed forest plan was intended to support several purposes, only one of which spoke of economic harvesting. The managed forest plan also spoke of the intention to provide environmental protection and wildlife habitat, and the Joint Board has found that it does so. The Joint Board finds that the fact that the eastern woodland is under a managed forest plan is irrelevant to the criteria for designation as significant woodlands under the ROP.

The Region relies upon criterion (4) to designate the northwest woodland as significant. The parties agree that this woodland is less than 5 ha in size and lies within 50m of a watercourse. Criterion (4) is more specific, citing not simply a watercourse but instead specifying “a major creek or certain headwater creek”.

The Region and Conservation Halton rely on the phrase “certain headwater creek”. The phrase is not defined in the ROP and “certain headwater creeks” are not mapped in a schedule of the ROP. The same applies to the phrase “major creek”, which is similarly undefined and unmapped in the ROP.

The other elements in the various criteria in policy 277 are clear, precise and measurable. They provide specific guidance to a property owner to understand whether or not woodlands on a site are significant in terms of the ROP. Criterion (4) appears initially to exhibit the same characteristics of clarity, precision and measurability, but these apparent characteristics do not stand up to scrutiny.

The key element in the criterion is the existence of “a major creek or certain headwater creek”; the measurement of 50 m is secondary.

Witnesses for the Region and Conservation Halton gave evidence on how they would interpret the phrase and apply it to the site, but these interpretations are not found in the ROP.

With no definition of the key phrase that establishes the initial location, there is no clear and precise feature from which to measure the 50m.

The Joint Board finds that ROP policy 277 applies to the subject lands with the exception of criterion (4). The Joint Board further finds that, by application of ROP policy 277, the eastern woodlands meet the definition of significant woodland within the ROP.

No conflict with the NEP and consistent with the PPS

The NEP encourages the protection of trees and wooded areas generally, and does so specifically in the sections on development criteria Part 2.7 New Development Within Wooded Areas and Part 2.9 Forest Management. The Joint Board finds that there is no conflict between ROP policy 277, as modified and applied to the Nelson lands, and the NEP.

The PPS defines significant woodlands as follows:

Significant means:

- c) in regard to *woodlands*, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to

the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history;

The PPS then goes on to emphasize that:

Criteria for determining significance for the resources identified in sections (c)-(g) are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used.

In this case, the Region conducted a Region-wide study to inform the criteria for designation as a significant woodland. The Region has chosen criteria that speak to location and size, consistent with the PPS. The Joint Board finds that ROP policy 277, as modified and applied to the Nelson lands, is consistent with the PPS.

Negative impact and net gain

Subsection 2.1.6 of the 2005 PPS restricts development and site alteration on lands adjacent to certain natural features, including significant habitat of endangered species, significant wetlands and significant woodlands. Specifically, development and site alteration shall not be permitted on lands adjacent to these significant natural features:

...unless the *ecological function* of the *adjacent lands* has been evaluated and it has been demonstrated that there will be no *negative impacts* on the natural features or on their *ecological functions*...

When Nelson agreed to scope its appeal of ROPA 25 to the question of the application of policy 277 to the subject lands, Minutes of Settlement were signed between the Region, Nelson, and others. In discharging its undertaking under the Minutes of Settlement, Counsel for the Region wrote Counsel for Nelson as follows:

...The Region states that a proposal which meets the "net gain or enhancement" provision in section 110(7.2) of the Regional Plan as modified would also meet the test of "no negative impacts" found in section 2.3.1(b) and 2.3.2 of the 1997 Provincial Policy Statement and sections 2.1.4 and 2.1.6 of the 2005 Provincial Policy Statement.

Policy 110 of the ROP deals with aggregate extraction. In policy 110(7.2) the ROP contemplates the possibility of net gain or enhancement that would offset a proposal that would negatively affect lands that meet the definition of Greenlands in the ROP. The ROP has two categories of Greenlands: A and B.

Nelson acknowledges that, if the Joint Board finds that the eastern woodland meets the ROP definition of a significant woodland, then it would meet the definition of Greenlands B. Nelson's application for an aggregate license includes the removal of most of the eastern woodland, since most of this woodland is within the proposed extraction line. The proposed removal, if the application for a quarry is approved, triggers policy 110(7.2).

This policy in the ROP is specifically directed to aggregate extraction and states in part:

...Where the proposal includes or negatively affects areas of Greenlands A or B, the proponent is required to demonstrate that the **proposal is consistent with the Provincial Policy Statement** and the Provincial Greenbelt Plan where applicable **and** will result in a net gain or enhancement to function or features of the Greenlands System...The net gain or enhancement shall be based on a combination of progressive and final rehabilitations of the proposal and/or other measures initiated by the proponent prior to and/or during the extraction operation. [emphasis added]

Nelson has proposed a restoration plan for lands known as the Wong property, adjacent to the Nelson lands. The proposed plan is designed to replace and enhance wildlife habitat removed with the removal of the eastern woodland. Taken together with the rehabilitation of the proposed extension quarry, Nelson takes the position that its proposal meets the requirements of net gain set out in policy 110(7.2) of the ROP.

The language of policy 110(7.2) is clear. As shown above, in the emphasis added by the Joint Board, for a proponent to meet the requirements of this section the proponent must demonstrate two specific things:

1. that the proposal is consistent with the PPS; and
2. that the proposal results in a net gain.

These two requirements are quite separate. The PPS has no provision for net gain to offset the requirement of no negative impacts. Providing a net gain under the ROP does not relieve the proponent from demonstrating that the proposed development remains consistent with the PPS, in this case specifically with subsection 2.1.6 of the PPS.

The Nelson proposal, and policy 110(7.2), assume that there will be a quarry. Policy 110(7.2) is only relevant where there is a proposal for aggregate extraction. Since the Joint Board has denied the application for an amendment to the Niagara Escarpment Plan to permit a quarry, the Nelson proposal for a quarry on the subject site fails.

The Joint Board makes no finding on the question of whether the proposed restoration plan would meet the test of policy 110(7.2) in the event that the Nelson proposal for a quarry were to be permitted.

Requests for further amendments

The citizens' group PERL, supported by the other parties in opposition to Nelson except for the NEC, asked the Joint Board for an order pursuant to subsection 10(11) of the NEPDA that the NEP be amended to redesignate certain portions of the Nelson lands as Escarpment Protection Area and other portions as Escarpment Natural Area. Counsel for NEC advised the Joint Board that she had no instructions on this request.

The Joint Board understands that the NEC deferred consideration of PERL's separate application for amendment to the NEP regarding the subject lands until after the decision of the Joint Board.

Under the *Consolidated Hearings Act*, the Joint Board stands in the shoes of the Minister of Natural Resources in making decisions on amendments to the NEP. Subsection 10(11) of the NEPDA, cited as the basis for PERL's requested relief from the Joint Board, states:

Decision of Minister

(11) After receiving the Commission's recommendations under subsection (9), the Minister may refuse the proposed amendments or may approve the proposed amendments with any modifications that he or she considers desirable...

PERL's separate application for an amendment to the NEP remains before the NEC and is not before this Joint Board. Having regard to the requirements of subsection 10(11) of the NEPDA, the Joint Board denies the request by PERL. In doing so, the Joint Board makes no finding on the appropriateness of the requested NEP amendment. That decision is left to the result of separate proceedings to consider the PERL application, as set out in the requirements of the NEPDA.

The Region, supported by the other parties in opposition to Nelson, asked the Joint Board:

- to allow Nelson's appeal in part regarding the requested amendment to the Region's OP and redesignate any above-noted significant woodlands as Greenlands B; and
- to allow Nelson's appeal in part regarding the requested amendment to the City's OP and redesignate any above-noted significant woodlands as Greenlands B.

The additional designation sought by the Region arises from Region Official Plan Amendment 38 (ROPA 38). ROPA 38 is under appeal and is not before this Joint Board. As such, the Joint Board denies the request by parties opposite to redesignate the subject lands in accordance with the provisions of ROPA 38. In doing so, the Joint Board makes no finding on the appropriateness of the ROPA 38 designations on the subject lands. That matter is left to the decision in the hearing of the merits on the appeal of ROPA 38.

Order

The Joint Board dismisses the application for amendment to the NEP to redesignate the subject lands to Mineral Resource Extraction Area and permit processing of aggregate from the subject lands at the existing quarry.

Having dismissed the keystone application for amendment to the NEP:

1. The Joint Board dismisses the application for Development Permits under the Niagara Escarpment Plan to permit quarrying on the subject lands and to permit processing on the existing quarry site;
2. The Joint Board dismisses the appeal regarding the Region Official Plan Amendment for aggregate extraction purposes;
3. The Joint Board dismisses the appeal regarding the City of Burlington Official Plan Amendment for aggregate extraction purposes; and
4. The Joint Board directs the Minister of Natural Resources to refuse to issue a licence under the *Aggregate Resources Act* with respect to Nelson's application for a Class A licence on the subject lands.

The Joint Board allows in part the appeal of ROPA 25 as it applies to the subject lands. The Joint Board modifies Policy 277 as it applies to the subject lands to delete criterion (4) and, as so modified, Policy 277 is approved as it relates to the subject lands.

Susan de Avellar Schiller, Panel Chair

Heather I. Gibbs, Panel Member

Dirk VanderBent, Panel Member