

Acton Quarry Proposed Expansion

JART Status Report

November 2010



JART

JOINT AGENCY REVIEW TEAM (JART)
PROPOSED EXTENSION TO ACTON QUARRY, TOWN OF HALTON HILLS,
BY DUFFERIN AGGREGATES

STATUS REPORT

November 2010



Prepared by:
Steven Rowe, Environmental Planner
in consultation with JART Agencies and Peer Reviewers

TABLE OF CONTENTS

Executive Summary	4
1. Introduction	7
2. The Existing Quarry	8
3. The Proposed Extension	10
3.1 Description of the Extension	10
3.2 The Performance-Based Adaptive Management Plan	11
3.3 Rehabilitation	11
3.4 Potential Effects of the Extension	12
4. The Acton Quarry JART	13
4.1 Role and Function of JART	13
4.2 Structure of the Acton Quarry Extension JART	14
4.3 The Peer Review Consulting Team	18
5. The JART Process	19
5.1 Pre-Application Activities (June 2006 to March 2009)	19
5.2 Post – Submission Activities to Date (March 2009 to November 2010)	20
5.3 Post-Submission Activities: Next Steps	21
5.4 Public Consultation	22
6. The Applications	24
7. Applicable Legislation and Policy	26
7.1 Aggregate Resources Act	26
7.2 The Planning Act	27
8. JART Review to Date	30
8.1 Introduction	30
8.2 Water Resources	30
8.3 Natural Environment	35
8.4 Transportation	38
8.5 Nuisance Impacts: Noise and Blasting	41

8.6	<i>Nuisance Impacts: Air Quality</i>	44
8.7	<i>Archaeology and Cultural Heritage</i>	46
8.8	<i>Agriculture</i>	49
8.9	<i>Visual Impact</i>	51
8.10	<i>Planning</i>	52
9.	Conclusion	54
	Figures	54
	Appendix 1: Acronyms Used in this Report	63
	Appendix 2: Bibliography	64
	<i>Supporting Documentation for the Dufferin Applications</i>	64
	<i>Legislation</i>	65
	<i>Policy Documents</i>	65
	Appendix 3: Record of Acton Quarry JART Public Information Centre #1	67

EXECUTIVE SUMMARY

A Joint Agency Review Team (JART) has been established to coordinate the technical review of an application submitted in March 2009 by Dufferin Aggregates to extend the Acton Quarry.

This Status Report comprises the “Interim Report” that was agreed to by JART and the proponent as part of the review process. It is being released prior to a second JART Public Information Centre, to be held on November 29, 2010, to report on the technical review process to date and to form a basis for public review and comment and further consultation with the applicant.

The applications submitted are for a licence under the Aggregate Resources Act, an amendment to the Niagara Escarpment Plan and a Niagara Escarpment Development Permit, an amendment to the Halton Regional Plan and amendments to the Town of Halton Hills Official Plan and Zoning By-law.

Dufferin’s application materials include a “Performance-Based Adaptive Management Plan”(AMP) that would govern the long term monitoring and mitigation of effects of the quarry extension on water resources and natural features that are dependent on ground and surface water, if the proposed extension is approved.

The JART members comprise:

- Ministry of Natural Resources
- Ministry of the Environment
- Ministry of Municipal Affairs and Housing
- Niagara Escarpment Commission
- Regional Municipality of Halton
- Town of Halton Hills
- Credit Valley Conservation
- Conservation Halton
- Region of Peel

The JART retained expert peer reviewers in several areas of expertise and formed working groups to review technical materials submitted with Dufferin’s applications. All of these groups have produced requests for information and review materials. Dufferin has responded in writing and met with some of the working groups, however the review is not yet complete. Ultimately, a final JART report will be prepared that agencies may use as a technical resource in providing advice and recommendations and reaching decisions related to each of their areas of responsibility.

The progress of the review to date in each of the technical areas under review is provided in more detail in the report and is summarized as follows:

Water Resources

The JART has provided its Phase 1 review of Dufferin's geology and water resources assessment report and Dufferin has responded. The JART Peer Review consultant is currently completing a final peer review. A number of issues remain outstanding.

The JART has also reviewed the water resources aspects of the AMP and has identified further issues.

MNR is currently completing assessments of wetlands and species at risk habitat on and around the site and these may affect the boundaries of the proposed extraction areas. This information is expected to further focus the AMP and water resources reviews.

Natural Environment

Following an exchange of materials between the working group and Dufferin, a number of issues have been identified regarding both Dufferin's natural environment report and the natural environment aspects of the AMP. Some of these issues may be clarified or resolved through the MNR wetland and species at risk studies, and any steps taken by Dufferin in response to these.

Traffic

The proposal will not affect current volumes of traffic generated by the quarry but the distribution of traffic would change as the southern part of the extension is implemented, with an increase in traffic on Third Line. The traffic working group has worked through a number of issues with Dufferin's team and Dufferin has committed to provide additional information that will be subject to further review.

Noise

While the aggregate processing plant is proposed to remain in its current location, the proposal would result in changes to noise generation as additional areas are extracted and as new, portable processing facilities come into operation. The noise working group has raised a number of issues and Dufferin's consultant has responded. Almost all of the noise issues have now been resolved.

Air Quality

Dust generation would also change with the locations of aggregate operations and processing. Overall there should be some improvement as new Best Management Practices are implemented. Dufferin has committed to undertake further mitigation as extraction proceeds, and air quality issues are now close to resolution.

Cultural Heritage

Issues related to built cultural heritage are largely resolved. Heritage Halton Hills has requested an opportunity to investigate two buildings. Dufferin has committed to provide cultural heritage landscape mapping that will be reviewed by the working group.

No further issues remain with regard to Dufferin's archaeology assessments.

Visual Impact

Dufferin has provided a visual impact report at the JART's request, however a number of issues remain outstanding and the proponent has been asked to submit a revised report.

Agriculture

Dufferin's agricultural impact report has been reviewed by the Halton Agricultural Advisory Committee and a number of additional issues have been raised by the Ontario Ministry of Agriculture, Food and Rural Affairs. Dufferin has replied to the OMAFRA comments and a further response from the Ministry is expected.

Conclusion

The public is invited to comment on Dufferin's applications and this Status Report. Any comments received will be considered and a response provided in the final JART report. The technical issues identified in this report will be resolved to the extent possible where acceptable solutions are available, before a final JART report is prepared.

1. INTRODUCTION

Dufferin Aggregates, has submitted applications to permit an extension to the Acton Quarry in the Town of Halton Hills. Public agencies that provide input and/or would reach decisions on the applications have formed a Joint Agency Review Team (JART) to undertake a technical review of the Dufferin applications and supporting technical materials.

The proponent and the JART have agreed that an interim report on the review would be prepared during this process “to list outstanding issues”. The purpose of this report is therefore:

- To provide plain language summary descriptions of the proposal, the JART review process and the applicable policy framework;
- To provide JART’s description of the process to date;
- To identify technical matters that have been raised to date during the JART review, and to report on progress in addressing them;
- To form a basis for further review and comment on the extension applications and related matters by the public and stakeholders including the proponent, for consideration in conducting further review and preparing a final JART report.

This should be regarded as an interim document that reports on the status of the JART review to date. It does not provide final or definitive conclusions by JART or any of its component agencies on any of the identified issues.

2. THE EXISTING QUARRY

The Cultural Landscape Study and Built Heritage Assessment submitted in support of the applications indicate that aggregate extraction commenced in this area with the introduction of limekilns in 1872. Today, Dufferin Aggregates extracts and processes dolostone at the Acton Quarry to provide materials for the construction industry. The existing operation is licenced under the Aggregate Resources Act and permitted under various land use planning designations and other approvals. It does not form part of the requested approvals discussed in this report.

The current licenced area covers an area of approximately 225 hectares (556 acres). Extraction to date has been undertaken in three phases: Phase 1 is located north of 22 Side Road and east and south of Third Line, and Phase 2 is located to the south of 22nd Side Road and to the east of Third Line. These two phases have been depleted, and extraction is now taking place in Phase 3, located south of Phase 1 and 22nd Side Road, and west of Phase 2 and 3rd Line. Dufferin has estimated that at present extraction rates the existing quarry will be depleted within 5-7 years.

Part of the processing area for the quarry lies within Phase 1 and the remainder lies outside the licenced area, with entrances onto 4th Line and 22nd Side Road. There are also crossings of 22nd Side Road and 3rd Line that enable quarry trucks to move from one part of the quarry to another. The existing quarry and the proposed extension are shown on Figure 1.

Land uses in the area around the quarry are generally rural, with rural residences and commercial uses primarily fronting onto Regional Road 25 to the west, a cluster of residences located on Third Line to the south, and residential and commercial uses located below the brow of the Escarpment on Fourth Line to the east, as shown on Figure 2. The built-up area of the community of Acton begins less than one kilometre to the north.

To extract the dolostone, holes are drilled in rows parallel to the working face of the quarry and these are charged with explosive material. Blasting is controlled for safety and to control noise and vibration while providing a suitable size of rock. Each blast brings a face of broken rock down to the quarry floor. Materials of suitable size are taken to the processing facility for crushing and screening, while oversize rock is broken up further prior to haulage and processing. At the Acton Quarry blasting takes place roughly once per week. The same method of extraction would be used for the proposed extension.

The depth of extraction in the existing quarry is approximately 22-24 metres (72-77 feet) below grade, which is below the level of the water table. To keep the working area of the quarry dry, water that collects in the excavation must be pumped out and released as surface water. Some water is used for washing gravel and is stored in settling ponds before it is released.

At the processing area the rock is crushed, graded by size, washed and stockpiled prior to being shipped by truck. According to the proponent's Traffic Impact Assessment (TIA) some aggregate is shipped south along Fourth Line and east along 17th Side Road and some to the west along 22nd Side Road to Highway 25. During the spring season (March to April) quarry traffic only uses

22nd Side Road because 4th line is subject to a half load restriction. The TIA indicates that under average conditions a total of 124 in and out truck movements would be generated during the morning peak hour (the busiest peak). Under maximum load conditions (which are infrequent) this figure could rise to 262 truck movements per hour.

In October 2006 an amendment to the licence for the existing quarry was granted to increase the annual extraction tonnage limit for the quarry from 3.5 to 4 million tonnes. This approval was subject to a prohibition of left-turn movements exiting the easterly Quarry entrance onto 22 Side Rd, a truck traffic ban on 22 Side Road from Fourth Line to 450m west of Fourth Line, a parking restriction on Regional Road 25, subject to approval by Halton Region, and a requirement that all additional tonnage in excess of the current 3.5 million tonnes per year be transported west on 22nd Side Road to Regional Road 25 and south to Highway 401.

3. THE PROPOSED EXTENSION

The proponent is Dufferin Aggregates, which was a division of St. Lawrence Cement Inc. when the applications were submitted and is now part of the Holcim Group of companies.

The following is intended to be a summary description of the proposal – it is described in more detail in the proponent’s “Aggregate Resources Summary Statement and Planning Report”, and in the supporting technical documentation.

3.1 Description of the Extension

Dufferin is proposing to expand the Acton Quarry through four additional phases, shown on Figure 1. Phase 4 is located north of 3rd Line and the existing quarry, and is a freestanding phase that would require a new “sinking cut”, i.e. a new excavation from the existing surface, to create a working face, a working area and an access ramp to the excavation.

Phase 5 east and west would extend the existing excavation south on the east and west sides of Third Line.

Phase 6 west would comprise an expansion of the Phase 5 west excavation to the south, whereas Phase 6 east would be separated from Phase 5 east to the north by a “rock pillar” or wall of dolostone that will be left in place to separate the two phases, and would require a sinking cut.

Phase 7 would be a freestanding excavation to the south of Phase 6 West and west of Third Line, also requiring a sinking cut.

Phase 7 and possibly Phases 5 and 6 would have their own portable crushing equipment that would enable gravel to be crushed and hauled directly from these phases without passing through the main processing facility. While Dufferin is not proposing to increase the total 4 million tonnes per year extraction limit for the existing and expanded quarry, the pattern of truck traffic generation would change when these crushing facilities are brought into operation.

Dufferin states in the Summary Statement and Planning Report that it has assembled approximately 301 ha of land generally north and south of the existing Acton Quarry, but that the extension will take place on 99ha of this land. The remaining 66% would remain in conservation use, subject to the final rehabilitation plan. Dufferin has informed the JART that a number of residences within the area in its ownership would be vacated as the proposed extraction proceeds.

The proposed licenced area of the extension comprises 124.4 ha and the submitted licence drawings show that the boundaries of the proposed licenced areas (that would be directly regulated under the Aggregate Resources Act (ARA)) are wrapped tightly around the proposed

extraction areas, with setbacks of between 15-50m. Phases 6 west and 7 would be linked by a strip of licenced land approximately 60m wide on the west side of Third Line.

The areas subject to applications under the Niagara Escarpment Plan (NEP) and the *Planning Act* comprise the proposed licenced areas plus areas in the NEP proposed to be redesignated from Escarpment Rural Area to Escarpment Natural Area, plus an area outside the NEP to be redesignated to Greenlands B (Halton Region Official Plan) and Greenbelt Greenlands (Halton Hills Official Plan).

The proposed extension would enable extraction of about 71 million tonnes of dolostone, and it is anticipated by Dufferin that it will extend the life of the quarry by 18 -24 years.

3.2 The Performance-Based Adaptive Management Plan

Dufferin proposes to mitigate the effects of the proposed quarry extension on ground and surface water, including water supplies and natural heritage features that depend on water resources, using its “Performance-Based Adaptive Management Plan” (AMP). AMPs have been used in some quarry applications to deal with uncertainties in the predicted impacts by providing a framework for adjusting monitoring and mitigation approaches, when necessary, to make best use of new information.

The proposed AMP requires active monitoring of surface and groundwater levels against “performance-based targets” (PBTs) (i.e. quantitative water-based criteria such as ground and surface water levels), and mitigation of the potential effects of extraction. Supplementary monitoring of ecological community composition and structure would also be undertaken. Mitigation would include pumping water from a reservoir to add water to features including wetlands located on the proponent’s property but outside the licenced area. The AMP focuses on areas lying within a “green line” that encompasses features considered to be sensitive to the groundwater effects of the quarry, as shown in Figure 3. Water would be discharged at the surface to protect most of these surface water features, whereas injection wells are proposed to discharge directly into the aquifer along the north side of Phase 4, and as a possible contingency in other parts of the extension.

3.3 Rehabilitation

The applications include rehabilitation proposals; however these would be part of a larger rehabilitation plan that would incorporate the entire quarry. Whereas the previous plan for the existing quarry involved continuous pumping to achieve a “dry bowl”, the new proposal is a more “passive” solution that involves allowing the excavations to ultimately fill with water while continuing to protect water resources and natural features. The excavations would form individual “lakes” with levels ranging from around 338m above sea level in Phase 2 to 356.5m in Phase 4, as shown in Figure 4. Development of the rehabilitation plan is still ongoing through a separate process. Dufferin is proposing to ultimately convey around 600 ha of its land into public ownership following extraction, however no such transactions have occurred to date.

3.4 Potential Effects of the Extension

As an extension to an existing aggregate extraction use, the proposal has the potential to cause a range of environmental effects, both by itself and in conjunction with the existing use. A number of these potential effects would be interconnected. The JART process is intended to identify these effects and to identify the extent to which they would be mitigated, and whether they could be significant or comply with standards. Consideration is also given to the long-term effectiveness of mitigation and the mechanisms that could be involved in the implementation of the excavation and rehabilitation of the extension. The potential effects of the proposed quarry may be summarized as follows:

- Effects on water resources and municipal and private water supplies;
- Effects on water-dependent natural heritage and hydrological features including watercourses and wetlands;
- Displacement of woodlands and other vegetation in the extraction area;
- Effects on fisheries and fish habitat and habitat of species at risk (such as Jefferson Salamander) ;
- Noise and vibration impacts on sensitive uses through equipment operation, blasting and traffic;
- Air quality impacts on sensitive uses, primarily from dust;
- Impacts on cultural heritage, built heritage features and cultural heritage landscapes
- Effects on agriculture;
- Visual and landscape effects ;
- Traffic effects on haul routes.

At the same time, Dufferin states that the extension would have beneficial effects. These include making a substantial volume of aggregate material available close to market, and ensuring the continued operation of a local industry that employs approximately 60 people. Dufferin also states that its proposal includes environmental enhancement in addition to mitigation of these effects, and that a large amount of its land could ultimately be transferred into beneficial public ownership.

4. THE ACTON QUARRY JART

4.1 Role and Function of JART

Joint Agency Review Teams for Aggregate Applications

The need for integrated review of aggregate applications was recognized by Halton Region in 2001 when it originally established its “Mineral Aggregate Review Protocol” for the sharing of technical information between agencies and proponents for complex aggregate extraction proposals. The Protocol includes the establishment of JARTs to coordinate the technical review of aggregate applications.

A team leader or chair is selected for each JART, to coordinate JART comments and to track and respond to public and agency input. This approach was further refined in 2004 and has now been applied to several aggregate applications in Halton Region, in addition to being adapted for use elsewhere. The Acton JART process includes the proponent and participating agencies posting technical information on their websites, JART endorsement of a work program with timelines and milestones, an extensive pre-consultation process (i.e. prior to submission of the applications) review of detailed terms of reference for major studies, joint public information meetings (with the applicant), and the production of a report by JART as a technical resource for the participating agencies.

It should be noted that the JART process does not bind any of the individual agencies to a pre-determined outcome or decision. The agencies will make their own individual decisions, based on their mandates.

Also, public consultation undertaken by the JART enables the dissemination of information and the receipt of input, but it does not confer any rights on individuals or other stakeholders in terms of formal commenting or appeal opportunities related to required approvals under, say, the Planning Act or the Aggregate Resources Act. At the same time, any comments provided to JART will be included in the final JART report.

Technical Review of Aggregate Extraction Applications

The process of reviewing aggregate extraction proposals can be complex and involve several reviewing and commenting agencies. For example, the Acton Quarry extension proposal that is the subject of this report would ultimately require around ten planning and technical approvals under at least five pieces of legislation from two provincial Ministries, the regional and local municipalities and the Niagara Escarpment Commission (NEC), with additional review and comment from two further provincial Ministries and two conservation authorities. The responsibilities and expertise of these agencies vary based on their mandate and legislative authority, whether they make policy or detailed technical decisions, and the parts of the site that are under their jurisdiction.

In addition to the actual extraction proposal, if approved, recommendations must also be made as to the long term management of surface and groundwater, the extraction area and surrounding land as the existing quarry and the extension are ultimately required to be rehabilitated and converted into other uses. The required resources and the landowners or agencies that would be responsible for this transition are an important part of this discussion.

The technical review of aggregate extraction proposals also benefits from an integrated approach, with cooperation between the different disciplines involved. For example, surface and groundwater is inextricably linked with the ecology of wetlands, and locating the boundary of an extraction area to address a natural heritage issue can affect noise impact as well.

In such a situation it is clearly preferable for the various involved agencies to work together in reviewing the technical issues that arise from the proponent's applications and focusing communications with the proponent and the public. This will help to ensure that they have clear, complete and consistent information on which to base the advice given to decision-makers within each agency, based on their respective mandates.

4.2 Structure of the Acton Quarry Extension JART

The JART that has been assembled to review the Acton Quarry extension proposal is advised by a team of independent peer review consultants that assists in reviewing technical materials, and an Aggregate Planning Advisor to advise the JART and help coordinate its activities. All of these are responsible to the JART but are funded by the proponent.

Issues and technical document review related to particular areas of expertise are discussed by working groups comprising JART members with interest or expertise in each of those areas, advised by the relevant peer review consultants. There are Working Groups dealing with each of the following:

- Water resources including the AMP
- Natural environment including the AMP
- Traffic and transportation
- Noise and air quality
- Planning including visual impact, agriculture, cultural heritage and archaeology

The JART may be divided into "core" members and those that are involved in an advisory capacity. The "core" members of the JART and their individual roles are as follows:

Ministry of Natural Resources (MNR)

MNR's role as part of the JART is as follows:

- It is the approval authority for the required licence(s) to operate and rehabilitate the quarry extension under the ARA, and for any future amendments to the licence(s);
- MNR manages the processing of the ARA application in accordance with the Act and Regulation and the Aggregate Resources of Ontario Provincial Standards, 1997 (AROPS);
- It provides advice and input to JART regarding the ARA process and quarry design, operations and rehabilitation;
- MNR provides advice and input regarding surface and groundwater matters as they affect natural heritage features (in accordance with a May 2008 agreement between MNR and the Ministry of the Environment (MOE) and a related Operational Procedure);
- MNR provides advice and input to JART on general natural heritage matters.

Other, potentially related MNR roles are as follows:

- MNR is the approval authority for any permits that may be applied for under the Endangered Species Act (no applications to date);
- It designates Provincially Significant Wetlands (PSWs), which require special consideration under the Greenbelt Plan and other planning policy;
- MNR monitors and enforces the requirements of the licence(s);

Niagara Escarpment Commission (NEC)

- The NEC is the approval authority for a required amendment to the NEP and Development Permit (applies to the part of the proposed site located within the Niagara Escarpment Plan area, i.e. Phases 4 and 6 and part of Phase 7);
- Provides the JART leader/Chair and coordinates the Status and JART Reports (with the JART members);
- Provides advice to JART on NEP policy, input on natural heritage matters, and peer review of visual assessment.

Regional Municipality of Halton

- Is the approval authority for the required amendment to the Halton Region Official Plan (Planning Act application applying to that part of the proposal lying outside the NEP);
- Comments to the other approval agencies regarding the other applications under the *Planning Act* and the *Niagara Escarpment Planning and Development Act*;
- Provides input to JART on the policies of the Halton Regional Plan including transportation, air quality, water resources, source protection and natural heritage;

- The Halton Region Health Department provides input to JART on such matters as water quality and air quality.

Town of Halton Hills

- The Town of Halton Hills is the approval authority when exempt from Regional approval for the required amendment to the Halton Hills Official Plan (applies to that part of the proposal site lying outside the NEP);
- It is the approval authority for the required amendment to the Halton Hills Zoning By-law;
- It provides input regarding transportation, long term planning and rehabilitation, and land use compatibility;

Potentially related activities include implementing the Halton Hills noise by-law.

Credit Valley Conservation (CVC)

- Provides input regarding groundwater, surface water, natural hazards and natural heritage matters to JART and to municipal planning processes within the part of the proposed site lying within the CVC jurisdiction. The information provided by Dufferin identifies that the current drainage conditions for Phase 4 of the proposed extraction drains to the Black Creek within the CVC watershed; however, the actual location of the drainage divide between Black Creek and Sixteen Mile Creek is still under review;

Potentially related activities include consideration of possible permits under the Conservation Authorities Act for areas outside of the licensed area.

Conservation Halton

- Provides input regarding groundwater, surface water, natural hazards and natural heritage matters to JART and to municipal planning processes within the part of the proposed site lying within Conservation Halton jurisdiction (Phases 5 -7). It should be noted that portions of Phase 4 historically drained to the Sixteen Mile Creek. The actual location of the drainage divide between Black Creek and Sixteen Mile Creek is still under review.
- Potentially related activities include consideration of possible permits under the Conservation Authorities Act for Areas Outside of the Licence Area.

Region of Peel

- Provides input regarding traffic/transportation matters affecting Peel Region (haul route).

The following JART members are involved in an advisory capacity:

Ministry of Municipal Affairs and Housing (MMAH)

- Coordinates and manages the “one window” *Planning Act* process involving input from other provincial Ministries regarding a proposed amendment to the Halton Region Official Plan, for which Halton Region is the approval authority (applies to part of the proposed site);
- Provides input on interpretation of provincial policy related to *Planning Act* – based matters including the Provincial Policy Statement (PPS) and Greenbelt Plan.

Ministry of the Environment (MOE)

- MOE provides advice and input to MNR regarding any effects of the proposed quarrying and related water management on drinking water supplies, local domestic wells and nearby surface water features (in accordance with a May 2008 agreement between MNR and MOE and a related Operational Procedure);

Other related activities include:

- MOE is the approval authority for Permits to Take Water (PTTWs) under the Ontario Water Resources Act. Temporary PTTWs may be granted for testing related to the extension proposal. There have been no PTTW application(s) to date for the extension – this will likely be integrated with the PTTW for the quarry as a whole based on the rehabilitation plan;
- MOE is also the approval authority for Certificates of Approval (C of As) that may be required for industrial sewage works, under the Ontario Water Resources Act;
- The Ministry is the approval authority for a required C of A under the *Environmental Protection Act* in relation to noise (extraction, processing and on-site haulage), rock blasting and air quality (primarily dust). The existing quarry has a C of A – there is no application to date for a new Certificate to accommodate the extension;
- MOE is involved in enforcement of C of As and PTTWs and response to complaints regarding air quality and stationary noise sources, and water resources.

Other Contributors

The Ministry of Culture has commented on cultural heritage matters and the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is commenting on agriculture matters, however these Ministries are not directly represented on the JART.

4.3 The Peer Review Consulting Team

The consulting peer review team is as follows:

- Aggregate Planning Advisor: Steven Rowe Environmental Planner
- Water Resources: S.S. Papadopoulos & Associates Inc (team leader and groundwater), Aquaresource Inc. (surface water), and Daryl L. Cowell & Associates Inc (karst/dolostone hydrogeology)
- Natural Environment: Dougan & Associates (team leader and terrestrial biology), C. Portt & Associates (aquatic biology)
- Traffic and Transportation: IBI Group
- Noise: SS Wilson Associates Inc.
- Air Quality: AMEC Americas Ltd.
- Built Cultural Heritage and Cultural Heritage Landscape: The Landplan Collaborative Ltd.
- Archaeology: Archaeological Services Inc.

5. THE JART PROCESS

This section of the Status Report describes the JART activities undertaken to date and next steps, comprising the preparatory and pre-consultation activities that took place before the applications were submitted by the proponent, the process of reviewing the actual applications and technical materials, and the role of public consultation in the JART process.

5.1 Pre-Application Activities (June 2006 to March 2009)

JART conducted the following activities prior to the submission of the *Aggregate Resources Act*, *Planning Act* and *Niagara Escarpment and Planning and Development Act* applications on March 19, 2009.

- Initial formation of the JART, which held its first meeting on June 29, 2006. Twelve JART meetings were held during the pre-submission period;
- Review of work plans submitted by the proponent in June 2006 for the Planning Report and ARA Summary Statement, and in the areas of planning, hydrogeology, natural heritage, traffic, archaeology and built heritage, noise and blasting, air quality and visual impact. The JART provided a coordinated response to the applicant in January 2007 and there was a subsequent exchange of correspondence including a combined proponent response in December 2007. Some issues remained unresolved at the time the applications were submitted;
- Consideration of a “Timelines and Milestones” schedule initially provided by Dufferin in August 2006. Dufferin requested that JART formally endorse the schedule which provides for the application review to take place within a 2-year timeframe. Dufferin felt that this was warranted since there had been extensive pre-consultation, and the financial resources it was providing for the peer review should facilitate a more streamlined process. JART agreed to work with the two-year timeframe on a “best efforts” basis, but the view was expressed that the timeline was optimistic and JART did not formally commit to it;
- Retainer of Aggregate Planning Advisor (April 2007) and peer review consulting team (February and March 2008);
- A site visit held for JART agencies on May 10, 2007;
- JART held its first Public Information Centre on the Dufferin applications at the Acton Arena on March 4, 2008, to introduce the review process and to describe JART’s role. A record of this meeting is included with this Report as Appendix 3 ;
- Completion of a JART Public Consultation Guideline;

- A pre-submission meeting held by Dufferin for agencies and peer reviewers on June 12, 2008 in advance of an anticipated submission date for applications during the last week of June ;
- A site visit held by Dufferin for JART agencies and peer review consultants on June 26, 2008.

Dufferin also conducted its own public consultation activities during this period.

5.2 Post – Submission Activities to Date (March 2009 to November 2010)

Dufferin submitted ARA, Planning Act and NEC Applications and supporting materials on March 19, 2009. The supporting materials included:

- ARA site plans;
- An ARA summary statement and planning report and an Application Package;
- Water resources, natural environment, archaeological, cultural landscape and built heritage, noise, air quality, blasting and transportation technical reports. A visual impact assessment, was submitted in July 2010 and Dufferin is also preparing an agricultural assessment report.
- A “Performance-Based Adaptive Management Plan” (AMP) that proposes to monitor groundwater and surface water within defined areas around the proposed extraction, and to replenish water as required to sustain the ecology of wetlands and other surface water features, regional groundwater levels and private water supply wells.
- Also, in July 2010 Dufferin provided a Visual Impact Assessment.

All of these documents are more fully referenced, with a link to postings on the Internet, in the Bibliography found in Appendix 2 to this Report.

Additional applications are anticipated for a C of A (air), C of A (industrial sewage works), PTTW and possibly for a permit under the *Endangered Species Act*. These have not been submitted to date and would not be reviewed under the JART process.

Following the submission of applications, JART undertook the following:

- Coordinating and expediting the review of technical reports through the JART Chair and the Aggregate Planning Advisor under the JART’s direction. In most cases, the peer review consultant provided a draft review of the relevant application materials. This was reviewed by the JART agencies belonging to the relevant working group, and a response was forwarded to the proponent. There is usually more than one cycle of review as the peer reviewer and the JART initially identify additional required information and issues,

followed by review of additional materials provided by the proponent's team. The working groups may communicate directly with the proponent and its team before reporting back to the JART. Cross-disciplinary issues are addressed through the Chair and Aggregate Planning Advisor and through meetings among disciplines, as appropriate;

- Attendance at a site visit held by Dufferin for agencies and per review consultants on June 10, 2009;
- A total of four JART meetings and seventeen working group meetings to date since submission, including a meeting with the Dufferin team on December 11, 2009 to initiate review of the AMP;
- A meeting of JART Chair and natural heritage members with MNR and Dufferin on April 23, 2010 to discuss wetlands and endangered species (under the *Endangered Species Act* and PPS) evaluation processes;
- Individual JART agencies were able to provide formal comments on the ARA application during the prescribed 45-day review period starting May 4, 2010 based in part on JART reviews undertaken to date;
- Completing this Status Report.

During this period Dufferin Aggregates conducted a number of public open houses, and the formal public information session prescribed under the ARA, held on June 1, 2010. The JART Chair provided an update on JART activities at the June 1 event. On June 30, 2010 Dufferin provided the JART with its summary of responses to the ARA circulation, received from agencies and members of the public – this is outlined in Section 5-4, Public Consultation, below.

5.3 Post-Submission Activities: Next Steps

- Make the JART Status Report available to the public and the Proponent;
- Hold the second Acton Quarry Extension JART Public Information Centre (November 29, 2010) to present progress of the review to date and receive input to be considered in further review and completion of the JART Report;
- Receive written comments on the applications from the public and other stakeholders;
- Receive comments on the Status Report from the Proponent;
- Complete the JART technical reviews;
- Complete and distribute the final JART report, which will identify areas of concurrence on technical matters between the JART and the proponent team and any outstanding, unresolved issues. It will also include documentation of comments received from the public, stakeholders and the proponent.

The completion and distribution of the JART report will mark the end of the formal JART process. The agencies will utilize the report to inform their recommendations and advice to

decision-makers. Decisions can be appealed, resulting in a hearing before the Ontario Municipal Board or a Joint Board.

5.4 Public Consultation

While the JART process is a technical review and not a legislated approval or consultative process, the public had an opportunity to provide input directly to the JART at its first Public Information Centre held on March 4, 2008 and will have a second opportunity at the second Public Information Centre to be held on November 29, 2010. The JART Chair met with Protect Our Water and Environmental Resources (POWER), a local community group with an interest in aggregate issues, in 2009 and 2010 and with the Coalition on the Niagara Escarpment (CONE) in 2010.

Public involvement at the March 4, 2008 Public Information Centre preceded the actual applications and related primarily to requests for information; however some technical concerns were raised. These comprised:

- Claims of property damage from blasting at the existing quarry
- Claims regarding interference with domestic wells by the existing quarry

While blasting and potential for well interference is being reviewed as part of the JART review, the focus is on the new applications rather than the existing quarry operation. A record of this first JART Public Information Centre comprises Appendix 1 to this report. In addition, JART has been kept apprised of the issues generated through the ARA process and through Dufferin's consultation efforts. The following is a summary of a table of identified issues recorded by Dufferin through its statutory consultation on its ARA application:

- Concern that a project of this size should go through a complete planning process;
- Stress on water tables and residential wells from excavation below the water table;
- Increased nitrates in groundwater;
- Lack of assurance that municipal water supplies will be protected;
- Deforestation effects on carbon sinks and negative effects on natural habitat and the Niagara Escarpment Area;
- Effects on the natural environment from spills and leakages of toxic fuels;
- Effects on wetlands, downstream watercourses and aquatic life;
- Jefferson Salamander habitat protection;
- Noise and vibration from blasting and the quarry operation and lack of response to existing concerns;
- Adverse effects of quarry operations on wildlife;
- Effects of truck traffic and quarry equipment on noise, public safety and wildlife fatalities;
- Loss of enjoyment of use of property and interference with normal conduct of business;

- Impact of quarry operations and trucks on air quality including quartz, silica, toxic emissions;
- Lack of incentive to recycle aggregates;
- Decrease in property values;
- Concern at lack of control of quarrying under the Greenbelt Plan;
- Permanent alteration of the Escarpment landscape;
- Effects on cultural features and landscapes;
- Long-term nature of quarry impacts and need for reasonable rehabilitation timelines, and
- Lack of corporate social responsibility.

The JART will record any input it receives through the November 29, 2010 Public Information Centre, and this will be given full consideration in finalizing the JART Report.

Further opportunities for public involvement will occur through the processes undertaken by the NEC, Region of Halton and the Town of Halton Hills to review their respective applications. Also, applications for detailed technical approvals such as C of As and PTTWs would ultimately be posted on the Environmental Registry at <http://www.ebr.gov.on.ca/ERS-WEB-External/> for public comment.

6. THE APPLICATIONS

As noted in Section 4 above, the proposed extension would require several approvals in order to proceed. The actual applications submitted to date are provided in the “Application Package for Dufferin Aggregates Acton Quarry Extension, February 2009” and further described in the “Aggregate Resources Act Summary Statement and Planning Report, both dated February 2009 and submitted with the technical documentation. They are described in the “Application Package for Dufferin Aggregates Acton Quarry Extension” (see Bibliography, Appendix 2) and summarized below.

Class “A” Licence under the Aggregate Resources Act

A Class “A” Licence is required to extract more than 20,000 tonnes of aggregate per annum in the part of Ontario that includes the Acton Quarry. This proposal falls under Category 2, i.e. a quarry (extraction of rock) as opposed to a pit (sand and gravel), that would extract material from below the water table in the AROPS, which prescribes the contents of a licence application, minimum conditions that would be included in a licence, and notification and consultation standards. The existing Acton Quarry already has a Class “A” Licence. Dufferin has applied for a new licence for the extension. The application requirements include the licence drawings, the ARA Summary Statement included as Appendix C to the ARA Summary Statement and Planning Report, and supporting technical information.

While Dufferin submitted its application on March 19, 2009 and MNR confirmed that Dufferin’s application was complete on April 14, 2009, Dufferin did not trigger the formal review process under the ARA until May 4, 2010. This began with a 45-day notification period expiring on June 18 during which individuals, stakeholders and agencies were required to lodge formal Written Notices of Objection and reasons if they wish these to be considered. Dufferin held the required public information session on June 1. Since the JART agencies had not completed their reviews of the application and there were outstanding issues to be resolved, all of the agencies with the exception of MOE (which works with MNR in terms of water resource effects) submitted objections in advance of the deadline.

The ARA process for considering aggregate licence applications is fully described in the AROPS, which can be accessed through a link in the Bibliography to this report, Appendix 2.

Amendment to the Niagara Escarpment Plan and Niagara Escarpment Development Permit under the Niagara Escarpment Planning and Development Act

Dufferin has applied for an amendment to the NEP for lands within the Niagara Escarpment Plan area which includes all of Phases 1 and 2 of the existing quarry, and Phase 4, 5 east, 6 east and the south part of Phase 7 of the proposed extension. The proposed amendment would change the designation of land within the proposed licenced area from Escarpment Rural Area to Mineral Resource Extraction Area. Additional land southeast of Phase 6 and adjacent to

Phase 7 would be redesignated from Escarpment Rural Area to Escarpment Natural Area (i.e. a more protective designation). The proposed changes are shown on Figure 5.

Dufferin also requires a Development Permit for the proposed extension. The application is for the mineral aggregate operation in accordance with the ARA, environmental mitigation on and off site in accordance with the AMP, and ecological enhancements as described in the Level I and II Natural Environment Technical Report. The application also describes a proposed naturalized pond for amphibian habitat. It is proposed that the permit apply to four areas including and adjacent to the proposed extension as shown on Figure 6.

Dufferin also provided a completed the NEC “Comprehensive Application Checklist and Reviewer’s Checklist of Critical Issues” although the latter document is intended for internal use by NEC staff reviewing the applications.

Amendments to the Halton Region Official Plan, Halton Hills Official Plan and Halton Hills Zoning By-law under the Planning Act

A formal pre-submission meeting between the proponents and Halton Region and the Town of Halton Hills was held as required by the Planning Act, prior to the March 19, 2009 submission of the amendment applications.

The requested amendment to the Halton Regional Official Plan requests the redesignation of lands on Schedule 2 from Escarpment Rural Area, Agricultural Rural Area and Greenlands A and B to Mineral Extraction Resource Area. This application also requests the redesignation of lands from Agricultural Rural Area to Greenlands B, from Greenlands B to Escarpment Natural Area, and from Escarpment Rural Area to Escarpment Natural Area (see Figure 7).

While the proposed amendment includes changes to the Regional Official Plan designations within the area of the NEP, the Regional Official Plan amendment must conform to the NEP.

Dufferin’s amendment application precedes the Region’s adoption of ROPA#38, a major amendment that included bringing the Plan into conformity with the Greenbelt Plan, on December 16, 2009.

The application to amend the Town of Halton Hills Official Plan post-dates the approval by the Region of the Town’s new Official Plan on March 7, 2008, which incorporates the Greenbelt Plan. Therefore the application is subject to the new Official Plan. The application requests that lands designated Escarpment Rural Area, Protected Countryside Area, Greenbelt Greenlands, Greenlands A and B be redesignated to Mineral Resource Extraction Area, Escarpment Natural Area, and Greenbelt Greenlands, as shown on Figure 8. The map shows a deferral of an OMB approval on two parts of the Dufferin property (“D4”) that has now been resolved.

The requested amendment to the Halton Hills Zoning By-law proposes to rezone those parts of the proposed licenced area lying outside the Niagara Escarpment Development Control Area

from Rural (RU) Zone and General Residential Special (RG-1) Zone to the Extractive Industrial (M2) Zone.

7. APPLICABLE LEGISLATION AND POLICY

As indicated above there are a number of statutes, regulations and policies that address the potential effects of the proposed quarry extension. While the JART identifies and seeks resolution of the technical issues raised by the applications, it is the individual agencies that provide advice and make decisions as to whether requirements within their mandates are met. The following is intended to be a summary and not a comprehensive description of legislation and policies that may be relevant to the Acton Quarry proposal. The referenced documents may be accessed on the Internet via links provided in the Bibliography (Appendix 2) to this report.

7.1 Aggregate Resources Act

The ARA requires licences for pits and quarries in designated parts of Ontario, wayside permits for extraction involving public construction projects, and permits for pits and quarries on Crown Land. The legislative and policy framework under the Act comprises:

- The Act itself
- General Regulation 244/97
- “Aggregate Resources of Ontario: Provincial Standards”, MNR, June 1997
- MNR Policies and Procedures

The following is a summary of the aspects of the framework that have the greatest relevance to the extension application. For accurate information, reference should be made to the specific documents, which are linked in the bibliography to this Status Report.

The Aggregate Resources Act

Section 2 of the Act sets out the purposes of the legislation:

- (a) to provide for the management of the aggregate resources of Ontario;
- (b) to control and regulate aggregate operations on Crown and private lands;
- (c) to require the rehabilitation of land from which aggregate has been excavated; and
- (d) to minimize adverse impact on the environment in respect of aggregate operations

Part II of the Act deals with aggregate licences, which are required to operate pits (unconsolidated sand and gravel or shale) or quarries (bedrock) on private land in designated parts of the province, and the process required to obtain licences. The subject application is for a “Class A, Category 2” licence. A Class “A” licence would involve extracting more than 20,000 tonnes of aggregate per year. A “Category 2” licence is required for a quarry that involves extraction below the water table.

An application for a licence requires a site plan and a report, and prescribed supplementary information. If the application is considered to be complete in accordance with the Regulation, then the applicant is required to follow the prescribed notification procedures, which are found in the AROPS document referred to above. Dufferin has already followed part of this procedure since it has submitted its application and triggered the formal 45-day public and agency review process and held the required public information session. The remainder of the process involves attempts to resolve objections and a Decision of the Minister and/or a potential hearing before the OMB.

The matters to be considered by the Minister or the OMB in considering whether a licence should be issued are found in Section 12.

Section 72. (1) of the Act prohibits operation of a quarry within 200 metres of the edge of the Niagara Escarpment, which lies adjacent to the subject application.

Regulation 244/97

The Regulation sets out requirements for implementing the Act including tonnage fees and areas of Ontario where private lands are designated as subject to the Act. These areas include Halton Region.

Aggregate Resources of Ontario Provincial Standards, 1997

The AROPS document prescribes requirements for ARA applications, including site plan standards, standard conditions and reports, conditions and reporting requirements for particular types and scales of aggregate operations, operational requirements and annual reporting, and the consultation and decision-making process.

MNR Aggregate Resources Policy Manual

The Policy Manual provides details of MNR's policies and procedures in implementing the *Aggregate Resources Act*.

7.2 The Planning Act

The *Planning Act* governs the land use approvals required to permit the proposed extension. One of the purposes of the Act (Section 1.1) is "to provide for a land use planning system led by provincial policy".

The Provincial Policy Statement, 2005 (PPS).

The PPS states that the Vision for Ontario's Land Use Planning System may be further articulated through provincial plans. The subject applications are subject to two provincial plans

that apply to different parts of the affected area – the Greenbelt Plan 2005 and the NEP (which formally forms part of the Greenbelt but has different policies and a different approvals framework). At the same time there are PPS policies that still apply to the subject applications because they do not conflict with provincial plans or are referenced in the Greenbelt Plan. In particular, the policies in Section 2.5 of the PPS, Mineral Aggregate Resources, relating to availability for long term use are still generally applicable. This Section also includes policies that “extraction shall be undertaken in a manner which minimizes social and environmental impacts”, and to require “progressive and final rehabilitation”. Also, as indicated in Section 4.3.2(d) of the Greenbelt Plan, an expansion to an existing mineral aggregate operation is subject to the natural heritage policies in the PPS (Section 2.1).

The Niagara Escarpment Plan

The NEP was originally approved on June 12, 1985 under the authority of the *Niagara Escarpment Planning and Development Act*, and has been reviewed and revised twice since that time. It was incorporated intact into the Greenbelt Plan which was approved in February 2005. It has also been subject to a number of amendments – the reference version for this review is the March 11, 2010 consolidation. The applicable policies of the Plan are further described in the proponent’s Summary Statement and Planning Report.

The purpose of the NEP “is to provide for the maintenance of the Niagara Escarpment substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment”.

Development that does not comply with the policies of the Plan or the applicable land use designation requires an amendment to the Plan. Development that does comply requires a Development Permit. Decisions on both of these approvals are made by the NEC.

Greenbelt Plan 2005

The Greenbelt Plan came into effect retroactively on December 16, 2004 under the authority of the Greenbelt Act 2005. It incorporates the NEP and the Oak Ridges Moraine Conservation Plan that were already in effect at that time. Also, it applies new policies to an additional area that includes those parts of the proposed Acton Quarry extension and related lands that are not subject to the NEP.

Whereas decisions under the NEP are made by the NEC, the policies in the additional area affected by the Greenbelt Plan are implemented through decisions made by municipalities under the *Planning Act*. Municipalities are required to bring their Official Plans into conformity with the Greenbelt Plan. The required amendment to the Halton Region Official Plan has been adopted but not yet approved, and the Halton Hills Official Plan has been amended to conform.

The Halton Region Official Plan

The original Halton Region Official Plan was adopted on March 30, 1994, however it has been subject to a number of amendments and the reference version for this review is a consolidation dated August 17, 2006. Two further major amendments to the Plan, Nos. 37 and 38, have been adopted by the Region but not yet approved. The Purpose of Regional Official Plan Amendment 38 is:

- To incorporate the results of the Sustainable Halton process, which is a comprehensive review of The Regional Plan (2006) under the Provincial Policy Statement (2005);
- To incorporate the results of a statutory five-year review of The Regional Plan (2006) under Section 26 of the Planning Act, including bringing The Regional Plan (2006) into conformity with the Provincial Policy Statement (2005), the Greenbelt Plan (2005), the Growth Plan for the Greater Golden Horseshoe (2006) and other pertinent Provincial plans and policies, and
- To address other housekeeping matters related to The Regional Plan (2006).

The Regional Plan includes policies for areas within the NEP, however these reflect the NEP policies and it is the NEC that has jurisdiction within this area.

The lands subject to the applications that lie outside the NEP are within the “Agricultural Rural Area” and Greenlands A and B designations of the Plan, however these lands are also subject to the 2005 PPS and the Greenbelt Plan 2005.

The Regional Plan includes policies for Mineral Resource Extraction Areas and Mineral Resources (beginning with Section 107) but these also must be read in the context of the PPS, NEP and Greenbelt Plan policies.

The Halton Hills Official Plan

A new Halton Hills Official Plan came into effect on March 28, 2008, shortly before the Acton Quarry extension applications were submitted. Therefore the extension applications are subject to the Plan. It conforms with the 2005 PPS and the Greenbelt Plan 2005. The reference document for this review is a May 2008 consolidation.

The Plan states in its Introduction that it was prepared in accordance with the NEP and Greenbelt Plan, and that while these Plans prevail over any local plan or zoning by-law in cases of conflict, Town policies in the Official Plan that are more rigorous than the NEP are considered not to be in conflict.

8. JART REVIEW TO DATE

8.1 Introduction

The following is a summary of the process and outcomes of the JART technical reviews to date, discussed with respect to each of the disciplines involved in the review and, in addition, the AMP which primarily involves the water resources and natural environment disciplines.

The process of the review is structured around the process incorporated into the “best efforts” timelines – this Status Report is the “Interim Report” requested by the proponents. The review cannot be completed until certain essential information (a review of wetland status and boundaries and mapping of the regulated habitat of the Jefferson Salamander under the *Endangered Species Act* by MNR) has been released and reviewed by the JART.

JART is the coordinating entity for the review and has an overview role. The Working Groups comprise JART members with interest in each of the respective disciplines or subject areas, supported by the Aggregate Planning Advisor and specialist peer reviewers. Interdisciplinary matters are dealt with in the larger JART forum and through the AMP working group meetings, which involve both water resource and natural environment – oriented agencies and experts.

8.2 Water Resources

Background

Surface and groundwater resources are a key aspect of the JART review because quarrying below the water table could affect water supplies, as well as important natural environmental and aquatic features such as wetlands and amphibian breeding pools. The public has raised these issues as concerns and they are expressed through policy requirements that must be met by the ARA, NEP and Planning Act applications. The “Geology and Water Resources Assessment Report”, prepared by Conestoga-Rovers and Associates (CRA), dated November 2008 and submitted with the application package in March 2009 is intended to address these requirements.

The AMP is another important document from a water resources perspective. It was prepared by Dufferin’s water resources and natural environment consultants and sets out Dufferin’s proposals to monitor and mitigate potential effects on water resources, private water supply wells and natural environment features that are dependent on ground and surface water. Both the Geology and Water Resources Assessment Report and the AMP are being peer reviewed by the JART.

Process: Geology and Water Resources Assessment Report Review

The water resources working group had already been established when the Acton Quarry extension applications were released, and it includes representatives from MNR, MOE, the NEC,

Halton Region including the Halton Region Health Department, the Town of Halton Hills, CVCA and Halton Conservation. MNR and MOE have a protocol whereby MOE comments on issues relating to the water resource through MNR, which deals with hydrological and hydrogeological effects on natural environment features, when reviewing aggregate applications. The working group is advised by a consulting team comprising S. S. Papadopoulos & Associates (hydrogeology and water resources and team leader), Aquaresource Inc. (surface water) and Daryl W. Cowell & Associates Inc. (Karst [i.e. water movement through limestone/dolostone] review).

The working group held its first meeting in June, 2009. In September 2009, JART provided its first phase of a two-phase review of the Geology and Water Resources Assessment Report, mostly comprising requests for further information. Dufferin, Halton and S.S. Papadopoulos Associates met to discuss the comments in September 2009, and Dufferin provided a response to the comments in December 2009. JART's Phase 2 peer review of the Geology and Water Resources Assessment Report is expected to be produced in the near future.

The following is a summary of issues that have been raised to date with regard to the Geology and Water Resources Assessment Report, as discussed in the Conestoga-Rovers December 2009 response to the Phase 1 water resources review:

- There was exchange of information regarding inputs to water balance calculations including precipitation data, evapotranspiration rates, flow monitoring, quarry discharge points, soil characteristics, runoff and infiltration;
- There were comments and responses regarding the AMP (see water resource issues related to the AMP, below);
- There were comments and responses regarding the geology and groundwater assessment, including mapping, hydraulic connectivity and groundwater flow, groundwater monitoring, geological structure, rock fracturing, Source Protection Tier 3 Water Budget studies, domestic wells, municipal water supplies, quarry operations, and the hydrostratigraphy of the Amabel formation (i.e. whether it is a single or layered hydrostratigraphic unit);
- Comments and responses regarding inputs to the groundwater modelling and the model structure and calibration;
- Conclusions and responses regarding the karst peer review regarding contingency planning, effects on the rate of lake filling during rehabilitation, and the need for karst monitoring and mitigation.

Conservation Halton has also expressed concerns over the potential loss of flow contribution to the Sixteen Mile Creek that may occur as a result of the proposed quarry extensions. Particularly, this would be of elevated concern if the quarry extensions are proposed to be fully passive in the long term, as the lake levels that can be achieved as part of a fully passive long term rehabilitation would result in lowered groundwater levels within the Sixteen Mile Creek,

and diversion of flow from the Sixteen Mile Creek to the Black Creek. There has been considerable discussion as to the extent to which Dufferin can achieve a “passive” long-term solution and the extent of pumping that may be required as rehabilitation is completed.

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) had specific comments regarding water resources and agriculture, and these are discussed in Section 8.8 below.

Process: Performance-Based Adaptive Management Plan Review

The future protection of water resources and those components of the natural environment that are dependent on ground and surface water is the function of the proposed AMP, and this also is being peer reviewed by the JART.

The JART working group for the AMP comprises the natural heritage, groundwater and surface water and planning – oriented members of the team, advised by both the water resource and natural heritage peer reviewers. Although there is a degree of overlap the groundwater and surface water aspects of the AMP will be dealt with here, and the natural environment and planning aspects will be discussed in the appropriate sections below.

The AMP was submitted with the initial ARA, NEP and *Planning Act* applications in March 2009. In December 2009 Dufferin team members presented the AMP to the JART as a whole. In April 2010 the JART provided draft consolidated comments on the AMP to Dufferin, and Halton Region provided separate comments regarding water quality, private water supply wells in the vicinity of the quarry, and its Source Protection studies for municipal water supplies. A further meeting with Dufferin representatives to discuss water resources was held in June 2010. Dufferin provided responses to the JART and Halton Region comments in August 2010. Also, in August 2010, Dufferin were provided with JART’s water resources peer review of the AMP. Dufferin responded to this review in September 2010.

The AMP review commenced later than the other technical reviews so that the JART would be more familiar with the basic technical aspects of the proposed extension before addressing the AMP mitigation issues. This means that there has been only one round of technical comment from JART and a response from Dufferin, and most of the issues raised are further away from resolution than in some other technical areas. While Dufferin has responded to the issues raised in the JART reviews, JART has not yet completed its review or reached its own conclusions on these responses.

Water Resource Issues in the AMP

The following is a summary of the water resource issues raised in the initial JART review of the AMP, with some references to Dufferin’s responses.

- There was a request that all wells within 1000m of the quarry extension be assessed, and Dufferin agreed to this;

- Dufferin responded to a request for its procedure to respond to local well interference complaints by appending the proposed procedure to its response and committing to include it in the AMP.
- There were comments and responses by Dufferin regarding rehabilitated lake levels and the Region and CVC's ongoing Tier 3 Source Protection studies;
- There was a question as to when detailed engineering design and testing of the mitigation measures would be undertaken, and Dufferin responded that this would take place after a land use planning decision;
- JART requested information about the delineation of the "Green Line", access to properties for monitoring, details of the proposed monitoring, mitigation and the water levels that would be maintained, and use of additional monitoring wells further from the quarry;
- Dufferin confirmed its position that the evaluation of hydraulic conditions and the proposed mitigation measures will protect private water wells;
- Further detail was requested regarding contingency planning, the PBT hydrographs showing conceptual triggers over time, and the reporting procedure for occurrences and incidents.

The Halton Region comments on the AMP that were provided through the letter from Lotimer Associates, consultant to the Region, raised additional issues in the following areas:

- Halton expressed general concerns on the practicalities of implementing the AMP. Dufferin (CRA) indicated that all mitigation measures will be implemented and demonstrated prior to extraction which requires their use.
- Halton Region requested additional information on potential effects on private wells. Dufferin (CRA) agreed to provide more information and to update baseline information, and indicated that, in their view, such effects would be very small, even if mitigation is not planned. They agreed to include a water supply interference complaint response procedure in the AMP, and to extend their water supply assessment zone to 1000m from the extension extraction limits;
- In response to concerns regarding the quality of recharge water, CRA indicated that the proposed mitigation measures will not affect the safety characteristics of the Amabel aquifer as a drinking water supply, and they agreed to provide a summary of water quality data from the Milton Quarry;

Halton indicated that it is assessing water resource issues and municipal water supplies as part of the Source Protection process and is considering any relevant findings in its review of the AMP.

The following is a summary of comments on the AMP prepared by JART's water resources peer review consultant in areas not already covered above, and responses provided by Dufferin:

- The peer review consultant found that the AMP is an appropriate starting point for the development of an AMP for the proposed extension, but had concerns with the “enforceability” of the AMP as a legally binding document. Dufferin is prepared to discuss compliance agreements and financial security with the agencies;
- The critical period for the AMP will be during the time following active quarrying, a period of 30-50 years when there will no longer be active income-generating operations but resources will still be required for its implementation. Quarry inflows would be redirected to filling the lakes and significant changes in regional climate are expected during this period. Agency inspectors would use some of the information already provided, but the schematic hydrograph PBTs for specific locations in the AMP must be quantified. Dufferin confirmed that it agrees on the need for PBTs specific to each monitoring location. Dufferin expressed differences of opinion with regard the critical period and the need for further timeline information;
- The peer reviewer identified potential difficulties in identifying the causes of changes in the water level monitoring data collected, given the number of variables including short term and annual variation and potential climate change as well as the operation of the quarry. Dufferin responded that the PBTs are intended to protect the features and not to mimic existing conditions, and that they will be established in consultation with the agencies. They further stated that the features are naturally resilient and short-term influences are unlikely to have any lasting consequence on the features or functions.
- The peer reviewer asked whether simply maintaining water levels is sufficient to prevent significant impacts on features, since supplying water at surface may not prevent changes to groundwater levels in the bedrock due the quarry and potential effects on the water budget of the wetland. Also, surface application of water within the Green Line may not prevent changes to groundwater levels outside the line. Details of the proposed monitoring were requested. Dufferin indicated that the AMP includes appropriate mechanisms to raise groundwater levels or vary the monitoring and mitigation plan in consultation with agencies. Features outside the Green Line would be monitored.
- It was noted that while water level targets will be established based on the data history of the Green Line wells, most of these wells are new and have no histories. Variability in climatic conditions and groundwater levels at other quarries in southern Ontario are increasing. Dufferin stated that baseline data collection for the PBTs is ongoing and that the AMP is an opportunity to protect features from the results of climate change.
- In response to a concern that PBTs might be adjusted in response to a drop in water levels, Dufferin indicated that they would not be adjusted without agency consultation. Concerns were also expressed about the triggers and responses to PBTs not being achieved (Figure 3.9 of the AMP), however Dufferin did not concur with the reviewer’s comments.

The JART will provide its Phase II geology and water resources review to Dufferin, continue to discuss its concerns with them, and seek additional information and resolution of these issues where acceptable solutions are available.

8.3 Natural Environment

Background

Natural environment considerations and requirements are inherent in the consideration of the approvals sought under the ARA, NEP and *Planning Act* (including Greenbelt Plan) documents discussed above. The natural environment documentation submitted in support of the applications takes the form of a “Level I and II Natural Environment Technical Report” prepared by Stantec Consulting Ltd., Ecoplans Limited and Goodban Ecological Consulting. The title of this document uses terminology from the ARA requirements, although it and the ARA Summary Statement and Planning Report, which summarizes the natural environment report, are also intended to address other approvals.

Process: Level I and II Natural Environment Technical Report

A natural environment working group comprising representatives of MNR, the NEC, Halton Region, the Town of Halton Hills, CVCA and Conservation Halton was established prior to receipt of the applications in March 2009. The working group was advised and assisted by the natural environment expert peer review consultant (Dougan & Associates).

Following submission of the applications Dufferin requested early review of its documents to determine any need for additional field studies during the upcoming field season. The working group considered initial comments from the peer reviewer and issued preliminary comments and questions following the first Working Group meeting, in May 2009. There followed an exchange of further questions, comments and responses between the working group and the proponent team, including attendance at a third working group meeting by Dufferin team members to discuss issues.

During this period MNR initiated a new evaluation of the wetlands on and around the Dufferin lands, as well as a study of the habitat of the Jefferson Salamander and other species at risk under the *Endangered Species Act*. Both of these projects have the potential to affect the extraction limits of the proposed quarry extension as well as other environmental effects and mitigation, however they have not yet been concluded. Final completion of the JART natural environment evaluation must wait until the results of these reviews and any resulting action by Dufferin and additional technical review have been considered.

Dougan & Associates provided preliminary peer review comments on the Level I and II Report in September 2009, and responses were received from Dufferin’s consultants in January 2010. Between December 2009 and August, 2010, meetings were held between JART members and

Dufferin's consultants to discuss particular concerns, and Dufferin's consultants have provided some additional data and clarification.

Issues: Level I and II Natural Environment Technical Report

On October 12, 2010 Dougan & Associates provided JART's interim "final" comments on the Level I and II Report, pending the resolution of the wetland and Jefferson Salamander issues. The response comprises a covering letter to JART and a matrix, which were forwarded to Dufferin. The covering letter expressed a number of overriding concerns, summarized as follows:

- Existing levels of disturbance to wetlands and hydrology (from the existing quarry) should be documented in the Level I and II report in order to understand how the system will perform under expanded quarry conditions;
- The Dufferin team's methodology in determining Significant Wildlife Habitat (SWH) should be more clearly documented;
- Numerous comments will be clarified when new MNR mapping of the regulated habitat with respect to the Jefferson Salamander and the updated Provincially Significant Wetland (PSW) mapping is released;
- More rigorous analysis and reporting is required to support the proponent's mapping of existing ecological linkages.

The JART matrix includes a number of detailed technical matters of information and interpretation that have been resolved between JART and the Dufferin team.

The matrix also identifies the following outstanding issues:

- The extent of existing wetland disturbance (i.e. due to the existing quarry operation) should be clearly discussed and mapped, and should also be clearly reflected in the determination of the preliminary green line in the Adaptive Management Plan. The reviewers do not agree that Wetland W2-B (see Figure 4-3 of the Level I and 2 Natural Environment Report) is a "low-functioning wetland". The wetland should be restored. Management of water in the existing quarry has altered wetlands and flows to watercourses. Development of Performance-based Targets (PBTs) in AMP should address existing degradation of wetland hydrology;
- Concern regarding the proposed deepening of a dug pond (W1) in a PSW, to be further addressed by MNR;
- The requested addendum to the Natural Environment Report should include a clearer description of the proposed water management system infrastructure (e.g. pumps,

water dispersal features, pipelines) and potential impacts due to construction and operation;

- Need for clearer identification, assessment and analysis of ecological linkages, woodland amphibian breeding pools effects of noise and blasting on wildlife;
- The Dufferin team statement that “healthy and functional wildlife habitat can co-exist with an active quarry” should be qualified;
- Restoration of degraded wetlands should take priority over attempting to create new Jefferson Salamander habitat. Scientifically documented studies were requested to demonstrate that habitat creation is effective;
- Lack of clarity whether proposed enhancement outside the licenced area would be subject to regulation under the ARA;
- The Dufferin team is to engage JART members to review a more detailed enhancement plan that Dufferin is preparing.

There are distinct differences in opinion regarding the need to document and consider existing degradation of wetlands and to address this through the AMP. The appropriateness of attempts to create new habitat rather than enhance existing degraded habitat is a concern. The resolution of these issues will be strongly reliant on the forthcoming wetland and species at risk evaluations by MNR, and Dufferin’s response to them.

Natural Environment Issues in the AMP

The history of JART’s review of the AMP to date is outlined in the Water Resources Section, above.

The following is a summary of the natural environment issues raised through the AMP review process to date with some reference to the responses received from Dufferin;

- The timing of the AMP review and JART’s ability to provide substantive comments was hampered by the fact that fundamental issues including PSW boundaries and the identification of Jefferson Salamander habitat remain unresolved. Dufferin argues that the AMP is “principles-based” and that JART should proceed with its review;
- Concern regarding degraded hydrologies due to the existing quarry. The JART has requested that information on degraded hydrologies be provided as part of “existing conditions” in the natural environment report and that PBTs should be developed to remediate such conditions where feasible. Dufferin argues that the existing quarry is being operated in accordance with current approvals and that it is proposing enhancements;
- Issues regarding the scope of the AMP beyond surface and groundwater-based features including such matters as landscape ecology functions, beaver damming, vegetation removal, protection of terrestrial features, impacts from noise, vibration and dust, micro-climatic changes, and increased traffic;

- The delineation of the “green line” and the potential need for monitoring, remediation and mitigation of features beyond the green line;
- JART needs more information on the development of PBTs, how they would be set, how seasonal fluctuations would be addressed and how any changes would be reviewed. Dufferin considers that its natural environment report already provides information on this and it anticipates further consultation to establish PBTs;
- There is concern regarding over-supply of water and excessive flows to watercourses and wetlands;
- There is concern that trends in changes to ecological features and systems will not be detectable using PBTs and the proposed Response Action Framework timeframe;
- More information is needed to show how the continuous PBT monitoring will relate to the ecological monitoring so that responses will be prompt and effective;
- Where surface water is to be discharged directly into wetland features, Dufferin will need to address issues related to water quality, temperature etc. Similar issues arise where ponds or wetlands are proposed to be deepened into the groundwater table;
- Lining ponds and deepening wetland features may not be acceptable mitigation responses to quarry impacts;
- Artificial water supplies to natural habitats may be vulnerable to failure at critical times and may not replicate normal habitat conditions, especially in early spring when salamanders are breeding. Dufferin has indicated that its systems will be designed for year-round operation;
- More information is required on how the proponent would respond to AMP “incidents”, including possibly ceasing or reducing the rate of extraction. A compendium of possible incidents and responses would be helpful;
- Dufferin should not make short term changes to PBTs if ecological conditions are good;
- Further discussion is required to determine how the Phase 4 lake level can be used to maintain/enhance features;
- Construction of new amphibian ponds may be supported in terms of the inclusion of varied habitats, however there is a question regarding “compensation” and “net gain” and conformity with planning policy. Dufferin’s consultants have not considered restoration of some existing wetlands, degraded by operation of the Existing Quarry that previously supported Jefferson Salamander breeding.

8.4 Transportation

Background

Haul routes are among the matters considered by MNR as part of the Ministry’s review of the ARA application, and by the NEC in its review of the NEP amendment and development permit applications. Halton Region and the Town of Halton Hills (as well as Peel Region) have an interest in haul routes on roads under their respective jurisdictions.

The materials submitted with the proponent's applications in March 2009 include a "Traffic Impact Assessment" (TIA) prepared by MMM Group Limited, Dufferin's traffic consultant, that is the subject of the JART review.

While haul routes have been identified as a public concern in relation to this proposal based on Dufferin's ARA circulation, the Acton Quarry extension would extend the duration of existing truck trip generation rather than creating increasing traffic volumes, since no changes are proposed to the existing permitted annual volume of extraction (4 million tonnes per year) or the haul routes currently utilized. There would be some change in trip origins from the quarry with trucks hauling gravel directly from portable crushing facilities in Phase 7 and potentially Phase 5 and 6, rather than from the existing processing facilities.

At the same time, the pattern and intensity of development around the haul routes, the volume of traffic and condition and capacity of existing roads, and future traffic patterns and potential distribution of markets continues to evolve. Also some sections of the haul routes are being transferred from Regional to Town of Halton Hills jurisdiction, which could impact the applicable by-laws.

Process: Traffic Impact Assessment Review

A traffic and transportation working group comprising representatives from MNR, the NEC, Halton Region and the Town of Halton Hills and advised by IBI Group, the JART's traffic and transportation peer reviewer, was established before the receipt of the applications. An initial review of the Traffic Impact Assessment was provided by IBI Group for review at the first working group meeting in June 2009 and, following further review and discussion, a compilation of comments from Halton Region, Halton Hills and IBI Group was provided to Dufferin in August 2009.

MMM Group provided a response to these comments in November 2009, with further comments in February 2010. JART provided its response to these comments in April, and MMM provided a response to these immediately prior to a meeting held between the working group and MMM in May 2010, and a further response in August. JART's response to these comments was provided to Dufferin in October 2010.

Issues: Traffic Impact Assessment Review

Through these information exchanges and discussions, certain matters have been resolved to the extent that MMM has agreed to incorporate additional information and evaluations in an updated version of its TIA. These comprise:

- Early morning truck queuing observations in the vicinity of Trafalgar Road at 17th Sideroad prior to the quarry opening and enforcement roles in relation to queuing;

- Assessment of the potential queues at 5 critical intersections to be identified by the working group (although the working group has requested that this information be provided for all study intersections);
- General discussion of the possibility of using rail to transport aggregates;
- Updated speed limits and road jurisdictions reflecting changes that have been implemented since the first report was prepared;
- Updated sightline analyses using different design criteria, for the intersection of 3rd Line and 22nd Sideroad, as well as along 3rd Line and 22nd Sideroad;
- Review of additional background studies including:
 - EA Study along Trafalgar Road from 10th Sideroad to Highway 7;
 - Sustainable Halton;
 - Halton Transportation Master Plan to 2031;
 - Halton/Peel Boundary Area Transportation Study; and
 - GTA West Corridor Study.
- Inclusion of the relevant changes noted in those reports in the updated TIA;
- Sensitivity analyses to reflect two sets of truck distributions with respect to the quarry and potential future markets;
- Examination of the individual collision reports related to the problematic areas which were identified in the original TIA (where collision reports are available);
- Examination of the individual collision reports with respect to River Drive between Mountainview Road and 10th Line (again subject to availability).

The working group will consider the acceptability of the Dufferin/MMM response to these matters when it reviews the updated TIA.

In addition, the working group has taken a firm position on two further matters, and Dufferin is still considering whether they intend to address them further. These are:

- Evaluation of traffic conditions based on afternoon peak hour conditions. The working group considers this evaluation to be important since truck traffic from the quarry at that time – and in the peak period as a whole - has the potential to affect traffic flow. They consider that Dufferin should at least provide data to substantiate its claims regarding the distribution of peak hour traffic. MMM has indicated that peak hour traffic takes place after 5.00 pm when the quarry is closed, and that the actual volume of truck traffic generated by the quarry after 4.00 pm is low and is dispersed from the site during the peak hour. They consider that the value the evaluation requested by the working group is limited and would not be justified by the time and cost required to undertake it.
- Assessment of two additional intersections on River Drive in Georgetown. The Working Group considers that these intersections and particularly the Mountain View Road

intersection could be significantly affected by quarry traffic. Under some analysis scenarios almost one third of quarry traffic passes through these two intersections. The Dufferin team has stated that these intersections are located approximately 11 km from the quarry, and that they have no capacity related issues (although they have agreed to assess five intersections selected by the working group).

The working group has also requested that the existing haul route be evaluated against any alternatives that develop based on future new road construction and improvements, and Dufferin has agreed to discuss mechanisms by which this might be achieved. JART has discussed with Dufferin whether they would consider changing the existing haul route should new Regional roads become available during the life of the quarry.

Also it would be appropriate for Dufferin to recognize the conditions in its December 2006 ARA licence approval for increased annual tonnage by monitoring its extraction level and the distribution of haul trips.

Dufferin will let JART know whether it intends to address the afternoon peak and River Drive issues. The sufficiency of its response to the other outstanding technical issues remains to be evaluated when the JART receives the promised update to the TIA report.

The OMAFRA had specific comments regarding traffic and agriculture, and these are discussed in Section 8.8 below.

8.5 Nuisance Impacts: Noise and Blasting

Background

A number of operations related to quarrying can generate noise, including drilling, blasting, equipment movements, rock crushing and haulage.

The AROPS requires a noise assessment report for a quarry below the water table if extraction and/or processing facilities are within 500 metres of a sensitive receptor, and a blast design report if a sensitive receptor is within 500 metres of the limits of extraction. Both of these conditions apply in this instance, and Dufferin provided both these reports (prepared by Aercoustics Engineering Limited and Golder Associates, respectively) in March 2009 as part of its application package. The recommendations in these reports are reflected on the proposed site plans.

The existing quarry and processing facilities already have a Certificate of Approval under the Environmental Protection Act, and a new or revised Certificate (likely covering air quality as well as noise) would be required to permit the proposed extension.

The PPS requires that “extraction be undertaken in a manner which minimizes social and environmental impacts”. The NEP includes policies that must be addressed relative to minimization of adverse impact on nearby agricultural and residential land uses and parks, open space and the Bruce Trail as objectives to minimize the effects of new mineral extraction operations on the Escarpment environment.

The current Halton Region Official Plan requires that proposals for new Mineral Resource Extraction Areas be evaluated in relation to existing land uses. The Halton Hills Official Plan requires that Official Plan and zoning amendments for aggregate uses be supported by information that addresses the impact of the noise, odour, dust and vibration generated by the proposed use on adjacent land uses and that demonstrates that noise impacts would be minimized.

Also, both Conservation Halton and Credit Valley Conservation have expressed concern regarding potential noise effects on wildlife.

Both noise and blasting have been identified by the public as issues in relation to the existing quarry and the proposed extension.

Process: Noise and Blasting

A noise and air quality JART working group was established before the applications were submitted, comprising representatives from MNR, the NEC, MOE, Halton Region and the Town of Halton Hills. The group was advised in relation to noise and blasting matters by SS Wilson Associates.

The first working group meeting was held in July 2009, shortly followed by a request, prepared by SS Wilson, for further information from Dufferin on noise and blasting. A response was received from Dufferin in August 2009, and a peer review was provided to Dufferin in February 2010. Dufferin’s response to this review was received in May 2010, and the “final” JART peer review was provided to Dufferin in July 2010.

Also in July 2010 OMAFRA commented on the quarry extension proposal, requesting further of noise effects on agricultural uses. This letter was further reviewed by JART’s peer reviewer, and Dufferin has provided a response to OMAFRA.

In September 2010 a joint meeting was held between the noise working group and representatives from the Dufferin team to discuss the issues raised. Dufferin agreed to prepare revised versions of its noise and blasting reports. Commitments arising from that meeting have been reviewed and endorsed by JART’s noise consultant.

Issues: Noise and Blasting

The following issues raised by the working group have been addressed by Dufferin and their consultants:

- Dufferin agreed to provide an evaluation of potential noise impacts on agricultural uses, which is currently under review by the JART;
- Concern was expressed by the working group as to the potential cumulative effects of the Dufferin and the nearby CBM aggregate operations. The Dufferin team indicated that its MOE approval relates only to Dufferin operation the does not require such effects to be considered. In any case, it is unlikely that both operations would operate at a “worst case” level, which is the level used for the evaluation, at the same time;
- Traditionally, residences on the property owned by a quarry operator have not been subject to MOE noise requirements, however the working group expressed concern at the potential noise exposure to residences owned by Dufferin. Dufferin and its consultants have provided assurances that residences on the Dufferin property will be vacated or removed before the extraction approaches those locations. They have proposed an approach to how residences would be vacated as the extension proceeds, and this has been accepted by the JART peer reviewer;
- The working group expressed concern at the complexity of the extraction operation and the corresponding noise mitigation measures, and requested that their feasibility and effectiveness be confirmed through monitoring. Dufferin agreed to include a program for “snapshot” monitoring when significant changes are made to the operation in the revised version of the report. This program was received recently and was endorsed by JART’s peer reviewer;
- The site plan drawings allow for recycling activities in Phases 5-7. Dufferin has committed to include a provision in the noise report that it will not pursue this without further consultation with stakeholders;
- There was discussion as to whether all of the proposed noise mitigation measures are included on the ARA site plan drawings. Dufferin’s consultants confirmed that they were, however any changes arising from current work will need to be added;
- Dufferin and the Town of Halton Hills are considering whether time limits on the use of construction equipment in the Halton Hills noise by-law would apply where there is an ARA licence;;
- At JART’s request, Dufferin’s consultant recently provided an evaluation of the occasional use of a “hoe-ram” to break up oversize rock at the working face of the quarry. This has been endorsed by the JART peer reviewer;
- Dufferin and the Town of Halton Hills are considering whether the requirements of the new Halton Hills noise by-law apply to blasting at the quarry.

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) had specific comments regarding blasting and agriculture, and these are discussed in Section 8.8 below.

The noise and air quality working group and the peer review consultant will review the information provided by Dufferin’s consultants, however communications to date indicate that

the JART and Dufferin are approaching consensus on technical issues relating to noise and blasting.

8.6 Nuisance Impacts: Air Quality

Background

Air quality issues raised by aggregate operations relate primarily to dust from extraction operations, aggregate processing and storage, and haulage of aggregate products. In this instance, the existing processing facility would continue to operate and haulage from this facility would continue, but the proposed extension may impact new areas and use of portable processing facilities is proposed for Stage 7 and possibly for Stages 5 and 6. These facilities and haulage of materials from these facilities may generate dust impacts.

The AROPS does not specify a requirement for air quality studies in relation to quarry applications but it does require that “dust will be mitigated on site”. The “Air Quality Assessment” prepared by RWDI and submitted with the application package indicates how air emissions would be controlled from the quarry extension. Conditions relating to dust are proposed in the submitted Site Plans. A Certificate of Approval under the Environmental Protection Act is in place for Dufferin’s current extraction and processing facilities, and a new or revised C of A would be required in support of the proposed extension.

The PPS requires that “(aggregate) extraction shall be undertaken in a manner which minimizes social and environmental impacts”. The NEP includes minimization of adverse impact on nearby agricultural and residential land uses and parks, open space and the Bruce Trail as objectives to minimize the effects of new mineral extraction operations on the Escarpment environment.

The Regional Official Plan requires that extraction and accessory operations be conducted in a manner which minimizes environmental pollution in accordance with Provincial requirements, Regional policies, and in consultation with Conservation Authorities, and that proposals be evaluated in relation to adjacent land uses.

The Halton Hills Official Plan requires that Official Plan and zoning amendments for aggregate uses be supported by information that addresses the impact of the noise, odour, dust and vibration generated by the proposed use on adjacent land uses.

The public has raised air quality as an issue in its response to the proposed extension.

Process: Air Quality

The RWDI air quality report was included with the application materials submitted in March 2009, and the first meeting of the air quality and noise working group was held in July 2009. The JART’s air quality peer review consultant, AMEC Americas, provided a list of questions for clarification that was forwarded to Dufferin in August 2009. RWDI responded to these

questions and provided a number of attachments on behalf of Dufferin in November 2009. AMEC's peer review was submitted to Dufferin in January 2010. RWDI's response was provided in April 2010, followed by a modelling summary in July 2010. JART provided its comments on the RWDI response in May 2010 and responded to the modelling summary by requesting additional modelling information. At a meeting in September 2010, RWDI committed to undertaking further modelling of dust impacts. This work was provided in October and the JART peer reviewer recently completed his review.

Issues: Air Quality

The following is a summary of the issues and responses identified in the May 2010 RWDI response:

- The peer reviewer raised the issue of the portable aggregate crushing plants, and RWDI confirmed that this had been evaluated and that the crushers would be operated with no adverse effects. The response was found to be acceptable.
- The peer reviewer requested monitoring information to demonstrate that current operations are acceptable and not causing adverse effects. RWDI responded that the current approval does not require monitoring, but that they would undertake dispersion modelling that goes beyond C of A modelling including truck traffic and background dust. It will include consideration of fine particulates. As described above, a second version of this modelling has now been reviewed and the consultant's findings are summarized below:
 - The results of the remodelling were found to be conservative and appropriate;
 - The consultant agrees with the RWDI recommendation to undertake silt loading measurements of the site
 - The consultant also recommends that direct sampling be undertaken to verify the Best Management Plan at key receptors near the processing area and as the development moves into Phases 5, 6 and 7.
 - The silt loading and direct sampling requirements should be included as conditions in the ARA Licence, if approved.
- AMEC asked for any records of discussion with local residents regarding air quality. RWDI responded that the issue had not been raised at Community Liaison Meetings. They provided a Q and A from a Public Information Centre held in October 2009, with responses to questions regarding blasting gases and carbon dioxide emissions from blasting. The response was found to be acceptable;
- Dufferin was provided with the Best Management Plan (BMP) for the site (prepared in support of the current C of A) at AMEC's request. The BMP was found to be generally acceptable, with some suggested changes;

- AMEC suggested that the BMP include consideration for limiting air quality effects from blasts by staging them in accordance with wind direction and the location of nearby receptors. Provisions in the BMP regarding overburden stripping, monitoring stockpiles, roads and operations and complaint response procedures were found to be acceptable;
- Provisions in the BMP regarding equipment maintenance and monitoring systems and off-site road impacts were also found to be acceptable;
- At AMEC's request, RWDI provided further information regarding silica sampling results and these were found to be acceptable;
- An issue was raised regarding on-site residents, and assurance was given that all onsite residences would be vacant when operations move into those areas (also see commitments re: noise, above).

Pending Dufferin's response to JART's review of recently provided dust modelling information, the technical issues in relation to the potential air quality impacts of the proposed quarry extension are approaching resolution.

8.7 Archaeology and Cultural Heritage

Background

The AROPS report standards for an application for a quarry below the water table require a Stage 1 Archaeological Assessment (Background Research) to determine if there are existing Aboriginal and/or Euro-Canadian archaeological resources on the property, and/or the potential for them to exist, followed by a Stage 2 Archaeological Assessment (Property Survey), and, if recommended, follow-up Stage 3 (Site-Specific) Assessments and/or Stage 4 Mitigation (Excavation). There are no equivalent AROPS requirements regarding built cultural heritage.

In the NEP, the criteria for extractive operations include protection of sensitive historic and archaeological sites or areas and there is a separate section regarding the protection of cultural heritage features.

The Halton Regional Plan includes policies to protect heritage features, which are defined to include both archaeological and built features. The Halton Hills Official Plan requires applications for Official Plan and zoning amendments for aggregate extraction to be supported by information addressing the built or cultural heritage resources in the area, and it also includes separate policies to protect cultural heritage resources.

The application package for the proposed Acton Quarry extension includes a Stages 1, 2 and 3 Archaeological Assessment for Phase 4 of the proposed extension, and a separate Stages 1, 2

and 3 Archaeological Assessment as well as a Stage 4 Archaeological Assessment for the remainder of the proposal. In addition, a “Cultural Landscape Study and Built Heritage Assessment” was provided for a study area that includes the existing quarry and the entire proposed extension. All of these reports were prepared by Archaeologix Inc. which is now part of Golder Associates.

Public comments on the proposed extension include concerns regarding impacts on cultural heritage including archaeological remains, built heritage features and cultural heritage landscapes.

Process: Archaeology

Archaeological and cultural heritage matters were considered by a single working group of JART which included representatives from MNR, the NEC, Halton Region and the Town of Halton Hills. The working group met once, in August 2009. The JART peer reviewer of the archaeological reports was Archaeological Services Inc (ASI).

An archaeological peer review was provided to Dufferin in January 2010, and Dufferin provided Golder’s response in the following April. In July 2010 a revised ASI peer review was sent to Dufferin.

Issues: Archaeology

The following issues are summarized from the Dufferin response provided in April 2010.

- ASI noted several areas where the three archaeological reports did not follow the Draft Standards and Guidelines for Consultant Archaeologists issued in 2006 by the Ministry of Tourism and Culture (and superseded by the draft 2009 guidelines). Golder responded to this and a number of specific comments by stating that its reports follow the Ministry’s technical guidelines that were issued in 1993 and are the only ones officially approved for use in the Province, and that this is confirmed by letters of acceptance from the Ministry of Tourism and Culture;
- Regarding Stage 4, archaeological mitigation, there were no officially approved standards or guidelines. Whereas ASI asked whether the 2006 draft guideline was followed implicitly, Golder responded that the report reflects the standard of care current at the time.

ASI responded in July 2010 that while there was no legislated standard to use the 2006 Draft Standards and Guidelines (and now the more recent 2010 version, which will be officially implemented on January 1, 2011) they have been implemented by many consultants including ASI on a volunteer basis as “best practice” for conducting and reporting on fieldwork. In any case, ASI found that the Golder Associates reports were generally compliant with the draft 2006 Draft Standards and Guidelines. On this basis, and because the reports have been accepted by

the Ministry of Tourism and Culture into the Provincial registry for Archaeological Reports, they recommended acceptance of the reports by the JART.

Process: Cultural Landscape and Built Heritage

As noted above, archaeological and cultural heritage matters were considered by a single working group of JART which met once, in August 2009. The JART peer reviewer of the Cultural Landscape and Built Heritage Report was Landplan.

A peer review was provided to Dufferin in October 2009, and Dufferin responded with an updated and revised Cultural Landscape and Built Heritage Assessment in April 2010. Following an exchange of documents and discussions with Dufferin's consultant, Landplan completed its final comments and these were provided to Dufferin in July 2010.

Issues: Cultural Landscape and Built Heritage

The issues raised in the October 2009 review are summarized as follows:

- The report does not provide an adequate assessment of the cultural heritage landscape or its significance;
- The criteria that define significant of cultural heritage features and how boundaries of cultural heritage landscapes are determined are not addressed;
- Cultural heritage landscapes and built heritage resources should be shown on a map;
- Proposals as to what would be done with built heritage resources should be specified, and no mitigation measures other than documentation are provided;
- Landplan recommended that the report be circulated to the Heritage Halton Hills committee for its review.

Heritage Halton Hills reviewed the report on December 15, 2009. They provided a recommendation that they be provided the opportunity to investigate two properties further: a barn at 11762 Third Line and a house and barn at 12712 Third Line, and that the 12712 Third Line property be entered in the Town's Heritage Register. Landplan's July 2010 final comments indicate that all of its matters had been resolved with the exception of the need to clearly identify and map the cultural heritage landscape. Dufferin did not provide this assessment at the time, however we understand that Golder Associates has recently agreed to provide this mapping. If the mapping is found to be satisfactory then all of the built heritage issues will have been resolved.

8.8 Agriculture

Background

The AROPS requires that an application for a quarry involving extraction below the water table includes information on the agricultural classification of the proposed site, however no actual studies or reports on agriculture are required.

The PPS has policies relating to aggregate extraction on prime agricultural land in prime agricultural areas. Although part of the Acton Quarry extension would take place on prime agricultural land, it is not in a prime agricultural area, as defined.

The Greenbelt Plan is focused on protection of Specialty Crop Areas in relation to aggregates – this designation does not occur on the Dufferin lands.

The NEP includes “the maintenance of agricultural areas, in accordance with the Agricultural Policies of the Provincial Policy Statement” and “the minimization of the adverse impact of extractive and accessory operations on existing agricultural or residential development” as criteria for mineral extraction operations.

The Halton Regional Plan includes a policy to evaluate each proposal for new Mineral Extraction Areas based on consideration of the surrounding farming and rural communities, however the policy does not apply to expanded Mineral Resource Extraction Areas.

The Halton Hills Official Plan requires an application for an Official Plan Amendment or zoning amendment for mineral aggregate extraction to include information to address the impact of the operation of the mineral aggregate operation on “agricultural resources and activities”.

The public concerns expressed through the ARA process include “effects on agriculture”.

Process: Agriculture

Dufferin provided an “Agricultural Impact Analysis” prepared by MacNaughton Hermsen Britten Clarkson (MHBC) as part of its March 2009 application package. This was reviewed through the JART’s Planning working group, comprising representatives from MMAH, MNR, the NEC, Halton Region, the Town of Halton Hills, Conservation Halton and Credit Valley Conservation. It was provided to OMAFRA through the Ontario Government’s “one window” review process, and it was also reviewed by the Halton Agricultural Advisory Committee (HAAC). The JART does not have a peer reviewer for the agricultural impact analysis.

Comments were provided by the Chair of HAAC in November 2009, and OMAFRA provided comments in July 2010. These were reviewed by the JART noise and blasting consultant as they relate to noise effects on agriculture.

Dufferin's consultant MHBC provided a response to these comments in October 2010, and we understand that OMAFRA now intends to provide a response to this letter.

Issues: Agriculture

The HAAC comments included the following issues:

- Any loss of productive farmland must be viewed with concern;
- Present and future quarry operations should be carried out in a manner that is least disruptive to the neighboring farming operations;
- There have been complaints in the past about groundwater supplies and wells in the area, the impact of truck traffic on local roads, and difficulties experienced by farmers operating slow moving farm vehicles.

The issues raised in the OMAFRA review, as responded to by MHBC, are summarized below:

- Despite the use of outdated mapping in the Agricultural Impact Analysis, it was confirmed that the extension site is not in a Prime Agricultural Area;
- OMAFRA requested more detailed information and mapping of agricultural infrastructure, farm operations and land uses. Revised mapping as well as photographs and information on agricultural buildings was provided by MHBC;
- OMAFRA said that technical reports prepared to address potential effects of blasting, traffic and water resources, for example, need to specifically consider impacts on farm animals/fish and agricultural operations to support MHBC's contention that agriculture and aggregate operations are compatible. MHBC responded that, given the characteristics of the surrounding area including buffering by natural areas and the lack of agricultural buildings or livestock operations, the impact of the quarry extension on surrounding agricultural land uses is negligible;
- There are concerns regarding compatibility of future after-uses of the quarry lands with agricultural uses;
- Regarding water resources, MHBC indicated that no privately owned wells would be impacted, and that the AMP includes a monitoring and mitigation program;
- Regarding possible blasting effects on the Cedar Hill Trout Pond, MHBC noted that this operation had been discontinued;
- Regarding traffic effects on slow-moving agricultural equipment, MHBC indicated that current traffic patterns will not change except for on 3rd Line and 22nd Sideroad, which are unlikely to be used by agricultural equipment.

OMAFRA's response letter will assist the JART in further evaluating the issues raised in the review to date.

8.9 Visual Impact

Background

The purpose of the NEP “is to provide for the maintenance of the Niagara Escarpment substantially as a continuous natural environment and to ensure only such development occurs as is compatible with that natural environment”. The NEP includes criteria relating to the visual aspects of development, and the specific criteria for mineral extraction operations in the NEP include “the preservation of the natural and cultural landscapes as much as possible during extraction and rehabilitation”. The Plan includes requirements for screening aggregate operations. The NEC has Visual Assessment Guidelines to aid in the implementation of the NEP.

The Halton Hills Official Plan has a number of policies to protect open landscape character and scenic values.

Visual Impact: Process

The reports accompanying the initial package of applications for the proposed extension did not include a visual component, however the JART identified the need for a visual impact assessment, terms of reference were established and a “Visual Impact Assessment” report was prepared by MHBC and submitted in July 2010.

The MHBC report was provided to the Planning working group. Written reviews were prepared by the NEC and the Town of Halton Hills and provided to Dufferin in October 2010. The NEC has requested that the visual impact assessment be revised in accordance with its comments and the terms of reference.

Visual Impact: Issues

The issues raised in the NEC and Town of Halton Hills responses are summarized as follows:

- Staff of the NEC and staff of the Town of Halton Hills concur that due to the existing topography and wooded areas, this proposal has limited visibility except in proximity to the various phases of mining proposed. Therefore the investigation of visibility and viewshed mapping was not required to go beyond the more immediate area, nor was a digital viewshed component required;
- Additional photographs of existing conditions and labelling of features were requested;
- The visual impact assessment does not address all of the applicable objectives and policies in the NEP;

- The proposed physical changes to existing conditions are not identified in an accurate and objective manner, therefore the assessment does not demonstrate that the proposed changes will not affect the Purpose and Objectives of the NEP and the Terms of Reference have not been met;
- The proposal includes the use of berms for visual screening. This is discouraged, except where required for noise attenuation. The provision of berms on the scale of those proposed by Dufferin (i.e. 2-3m) is unacceptable. Vegetative screening is preferred, both for quarry operations and as part of progressive rehabilitation. The Town of Halton Hills also expresses concern over the use of berming;
- The report does not include cross sections and photographic simulations that would identify the change to the landscape, as required by the TOR. Photographs should show in-field staking of road rights-of-way and the thirty metre setbacks, and trees and vegetation to be retained and removed should be shown;
- Line of sight cross-sections and photographic simulations are to be provided in accordance with the NEC Visual Assessment Guidelines;
- Insufficient information has been provided about vegetation inventory and preservation;
- Additional information is required regarding the visibility of portable processing plants in Phases 5 and 6 and Phase 7;
- Further information is required regarding road widenings.

8.10 Planning

Background

The “Aggregate Resources Act Summary Statement and Planning Report” submitted as part of Dufferin’s application package in March 2009 includes a review of applicable planning policies and the ways these relate to the applications. While each of the approving agencies is responsible for interpreting and applying its own policy and regulatory framework, a planning working group was established by the JART comprising representatives from MMAH, MNR, the NEC, Halton Region, the Town of Halton Hills and the two Conservation Authorities as a forum to consider policy issues of mutual interest. The group has held a total of four meetings to date, two of them attended by representatives from the Dufferin team.

In November 2009 the planning working group provided Dufferin with a number of questions to consider, and MHBC provided a response in December 2009. The questions related to:

- The rationale for the proposed licence boundary, which closely follows the perimeter of the extraction area and excludes other areas where mitigation would take place;
- The mitigation infrastructure required to implement the AMP that would be located outside the licenced areas;

- The proposed regulatory framework for monitoring and mitigation on the proposed buffer lands and the roles of agencies and municipalities that might have a mandate for feature protection;
- The concepts of compensation for environmental impacts and net environmental gain;
- The habitat regulation for Jefferson Salamander under the Endangered Species Act;
- Identification and protection of wetlands in the areas covered by the NEP and the Greenbelt Plan (Dufferin provided further supporting material for its calculations);
- The requirement for a visual impact analysis;
- The application of minimum standards and the requirement to “minimize” social and environmental effects
- Current use of part of the site for vehicle storage

In addition, in April 2010 the NEC provided a letter to Dufferin, describing its interpretation on the application of development criteria in the NEP to Dufferin’s applications.

Other issues discussed to date include:

- Whether the applications comprise an extension or a new quarry proposal (or a mixture of both);
- The proposed ecological enhancement plan and a DVD provided by Dufferin for discussion.

9. CONCLUSION

The public is invited to comment on the proposal and this Status Report. Any comments received will be considered and the technical issues identified in this report will be resolved to the extent possible where acceptable solutions are available, before a final JART report is prepared.

FIGURES

The following Figures are referred to in the text and have been copied from Dufferin's supporting materials for its applications. The source for each figure is specified below.

Figure 1: Dufferin Aggregates Acton Quarry Extension Phasing Plan (Figure 2 from Dufferin Aggregates Acton Quarry Extension, *Aggregate Resources Act* Summary Statement and Planning Report”, MHBC Planning, February 2009)

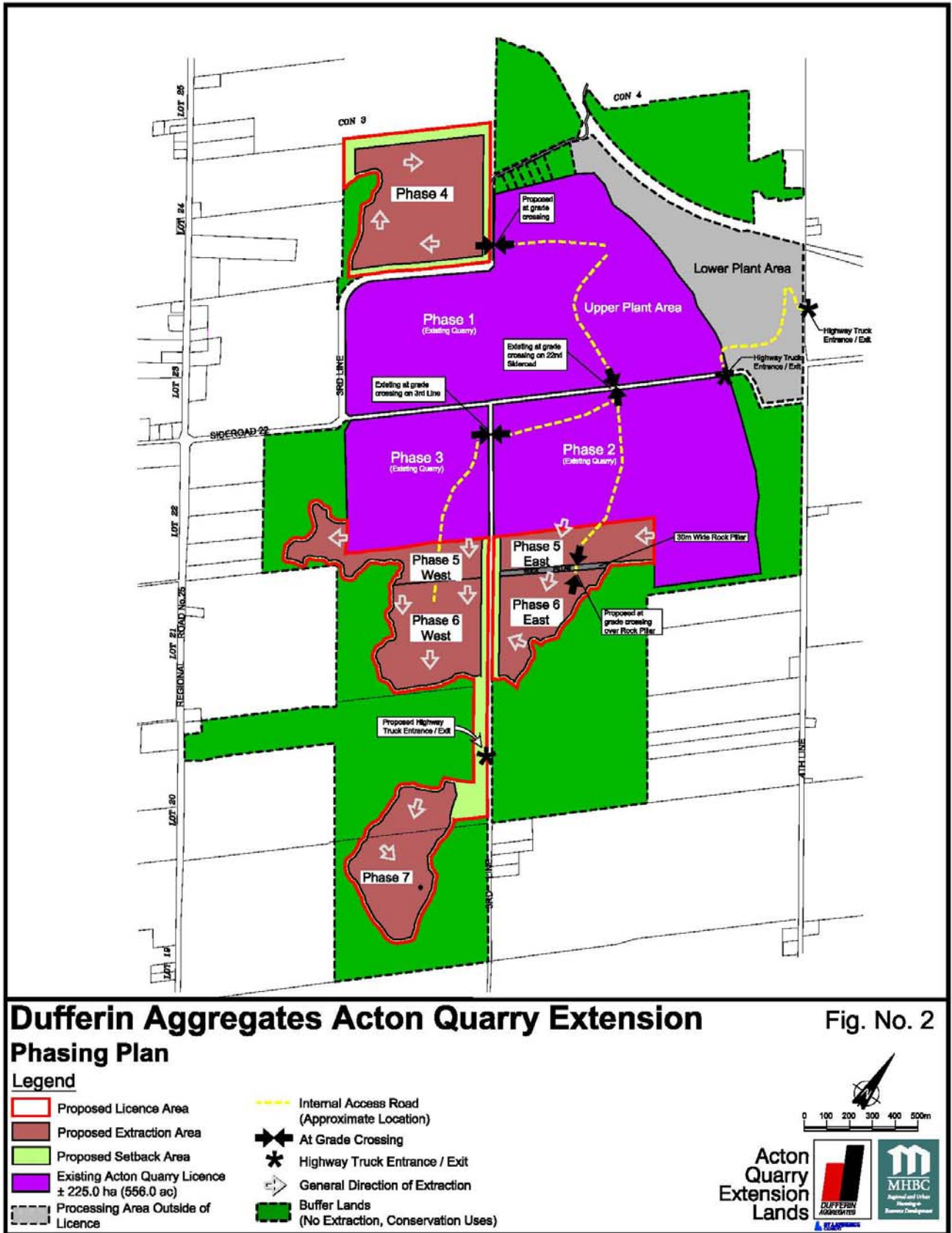


Figure 2: Land Use Plan (Figure 24 from Dufferin Aggregates Acton Quarry Extension, *Aggregate Resources Act Summary Statement and Planning Report*, MHBC Planning, February 2009)

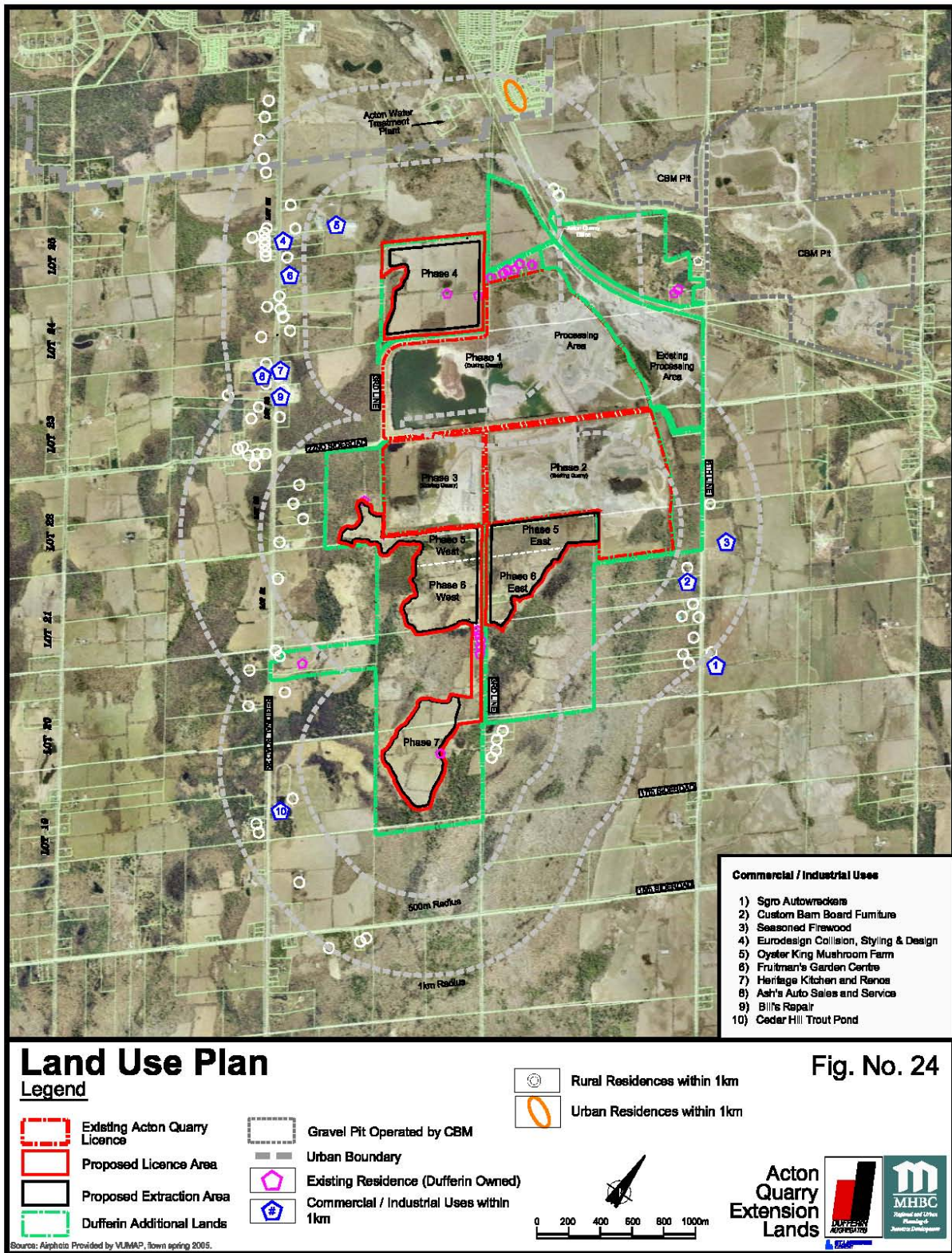


Figure 3: Preliminary Green Line Alignment and PBT Monitored Features, Acton Quarry Extension (Figure 30 from Dufferin Aggregates Acton Quarry Extension, *Aggregate Resources Act Summary Statement and Planning Report*, MHBC Planning, February 2009)

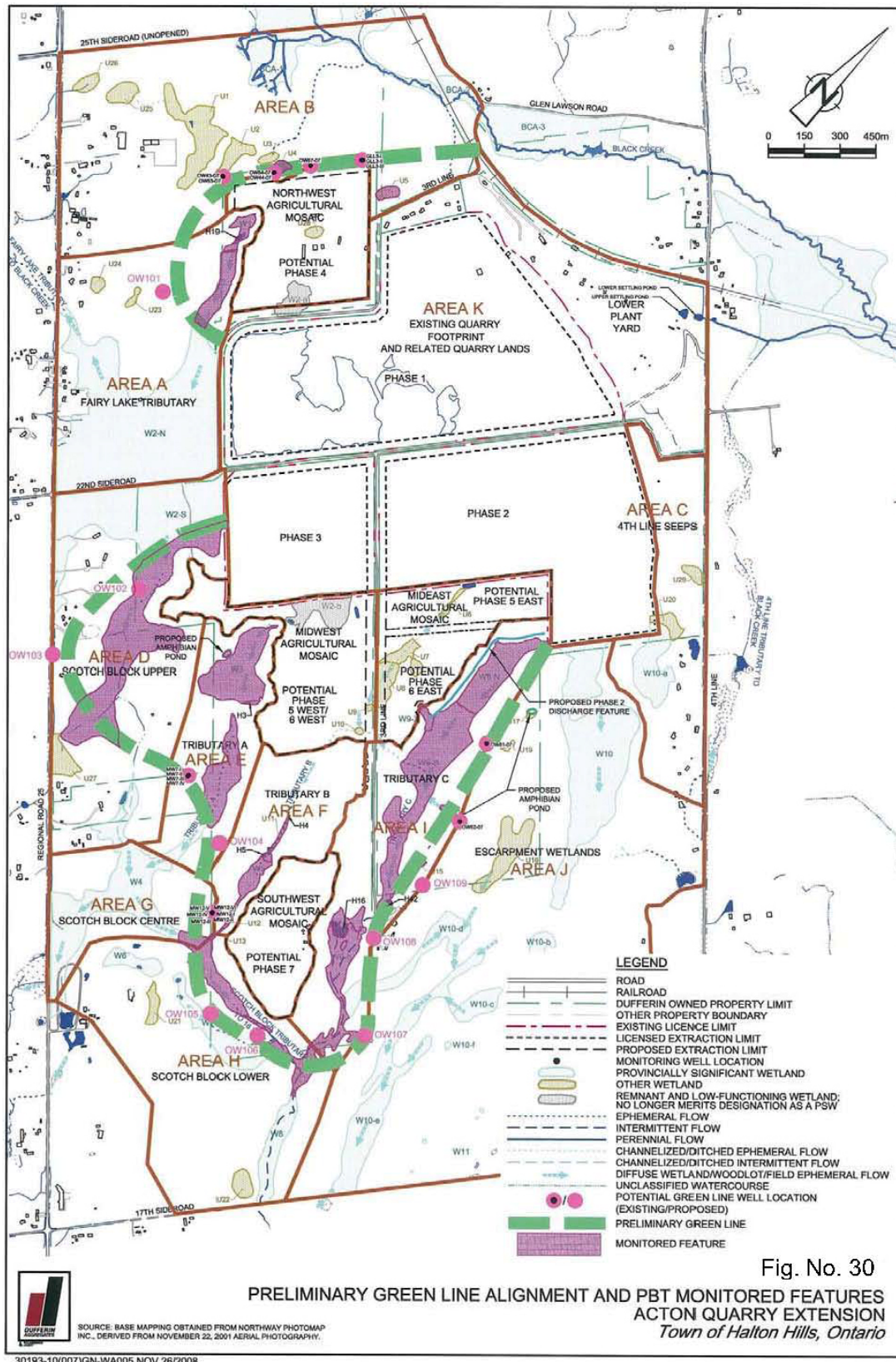


Figure 4: Rehabilitation Concept, Acton Quarry Extension (Figure 9.4 from Geology and Water Resources Assessment Report Volume 2, Conestoga-Rovers & Associates, November 2008)

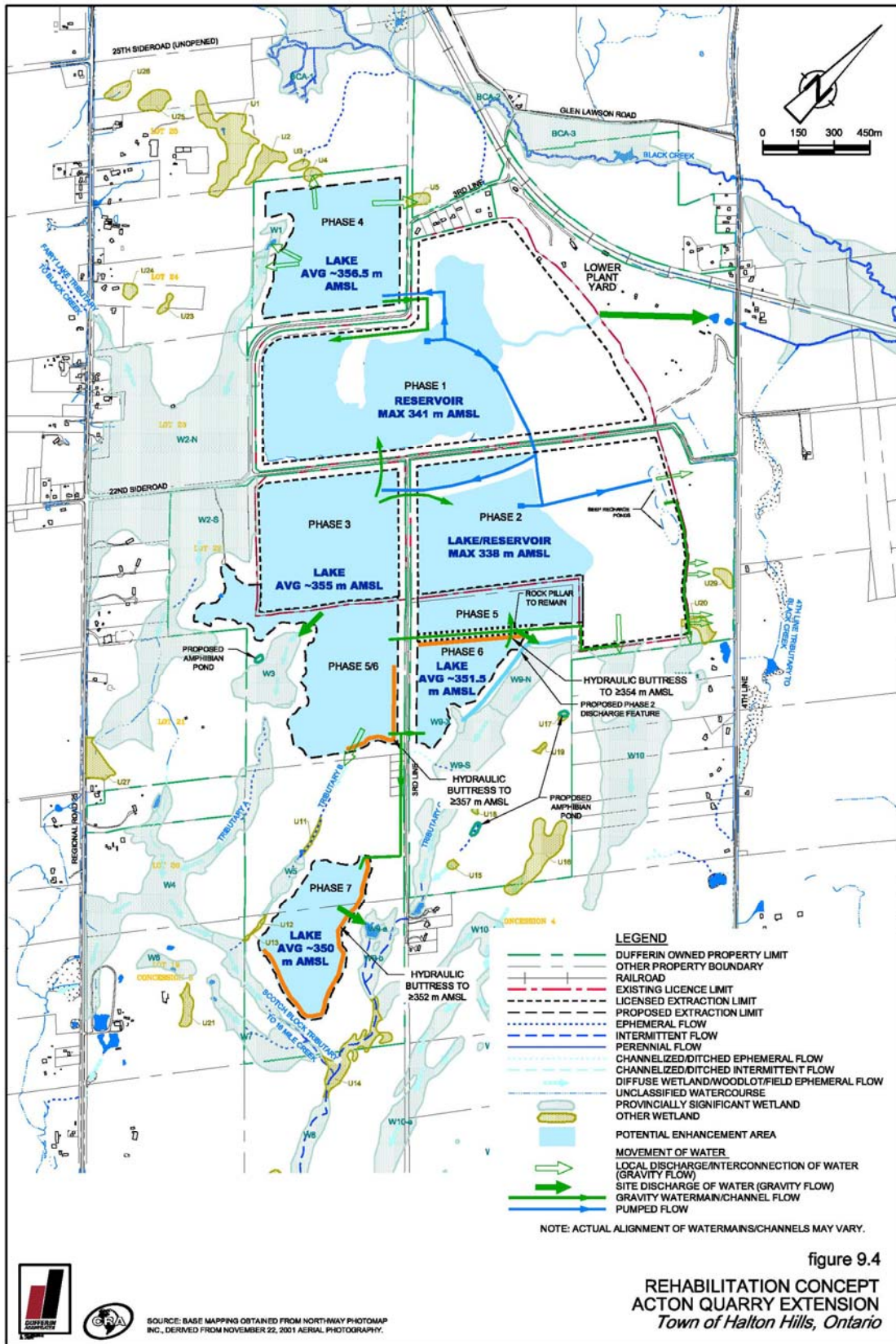


Figure 5: Niagara Escarpment Plan Proposed Amendment (from Appendix B, Dufferin Aggregates Acton Quarry Extension, *Aggregate Resources Act Summary Statement and Planning Report*”, MHBC Planning, February 2009)

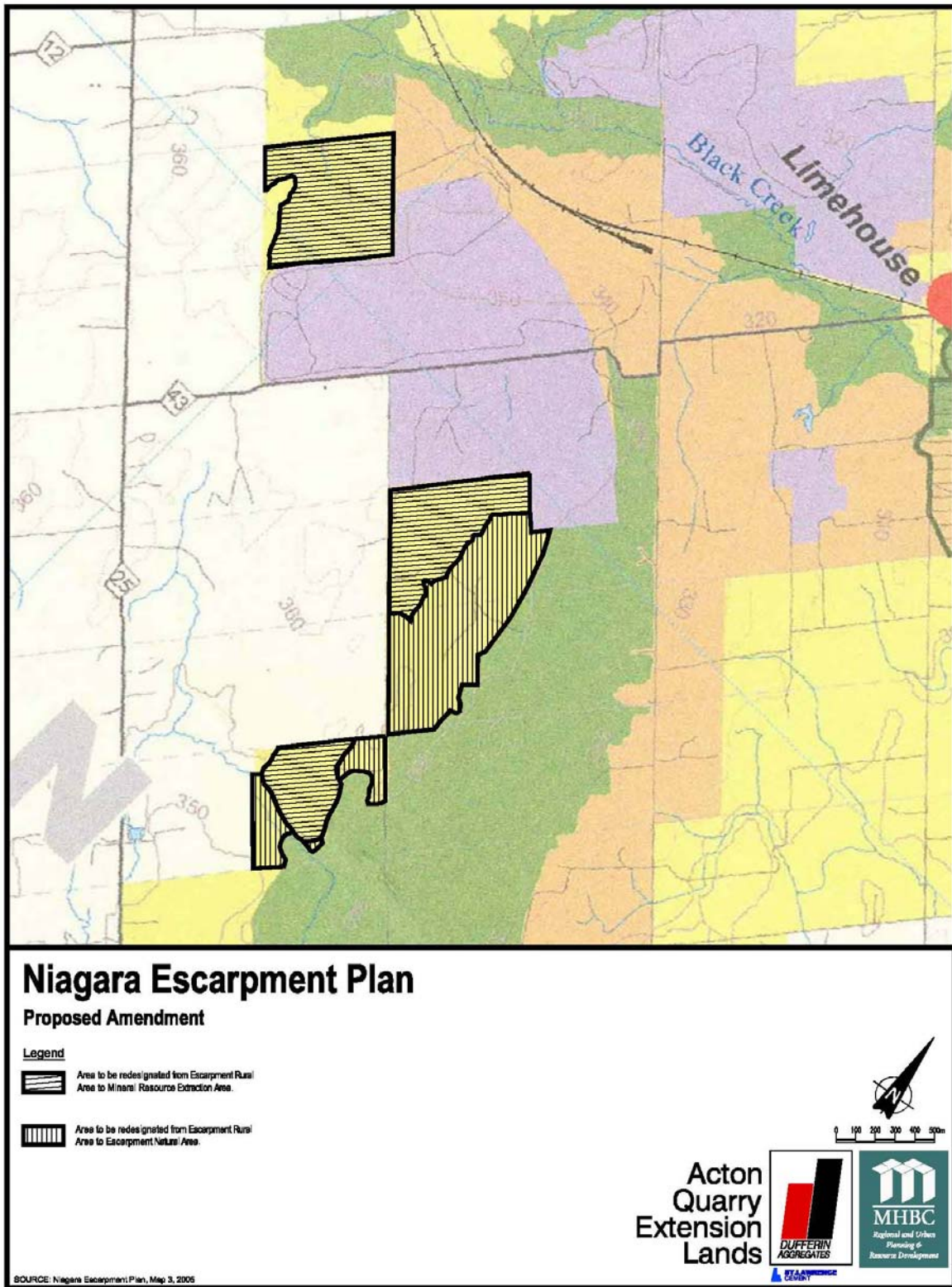


Figure 6: Niagara Escarpment Plan Development Permit (from Appendix B, Dufferin Aggregates Acton Quarry Extension, *Aggregate Resources Act* Summary Statement and Planning Report”, MHBC Planning, February 2009)

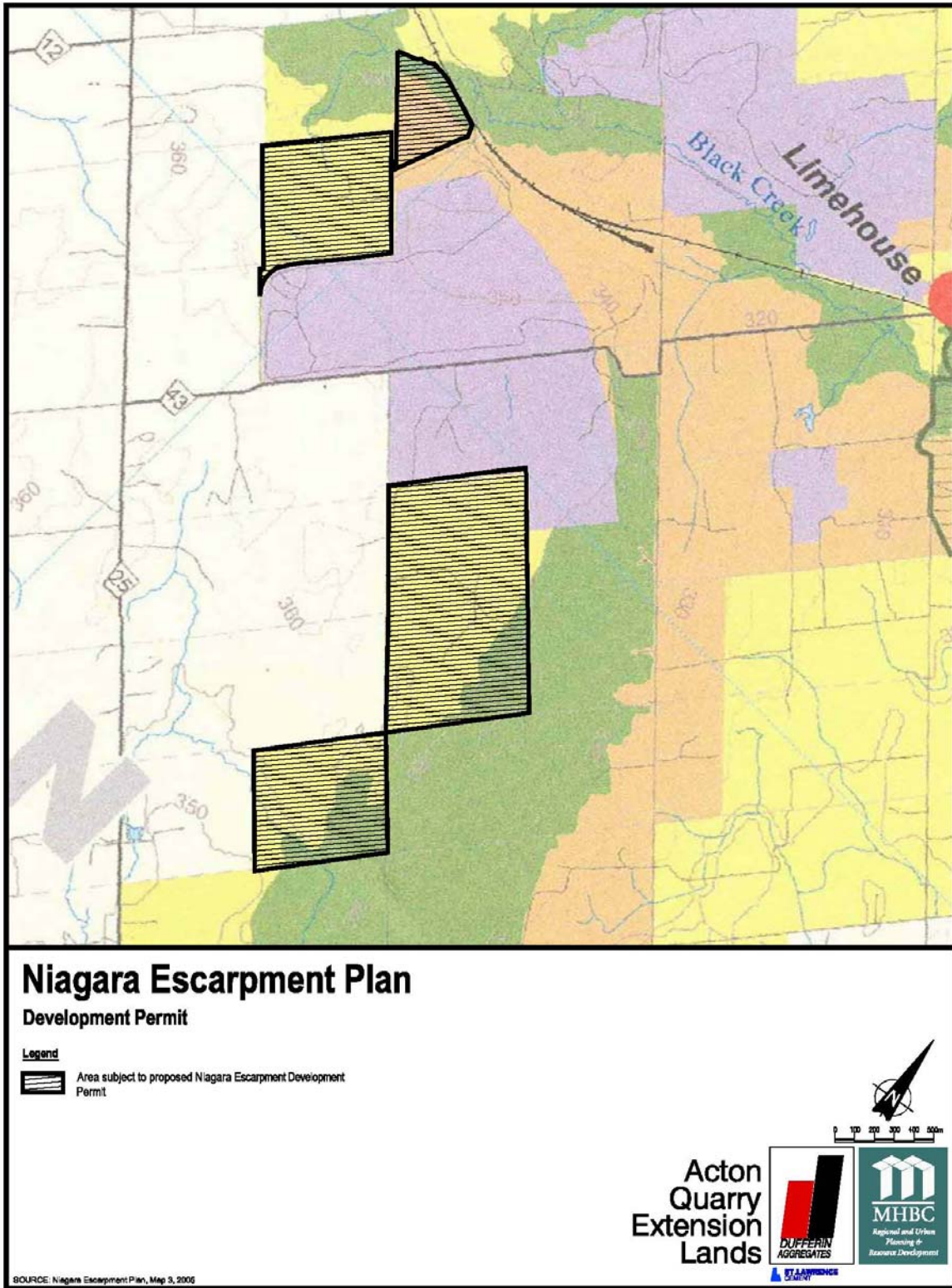


Figure 7: Regional Municipality of Halton Official Plan Proposed Amendment (from Appendix B, Dufferin Aggregates Acton Quarry Extension, *Aggregate Resources Act* Summary Statement and Planning Report”, MHBC Planning, February 2009)

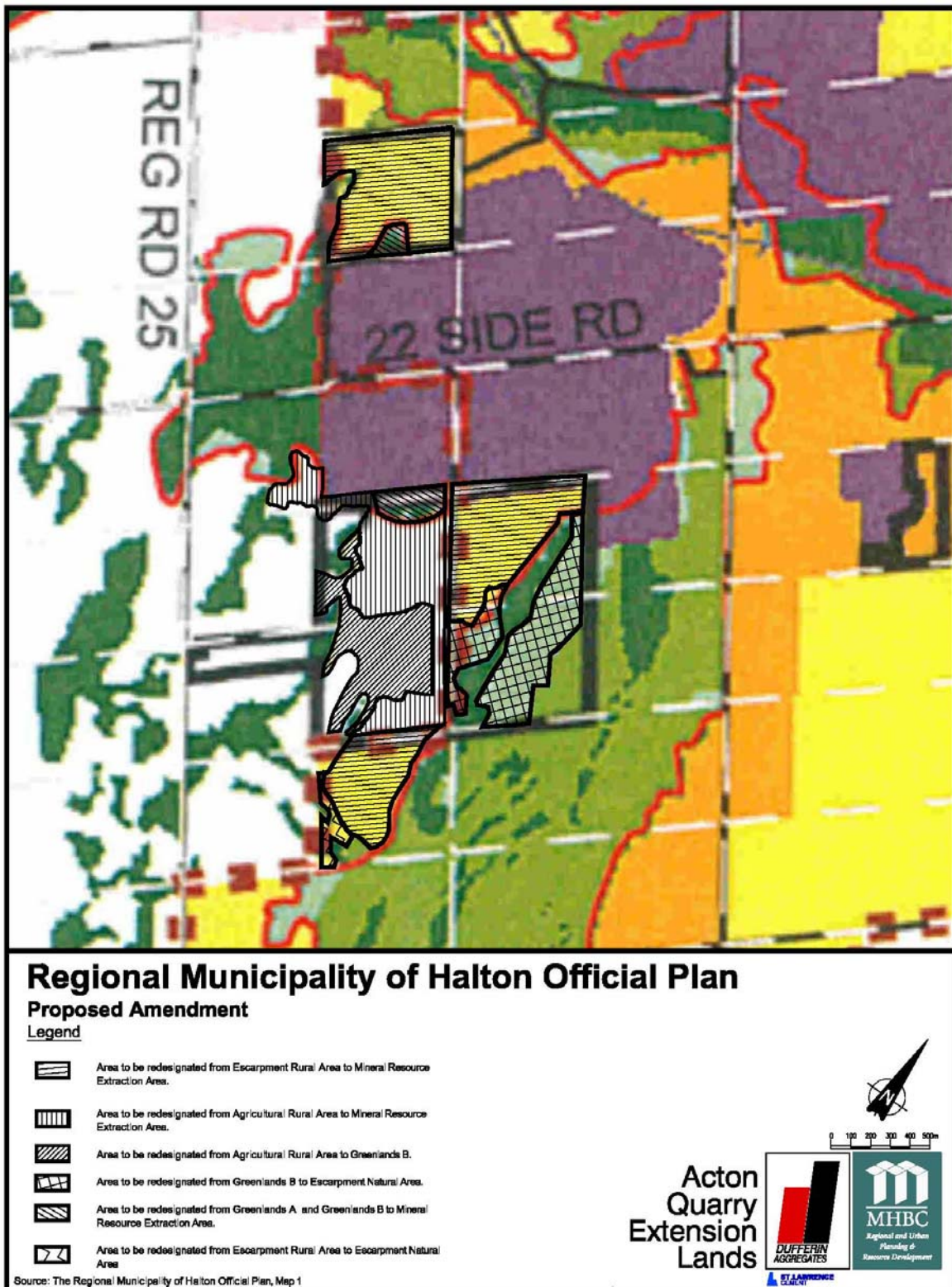
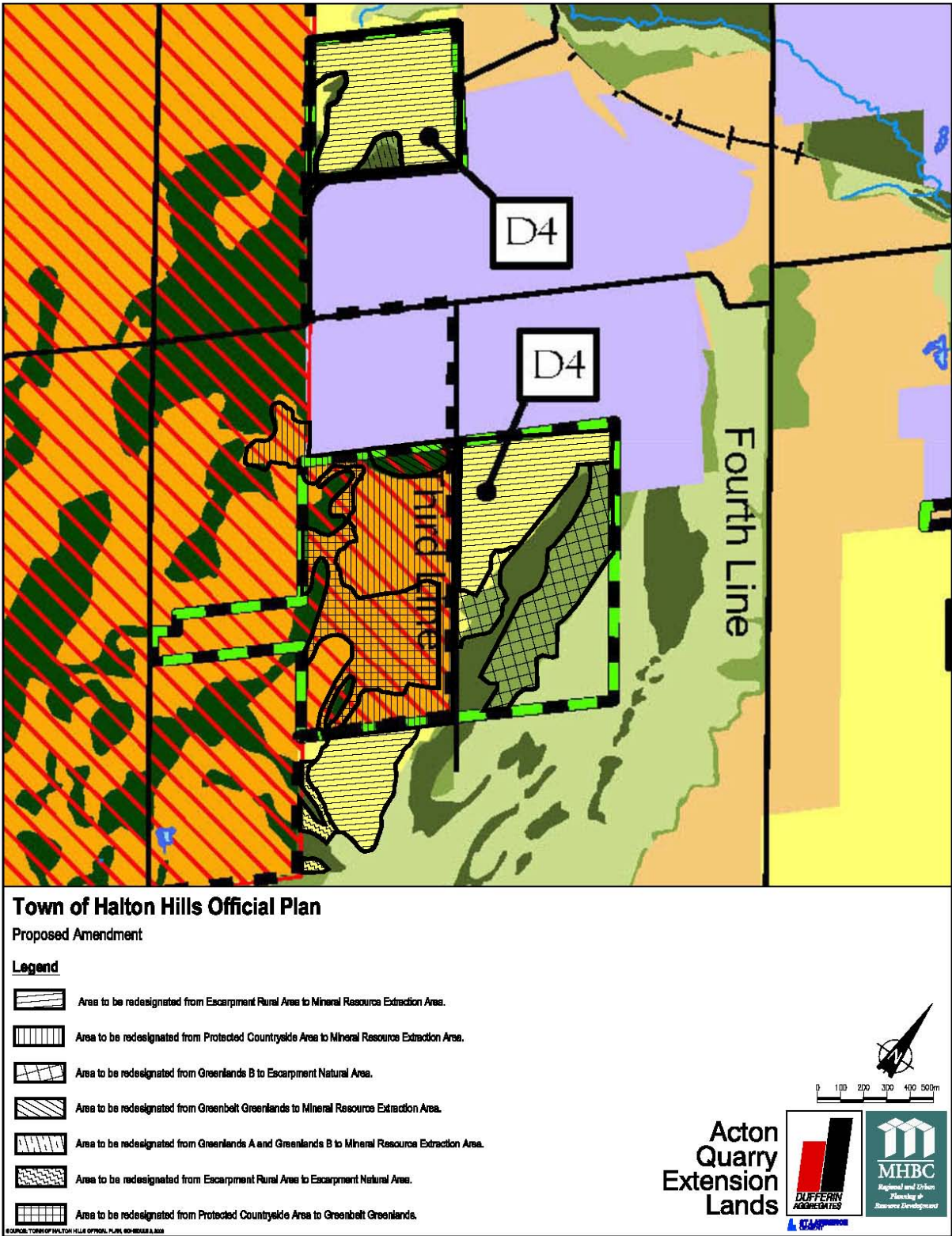


Figure 8: Town of Halton Hills Official Plan Proposed Amendment (from Appendix B, Dufferin Aggregates Acton Quarry Extension, *Aggregate Resources Act* Summary Statement and Planning Report”, MHBC Planning, February 2009)



APPENDIX 1: ACRONYMS USED IN THIS REPORT

AMP: Performance-Based Adaptive Management Plan

ARA: *Aggregate Resources Act*

AROPS: Aggregate Resources of Ontario Provincial Standards, 1997

ASI: Archaeological Services Inc (JART archaeological peer review consultant)

BMP: Best Management Plan

CONE: Coalition on the Niagara Escarpment

C of A: Certificate(s) of Approval under the *Environmental Protection Act* of the Ontario Water Resources Act

CRA: Conestoga-Rovers Associates (water resources consultant to Dufferin)

CVC: Credit Valley Conservation

JART : Joint Agency Review Team

MOE: Ministry of the Environment (MOE)

MHBC: MacNaughton Hermsen Britten Clarkson (planning consultant to Dufferin)

MMAH: Ministry of Municipal Affairs and Housing

MNR: Ministry of Natural Resources

NEC: Niagara Escarpment Commission

NEP: Niagara Escarpment Plan

OMB: Ontario Municipal Board

PBT: Performance-based target (in the AMP)

PPS: Provincial Policy Statement

OMAFRA: Ontario Ministry of Agriculture, Food and Rural Affairs

POWER: Protect our Water and Environmental Resources

PSW: Provincially Significant Wetland

PTTW: Permit to Take Water under the *Ontario Water Resources Act*

TIA: Traffic Impact Assessment

APPENDIX 2: BIBLIOGRAPHY

The following bibliography provides internet links to each document.

Supporting Documentation for the Dufferin Applications

Posted at http://www.dufferinactonquarry.com/en/whatsnew/whats_new.asp

“Application Package for Dufferin Aggregates Acton Quarry Extension”, Dufferin Aggregates, February 2009

“Aggregate Resources Act Site Plans - Acton Quarry Extension”, MHBC Planning, January 2009.

“Aggregate Resources Act Summary Statement and Planning Report”, MHBC Planning, February 2009”

“Geology and Water Resources Assessment Report (3 Volumes) Acton Quarry Extension Town of Halton Hills, Ontario”, Conestoga-Rovers & Associates, November 2008.

“Level 1 and II Natural Environment Technical Report Acton Quarry Extension Town of Halton Hills, Ontario”, Stantec Consulting Ltd., Goodban Ecological Consulting and Ecoplans Limited, December 2008.

“Dufferin Aggregates Acton Quarry Extension Project Noise Impact Study”, Aercoustics Engineering Limited, November 2008.

“Blasting Impact Assessment Dufferin Aggregates Acton Quarry Proposed Extension”, Golder Associated Ltd., November 2008.

“Air Quality Assessment Dufferin Aggregates Acton Quarry Extension Halton Hills, Ontario”, RWDI Consulting Engineers and Scientists, December 2008.

Traffic Impact Assessment Proposed Acton Quarry Extension Town of Halton Hills”, MMM Group, January 2009.

“Archaeological Assessment (Stages 1, 2 & 3) Dufferin Aggregates, a Business Unit of St. Lawrence Cement Inc. Acton Quarry Extension Part of Lots 19, 20, 21 and 22, Concession 3 and Part of Lots 20, 21 & 22, Concession 4 Town of Halton Hills Region of Halton, Ontario”, Archaeologix Inc., November 2008.

“Archaeological Assessment (Stage 4) Dufferin Aggregates, a Business Unit of St. Lawrence Cement Inc. Acton Quarry Extension Part of Lots 19, 20, 21 and 22, Concession 3 and Part of

Lots 20, 21 & 22, Concession 4 Town of Halton Hills Region of Halton, Ontario”, Archaeologix Inc., November 2008.

“Archaeological Assessment (Stages 1, 2 & 3) Dufferin Aggregates, a Business Unit of St. Lawrence Cement Inc. Acton Quarry Extension Part of Lot 24, Concession 3 Town of Halton Hills Region of Halton, Ontario”, Archaeologix Inc., October 2008.

“Cultural Landscape Study and Built Heritage Assessment Dufferin Aggregates, a Business Unit of St. Lawrence Cement Inc. Acton Quarry Extension Part of Lots 19, 20, 21, 22 and 24, Concession 3 and Part of Lots 20, 21 and 22, Concession 4 Town of Halton Hills Region of Halton, Ontario”, Archaeologix Inc., November 2008.

“Agricultural Impact Assessment, Acton Quarry Extension”, MHBC Planning, January 2009.

“Performance-Based Adaptive Management Plan Acton Quarry Extension – Town of Halton Hills, Ontario”, Conestoga-Rovers & Associates, Stantec Consulting Ltd., Goodban Ecological Consulting and Ecoplans Limited November 2008.

“Visual Impact Assessment, Dufferin Aggregates Proposed Extension of the Acton Quarry, MHBC Planning, July 2010.

Legislation

Aggregate Resources Act:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90a08_e.htm

Planning Act:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90a08_e.htm

Policy Documents

Provincial Policy Statement, 2005, Ministry of Municipal Affairs and Housing

<http://www.mah.gov.on.ca/Page215.aspx>

Region of Halton Official Plan, 2006 Consolidation:

http://www.halton.ca/cms/one.aspx?portalId=8310&pageId=26798#PDF_Version

Town of Halton Hills Official Plan May 2008 Office Consolidation

<http://www.haltonhills.ca/planning/policy-op-new-plan.php>

Aggregate Resources of Ontario: Provincial Standards, Ministry of Natural Resources, 1997

http://www.mnr.gov.on.ca/en/Business/Aggregates/Publication/STEL02_173877.html

MNR Aggregate Resources Policy Manual

<http://www.mnr.gov.on.ca/en/Business/Aggregates/2ColumnSubPage/266561.html>

Greenbelt Plan 2005, Ministry of Municipal Affairs and Housing

<http://www.mah.gov.on.ca/Page187.aspx>

Niagara Escarpment Plan

<http://www.escarpment.org/landplanning/plan/index.php>

APPENDIX 3: RECORD OF ACTON QUARRY JART PUBLIC INFORMATION CENTRE #1

JART Pre-Consultation Meeting

March 4, 2008

JART members in attendance:

Kathryn Pounder, Niagara Escarpment Commission (JART Chair)

Nancy Mott-Allen, Region of Halton

Sara Darker, Region of Halton

Paul Burgher, Region of Halton

David VanderBerg, Town of Halton Hills

Dan Banks, Credit Valley Conservation

Liam Marray, Credit Valley Conservation

Ray Guther, Conservation Halton

Brenda Axon, Conservation Halton

Simone Banz, Region of Peel

Halton Hills Councillors in attendance:

Mayor Bonnette

Councillor Somerville

Councillor Lewis

Councillor O'Leary

DFA Staff in attendance:

Mike Davis, VP

Andrea Bourrie, Property & Resource Manager

Kevin Yam, Project Planner

Formal Presentation on JART Process (Presented by Kathryn Pounder)

PPT used and attached to these minutes

- This is the first public meeting that JART is holding for the Acton Extension application. The purpose of this meeting is to present the role of JART, explain the application process, responsibilities of individual agencies and identify opportunities for public input.
- The purpose of JART is to facilitate agencies to work together, share information and expertise, process clarity for all stakeholders, to improve efficiency in decision making associated with aggregate application. In addition, the process benefits JART members by having peer reviewers to review technical studies and to provide recommendations to JART.
- The JART process was set up through the streamlined aggregate protocol, developed by the Region of Halton and the Niagara Escarpment Commission in 2001. In 2004, both Regional council and NEC revised the protocol. It is the only formalized process for agencies to

provide a review of aggregate application. The JART process is not a legislated process. It is to assist agencies and the proponent in processing the application.

- Formal members of JART include the NEC, Region of Halton, Town of Halton Hills, Conservation Halton, Credit Valley Conservation, Ministry of Natural Resources. Additional members include Region of Peel, which will review transportation issues and Ministry of Municipal Affairs and Housing, which will participate in relevant review process. Ministry of Environment will not attend JART meetings but will review materials relevant to its mandate. Other agencies and ministries will be circulated with materials.
- Role of JART. Pre-consultation in the process for proponent to address agencies requirements in the formal application. JART reviews submission package, arranges for peer reviewers, ensures all technical and policy issues are addressed and ensures adequate opportunity for consultation with public. Finally, JART is responsible in preparing a report summarizing agency comments and public input.
- Regarding to pre-consultation period, JART has been reviewing on the Terms of Reference that Dufferin provided to its consultant team. An aggregate resource advisor, Steve Rowe, has been hired by JART to coordinate the review of technical information, consolidate reviews from agencies and to provide advice and administrative support to JART. In addition, JART had already engaged with peer-reviewers in preparation for receiving the application from Dufferin.
- Timing. This process started in June 2006 with the first JART meeting. In January 2007, JART responded the initial Terms of Reference that Dufferin had provided to the consultants. March 2007, Steve Rowe was hired as the aggregate advisor. Dufferin provided the preliminary footprint in October 2007 and following after, Dufferin organized its public information sessions on November 19th, 2007 and January 28th, 2008. Preliminary footprint provided in the slide and boards at the back of the room is still in draft form. Dufferin provided a formal response to JART comments on the Terms of Reference in December, and JART is continuing to prepare a response to those comments.
- After the JART process, individual agencies will comment on application based on agencies' mandates. Formal statutory notice and public meetings will be held. NEC, Region of Halton, Town of Halton Hills and the Ministry of Natural Resources will make decisions independently.
- Required approvals. The proposal by Dufferin would require application to amend the Niagara Escarpment Plan and to obtain a development permit. Under the Planning Act, Dufferin would also be required to apply amendment to the Region of Halton Official Plan, Halton Hills Official Plan and Zoning by-law. In addition, a separate application process through the Aggregate Resources Act under the Ministry of Natural Resource to seek

approval for the license to operate. Various technical approvals under Permit-to-take water and Certificates of Approvals will be obtained.

- The policy framework being considered under this application includes the Niagara Escarpment Planning and Development Act, Provincial Greenbelt Plan, Provincial Policy Statement, Planning Act, Regional and Local Official Plans and the zoning by-law of Town of Halton Hills. The Environmental Protection Act, Water Resources Act and the Aggregate Resources Act establish the policies and regulations that the application needs to follow.
- JART and its peer-review team will review the proposal and technical studies. Technical studies include, water resources, hydrogeology, natural and cultural heritage, transportation, air quality, noise and vibration and archaeology.
- Who makes the decision? There are various levels of approvals that will take place in approving the application. The Minister of Natural Resources will make the decision on approval of the Aggregate Resources License. The Niagara Escarpment Commission will review the amendment application for the Niagara Escarpment Plan. Region of Halton and Town of Halton Hills will make the decisions with respect to the Planning Act and amendment to the Regional and Local Official Plans and re-zoning.
- If the application is being appealed and referred, the Ontario Municipal Board and the Consolidated Hearings Board will further review the application and consider the appeals in the decision making process. At the Consolidated Hearings Board, the Cabinet will make the final decision on the application.
- Both JART and Dufferin have consultation program. JART is committed to take into consideration of all public comments through the review process. In addition, there will be a formal comment period for the license application and the Official Plan amendments, Niagara Escarpment application.
- An amendment is expected to change the escarpment rural area to aggregate extraction area in the Niagara Escarpment Plan. Land use designations of the Region of Halton Official Plan will change from agricultural rural area and Greenland area to mineral resource extraction area.
- There will be separate public process under the Aggregate Resources Act to review the site plan being prepared as part of the application. Though it is a separate process, all agencies will be circulated and provide review on the application.
- What are the next steps? This is a two year process to review the application. Once the application is submitted, JART will initiate the peer-review of the application, present initial review findings at the next JART public information center, and then to follow up with another public information meeting to present final peer-review findings. A JART final

report consolidating the findings and recommendations will be prepared is expected to complete by Summer 2009. Following, statutory public meetings will be held at the Region and the Town to seek council decisions. Staff reports will also be present to the NEC. The Aggregate License Review process is expected to begin in Spring 2010.

- JART encourages any written comments from the public.

Brief Remarks from Dufferin (Presented by Andrea Bourrie)

- Dufferin has been working with JART during the last 18 months to try to understand agencies' initial comments and concerns about the proposal. Based on this initial input from JART, Dufferin is able to incorporate revisions into the pending application.
- Dufferin is expecting to submit the application to JART this spring, possibly in end of March or mid April, subject to resolving a number of issues with JART and finalizing the technical studies.
- In terms of application, the proposed extraction footprint is for 1/3 of Dufferin's total landholdings in the surrounding area of the existing quarry. Remaining land will be dedicated to serve as buffer and environmental enhancements, potential public uses as part of after use of the quarry. These details are still in consideration as part of the approval process. The application for extraction will be targeted for 80 million tonnes of materials, which will supply materials to the Greater Toronto Area.
- Dufferin continues to be committed in the open, transparent process that encourages public input.. Two public information sessions were held in November 2007 and January 2008. A community liaison program is being considered, in consultation with JART, to further engage the public in meaningful dialogue.
- Any members of the public, who are interested in participating in the community liaison program, please contact Dufferin.

Question and Comment Period:

Answers provided, for the most part, by Kathryn Pounder or Nancy Mott-Allen

- *How does the land be changed from protected countryside and rural land use designations to other uses, if the land has already been designated as protected?*
 - The protected countryside is the land use designation from the Provincial Greenbelt Plan. The Greenbelt Plan does not prohibit aggregate uses or protect the land from quarry applications. Under the Greenbelt Act, mineral aggregate extraction is permitted in areas of "Protected Countryside", subjected to all application legislation, regulations and municipal official.

- *Will comments from the public be able influence the process or the outcome of the application?*
 - JART is prepared and committed to include all comments from the members of the public in the review process.
- *Has any aggregate application on the Niagara Escarpment been turned down? Under what conditions, an application was turned down?*
 - There have been different levels of approval that take place in deciding on an application. To this date, there has not been a quarry application in this area that was turned down as the final outcome of the various levels of approval process.
- *Regarding to the current condition of the quarry, the quarry is meeting the provincial blasting limits but there are still damages to nearby properties. Is there anything to be done to review the provincial regulation and limits?*
 - MNR is responsible to ensure quarry operations are meeting the standards of the license. If there are any concerns in the current operations, they must be directed to the MNR for further investigation on the complaints and concerns.
 - Changing provincial limits and standards will require decisions from higher levels of government through legislative means and political representatives.
 - JART is not a decision-making body. Its role is to facilitate the technical process in reviewing the submission of the application. However, JART will take into account of comments made and will respond to them or direct those comments to the decision-making bodies.
- *This area is designated by the United Nations as the Biosphere Reserve. Will the UN be consulted?*
 - UNESCO recognizes the existing NEC Plan in place before designating the area as the biosphere reserve. It recognizes the Niagara Escarpment natural area and protection area that there will not be any aggregate resource extraction within those uses. However, the approved Plan acknowledges that there may be aggregate resource extraction in the Niagara Escarpment rural areas. This is part of the condition of the biosphere reserve, as it provides different uses both protecting the natural environment and resource objectives.
- *Is the application considered “complete” at the point when the submission takes places? Will there be any opportunity for members of the public to participate in JART, as a member at the table?*

- Halton Region and the Town of Halton Hills have developed guidelines in the Official Plans that identified the required studies as part of the application in order to consider the application as “complete”.
 - A formal pre-consultation session was held recently at the Town of Halton Hills with Dufferin to review the required studies for submission.
 - Hard copies of technical information will be made available at the Town and Region’s citizen reference libraries, NEC offices. Information will also be maintained at websites, and ensure there will be equal access to reports.
 - As part of JART requirements, Dufferin will maintain a dedicated website for the Acton Quarry and all information will be posted at <http://www.dufferinactonquarry.com>
 - JART is a technical team, a coordinative body among agencies. There will be a number of formal and informal public meetings that the public can participate and provide comments and inputs.
- *Why the extension is being considered when there are existing problems with wells located on 4th Line?*
 - MOE investigated the issue and determined the impact is not from the quarry.
 - JART will investigate on the hydrogeology impacts with respect to the extension application.
- *Can the application be made before the completion of the aggregate resources study at the Region level and the Province’s State of the Aggregate Resource Report?*
 - Region had initiated the Aggregate Resource Strategy, and Sustainable Halton. These studies are providing the guidance for future development. The application should move forward and take into consideration all studies that will be providing recommendations in the future development of this Region.
- *Is the application applying for an increase for the existing quarry? (answered by Andrea Bourrie, Dufferin Aggregates)*
 - No. The application is not applying for an increase in annual tonnage. The current tonnage is 4.0 million tonnes per year and will remain the same.
- *Will MOE participate in future meetings?*
 - JART will continue to invite MOE to participate in future meetings.