Local Planning Appeal Tribunal
Tribunal d'appel de l'aménagement local

ISSUE DATE: February 11, 2020 **CASE NO(S).:** PL170688

The Ontario Municipal Board (the "OMB") is continued under the name Local Planning Appeal Tribunal (the "Tribunal"), and any reference to the Ontario Municipal Board or Board in any publication of the Tribunal is deemed to be a reference to the Tribunal.

PROCEEDING COMMENCED UNDER subsection 17(40) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended

Appellant:	James Dick Construction Limited
Subject:	Failure of the County of Wellington to announce a decision respecting Proposed Official Plan Amendment No. OP-2016-09
Municipality:	County of Wellington
OMB Case No.:	PL170688
OMB File No.:	PL170688
OMB Case Name:	James Dick Construction Limited v. Wellington (County)

PROCEEDING COMMENCED UNDER subsection 34(11) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended

Applicant and Appellant:	James Dick Construction Limited
Subject:	Application to amend Zoning By-law No. 40/2016 - Refusal or neglect of Township of Guelph/Eramosa failed to make a decision
Existing Zoning:	Agricultural Zone and Environmental Protection Zone
Proposed Zoning:	Extractive Industrial Zone and Environmental Protection Zone
Purpose:	To permit a mineral aggregate extraction operation
Property Address/Description:	8532 Highway 7
Municipality:	Guelph Eramosa
Municipality File No.:	ZBA 06/16
OMB Case No.:	PL170688
OMB File No.:	PL170472

PROCEEDING COMMENCED UNDER subsection 11(5) of the *Aggregate Resources Act*, R.S.O. 1990, c. A.8, as amended

Referred by:	Sharon Rew
Objector:	Shirley Allen
Objector:	Ron & Debbie Brennen
Objector:	John & Ann Brophy
Objector:	Dennis & Laura Campbell; and others
Applicant:	James Dick Construction Limited
Subject:	Application for a Class A licence for the removal of aggregate
Property Address/Description :	Part Lot 1, Concession 6
Municipality:	Guelph Eramosa
OMB Case No.:	PL170688
OMB File No.:	MM150034

Heard: May 21, 2019 for 26 days to July 9, 2019 in the Township of Guelph/Eramosa, Ontario

APPEARANCES:

Parties	**Counsel**
James Dick Construction Limited	David White
County of Wellington	Peter Pickfield and Alex Ciccone
Township of Guelph/Eramosa	Eileen Costello
Regional Municipality of Halton and Town of Halton Hills	David Germain and Denitza Koev
CRC Rockwood Inc.	Chris Barnett

DECISION DELIVERED BY S. TOUSAW AND INTERIM ORDER OF THE TRIBUNAL

INTRODUCTION

[1] This Decision approves a rock quarry on the north side of Highway 7 in the County of Wellington between the settlements of Rockwood and Acton.

[2] The Decision is based on an assessment of the legislative tests under both the *Planning Act* ("Act") and the *Aggregates Resources Act* ("ARA") with respect to a myriad of considerations. Underpinning the Decision and guiding the imposition of conditions is the concept of assigning risk to the economic endeavour in order to minimize risk to the environment and society. The assignment of risk provides a framework for decision-making, necessitated by the inability of the science of hydrogeology to predict effects definitively. Changes to the operation or cessation of extraction must occur, if called for by robust monitoring, to prevent harm to the environment.

[3] Procedural matters that arose at the hearing and warrant a written record are summarized at the end of this Decision.

APPLICATIONS

[4] James Dick Construction Limited ("JDCL" or "Applicant") proposes to operate a sand and gravel pit and rock quarry (together, a "quarry") on a 39 hectare ("ha") property on Lot 1, Concession 6 in the Township of Guelph/Eramosa, situated at the northeast corner of Provincial Highway 7 ("Hwy 7") and Sixth Line Guelph/Eramosa ("6th Line") (the "property" or "site"). The site is underlain by dolostone bedrock, a provincially significant resource used in the manufacture of high quality concrete and asphalt.

[5] In keeping with the approach of all witnesses, for compass directions in this Decision, Hwy 7 is considered to run east-west and its intersecting sideroads are considered to run north-south.

[6] JDCL filed applications with the County of Wellington ("County") for an Official

Plan Amendment (“OPA”) and with the Township of Guelph/Eramosa (“Township”) for a Zoning By-law Amendment (“ZBA”) in 2016 and appealed these files to this Tribunal on the failure of the County and Township to make a decision on the applications within the required time period under the Act. In addition, the Minister of Natural Resources and Forestry (“MNRF”) referred to this Tribunal the objections received to the concomitant licence application filed in 2012 under the ARA. All three matters were heard together at this lengthy hearing.

[7] A similar application for a ZBA from the Applicant came on for hearing before the (then) Ontario Municipal Board in 2016 but was truncated on a process issue with the ZBA. When JDCL restarted the process, the County Official Plan (“COP”) had evolved and a County OPA was then required along with the Township ZBA, both of which are now before the Tribunal. The COP is the operable Official Plan for the Township.

[8] The COP designates the site as Prime Agricultural, Core Greenlands and Greenlands. The OPA proposes to identify the property on Schedule A3 (Guelph/Eramosa) as a Mineral Aggregate Area and to amend Schedule C (Mineral Aggregate Resource Overlay) to remove the overlay from those areas of the site where extraction will not occur due to natural heritage features and setbacks.

[9] The ZBA changes the zoning of the property from Agricultural (A) and Environmental Protection (EP) to Extractive Industrial (M3) and Environmental Protection (EP) with special provisions for each zone.

[10] The application under the ARA seeks a Class A Licence, Category 2 to permit extraction including a quarry below water. Up to 700,000 tonnes per year of aggregates are proposed to be extracted from the site. With some 14 million tonnes of dolostone within the proposed quarry, extraction is expected to last 20 years.

LEGISLATIVE TESTS

[10] In making a decision under the Act with respect to these appeals, the Tribunal must have regard to the matters of provincial interest set out in s. 2 and must have

regard to the decision of the approval authority and the information considered by the approval authority under s. 2.1(1). The decision on the OPA and ZBA must be consistent with the Provincial Policy Statement, 2014 ("PPS") under s. 3(5) of the Act, and the ZBA must conform with the COP under s. 24(1).

[11] In addition, the aggregates licence application must have regard for the requirements of s. 12(1) of the ARA.

[12] The Parties agree that the Growth Plan for the Greater Golden Horseshoe, 2017 and its recent 2019 update, in accordance with policy 4.2.8.7, do not apply to these applications based on the exemption for aggregates applications that commenced as complete applications before July 1, 2017.

[13] The Parties also generally agree, although with minor differences in emphasis, that the Official Plans of the adjacent and nearby municipalities, being the Regional Municipality of Halton ("Region"), Town of Milton ("Milton") and Town of Halton Hills ("Halton Hills"), should be given consideration when evaluating the quarry, but that these applications are not required to conform with those Official Plans.

[14] For the purpose of setting a framework for this Decision, the provisions and policies of greatest prominence to this matter are set out below. All of the relevant tests in dispute, as addressed by the various qualified witnesses, are examined in detail later in this Decision.

[15] These applications invoke most of the provincial interests set out in s. 2 of the Act to which the Tribunal must have regard:

> (a) the protection of ecological systems, including natural areas, features and functions;
>
> (b) the protection of the agricultural resources of the Province;
>
> (c) the conservation and management of natural resources and the mineral resource base;
>
> (d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;
>
> (e) the supply, efficient use and conservation of energy and water;
>
> (f) the adequate provision and efficient use of … transportation … systems;

…

(h) the orderly development of safe and healthy communities;

…

(k) the adequate provision of employment opportunities;

(l) the protection of the financial and economic well-being of the Province and its municipalities;

(m) the co-ordination of planning activities of public bodies;

(n) the resolution of planning conflicts involving public and private interests;

(o) the protection of public health and safety;

(p) the appropriate location of growth and development;

…

(r) the promotion of built form that,

(i) is well-designed,

(ii) encourages a sense of place, and

…

(s) the mitigation of greenhouse gas emissions and adaptation to a changing climate.

[16] These provincial interests are expounded in the PPS, with the policies of greatest prominence in this matter set out below.

1.2.6.1 *Major facilities* [including resource extraction] and *sensitive land uses* [including dwellings] should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate *adverse effects* from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of *major facilities*.

2.1.4 *Development* and *site alteration* shall not be permitted in:

(a) significant wetlands …

2.1.5 *Development* and *site alteration* shall not be permitted in: …

b) significant woodlands …

d) significant wildlife habitat …

e) significant areas of natural and scientific interest …

unless it has been demonstrated that there will be no *negative impacts* on the natural features or their *ecological functions*.

2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

2.1.7 Development and site alteration shall not be permitted in *habitat of endangered species and threatened species*, except in accordance with *provincial and federal requirements*.

2.1.8 Development and site alteration shall not be permitted on *adjacent lands* to the *natural heritage features and areas* identified in policies 2.1.4, 2.1.5 and 2.1.6 unless the *ecological function* of the *adjacent lands* has been evaluated and it has been demonstrated that there will be no *negative impacts* on the natural features or on their *ecological functions*.

2.2.1 Planning authorities shall protect, improve or restore the *quality and quantity of water* by: …

e) implementing necessary restrictions on *development* and *site alteration* to:

1. protect all municipal drinking water supplies and *designated vulnerable areas*; and

2. protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions.

2.2.2 *Development* and *site alteration* shall be restricted in or near *sensitive surface water features* and *sensitive ground water features* such that these features and their related *hydrologic functions* will be protected, improved or restored.

Mitigative measures and/or alternative development approaches may be required in order to protect, improve or restore *sensitive surface water features*, *sensitive ground water features*, and their *hydrologic functions*.

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

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

3.1.1 Development shall generally be directed to areas outside of: …

b) hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards.

[17] For an aggregates licence application, s. 12(1) of the ARA requires the Tribunal to have regard to the following matters:

(a) the effect of the operation of the pit or quarry on the environment;

(b) the effect of the operation of the pit or quarry on nearby communities;

(c) any comments provided by a municipality in which the site is located;

(d) the suitability of the progressive rehabilitation and final rehabilitation plans for the site;

(e) any possible effects on ground and surface water resources including on drinking water sources;

> (f) any possible effects of the operation of the pit or quarry on agricultural resources;
> (g) any planning and land use considerations;
> (h) the main haulage routes and proposed truck traffic to and from the site;
> (i) the quality and quantity of the aggregate on the site;
> (j) the applicant's history of compliance with this Act and the regulations, if a licence or permit has previously been issued to the applicant under this Act or a predecessor of this Act; and
> (k) such other matters as are considered appropriate.

[18] The COP identifies this site as a Sand and Gravel Resource Area and a Bedrock Resource Area on Schedule C and located within the Paris Galt Moraine. The Moraine is identified as an important groundwater recharge area for water resources and baseflow to streams. Groundwater and surface water must be protected when considering large scale developments such as mineral aggregate operations (s. 4.9.7).

[19] The COP considers plantations over 10 ha as significant woodlands except for:

> a plantation established and continuously managed for the sole purpose of complete removal at rotation without a reforestation objective, as demonstrated with documentation acceptable to the County. (s. 5.5.4)

[20] Adjacent lands to significant natural features are considered to be within 120 metres ("m") of identified features. The COP sets out requirements for new mineral aggregate operations that reflect the matters outlined above. To the impacts and effects of a proposed operation, the COP directs:

> It is essential that extraction be carried out with as little social and environmental cost as practical. Provincial standards, guidelines and regulations will be used to assist in minimizing impacts. (s. 6.6.5)

FRAMEWORK FOR DECISION-MAKING

[21] The PPS contains certain policies, as supported by s. 2 of the Act and s. 12(1) of the ARA, that are definitive, uncompromising and clear in their intent. For example, aggregates extraction, being a form of development and site alteration, is not permitted in significant wetlands. Similarly, extraction is not permitted in fish habitat or in the habitat of threatened and endangered species, except as may be permitted by provincial or federal policies - exceptions the Applicant is not relying on here.

[22] Extraction is also not permitted in significant woodlands, in significant wildlife habitat, or on lands adjacent to any of these natural features, unless it has been demonstrated that there will be no negative impacts on those features and their ecological functions. Extraction must protect drinking water and sensitive surface and groundwater features.

[23] With some exceptions explored later, the Parties generally agree on the features requiring protection: provincially significant wetlands on and around the site, fish habitat to the south, the habitats of endangered or threatened birds, bats and turtles, the floodplain of the watercourse, and groundwater.

[24] The PPS, like the COP, also contains policies that allow for some qualified impact. Resource extraction must prevent or mitigate adverse effects on sensitive uses, and must minimize social, economic and environmental impacts. Also, development is generally directed to areas outside of flooding hazard limits.

[25] In short, the legislation and policies first impose mandatory protection of natural heritage features and groundwater, then allow for certain qualified impacts to surrounding uses and floodplains, and finally, require regard for numerous other considerations. If these tests can be satisfied, then the aggregates extraction activity may be approved.

[26] The Tribunal finds that the resolution of these tests can be determined by the level and assignment of risk. There can be no risk to a defined natural feature to the extent of degradation that threatens the health of the feature or its functions. There can be some risk of social, economic or other environmental impact (except for the protected features) if it is minimized and mitigated.

[27] The effect of the quarry on natural features is largely driven by hydrogeology. As discussed later, the approach used in such applications is to model the hydrogeologic effects of extraction to assess whether it appears feasible to meet the tests. If the modelled and assessed conclusion is that there will be no impacts on the features and their ecological functions, then monitoring and contingency plans are prepared with the

intent that “no impact” is the result in reality. The legal tests mandate this approach for protected features.

[28] Within a framework of assigning risk, the uncertainty of the studies must not result in an undue risk to the environment. Procedures and commitments are required to ensure that, in the event of something unforeseen or not predicted in the modelling, the risk lies with the economic endeavour rather than the environment. Contingencies and mitigation are required before harm is inflicted on the protected features. Depending on the circumstances, contingencies may include ceasing extraction or implementing other actions to protect the natural features.

[29] The assignment of risk imposes costs on the economic endeavour that will likely be reflected in the cost of the product in the market. In this way, environmental costs are not externalized by way of a degraded environment, but internalized as a cost of production to protect natural features, which the Applicant, and in turn, society, must bear according to the public interests expressed by the Act, the PPS and the ARA.

[30] Thus, this Decision is determined on the basis of the reasonable assignment of risk. The evidence on each issue is evaluated against the legislative tests, generally following the prioritized order of main issues identified by the Parties in argument. Where modelling and other assessments lead to a finding of anticipated compliance with the tests, measures are then considered to ensure that expectations are realized or the operation ceases. Measures are imposed that are substantive, thorough, costly and necessary to ensure that the development does not proceed, or ceases after commencement, if monitoring detects a potential negative effect in contravention of the legislative tests.

[31] There is never “no effect” on the environment from development, but if risk can be assigned to the economic endeavour in such a way as to protect the environmental features and functions at the standard of the legislative tests, then a development may proceed.

PARTIES AND SUMMARY POSITIONS

[32] The primary Parties are JDCL, the Regional Municipality of Halton ("Region") and the Town of Halton Hills ("Halton Hills") (together "Halton"), and CRC Rockwood Inc. ("CRC") representing hundreds of community members. The other two Parties – the County of Wellington ("County") and the Township of Guelph/Eramosa ("Township") – had limited engagement in the hearing.

[33] In the vicinity of the site, Hwy 7 separates Wellington County to the north from the Regional Municipality of Halton to the south. Halton's issues encompass the Region's concerns for groundwater and natural heritage features to the south of the site within Milton, and Halton Hills' concerns for truck traffic on the haul routes to the east of the site, particularly through the settlement of Acton. CRC's issues encompass virtually all aspects of the issues set out in the Procedural Order which may be generalized as matters of incompatibility with both the environment and society.

[34] The Issues List ("IL") approved for this hearing contains some 76 issues, many of which contain multiple elements. Each of these issues is addressed in this Decision either directly or by inference given the inherent connections between issues.

[35] The Township is opposed to the applications by resolution passed after considering public input, the reports of its peer reviewers, and its conclusion of no demonstrable economic benefits from the quarry to the Township. The Township did not participate in the hearing, except to attend the beginning and end of the hearing to apprise the Tribunal of its position and to provide recommended conditions should the Tribunal approve the quarry.

[36] The County's participation in the hearing was limited to a few relatively narrow issues pertaining to hydrogeology. On the advice of its consulting ecologist, the County has no unresolved issues related to natural heritage. Somewhat perplexing to the Tribunal was the absence of a planning report from the County, despite the number of years these applications were in process. The consulting Planners were not aware of a County planning report and were unable to refer to one in evidence. The Tribunal finds

this void unusual and unhelpful when the views of the upper tier approval authority, at least as expressed by its staff conversant with the COP, are unknown.

[37] JDCL requests the Tribunal to allow the appeals and approve the OPA and ZBA, together with a direction to the MNRF to issue the ARA licence with conditions. JDCL submits that its applications fulfill the PPS direction to liberate aggregates resources close to market where possible, that it has satisfied all of the requisite tests and that the monitoring and mitigation plans will ensure the protection of the environment and the community.

[38] Halton, while acknowledging that its issues are capable of resolution, argues that the applications in their present form do not satisfy the tests, and that the necessary work and instruments to satisfy the tests must be required in advance of approval. Central to Halton's argument is that two agreements are required, before approval, to address legislative requirements: a haul route agreement ("HRA") with Halton Hills regulating the number of trucks on Mill Street in Acton, and a long-term access agreement for the Brydson property to ensure uninterrupted monitoring of the Brydson Creek.

[39] CRC requests the Tribunal to dismiss the appeals and refuse the applications. CRC argues that the groundwater model is fraught with uncertainties that fail to ensure the protection of natural features, and that JDCL imposed an arbitrary limit on the extent of its environmental studies and failed to properly evaluate the surrounding wetlands, wildlife habitat and fish habitat. CRC submits that JDCL was aware of all the issues, some for years, and yet failed to address them fully in advance of the hearing. It argues that, because peer reviews are essential to verify the accuracy of conclusions, a further opportunity to meet the legislated tests should not be provided by way of a withheld order or conditions to approval because the applicant has failed or refused to correct these deficiencies in preparation for this hearing.

WITNESSES AND EXHIBITS

[40] A total of 41 witnesses testified over the 26 days of hearing.

[41] Thirty professional witnesses testified, as listed in the following table. The Parties proffered experts in various disciplines, each of whom was qualified by the Tribunal to provide opinion evidence within his/her area of expertise shown in the table. Professional designations are listed as “P.Eng” for Professional Engineer, “P.Geo” for Professional Geoscientist, and “RPP” for Registered Professional Planner.

Discipline	JDCL	Halton	CRC	County
Hydrogeology	Stanley Denhoed, P.Eng Dr. Stephen Worthington, P.Geo	Norbert Woerns, P.Geo Daryl Cowell, P.Geo	Garry Hunter, P.Eng	David Hopkins, P.Geo
Ground Penetrating Radar	Peter Giamou, P.Geo		Stephen Watson	
Water Resources / Hydrology	Daniel Hurley, P.Eng			
Ecology	Greg Scheifele	Mirek Sharp	Zackary Harris Karl Konze	
Aquatic Biology / Fisheries	Dr. Christopher Wren		Dr. Karl Schiefer	
Visual Assessment	Glenn Harrington			
Cultural Heritage	Peter Stewart			
Traffic	Kim Nystrom, P.Eng	John McGill, P.Eng		
Road Safety	Gerald Forbes, P.Eng	Russell Brownlee, P.Eng		
Air Quality	Brian Sulley,			

	P.Eng			
Noise	Robert Rimrott, P.Eng			
Blasting	Robert Cyr, P.Eng	Ray Jambakhsh, P.Eng		
Aggregates Site Plans and Agrology	Robert Stovel, RPP			
Aggregates Site Plans	Anne Guiot, RPP		Garry Hunter, P.Eng	
Land Use Planning	Michael Wynia, RPP	Nick McDonald, RPP	Mark Dorfman, RPP	
General (not qualified as an expert)	Greg Sweetnam		William Hill	

[42] Two experienced and informed, but non-expert, witnesses testified: Greg Sweetnam, a senior executive with JDCL, and William Hill, a retired mining engineer with blasting experience who is a member of CRC and resides to the north of the site on 6th Line. In addition, 9 Participants/Objectors provided their oral and written statements to the Tribunal.

[43] The evidence in this hearing spans some 171 exhibits, most of which are volumes of documents that together amount to thousands of pages. Much of this evidence was utilized during the hearing and the Tribunal relies on the exhibits and parts thereof to which counsel and witnesses directed attention when addressing the issues. Exhibits are referenced in this Decision in parentheses using up to three numbers: e.g., (171) means Exhibit 171; (64-79) means Exhibit 64, page 79; and (18-14-66) means Exhibit 18, Tab 14, page 66.

PROPOSED QUARRY

[44] Ontario's population is growing and much of that growth is focussed in the south-

central part of the province within and around the Greater Toronto Area ("GTA"). Serving the societal needs of that growth requires water and sewer infrastructure, roads and bridges, housing, shops and services, places of employment, and public facilities such as libraries, schools and hospitals. All of those needs rely on aggregates – sand, gravel and crushed rock – used by the building industry in the production of concrete, asphalt, and other materials. According to the evidence, the annual consumption of aggregates in Ontario equates to about half a truckload per person per year. Each Ontario resident contributes to this demand and each resident benefits from it.

[45] Aggregates are sourced from pits and quarries, being a use of land perhaps only marginally more popular than landfill sites. Each of us requires the services provided by quarries and landfill sites, and yet each of us would prefer to not live near one.

[46] JDCL operates several pits and quarries surrounding the GTA including the Guelph Quarry abutting the west side of the City of Guelph ("Guelph"). JDCL operates a fleet of trucks to deliver its aggregates to market, primarily within the north and west parts of the GTA.

[47] The proposed quarry would mine dolostone of the Amabel formation, the highest quality of rock for making concrete or asphalt. Unlike limestone, dolostone creates a solid bond with cement and does not contain alkali-reactive elements that can weaken concrete over time. The resulting superior concrete and asphalt means that infrastructure lasts longer and requires fewer and less frequent repairs. No Party disputes that dolostone is a provincially significant resource, as noted in the Aggregate Resource Inventory Paper 162, Wellington County, 1999 (18-14-66).

[48] The PPS does not require a demonstration of market need for aggregates. Nevertheless, Mr. Sweetnam informed the Tribunal of the general nature of the aggregates market in support of the quarry. He advises that each person in Ontario "consumes" or is responsible for a half truckload of aggregates each year. According to Mr. Sweetnam, half of Ontario's aggregates production is used for public projects – roads, bridges, hospitals, schools, etc. – and the other half for private projects such as residential, commercial and industrial development. Mr. Sweetnam outlined that,

despite continued demand, the production of dolostone has declined to the west of the GTA over the past two decades as new applications and approvals have not kept pace with the depletion of existing quarries. He emphasizes the need for new sources close to market to ensure an economical supply of quality rock involving shorter truck trips and lower emissions when compared with more distant quarries.

[49] At a rate of extraction of 700,000 tonnes per year, the quarry is expected to last 20 years. JDCL purchased the property in the 1980s in recognition of its aggregates resource potential and has consistently indicated its intention to pursue extraction to various public authorities over the years, mostly in connection with various planning processes at the Township and County levels.

[50] The property contains several natural features: a wetland in the northwest corner (the “NW Wetland”), an intermittent stream and associated floodplain referred to as Tributary B (“Trib B”), naturalized woodlands in the southeast quadrant, and a large plantation of pine and spruce trees established by a previous owner some 50 years ago. According to Mr. Stovel, due to its limited agricultural capability, the land was reforested for either timber production or to hasten natural forest regeneration. Consistent with its documented intent to develop a quarry, JDCL maintains that it has managed the plantation for complete removal at harvest, at such time as is necessary for each phase of the quarry. JDCL’s naming of the “Hidden Quarry” appears to reflect its intent to retain the mature plantation trees as a visual screen around the perimeter of the property, along with other screening measures, and to not harvest sections of the plantation until required for aggregates extraction.

[51] As explained by Mr. Stovel, a total area of 24.3 ha would be extracted and the quarry would proceed in three successive phases. As shown on the site plan (171), Phase 1 would begin with site preparation by removing trees and extracting overburden to establish the site’s processing area in the southwest quadrant of the site, build the internal haul road and construct perimeter berms for noise and visual attenuation. Other site preparations such as landscape plantings and the installation of hydraulic barriers (discussed later) would be established as required for each phase.

[52] Most of the bedrock is situated below the water table. Subaqueous mining will be employed, meaning that the rock will be extracted from below the water without dewatering the quarry. Some witnesses described the process as digging a large pond very slowly over many years.

[53] The extraction of dolostone in Phase 1 would begin with a sinking cut along the north boundary and proceed southward within the northwest quadrant of the site. Phase 2 would begin with the construction of an internal road crossing over Trib B and proceed with extraction in the northeast quadrant. The final Phase 3 would extract remaining overburden and bedrock from the southwest quadrant including the gradual elimination of the site's processing area until extraction is complete.

[54] With progressive rehabilitation, the end state of the property will include two large ponds of 13.9 ha on the west side of Trib B and 3.5 ha on the east side. Trib B would become an elevated intermittent stream, situated within its original floodplain above the level of the final extraction ponds. Similarly, the NW Wetland and natural woodlands would remain at their current elevations on higher ground. The pond edges would be rehabilitated with a variety of environments including rock cliffs, revegetated slopes, wetlands and shallows.

[55] Mr. Stovel advises that best practice calls for all technical recommendations to be listed on the site plans, whenever possible, for proper implementation and enforcement. The six sheets comprising the site plan (171) were updated through the course of the hearing to include various additional technical requirements, with which the Applicant or its witnesses agreed, arising from the expert testimony of all Parties. With this Decision, additional changes to the site plan notes are required.

SURROUNDING AREA

[56] As noted, the proposed quarry is located on the north side of Hwy 7 between Rockwood and Acton. Rockwood is a growing village within the Township and its nearest residential area is approximately 1 kilometre ("km") northwest of the quarry site. Acton is a growing town within Halton Hills situated approximately 7 km east of the site.

[57] A variety of land uses surround the site. To the west and northwest of the site on the west side of 6th Line, two farm holdings of approximately 40 ha each are owned, directly or indirectly, by JDCL. To the north of the site, on the east side of 6th Line, are a small lot with a dwelling adjacent to the NW Wetland, a 4.4 ha mushroom farm with residence abutting the north side of the site, and a 35 ha farm with residence also flanking the north side of the site and containing the Allen Wetland, one of the key features in this case. To the northeast of the site, on the west side of 7th Line, are four small farm holdings ranging from 1.4 ha to 10 ha, and a larger 89 ha farm containing the De Grandis pond, also one of the key features in this case. All of the foregoing properties are designated in the COP as Prime Agricultural with their natural areas designated as Core Greenlands or Greenlands.

[58] Abutting the southeast corner of the site is a 2.2 ha parcel with a dwelling, previously separated from the original farm containing the site. Beyond that house to the east along the north side of Hwy 7 and fronting both sides of 7th Line are numerous industrial uses within an area of more than 100 ha designated as Rural Employment Area in the COP.

[59] Across Hwy 7 to the south of the site in Milton are a 15 ha farm with a dwelling, a 4 ha commercial/industrial enterprise, a dwelling on 0.4 ha, and a 52 ha farm known as the Brydson property containing the other key features in this case referred to as the Brydson spring, pond and creek (collectively “Brydson Creek”). These properties are within the Agricultural Area and Greenbelt Natural Heritage System on the Regional Structure Map 1, and the natural features on the Brydson property are identified as Key Features within the Greenbelt and Regional Natural Heritage Systems Map 1G, all within the Region Official Plan.

NATURAL FEATURES

[60] As noted above, several natural features on and around the site figure prominently in the assessment of the legislative tests associated with the quarry. The features and functions of these natural areas are examined in more detail later and are described here to set the context.

[61] The site itself is largely reforested with a coniferous plantation established in the mid-1900s. It also contains the NW Wetland, a native woodland in the southeast quadrant near the rented dwelling on site, and the natural corridor of Trib B, an intermittent stream traversing the site from the northeast corner to the southeast corner. Trib B originates in the De Grandis Pond where springs provide a year-round source of water. The wetlands from the De Grandis Pond to the north limit of the site are generally referred to as the Allen Wetland. Trib B flows through the Allen Wetland between the De Grandis Pond and the site, including across the rear portion of an intervening property to the northeast of the site that fronts onto 7th Line. At the northeast corner of the site on the neighbouring Mudge industrial property is the northeast wetland ("NE Wetland").

[62] Trib B is called a losing stream because it gradually infiltrates the ground. During periods of high precipitation or snow melt, Trib B flows through the site. By late spring or early summer each year, Trib B typically dries up, with its leading edge gradually receding northward as infiltration exceeds the contribution of water from its source.

[63] Trib B exits the site near the southeast corner where it crosses the previously separated residential property. Here, Trib B is joined by Tributary C ("Trib C"), also an intermittent stream, and together they cross under Hwy 7 through a culvert and continue south on the Brydson property where this seasonal channel connects with Brydson Creek. Approximately 300 m south of Hwy 7, groundwater springs feed Brydson Creek year-round, making it a permanent stream from the springs to where it enters Blue Springs Creek approximately 600 m further south. From the Brydson spring southward, Brydson Creek is a headwater stream sourced from cool groundwater that provides high quality fish habitat for the resident signature species, brook trout.

ISSUES AND FINDINGS

[64] The inter-relationships of hydrogeology and natural heritage features shape this Decision and the manner in which it is determined. The combined requirements of the Act, PPS and ARA to ensure no negative effect on ecological features and functions and to protect groundwater warrant a determination of hydrogeology and natural

heritage first. Each of these threshold issues has a variety of sub-issues. After a determination on the threshold issues, other issues arising from the quarry can be considered, including land use compatibility and operational matters such as traffic, haul routes, and emissions of noise, dust and other pollutants. Notwithstanding a certain logical order to these issues, each issue must meet the applicable legislative tests independently for an application to succeed.

HYDROGEOLOGY

[65] "In hydrogeology, you can't ever know everything." Mr. Woerns made this statement during his testimony, and in one way or another, all of the other hydrogeologists made similar admissions. This testimony underscores the deep issue in this matter.

[66] Hydrogeology is the science of groundwater as it travels through the geologic layers of the earth. Water affects and is itself affected by the medium through which it travels. Its volume, velocity, temperature and chemistry influence and are influenced by geology.

[67] At the surface, topography, soils and land cover dictate the amount of infiltration and the direction of overland flow following rain or snow melt. In the region of this application, and throughout southern Ontario generally, surficial unconsolidated sands, gravels and tills ("overburden") deposited by glaciation affect rates of infiltration and the relative downward or lateral movement of water through the overburden. How coarse or fine various layers are determines the ease with which water passes through (their permeability or "hydraulic conductivity"). Below the overburden, much older bedrock has its own characteristics for transmitting and affecting water, such as density, fractures and chemistry.

[68] All of this occurs below the ground and generally out of sight. By necessity, hydrogeologists must interpret information collected from digging or drilling (test pits, boreholes, test wells, and water well records) and, together with other research and observation, interpolate onto maps the elevation, direction and volume of groundwater

flows. When “you can’t ever know everything,” the question here is: how much information is sufficient to draw conclusions and to make reasonable predictions on the effects of the quarry on groundwater and, in turn, on natural features?

[69] Good science is known for confirming the answer to one question while generating several new questions. In land use planning and aggregates operations, the balance to be found lies in achieving a high level of confidence that an expected impact will be within acceptable limits (i.e., answering a question) while also implementing measures to respond appropriately should something unexpected occur (i.e., responding to the new questions). This approach uses the science appropriately: the issues raised are assessed against an acceptable level of confidence, and the questions arising from those determinations are addressed by implementing safeguards.

[70] In the context of this site, water is integrally connected to the potential effects of development on natural heritage features. Water features exist on all sides of the property. They contribute groundwater to the site from up-gradient (north) and receive groundwater from it down-gradient (south). Thus, the findings pertaining to hydrogeology have direct implications for the protection of natural heritage features of wetlands, watercourses and woodlots, and the ecological functions they serve including habitat for birds, bats, turtles and fish. The hydrogeological findings also have direct implications for the protection of groundwater as a source of drinking water for municipal and private wells.

Modelling

[71] Every Party, except the Township, called expert evidence in hydrogeology, totalling six experts. Mr. Denhoed and Dr. Worthington testifying for JDCL are experienced hydrogeology modellers. The others, Mr. Woerns and Mr. Cowell for Halton, Mr. Hunter for CRC and Mr. Hopkins for the County, have considerable experience interpreting models but are not modellers themselves.

[72] Mr. Denhoed conducted the groundwater studies and modelling for JDCL and is

satisfied that the anticipated effects of the quarry on the hydrogeologic environment are within acceptable and workable limits. Mr. Denhoed considers the model to sufficiently represent actual groundwater conditions, noting that the model's predicted overburden and bedrock water levels align well with on-site measured observations, including data collected on this site for 24 years. Mr. Denhoed recommends a detailed monitoring plan with trigger levels and mitigation plans to ensure that acceptable limits are not breached. In support of the modelling results, Mr. Denhoed refers to the 2018 Grand River Conservation Authority ("GRCA") letter indicating that, after receiving further study and correspondence, all issues have been addressed to their satisfaction.

[73] Dr. Worthington, from the perspective of his experience with karst geology, agrees with the hydraulic conductivity factors used in the model and generally corroborates the findings of Mr. Denhoed.

[74] Mr. Hopkins, retained by the County, expresses no fundamental concerns with the groundwater model but recommends specific safeguards for the wetlands and Brydson Creek. Mr. Hopkins agrees with Mr. Denhoed that compared to source water protection modelling done on a larger scale, the on-site data collection used in the quarry modelling provides a better indication of localized hydrogeological conditions. The hydrogeologists agree that, beyond the detailed on-site data, the model utilizes water well records and other secondary sources for data points in the same manner as used in source water protection modelling.

[75] Mr. Woerns for Halton identifies areas of deficient information or unreliable results from the model, while also acknowledging that his recommendations for additional monitoring and a rigorous Adaptive Management Plan ("AMP") will largely address his concerns. He criticizes the studies in that certain drilling methods may obscure geologic information, a grid pattern of test wells was not employed, and most of the wells were completed outside of the extraction area, necessitating the extrapolation of hydrogeologic conditions across the site and questioning the movement of overburden groundwater beneath Trib B. Mr. Woerns recommends the completion of a post-quarry water balance to assess potential effects on groundwater recharge.

[76] Mr. Cowell for Halton raises concerns with the availability of information in the model to properly assess the quarry's effects up-gradient on the De Grandis Pond and down-gradient on Brydson Creek. He questions whether suspended solids in the quarry pond from blasting or sediments in the wash ponds could clog bedrock fractures that provide flow paths southward. Mr. Cowell also suggests that more information is required to assess the proportional contribution of Trib B, Trib C and the quarry ponds to Brydson Creek.

[77] Mr. Hunter, for CRC, questions the accuracy of the model without more detailed and accurate data on and around the site to confidently predict the hydrogeologic effects of quarrying. He recommends a circle of off-site monitoring wells to compensate for the absence of reliable off-site data in existing records, and posits that the test of protecting groundwater cannot be confirmed with the modelling to date. To demonstrate the range of variability in the model, he notes the differences in predicted versus actual groundwater levels in the overburden and bedrock, and unaccounted potential impacts from Rockwood Well 4 ("RW4") and Guelph's source protection studies.

[78] On the extensive hydrogeology evidence, the Tribunal is satisfied that the modelling conducted for the quarry, as tested, modified and improved by its thorough reviewers above, provides a sufficient basis of knowledge upon which to plan for the quarry. This finding relies upon the substantial safeguards, limits and monitoring agreed to by the hydrogeologists with respect to various sensitive features addressed later in this Decision. With the background of reasonably understanding groundwater conditions in and around the site, together with implementation requirements, the protection of groundwater, surface water and natural heritage features can be achieved.

[79] The hydrogeologists agree on many aspects of the data and model but disagree on various fine points, often arising from apprehensions of incomplete information. However, on their agreement that "you can't ever know everything," Mr. Denhoed's consent to firm limits described later, and the added details to the site plans, the Tribunal finds the hydrogeology studies sufficient for the purposes of these applications.

[80] The Tribunal accepts the general conclusions of Mr. Denhoed's hydrogeological investigations and modelling. The experts generally accept the groundwater gradients, flow rates and direction of travel predicted on site by Mr. Denhoed's modelling, and where disagreements remain, they are largely addressed by the limits and monitoring to be implemented. Additional support, albeit with less weight, is found in the written acceptance of the modelling results by the GRCA and the Township's consulting hydrogeologist. Mr. Hopkins, the County's hydrogeologist, also approves of the work save for a few specific recommendations.

[81] Of additional assistance to the Tribunal is the hydrogeologists' evidence that the modelling completed for these applications uses the same methodology and latest science as are applied to source water protection planning and municipal wellhead protection studies. The modelling conducted here is very similar to those broader studies except that much more data are available for the area of the site itself. Mr. Denhoed and others agree that, while more data is always better than less, a significant amount of information is known about the site's groundwater regime with which to make reasonable predictions. Even Mr. Hunter, who raised the most issues with the modelling results, used the on-site data himself to draw his own conclusions.

[82] Several of the hydrogeologists, including Mr. Denhoed, have conducted and peer-reviewed regional groundwater studies for public authorities. They have used and relied upon the same type of modelling employed in this case. The Tribunal imagines that, if given the opportunity to scrutinize a regional study to the level applied in this site-specific case, these same experts would find much to debate. While accepting the general conclusions of Mr. Denhoed's studies, the Tribunal is prepared to impose certain recommendations of the other hydrogeologists as pre-conditions and site plan requirements, in part because they ameliorate areas of disagreement, and primarily because they represent prudent improvements to enhance protections to society or the environment in accordance with the tests of the legislation.

[83] Finally, Mr. Denhoed accepts the other hydrogeologists' recommendation that, if the quarry proceeds, all of the mitigation plans should involve the cessation of extraction

activity if a trigger level is breached, and not resume extraction until the cause of the breach is known, and if attributed to the quarry, the problem is resolved. This provision is contained in the revised site plan (171).

Drawdown

[84] Drawdown is the degree to which the elevation of groundwater is lowered by human activity such as pumping a well, digging a pond or extracting dolomite. Drawdown can occur in overburden and bedrock aquifers. According to the hydrogeologists, this dolostone formation consists of mostly rock and a little water. When the dolostone is quarried from below the water table, the rock is replaced with water. The resulting seepage into the quarry has a lowering effect on the surrounding groundwater over time. When quarrying is paused or ended, the groundwater eventually achieves a new equilibrium at a different elevation than existed originally.

[85] In addition, there is a leveling effect on the groundwater elevation from the resulting ponds. Before extraction, groundwater is moving down-gradient beneath the ground, from higher recharge elevations in the north to lower discharge elevations in the south. As the pond is established by successive extraction, the surface of the pond will be level, finding a balance between the former higher groundwater elevation on the north side and former lower elevation on the south. The result is drawdown to the north and a raising of the groundwater elevation to the south.

[86] The hydrogeologists agree on several factors affecting the site. The dolostone is highly fractured, with cracks and fissures running horizontally and probably vertically, which readily transmits and produces water for wells at all elevations. The bedrock groundwater level fluctuates by 2 m seasonally, and the groundwater elevation falls approximately 7 m from north to south across the site. The drawdown to the north and the groundwater rise to the south will occur gradually over time as extraction progresses. Compared to dewatered quarries where a drawdown of 20 m is not uncommon, the possible drawdown here is substantially less.

[87] The rise in groundwater elevation at the south limit of the ponds is generally not

at issue. Although some suggest that the ecological effects of increased flow on Brydson Creek should be evaluated further, the experts agree that a rise in the order of 1 to 2 m will have a positive and consistent effect on groundwater flow to the south. The four monitoring wells along the property's south boundary (collectively, the "sentry wells"), situated on the groundwater flow path between the quarry and Brydson Creek, will serve as reliable monitoring and forewarning stations. Monitoring requirements in the sentry wells are addressed below.

[88] Mr. Hunter disputes the model predictions of drawdown to the north of the quarry. By his calculation, the quarry will cause a 7 m drawdown in the northwest and northeast limits of the quarry, and from 4 to 6 m drawdown across the north side of the site. Mr. Hunter derives these figures by using predicted groundwater levels in various wells along the south property line to estimate the final pond level.

[89] Mr. Denhoed explains that the predicted drawdown is a gradual process occurring over many years. As rock is quarried each day, groundwater seeps into the pond to replace the rock. The effect on groundwater is similar to a high production municipal well such as RW4. The groundwater recovers when extraction is not occurring or when a well is not pumping. Mr. Denhoed predicts that at no time will the pond water level drop more than 0.91 m in a day, and as the pond grows in size, although the daily inflow required each day remains constant, the daily pond level change will diminish over time because of the pond's larger volume. At the nearest water wells to the quarry, Mr. Denhoed estimates that the drawdown will be within the range of natural variability in groundwater elevation of less than 2 m.

[90] When considering Mr. Hunter's evidence against Mr. Denhoed's, the Tribunal finds that Mr. Denhoed's work has benefited from and sustained extensive peer review, including from Mr. Hunter. Mr. Hunter's approach appears to rely on down-gradient wells to arrive at a final pond elevation and does not accord with his own evidence that a groundwater rise, which he concludes is under-estimated, will occur at the south limit of the pond. These factors alone account for much of the difference between Mr. Denhoed's 4.5 m and Mr. Hunter's 7 m drawdown predictions.

[91] The Tribunal prefers the evidence of Mr. Denhoed over that of Mr. Hunter, with a proviso to guard against a potential negative effect on the De Grandis Pond, addressed below. Nevertheless, a resolution to this dispute was provided by JDCL during the hearing. JDCL, on the confidence of Mr. Denhoed, agrees to not exceed a maximum drawdown of 4.5 m at the quarry edge. Should the 4.5 m drawdown be reached or exceeded at any time, JDCL commits to cease operations until the groundwater recovers. JDCL's commitment, reflected in the site plan, means that the Tribunal need not choose which hydrogeologic prediction is correct. If Mr. Hunter turns out to be correct, then the quarry operations will be limited to a quantity and rate of extraction that do not produce a greater drawdown than 4.5 m. This approach implements the Tribunal's framework described earlier of assigning risk to the economic endeavour to ensure that the legislative tests are met.

De Grandis Pond

[92] About 600 m north and up-gradient of the site, the De Grandis Pond is part of a Provincially Significant Wetland ("PSW") complex requiring protection under the PPS. The pond receives water from seeps along its edge and from upwelling in its centre. The dispute is whether the central upwelling is sourced from bedrock groundwater or overburden groundwater. If supplied with bedrock groundwater, then the anticipated drawdown from the quarry, although substantially lessened this far north of the site, could affect the quantity of water supplied to the wetland. A definitive answer is not available because during the many years of study for the quarry, the Parties were unable to agree on terms of access and investigation methods.

[93] Mr. Hunter and the landowner, Ms. De Grandis, believe that the central upwelling is bedrock groundwater, entering either directly from shallow bedrock or indirectly through silty overburden. They note that the continued upwelling in winter suggests warmer bedrock groundwater, the ground-penetrating radar ("GPR") conducted by Mr. Watson identifies a fracture in the vicinity of the spring, and when the pond was dug decades ago, they believe excavation ceased when bedrock was reached.

[94] Mr. Denhoed maintains that all observations suggest that the upwelling is

overburden groundwater. The depth, water level and chemistry of Ms. De Grandis' nearby shallow dug water well suggest that the well and pond are supplied by the same unconfined overburden aquifer. Geology mapping, soil samples and hydraulic gradients also support an overburden source for the upwelling. Refuting Mr. Watson's GPR conclusions, Mr. Giamou testifies that the results are unreliable owing to methodological errors in design, execution and interpretation.

[95] With the Tribunal's acceptance of Mr. Denhoed's modelling and on Mr. Hunter's acknowledgement that overburden springs are significant contributors to the De Grandis Pond, the evidence suggests that a negligible drawdown in overburden groundwater and up to 0.5 m drawdown in bedrock groundwater over time in this location will not negatively impact the pond. Ms. De Grandis agrees to allow monitoring on her property. To ensure protection of the wetland, the Tribunal will order JDCL to establish trigger levels for the pond and monitoring at the feature, if access is granted. In the event access is denied in future, the monitoring plan will identify suitable surrogate monitoring on site in place of direct monitoring at the pond.

NW, NE and Allen Wetlands

[96] The hydrogeologists generally agree that the wetlands around the north limit of the proposed quarry are supplied by runoff and overburden groundwater as perched wetlands underlain by low permeability silt and not affected by changes in the underlying bedrock groundwater. The removal of the overburden on the site, however, could affect water levels in these wetlands were it not for the proposed installation of hydraulic barriers.

[97] Mr. Denhoed had shown on the site plans a hydraulic barrier to protect the NW Wetland. During the hearing, on the evidence of other hydrogeologists and natural heritage experts, JDCL agreed to install hydraulic barriers around the north halves of the quarry ponds to protect all wetlands. Overflow outlets will prevent the hydraulic barriers from retaining more water in the wetlands than pre-quarry conditions.

[98] The site plan (171) now shows a hydraulic barrier along the west, north and east

limits of both quarry ponds, including containment, where indicated, of the floodplain of Trib B. The Tribunal finds these requirements and surface water monitoring at the northeast corner of the site to be sufficient, resulting in the Tribunal not attaching the County's requested condition for additional off-site monitoring to the northeast of the site.

Tributary B

[99] Trib B, as a losing stream, infiltrates to groundwater and generally dries up each summer. When flowing, Trib B and Trib C carry surface water to Brydson Creek. Trib B has elevated levels of contamination, such as E.coli and nitrates, that are common, but undesirable, within agricultural landscapes. Trib B displays evidence of previous modification for a mid-reach pond on the site and channelization further south.

[100] Mr. Hurley calculated and mapped the regional storm flood elevation for Trib B. He did not subtract internally drained areas in the catchment area and thus considers the floodplain boundary to be conservative (i.e., wider than required). Mr. Hurley identifies three small areas where low berms are recommended to prevent floodwaters in an extreme event from entering the quarry ponds.

[101] Mr. Hunter argues that Mr. Hurley failed to add the 5 m buffer to the floodplain boundary as required by GRCA policy. Mr. Hurley responds that the flooding hazard is calculated correctly and that GRCA's additional 5 m defines the regulated area but not the hazard zone.

[102] The evidence suggests that Mr. Hurley is correct as reviewed below. However, the record does not appear to contain confirmation from the GRCA dated after the Flood Hazard Assessment of February 25, 2019 (42-1). JDCL refers only to the GRCA sign-off letter of October 10, 2018 (35-9) which appears to address only those matters for which GRCA provides an advisory service to the County and Township. This discrepancy is easily resolved by the necessary permit from the GRCA for development within a regulated area.

[103] The Tribunal finds the GRCA Policies for the Administration of Ontario

Regulation 150/06 to reflect Mr. Hurley's evidence:

> The following policies apply to *development* proposed in a *One-Zone Policy Area* subject to a *Riverine Flooding Hazard*, excluding *allowances*. (underline added, Exhibit 155 16).

[104] For the most part, the quarry setbacks from Trib B are substantially greater than the regulated area, including both the flood hazard limit and the 5 m allowance. Except for a few limited-length sections, the quarry edge is outside the 5 m allowance line. The three locations where Mr. Hurley recommends berms represent minor intrusions into the flood hazard limit, the suitability of which can be assessed by the GRCA when it issues a permit. Either way, the Tribunal finds this matter inconsequential to the outcome of these applications and considers the instruments to be consistent with the PPS and to conform with the COP regarding flooding hazards.

Brydson Creek

[105] Brydson Creek begins about 340 m south of the site and about 400 m southeast of the nearest quarry edge. Mr. Sharp explains that Brydson Creek is a headwater stream of Blue Springs Creek watershed within the Region's Natural Heritage System and part of the regionally significant Area of Natural and Scientific Interest. On the evidence of Dr. Schiefer, the Tribunal has no doubt that Brydson Creek is pristine fish habitat.

[106] Dr. Schiefer reports that "Brydson Creek provides a very diverse, stable and high quality cold-water stream habitat flowing through a mature white cedar riparian forest" (9-12-2.7). This creek "is exceptional in retaining high quality trout habitat and self-sustaining brook trout populations" (9-12-3.1). "Stable, spring-sourced flows of very high quality groundwater are the major factor in sustaining this trout population" (9-12-4.1). "Brook trout require clear waters of high purity and a narrow pH range and are sensitive to poor oxygenation, pollution, high turbidity, high water temperatures, and changes in pH caused by environmental effects" (9-12-2.7).

[107] By the legislative tests, a quarry on lands adjacent to a natural heritage feature must evaluate "the ecological function of the adjacent lands" (i.e., the quarry site) and

demonstrate “no negative impacts on the natural features or their ecological functions” (i.e., Brydson Creek) (PPS, s. 2.1.8). As posited by CRC’s witnesses, and agreed to by Mr. Scheifele, the Tribunal finds that the quarry site constitutes adjacent lands to Brydson Creek. The quarry is considered contiguous with Brydson Creek by its surface water and groundwater connections.

[108] The hydrogeologists agree that the quarry site is a primary but not exclusive contributor of water to Brydson Creek and that groundwater moves relatively quickly as it exits the site towards the spring that sustains Brydson Creek. Mr. Hunter agrees with Mr. Denhoed that a rise in groundwater at the south end of the quarry is likely to provide a higher volume and more consistent flow of water, beneficial to Brydson Creek. Concerns over groundwater quality are addressed under the natural heritage considerations for Brydson Creek.

Water Wells

[109] Mr. Hunter questions whether RW4, pumping at capacity in future years, could pull water from the quarry. Mr. Denhoed and Dr. Worthington reply that while a future drawdown from RW4 could reduce the groundwater divide between it and the quarry, there is no possibility for RW4 to obtain its water from the quarry. Dr. Worthington explains that RW4 could lower the groundwater level as far afield as the quarry, but that its supply of water would continue to be provided from the north where the greatest groundwater gradients are located. RW4 and the quarry are situated at similar groundwater gradients or “cross-gradient.” In this way, the quarry may be located within the future influence area of RW4 but is not within the contribution area of RW4.

[110] Mr. Hunter recommends an outer ring of wells used exclusively for groundwater monitoring approximately 300 to 600 m distant around the site.

[111] Mr. Denhoed testifies that private water wells up-gradient from the quarry require quantity protection from drawdown, and wells down-gradient from the quarry require quality protection from the quarry. JDCL proposes to satisfy these obligations with contingency measures such as establishing baseline information through a

comprehensive well survey before extraction begins, lowering the pump in existing private up-gradient wells when necessary, installing purification equipment in down-gradient wells, and committing to a water replacement protocol.

[112] The Tribunal finds that the managed limit of drawdown for the quarry, together with mitigation measures for area wells, adequately protects municipal drinking water supplies and sensitive groundwater features and their hydrologic functions. The monitoring program, involving on-site wells and augmented by monitoring of private wells surrounding the site, is considered sufficient and obviates the need for additional monitoring wells further afield as suggested by Mr. Hunter.

NATURAL HERITAGE

[113] As reviewed earlier, the PPS and COP require a demonstration of no negative impact to natural heritage features and functions. Mr. Scheifele prepared a Natural Environment Technical Report ("NER") in 2012, concluding that the proposed quarry adequately protects the natural heritage features on and adjacent to the site subject to various recommended protection and mitigation measures. Mr. Scheifele testifies that his recommendations are reflected on the site plan.

[114] Witnesses for Halton and CRC find deficiencies in Mr. Scheifele's work. Mr. Sharp considers that Mr. Scheifele's study limit of 120 m is insufficient to evaluate the quarry's effects on contiguous natural heritage features beyond that radius. Mr. Harris arrived at different Ecological Land Classification ("ELC") units for the Allen Wetland than did Mr. Scheifele, citing that the original study was older than the recommended maximum of five years for reliability and may not reflect subsequent ecological succession. Regarding wildlife surveys, Mr. Konze also views the JDCL studies as outdated and not in compliance with current standards.

[115] Mr. Scheifele explains that in the course of his work on the site, all adjacent properties were considered, and based on the extent of potential impact being largely tied to the hydrogeological effects of the quarry, that he had concluded no negative effect would occur to the area wetlands and woodlots that are well removed from the

quarry operation.

[116] The Tribunal finds that the totality of the natural heritage evidence demonstrates that the quarry will not result in a negative effect on protected natural features or their ecological functions. The Tribunal agrees that JDCL's original NER lacked detailed study of certain features beyond 120 m from the site. However, the NER has now been augmented by extensive peer reviews, further study, subsequent correspondence, the responding testimony of Mr. Scheifele, an expanded monitoring plan and additional conditions imposed by this Decision. The Tribunal accepts Mr. Scheifele's evidence that when he observed features within 120 m and evaluated the quarry's effects on them, by extension he was also considering whether the quarry would have an effect for those or other features further afield.

[117] The Tribunal finds that the environmental studies, while conducted more than five years ago, remain relevant today based on the experts' recent site visits and confirmation of conditions or acknowledgement of certain changes. The Tribunal does not find that a change in ELC classification within the Allen Wetland, even if to a unit more susceptible to changes in groundwater conditions, alters a conclusion of no negative effect. The hydrogeologists agree that the extended hydraulic barrier will protect overburden groundwater levels to the north of the site for these perched wetlands, and that the preponderance of evidence suggests that much, if not all, of the Allen Wetland water source is from overburden springs, not bedrock groundwater.

[118] In preparation for this hearing, the natural heritage experts agreed on several matters in connection with offsite features, including the protection of Brydson Creek fish habitat through an AMP with trigger levels, low potential exists for negative effects on the Brydson woodlands, and offsite monitoring is reliant on landowners providing access. The experts also agreed that the reforested areas of the site are not significant woodlands. The following subsections address specific features.

Fish Habitat

[119] The ecology witnesses generally agree that the fish habitat to be protected

begins at the spring and pond of Brydson Creek and extends to its confluence with Blue Springs Creek about 600 m downstream. There is no fish habitat on the quarry site. While Trib B and Trib C provide an intermittent source of water to Brydson Creek, their contaminant load and temperature impair rather than improve Brydson Creek and are generally not considered part of the fish habitat.

[120] Halton argues that Trib B constitutes fish habitat because it contributes to the food supply of Brydson Creek, based on the PPS definition that direct or indirect food supply areas are considered fish habitat. Mr. Scheifele acknowledges that Trib B provides such function but that this intermittent stream will continue to function within its protected corridor through the site. The experts in fisheries, Dr. Wren and Dr. Schiefer, do not consider Trib B as fish habitat. Even if Trib B is a fish habitat by PPS definition, the Tribunal finds that no development is occurring within it.

[121] The environmental sensitives of the high quality fish habitat in Brydson Creek identified by Dr. Schiefer and others include dissolved oxygen, nitrates, E.coli, turbidity, temperature and pH. These and related parameters are required to be set out in the monitoring plan. The hydrogeologists agree that the south sentry wells on the quarry site will accurately represent the state of groundwater leaving the property towards Brydson Creek. The natural heritage experts agree that monitoring at the location of an environmental feature is best practice, where access permission can be obtained. This Decision requires monitoring at the southerly sentry wells on the quarry site and, if possible through an access agreement, also at the feature itself.

[122] The experts agree that dissolved oxygen at Brydson Creek is added to the groundwater down-gradient from the quarry site, and that the quarry ponds may enhance oxygenation. Although Mr. Hunter predicts that the quarry will add nitrates to the groundwater system, Dr. Wren does not consider it to be a significant source of nitrates, adding that he is unaware of a nitrate issue in any other quarry in Ontario. Dr. Wren also does not expect the quarry to exacerbate the bacteria found currently in the bedrock aquifer and that opportunities exist to implement agricultural best management practices to the north in the watershed to reduce contaminant loading in groundwater.

He notes that the existing temperatures between 4 and 10 degrees Celsius (“C”) in the pond of Brydson Creek are below the 15C preferred by brook trout, suggesting that if groundwater temperatures were increased by the quarry ponds, they would not impact fish habitat. Based on fish toxicity testing for 15 years at another JDCL quarry, Mr. Denhoed and Mr. Scheifele foresee no change in pH or issues with explosive residues in quarry pond water (35-4-10).

[123] Among the varying opinions of the quarry’s potential effects on Brydson Creek, the overriding evidence supports the conclusion that the quality of groundwater will not cause a negative impact to its features and functions. Scientific literature is not available for some of the parameters at issue, leaving both sides to rely on their experience as to the existence or extent of an effect. This void establishes the need for diligent monitoring to ensure that environmental changes do not occur at a level causing a negative effect. On balance, however, the Tribunal finds that the evidence indicates that the quarry will not have a negative effect on Brydson Creek, and that the required monitoring will ensure it remains so. As Mr. Sharp opines, trigger levels must ensure that impacts are prevented to maintain no negative effect on natural features. Although Dr. Schiefer recommends against the quarry, he also advises careful monitoring should it proceed.

Woodlands

[124] The natural heritage witnesses agree that the quarry appropriately protects significant woodlands, being the southeast naturalized forest area on the property, and the woodlots south of Hwy 7 on the Brydson property. Based on the County’s peer review related to the on-site woodlands, it submits that the application conforms with the COP. While Mr. Scheifele did not study the Brydson woodlots extensively for this application, Mr. Sharp and others agree with his conclusion that the potential for impacts from the quarry on these woodlands is low to none. These natural forests do not rely on and are not affected by bedrock groundwater.

[125] The COP designates the property’s plantation forest as Core Greenlands, based on its size. The natural heritage witnesses take no issue with the removal of the

plantation for the quarry, recognizing that the forest perimeter will remain as a visual buffer, the hardwood forest is retained, and after final rehabilitation, the property will contain approximately 20 ha of forested land.

Eastern Wood Pewee

[126] The Eastern Wood Pewee ("EWP") was designated as a species of special concern in Ontario after Mr. Scheifele's 2012 NER was completed. Mr. Scheifele observed EWP in the hardwood forest in the southeast part of the property and in the coniferous plantation immediately adjacent to the hardwood forest. Mr. Scheifele opines that the EWP prefers hardwood forest and notes its protection along with a fringe of plantation trees adjacent to the quarry.

[127] Mr. Konze considers the quarry to encroach into EWP significant wildlife habitat contrary to the PPS. He conducted bird surveys on the Mudge property to the east for a different project. Comparing those notes to the quarry boundaries, Mr. Konze confirms that two observations are outside the quarry – one on the east property line and one in the protected hardwoods north of the dwelling – but a third observation is located centrally in the plantation east of Trib B. Mr. Konze advises that these observations were based on hearing the birds so their mapped locations are approximations only.

[128] The Tribunal finds that Mr. Konze's evidence of EWP is similar to that of Mr. Scheifele. Both observed EWP in natural forests, with Mr. Konze's report showing numerous occurrences in the Mudge property forest to the northeast of the quarry site. Both studies noted one occurrence of EWP within the pine and spruce plantation. Mr. Scheifele considered his observed individual to be foraging and Mr. Konze agreed that his observed individual did not constitute a breeding pair, and that an individual must be resident in an area for it to qualify as significant wildlife habitat.

[129] The Tribunal finds the documentation of EWP to support Mr. Scheifele's assertion that EWP's preferred habitat is native hardwood forests and that it may be found in, but not rely upon, adjacent areas such as the plantation on this site. The witnesses agree that an added protection to EWP is the prohibition of tree removal

during the summer breeding season. Further, Mr. Sweetnam advises that this plantation has been managed for many years for removal, as permitted by the COP within mineral aggregates areas. The Tribunal finds that the site plan protects significant wildlife habitat and results in no negative impacts to the significant wildlife habitat of EWP.

Little Brown Myotis

[130] The Little Brown Myotis ("LBM") is listed as endangered in Ontario. Mr. Scheifele found LBM at the two locations where he surveyed for bats, being the southeast woodlot and the NW Wetland. He did not survey for bats within the plantation because they are not known to inhabit such environments, preferring open areas and roosting in mixed hardwoods.

[131] Mr. Konze observed LBM in his bat survey at the south end of the Allen Wetland near the quarry property line. Based on MNRF's 2017 survey protocol for bat species at risk, Mr. Konze recommends further study to ensure that maternity roost habitat is not present, with emphasis on the 0.86 ha area of coniferous and deciduous forest inside the southwest edge of the Phase 2 extraction area (east pond) and, subject to MNRF input, further study within the broader 22 ha plantation. Mr. Konze acknowledges that LBM's endangered status reflects its decline due to "white nose syndrome" rather than direct habitat loss.

[132] Regarding the potential for LBM within the broader plantation, the Tribunal is satisfied that MNRF had ample opportunity to request further study if considered necessary under the previous or more recent bat protocols. MNRF reviewed all of JDCL's original studies and more recently withdrew its Party status in these proceedings. The Tribunal accepts Mr. Scheifele's conclusion that the pine and spruce plantation is not significant wildlife habitat for the LBM.

[133] For the 0.86 ha coniferous and deciduous forest identified by Mr. Konze (55-5-16), the Tribunal finds it necessary to order a further bat survey in accordance with the 2017 protocol to confirm whether significant wildlife habitat for LBM occurs within the

extraction limit of the quarry. Any part of the area found to contain significant wildlife habitat is to be excluded from the extraction limit of the quarry and retained in its natural state.

Snapping Turtle

[134] The NW Wetland is home to a small population of Snapping Turtle ("ST"), a species of special concern in Ontario. Mr. Scheifele notes their residency in the NW Wetland for at least 20 years and their use of adjacent gravelly soils for nesting such as the roadside and on site immediately surrounding the wetland, including where sand and gravel were extracted previously. With the preservation of the NW Wetland and the retention of the potential nesting area immediately to the north, Mr. Scheifele concludes that no negative impact results to the habitat of the ST.

[135] Mr. Konze overlays the proposed extraction limits on the potential nesting area and concludes that part of the nesting area, constituting significant wildlife habitat, is removed by the quarry. He opines that, without confirmation that the area to be quarried is not used for nesting, one cannot conclude no loss of habitat.

[136] Mr. Wynia recommends turtle fencing, beyond that recommended by Mr. Scheifele, along the northwest and west edge of the extraction area to prevent the migration of ST into the active quarry pond. This requirement is noted on the site plan as well as the retention and creation of habitat features around the NW Wetland.

[137] On the hydrogeological and ecological evidence, the Tribunal is satisfied that the retention and protection of the NW Wetland and immediate environs will not have a negative impact on the significant wildlife habitat for ST. Although some existing potential nesting area, made possible by previous extraction on the property, lies within the extraction limit, a substantial area for nesting remains around and to the north of the wetland. Site plan requirements will protect this habitat during active quarrying, and eventual rehabilitation will enhance ST habitat on the site.

Amphibians

[138] Mr. Scheifele and Mr. Konze agree that the wetlands constitute significant wildlife habitat given the presence of breeding amphibians. Mr. Scheifele observed several species of frogs and toads in the NW Wetland and Mudge Wetland, and Mr. Konze recorded similar results in the Allen Wetland.

[139] On the hydrogeological findings earlier, with the maintenance and monitoring of water levels in the wetlands, the Tribunal finds no negative effect on the wetlands which support significant wildlife habitat for amphibians.

Monitoring

[140] On the advice of Mr. Stovel and Ms. Guiot, all monitoring and contingency requirements should be listed on the site plan for ease of reference and for enforcement. JDCL agrees to the incorporation of many of the recommendations from peer reviewers and testifying experts, as contained in the drawings and notes of Exhibit 171. Where this Decision imposes additional conditions, the final site plan will be amended to incorporate resulting changes before the MNRF is directed to issue a licence under the ARA.

[141] The County requests additional off-site monitoring for wetlands northeast of the site and Halton argues that an access agreement should be mandatory for proper monitoring on the Brydson property. For these and other monitoring matters, the Tribunal finds that monitoring at the feature is best, as agreed by the hydrogeological and natural heritage experts, but in the circumstances of this site, sufficient on-site monitoring can be done, if necessary, as a surrogate for off-site testing if off-site access is denied either now or at some future time. The Tribunal considers on-site surface water testing at the north limit of the property and on-site groundwater testing at the south limit to provide reliable indicators of off-site conditions, if deemed necessary due to denied access. Although off-site monitoring is required if available, in this case, the quarry should not be reliant on access permission of other property owners for its continued extraction if such access is denied in future.

HAUL ROUTES

[142] Moving aggregates to market requires heavy trucks and lots of them. JDCL estimates over 21,000 outbound truckloads per year, and double that number for total truck trips when accounting for the inbound return trip. Based on 12-hour work days, JDCL estimates an average of 69 truckloads per day, or 138 trips.

[143] The haul route issues involve locations at a distance from the quarry site. About 6 km east of the site is the intersection of Hwy 7 and Regional Road 25 ("Rd 25") (the "Y" intersection), where Hwy 7 curves south to become Main Street North ("Main St. N") within Acton. Continuing about 0.5 km further into Acton is the intersection of Main St. N with Mill Street (the "Main/Mill" intersection).

[144] Halton is concerned with the number of trucks that may use Mill Street through downtown Acton and its constrained intersection at Main Street. Halton also raises safety issues at the Y intersection.

[145] The Tribunal heard from two traffic engineers. Mr. Nystrom oversaw the Haul Route Study ("HRS") prepared for JDCL and Mr. McGill reviewed the HRS on behalf of Halton. Two road safety experts also testified. Mr. Forbes evaluated the street safety impacts in Acton and Mr. Brownlee responded to the safety assessment.

[146] Trucks from the site will exit onto 6th Line and turn, most often easterly, onto Hwy 7. The Township has agreed on the form of a road improvement agreement with JDCL for 6th Line. The Ministry of Transportation of Ontario ("MTO") approved JDCL's Traffic Impact Study ("TIS") subject to improvements to the intersections of Hwy 7 with 6th Line and Fifth Line Nassagaweya. Although local residents express fear that the truck traffic will cause backups and decreased safety at the intersection of Hwy 7 and 6th Line, they also accept that the proposed turning lanes should be safer than the existing Hwy 7 configuration.

[147] The HRS estimates truck movements from the site: 95% of trucks will head east on Hwy 7 towards the GTA market, including JDCL's concrete plant in Bolton, and 5% will head west for local deliveries. At the Y intersection, 25% of trucks will turn north,

65% will remain on Hwy 7 into Acton, and 5% will make local deliveries. For those travelling through Acton, 10% of total trucks will turn at Main/Mill and 55% will continue south on Rd 25 towards Provincial Highway 401.

[148] The HRS calculates the required number of trucks using 33 tonnes per load, based on the average capacity of JDCL's fleet of 85 trucks of four different sizes. This load size results in an estimated 21,213 truckloads per year. Mr. McGill for Halton recommends also evaluating a worst case scenario using JDCL's smallest truck with a capacity of 22.7 tonnes. Moving the aggregates with these trucks exclusively would generate 30,837 truckloads per year.

[149] The Tribunal finds JDCL's estimate of 33 tonnes per load to represent a reasonable load size for calculating truck trips. Mr. Sweetnam testifies that a significant portion of the material is destined for fixed concrete and asphalt plants for which the larger trucks are most economical and commonly used across the industry. The average here fairly accounts for some use of the smaller trucks which comprise a minority of JDCL's fleet. Mr. McGill was unaware of the Dufferin Quarry expansion just south of Acton, but acknowledged in cross-examination that its traffic study confirmed an actual average annual load size of 32 tonnes per truck. Although outside contractors will also haul aggregates from the site, the Tribunal concludes from the evidence that Mr. McGill's worst case scenario of 100% of material being hauled by the smallest trucks would be an anomaly, if it were ever to occur.

[150] The amount of aggregates transported varies widely by season. February would account for a low of just 1% of annual truck traffic, whereas August would see a high of 14% of annual trucks. With 2,997 truckloads in August, the HRS estimates the peak hour to produce 24 outbound truckloads. Given this one-time high volume, the HRS recommends a design volume using the 30th highest hour of the year, being 19 truckloads per hour, for the purpose of assessing traffic impacts. In other words, during 29 daytime hours in the year, a higher number of quarry trucks than the design rate would use area roads. With over 10,000 vehicle passes per day on Rd 25, the HRS estimates that quarry trucks will increase total traffic by 2% and will increase the

proportion of heavy vehicles by 28% (from 7% of traffic to 8.8% of traffic). Turning east onto Mill Street would be a maximum of 18 trucks or 36 total passes per day.

[151] With reference to the planning policies for Acton and on the advice of Halton's traffic witnesses, Mr. McDonald recommends a Haul Route Agreement ("HRA") between JDCL and Halton Hills to limit the number of trucks permitted on Mill Street. Mr. McGill testifies that absent such agreement, all trucks leaving or returning to the quarry could use Mill Street. Even so, Mr. McGill acknowledges that he has never seen a HRA limit the use of a provincial highway or a connecting link.

[152] The Tribunal appreciates the desire of Halton to not exacerbate existing traffic conditions through Acton. However, several factors lead the Tribunal to conclude that monitoring is warranted but an absolute limit is not.

[153] For some time, Halton Hills has been aware of traffic issues in Acton and for various reasons to date has been unable to arrive at a long-term solution in the form of a by-pass or other measures. No direct reasons were given in evidence, although reference was made to on-going MTO studies, limitations of existing road networks and the potential for a GTA West Corridor. Despite existing through traffic on Hwy 7, Halton Hills approved a large distribution centre at the Y intersection without imposing a HRA for the resulting trucks, and its Official Plan designates substantial additional lands in the same area for new employment uses. Mr. McDonald acknowledges that Mill St. is designated in the Halton Hills OP as a Multi-Purpose Arterial intended to serve "inter-regional and regional travel demands," to "accommodate truck traffic" and to also serve "local travel demands" (145-F28).

[154] All traffic witnesses confirm that they have not seen a volume limit imposed on an operator for a provincial highway or connecting link. They acknowledge that Hwy 7 is intended and designed as a provincial arterial road and that, while its connecting link through Acton is the jurisdiction of Halton Hills, any municipal limit on truck traffic through the settlement area would require MTO approval. Halton Hills' own Transportation Master Plan notes "the lack of defined truck routes that would encourage truck traffic to the periphery of the urban areas" (125-37). While that study maps Main

St. N as experiencing “significant congestion,” it does not indicate congestion on Mill Street.

[155] In addition, Mr. Sweetnam indicates that, in his experience, Hwy 7 through Acton is not a desirable regular route to the GTA because Acton, Georgetown and urban development beyond make for a slow and inefficient truck transportation route. On this basis, JDCL’s 10% haul route allocation through Acton appears reasonable and likely not to be exceeded. One acceptable exception would be if local deliveries are higher than expected, which, as Mr. Sweetnam notes, would be supplied by someone’s trucks if not by JDCL.

[156] Rather than imposing a firm limit by HRA, the Tribunal will require JDCL to file with Halton Hills an annual haul route summary showing proportional haul route usage and rationale. This reporting will assist in comparing planned to actual usage as a validation test of JDCL’s intentions, as well as providing useful information to the municipality for its ongoing transportation planning.

[157] The Tribunal heard conflicting evidence on the potential safety issues associated with the proposed truck traffic through Acton. The Tribunal accepts the evidence that the Main/Mill signalized intersection is operating at an acceptable level of service, the cost-benefit does not warrant its reconfiguration, large trucks can negotiate turns without mounting the curb by legally crossing lane lines, and the collision rate is expected to be unaffected by the additional traffic.

[158] The unsignalized Y intersection is currently under study by MTO. MTO did not raise safety issues or required improvements at this location when it reviewed and commented on the quarry’s TIS. MTO advised that it has “no objections with re-zoning” and, if approved, required the submission of haul route information, among numerous other requirements (4-7-1). Importantly, MTO advised “should any of the above pose a problem, the owner shall be responsible for providing measures to ensure Highway 7 and motorists are protected” (4-7-2). After identifying several deficiencies with this intersection, Mr. Brownlee acknowledges that the same conditions existed when the adjacent distribution centre was approved, and that MTO can require improvements

before approving the HRS, as he knows MTO has done in other cases.

[159] Had MTO identified concerns with the Y intersection at the time of reviewing the TIS, conditions could have been applied to approval. If new concerns have arisen through MTO's current study of the Y intersection, it may impose additional measures as it forewarned in its correspondence above. The Tribunal is satisfied on the evidence, that the Y intersection can accommodate safely the quarry truck traffic, a quarter of which will be negotiating the turn to or from the north. At the same time, the Tribunal is confident that MTO will not hesitate to impose additional measures if warranted "to ensure Highway 7 and motorists are protected."

CULTURAL HERITAGE

[160] Mr. Stewart conducted a cultural heritage assessment of the quarry site and surrounding area. He references the PPS and COP sections regarding the conservation of significant built heritage resources and significant cultural heritage landscapes. He confirms that the site plan requires a Stage 3 archaeological assessment in the area of the original 1800s farmstead buildings on the site before extraction may occur in that area.

[161] Mr. Stewart reports that no heritage buildings remain on the property and that all of the dwellings immediately surrounding the site, built in the late 20th Century, are not heritage structures. Mr. Stewart considers the two 19th Century stone farm houses along 6th Line to the north of the site – on the Allen property and on JDCL's other land holding – to display cultural heritage value and interest as early representative examples of mid-19th Century farmsteads, although no buildings on these or other area properties are designated under the Ontario Heritage Act.

[162] Mr. Stewart reports that the 6th Line is a cultural heritage landscape based on its tree-lined rural profile, stone houses and small agricultural fields separated by hedgerows. He concludes that the quarry will not impact this landscape by its retention of the roadside trees and construction of berms.

[163] In cross-examination, Mr. Stewart acknowledged that this cultural heritage

landscape is significant, although he qualified this conclusion with “to the extent much of southern Ontario is significant.” He went on to advise that if the quarry is approved, the significant heritage landscape would not begin until the site’s northern limit, although at present, the significant landscape along 6th Line begins at Hwy 7.

[164] Mr. Harrington, who conducted a visual impact assessment for JDCL, concludes that the 10 m retained treed verge around the site, together with berming and additional plantings, especially in the area of the entrance to the site, will adequately obscure site activity and provide suitable visual attenuation from surrounding properties and roadways.

[165] Mr. Wynia does not consider Mr. Stewart’s reference to significant cultural heritage landscape to be within the meaning of the PPS and COP because the 6th Line has not been so designated by the County or Township. He acknowledges its cultural heritage landscape value but emphasizes that it is not a designated significant feature and therefore not protected by the relevant policies.

[166] The Tribunal finds that the 6th Line is not a significant cultural heritage landscape under the PPS or COP. The PPS definition of “significant” refers to municipal approaches that achieve Provincial criteria, and the approved COP advises that the “County will work with its local municipalities to identify significant cultural heritage landscapes” (s. 4.1.5(c)). Neither the County nor the Township has listed or designated the 6th Line for heritage purposes, nor is there evidence to suggest that these authorities have considered such designation following receipt of Mr. Stewart’s report.

[167] Mr. Stewart’s qualification that this area is significant “to the extent much of southern Ontario is significant” is an important proviso. There is no question that parts of the 6th Line are representative and reminiscent of past agricultural landscapes with their rolling terrain of small fields, treelines, hedgerows and a few original farmhouses. The Tribunal can imagine that the Township contains many examples of similar landscapes. However, the evidence does not suggest that this landscape will remain in its current state. On the contrary, new houses have been built, former farm buildings have been removed, modern farm structures have been established, and the stone

houses have not been designated under the OHA. In addition, the Tribunal has no evidence on whether or how cultural heritage landscapes were addressed for other area developments such as the industrial area abutting the east side of the site or the expansion of Rockwood's residential neighbourhoods.

[168] Although not a significant landscape under the policies, the cultural heritage values identified along 6th Line and to the north of the site will be adequately protected by screening and distance to the quarry.

OPERATIONS

Blasting

[169] Mr. Cyr conducted a Blast Impact Assessment ("BIA") concluding that blasting is feasible on the site without exceeding regulated limits for vibration and overpressure. Blasting would likely occur once per week during the construction season and less often at other times of the year. Mr. Cyr advises that giving notice of blasting to area landowners by automated phone message is now common best practice.

[170] Mr. Cyr recommends detailed blast monitoring to refine the attenuation methods based on actual site conditions. Blasting will begin with the sinking cut in the northeast corner of Phase 1, away from neighbouring buildings and with the quarry face receding from the north property line over time. When blasting encroaches within 250 m of a sensitive receptor, any necessary modifications to the blasting protocol will be implemented, based on a full review of monitoring results, to ensure no damage to off-site structures. Mr. Cyr acknowledges that in the highly unlikely event that vibration and overpressure limits are exceeded, the operator would be liable for any damage proven to result from a blast. He is confident that the initial blasts, before site monitoring data are available, will generate less vibration and overpressure than calculated, based on his experience with thousands of blasts. Electronic detonators will confirm that the explosives in each hole detonate as intended. For flyrock risk, Mr. Cyr advises that proper methods will be employed to ensure that flyrock does not leave the site or endanger on-site staff and equipment.

[171] Mr. Jambakhsh reviewed the BIA for Halton. He had concluded that the small diameter blast holes used in the BIA represent a best case scenario that may be problematic given the wet conditions and depth of drilling. However, in oral testimony, Mr. Jambakhsh confirms that the proposed use of blast tubes resolves his issues and agrees that, while detonation failure is rare, double-priming and electronic detonators will all but eliminate the risk. He agrees that flyrock can be controlled by proper blasting techniques and recommends constant monitoring and engineering supervision.

[172] Based on decades of blasting and mining experience, Mr. Hill is concerned that water-filled rock will transmit blast vibrations as effectively as hard rock such as granite, and by his calculation, the BIA does not adequately account for additional safety setbacks for flyrock. Due to the uncertainty of cracks and fissures in dolostone, Mr. Hill does not accept the evidence of Mr. Cyr and Mr. Jambakhsh that flyrock can be adequately mitigated with careful on-site measures by an experienced blaster and engineer.

[173] Participant Ms. Kingshott operates a horse training facility on the 7th Line northeast of the site. She is concerned that blasting will scare the horses and generate lasting effects, although she acknowledges that advance notice of blasting would help considerably. Ms. Kingshott notes that her operation is already affected by unpredictable noise from train whistles, trucks and noise generated from the nearby industrial uses.

[174] Participant Mr. Duff is concerned with the potential damage from blasting-induced ground vibration that could weaken vulnerable mortar used in historic stone houses and barns around the site. He documents 13 properties with stone structures within 2 km of the property, including properties owned by other Participants. His primary concern is with the 8 structures within 1 km of the site, which, according to his research, could experience vibrations above the threshold for structural damage. Mr. Hill shares the concern, based on his blasting experience and shock wave estimates, that saturated bedrock could transmit potentially damaging vibrations to area structures.

[175] The Tribunal finds that the additions to the site plan agreed to by the qualified

blasting experts satisfy the ARA requirements to protect the community and environment from the effects of blasting. The experts confirm that an experienced licenced blaster with engineering supervision will ensure that vibration and overpressure limits are not exceeded. Ongoing monitoring is required at nearby sensitive receptors. Groundwater testing at the south sentry wells will include nitrates or other detectible compounds used in the explosive formulation. Despite Mr. Hill being a member of CRC and a neighbour to the quarry site, the Tribunal finds his testimony and written review of the BIA to be credible and recommends his warnings to JDCL for consideration in initial and ongoing blast designs.

Noise and Air Quality

[176] JDCL produced noise and air quality studies to demonstrate compliance with provincial standards. The opposing Parties cross-examined the Applicant's witnesses but did not call their own experts to adduce contrary evidence.

[177] To comply with Provincial noise guidelines, Mr. Rimrott recommends raising perimeter berms by 1 m, given that his report had relied on an incorrect elevation of the quarry floor. He had also included changes arising from the Township's peer review of the noise study, including an acoustical audit. With his recommendations incorporated into the site plan, Mr. Rimrott concludes that the quarry will operate within required noise limits.

[178] Regarding air quality standards for emissions and dust, Mr. Sulley advises that a model is developed for the site to predict compliance for the purpose of the ARA, followed by further Provincial review at the time of issuance of the required Environmental Compliance Approval. After revising the model to account for the correct number of truck traffic on site, Mr. Sulley confirms that the site will operate within the required air quality standards and that the recommended best management plan on the site plan remains unchanged.

[179] In her operation of the mushroom farm immediately north of the site, Ms. Jaroszewski fears that dust from the quarry could be laden with pathogens detrimental

to the sensitive growing conditions for mushrooms. Ms. Jaroszewski acknowledges that her concerns for dust exist today in relation to surrounding farms producing dust during field crop operations, and that her facility contains specialized air handling equipment to help ensure a healthy environment for the growing of mushrooms.

[180] On the uncontested evidence of Mr. Rimrott and Mr. Sulley, and with their recommendations incorporated into the site plan, the Tribunal finds that noise and air quality are addressed sufficiently to support approval of the site plan. With respect to the mushroom farm, the Tribunal notes that air quality standards will be monitored to ensure compliance of the quarry, and Ms. Jaroszewski already utilizes mitigation equipment to address potential dust-borne pathogens, including potentially arising from area field crop operations.

LAND USE CONFORMITY

[181] Mr. Stovel prepared the Agricultural Impact Assessment for JDCL. The COP requires a development in the agricultural area to assess whether lands of lower agricultural potential are available for the use, compliance with separation distances to livestock facilities, constraints to agricultural expansion, interference with normal farm practices and machinery movement, and other concerns if raised by the Township.

[182] Mr. Stovel considers the site suitable for aggregates extraction based on its designation as Mineral Aggregate Resource Area in the COP and the limited amount of prime agricultural land affected by the application. The site contains no Class 1 and 2 soils according to the Canada Land Inventory for Agriculture, and although some Class 3 soils are found on site, only 1 ha is located within the extraction area. Most of the extraction area consists of non-prime soils.

[183] CRC and area Participants criticize Mr. Stovel for not consulting directly with surrounding farm operators to consider their unique operations and concerns. Mr. Stovel reviews the potential effects of noise, dust, water supply and other effects on neighbouring operations with emphasis on the mushroom farm to the north and horse farms to the northeast. He concludes that the attenuation measures and monitoring

requirements on the site plan, as recommended by the expert reports, adequately protect agricultural operations. Based on a minimum of prime land affected by the quarry and the quantity of provincially significant dolostone below the water table, he concludes that rehabilitation for agricultural uses is not required.

[184] The Tribunal finds that minimal impacts to agriculture will result from the quarry. Various operational impacts are addressed earlier in this Decision. The site contains little productive agricultural land. The historical air photo evidence suggests that even decades ago, when surrounding farms were divided into cultivated fields, this property was either left fallow or used for pasture. The quarry results in no substantial loss of prime agricultural land and is further supported by the high quality bedrock resource underlying the property. The operation of the quarry will not affect the ability of adjacent farms to continue in agricultural production. Regarding agricultural resources and impacts to agriculture, the applications satisfy the statutory tests.

[185] As noted earlier, the land uses surrounding the quarry site include agriculture, residential, industrial and natural heritage. On the evidence of the subject matter experts and his own review of the land use planning documents, Mr. Wynia considers the quarry to be appropriate and compatible, having concluded that the applications satisfy all policy, regulation and legislation tests. In contrast, Mr. Dorfman considers the quarry a poor fit with the community, having concluded that the applications do not meet the planning tests.

[186] Mr. Wynia considers the applications to satisfy all legislative requirements by providing high quality mineral aggregates close to market while minimizing land use conflicts and with no negative impacts on natural features and functions. He adds that it is favourable to extract the resource before additional development occurs in the area that might complicate future extraction, citing the adjacent industrial area as precluding the extraction of its underlying designated aggregates resources, and the potential for future expansion of Rockwood. From a planning perspective, Mr. Wynia suggests that the requirement to protect this provincially significant bedrock resource implies an expectation or likelihood that it will be extracted. Sterilizing the resource by

development or by policy is counter to the objective to protect the resource. He refers to the COP as allowing aggregates extraction beyond 300 m from an urban boundary. Mr. Wynia agrees that all policies of the PPS must be considered, but maintains that where natural features and water resources are not negatively impacted and other requirements are satisfied, then the aggregates use prevails: as much of the mineral aggregates are to be made available as close to markets as possible (s. 2.5.2.1).

[187] For the various technical studies, Mr. Wynia explains that standard practice calls for initial modelling to assess feasibility followed by measured data to monitor and adjust practices as necessary. To the process of studying natural heritage impacts, he considers Mr. Scheifele's approach sufficient because features and functions within 120 m of the site were considered, and since the PSW is to be protected, no further in-depth study is required. In his view, all of the issues raised by the opposing Parties have been addressed. Mr. Wynia considers the final rehabilitation plan to provide natural elements of benefit to the environment and compatible with existing and future designated adjacent uses.

[188] Mr. Dorfman considers a quarry to be incompatible with the character of the surrounding area, impose a negative effect on the area's sense of place, and ignore the planned function of the community. In reviewing the sequence of planning documents, he notes that the COP allocated population growth to Rockwood in 1999 before OPA 81, identifying the mineral aggregates area, came into effect in 2014. Given the Employment and Greenlands designations within the identified Bedrock Resource Areas overlay in the vicinity of the site, Mr. Dorfman estimates that more than half of the overlay area is designated for other uses. He considers this property an anomaly in the area, being potentially available for resource extraction and owned by an aggregates company since 1989. As an anomaly, Mr. Dorfman concludes that extraction and the final rehabilitated use of lakes are out of character for the area. Further, he sees the deficiencies identified by the reviewers of the technical studies to represent too much uncertainty to consider the various features protected adequately, even with the proposed monitoring and mitigation plans.

[189] Applying the rationale of Mr. Dorfman, the Tribunal arrives at a different conclusion. Full consideration of a quarry on this site is warranted precisely because a substantial portion of the bedrock resource area has already been rendered inaccessible by existing development or other land use designations. The PPS directs that the resource "shall be protected for long-term use" (s. 2.5.1, emphasis added) and "as much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible" (s. 2.5.2.1, emphasis added). These policy directions support the views of Mr. Wynia where he opines that, given the existing industrial development to the east of the site – unfortunately permitted before consideration of protecting the bedrock resource – the time is ripe to access the resources on this site before other potentially incompatible or pre-emptive development occurs in the area. Indeed, the PPS prohibits uses that would preclude extraction of known deposits unless the resource use is not feasible and the proposed use serves a greater public interest (s. 2.5.2.5). In this case, no evidence points to the extraction not being feasible or some other use, including the existing reforested plantation, serving a greater public interest. Both Planners agree that natural heritage areas must be protected, and the Tribunal's reasons and conditions are outlined above on those matters.

[190] There is no question that a quarry will result in some disruption to the area during its operation. Twenty years is not a short duration. A generation will grow up during this time when, compared to today, there will be regular blasting and more noise and trucks. And yet in the longer-term horizon, 20 years is short compared to the rehabilitated use of natural areas and ponds that will persist, presumably for centuries. A similar sequence of events unfolded historically in nearby Rockwood. Bedrock was quarried from the Eramosa River, leaving what is now a scenic and valued recreational resource at the Rockwood Conservation Area. The resulting landform is a defining feature of Rockwood and prime among the village's many attributes.

[191] Despite the disruptions noted above, the Tribunal finds that the surrounding agricultural operations and industrial uses will continue unimpeded by the quarry. They already operate within a mixed-use area of dwellings, farms, and commercial and

industrial operations, along with the railway and Hwy 7 transportation corridors and the effects of the growing village of Rockwood. The protection of Rockwood is aided by the COP's 300 m setback of aggregates operations from settlement areas, which, although imposed after the 1999 COP, clearly demonstrates the County's consideration of the cross-impacts of settlements and resource extraction. For area residents, especially those close to the quarry, the detailed operational requirements and compliance with Provincial emissions standards for noise, vibration and air quality will minimize impacts within this already mixed-use area.

[192] The PPS and COP anticipate some effects by requiring extraction to "minimize" social, economic and environmental impacts. The studies conducted for this quarry and the resulting site plan requirements and additional conditions imposed by this Decision result in "as little social and environmental costs as practical" (COP s. 6.6.5).

[193] Mr. Dorfman recommends that a Community Liaison Committee ("CLC") be established, and the Tribunal agrees. No opposition to this recommendation was heard. For a quarry of this scale and duration, the Tribunal considers a CLC the appropriate conduit for sharing information and maintaining open communications.

CONCLUSION

[194] As described at the outset, underpinning this Decision is the assurance that the mandatory protection of natural heritage features and functions, including groundwater, is confirmed by a two stage process: first by the rigorous testing of the hydrogeological and natural heritage studies to ascertain a high degree of confidence that protection is attainable, and second by comprehensive monitoring with trigger levels for mitigative action, if required, sufficient to ensure continued protection of the natural features. Once those threshold issues are addressed, then operational matters must be found to minimize social and environmental impacts. For the reasons given in this Decision, the Tribunal finds that all of these requirements have been met.

[195] Accordingly, the Tribunal finds that, subject to the conditions contained in the Order below, the OPA and ZBA have regard to s. 2 of the Act, are consistent with the

PPS and conform with the COP, and that the site plan has regard to s. 12(1) of the ARA.

[196] The Tribunal has had regard to the decisions of the County and the Township and the information they had available at the time. The County did not oppose the applications, and recommended, subject to conditions, that the Tribunal find that the natural heritage and hydrogeological studies satisfy the COP. The Township, while endorsing a resolution against the applications, had in hand their consulting Planner's recommendation to support the applications, and their consulting Engineer's sign-off on hydrogeology and various other technical requirements.

[197] Halton argues that the Tribunal cannot delegate its responsibilities by condition to an agency and must make findings on the basis of the evidence available at the hearing (*James Dick Construction Ltd. v. Caledon (Town),* 2010 CarswellOnt 9042 and *Nelson Aggregate Co., Re,* 2012 CarswellOnt 12881). The Tribunal does not consider the conditions imposed below to delegate any fundamental decision to another agency. The substantive matters are determined by this Decision and the resulting conditions ensure proper follow-up and implementation.

PROCEDURAL MATTERS

[198] This section summarizes the Tribunal's oral rulings on procedural matters that warrant a written record.

Motions to Prohibit Testimony

[199] Halton and CRC filed motions to be heard on the first day of the hearing requesting that certain witnesses not be permitted to testify on their failure to provide witness statements that comply with the Tribunal's *Rules of Practice and Procedure* ("Rules") and the Procedural Order. The motions cited several of the Applicant's professional witnesses: Messrs. Denhoed, Scheifele, Cyr, Corkery, Sulley and Rimrott.

[200] Halton's motion also requested that the Applicant be prohibited from calling more than one land use planner and blasting expert to address any given issue. The Applicant agreed that the planning and blasting evidence would be divided appropriately among its relevant experts to avoid repetition. To that end, this aspect of Halton's motion was allowed to the extent that undue duplicative evidence was not allowed by the planning and blasting witnesses, recognizing that some minor duplication may be unavoidable. The Tribunal questioned the necessity of calling Mr. Corkery given the brevity of his statement simply agreeing with Mr. Cyr's report, but that decision was left to the Applicant. In the end, the Applicant did not call Mr. Corkery.

[201] On the matter of improper witness statements, Halton and CRC argued that the witness statements of the listed persons failed to disclose the required information under Rule 7.04, including "the issues the expert will address, their opinions on these issues, the reasons that support their opinions and their conclusions." They further argued that although the Rules permit an expert's complete report to be filed instead of a witness statement, it must contain the required information. They cited examples of numerous documents being listed in the witness statements from which it was difficult or impossible to determine the expert's position on a matter. Their requested remedy was based on the last paragraph of Rule 7.04 whereby "an expert may not be permitted to testify if this statement or report is not served on all parties."

[202] The Applicant responded that the ability to file an expert's complete report is designed to accommodate circumstances like the present case where numerous documents and studies have been produced by an Applicant which collectively contain the experts' opinions, reasons and conclusions. It argued that it is unnecessary to create yet another set of documents to answer all of the detailed questions posed in the Issues List ("IL") when all of the material is available in the existing reports. Further, the Applicant argued that all issues are addressed in the documents and that each expert's set of reports answers the issues within their area of expertise.

[203] The Tribunal denied the request of both motions and permitted the listed experts to testify as planned, along with an opportunity for mitigating measures if needed through the hearing.

[204] The Tribunal acknowledged that a more clear and helpful format than that provided by some of the Applicant's witnesses could have been utilized, however, the Rules permit a witness's complete report to be filed instead of a witness statement if it contains the required information. In the examples cited in argument, the required information appeared to be present, albeit spread throughout several documents in some cases. The one omission from the required information was a list of the specific issues the witnesses would address, although it appeared fairly obvious which witnesses would address which issues based on the categorizations of issues in the IL.

[205] The Tribunal found it reasonable that all of the Applicant's reports comprise its case based on the analysis, opinions and conclusions of those reports, and it was apparent that the opponents were able to utilize those reports in arriving at the IL and in preparing their detailed witness statements.

[206] The Rule leaves the question of whether a witness may testify to the discretion of the Tribunal. In this case, the less than ideal format of some of the Applicant's witness statements was not so egregious as to warrant a prohibition of testimony. Except for recent updates to studies and responses to the opponents' witness statements, the Applicant's materials had been available for an extended period of time.

[207] The Tribunal did not condone the approach taken by some of the Applicant's witnesses given that there may be more helpful approaches, but given the circumstances noted above, the Tribunal found no general prejudice to the opposing Parties, and ruled that should a specific issue arise, the Tribunal would allow it to be addressed at that time. If, for example, a position of the Applicant were demonstrated by the opposing Parties to be genuinely unforeseen and a surprise, the Tribunal would hear and consider submissions on measures to mitigate the matter.

[208] The Tribunal noted that the Applicant had argued it would address all of the issues based on the materials filed. The Tribunal advised that whether certain issues were not addressed and what effect that should have on the outcome would be a matter for argument.

Participant Request

[209] At the outset of the hearing, Robert Barnett requested Participant status on behalf of the Escarpment Biosphere Conservancy ("EBC") that has an interest in land by legal agreement with an abutting owner to the north of the subject property. Having only heard about the matter during the last six months, Mr. Barnett had not participated in the public process at the County or Township and had not attended any of the Pre-hearing Conferences ("PHC") convened by the Tribunal.

[210] JDCL opposed the request. The Township, Halton and CRC had no objection to granting Participant status.

[211] The Tribunal denied this late request for Participant status. While Mr. Barnett was unaware of the applications, the owner with which EBC has an agreement would surely have known about the proposed quarry, potentially for several years, and could or should have apprised EBC. EBC did not participate in the local public process or a PHC, did not make a timely request for status, and did not file a Participant statement. The Tribunal noted that, given the sophisticated opposing parties and several registered Participants, it expected to receive all of the necessary information with which to make a decision on the quarry.

INTERIM ORDER

[212] The Tribunal orders that the appeals are allowed in part, and:

- County of Wellington OPA No. 2016-09 is approved in the form of Exhibit 63 as set out in Attachment 1;
- Zoning By-law No. 40/2016 will be amended substantially in the form of the ZBA in Exhibit 63 as set out in Attachment 2, with the final Order withheld pending the Township advising the Tribunal that the final form of the ZBA is satisfactory.

[213] The Tribunal's final Order and direction to the Minister of Natural Resources to issue the licence are withheld pending fulfillment of the following requirements ("site plan" means Exhibit 171):

- The Township confirm that a road agreement has been executed with JDCL, including compensation for the Township's associated costs;
- The Township confirm that a note is added to the site plan setting out a preliminary terms of reference for a Community Liaison Committee, with the Committee's ongoing reasonable costs to be covered by JDCL.
- The County confirm that trigger levels have been established on the site plan for the south sentry wells based on the relationship of on-site groundwater levels and discharge at the Brydson spring and that any breach will invoke the actions of the Monitoring Program s. 3.1 on page 6 of the site plan;
- The GRCA confirm that any necessary approvals and permits have been issued.
- Halton Hills confirm that the site plan requires JDCL to file with the municipality an annual haul route summary report showing proportionate haul route usage and rationale.

- The Region confirm that the site plan requires JDCL to share monitoring data relevant to the Region on a timely basis as it becomes available.

- JDCL confirm that trigger levels have been established on the site plan to protect the level of the De Grandis pond, based on off-site monitoring at the feature subject to landowner permission and, in the event access is denied, suitable surrogate on-site monitoring.

- JDCL confirm that, with input from the Region, quantity and quality monitoring and trigger levels have been established on the site plan to protect the fish habitat in Brydson Creek, based on off-site monitoring at the feature subject to landowner permission and, in the event access is denied, suitable surrogate on-site monitoring.

- JDCL confirm that the final site plan reflects the results of a further bat survey in accordance with the 2017 protocol to be conducted jointly by a consultant for JDCL and Dougan & Associates at JDCL's expense in the southwest area of Phase 2 as identified in Exhibit 55-5-16, with any identified LBM habitat to be excluded from the extraction limit of the quarry and retained in its natural state.

- JDCL confirm that a note is added to the site plan setting out a procedure for Notice of Blasting to area property owners.

- JDCL confirm that a note is added to the site plan requiring final rehabilitation to account for the actual final pond level where necessary for the creation of functioning wetlands, shallows, or other features dependent on final water level.

- JDCL confirm that the site plan requires an amendment if the frequency of off-site monitoring is proposed to be changed based on a review of the data.

[214] Subject to confirmation of the above requirements, the Tribunal will issue its final Order and direct that the MNRF issue a licence under the ARA, conditional upon the

MTO confirming with the MNRF that all necessary approvals and permits have been issued.

[215] The Tribunal may be spoken to if issues arise.

"*S. Tousaw*"

S. TOUSAW
MEMBER

ATTACHMENT 1

AMENDMENT NUMBER __
TO THE OFFICIAL PLAN FOR THE COUNTY OF WELLINGTON

James Dick Construction Limited
Proposed Hidden Quarry
Part of West ½ Lot 1, Concession 6,
in the Township of Guelph/Eramosa

County File No. OP-2016-09

April 25, 2019

AMENDMENT NUMBER ___
TO THE
COUNTY OF WELLINGTON OFFICIAL PLAN

INDEX

PART A – THE PREAMBLE

PURPOSE

The purpose of the proposed Official Plan Amendment is to revise Schedule A3 of the County's Official Plan (Township of Guelph/Eramosa) by adding a new Mineral Aggregate Area designation to the subject lands to permit the establishment of a mineral aggregate operation (pit/quarry).

LOCATION

The proposed amendment applies to Part West ½ Lot 1, Concession 6 in the Township of Guelph/Eramosa.

BACKGROUND

James Dick Construction Limited has owned the subject property since 1989. The subject property has been formerly extracted for municipal and local construction projects. The subject property contains both an unconsolidated sand and gravel resource and a consolidated bedrock resource. The resource is considered to be provincially significant.

James Dick Construction Limited applied for a licence under the Aggregate Resources Act, and a Zoning By-law Amendment and Official Plan Amendments to permit aggregate extraction on the subject lands. Approval of the planning applications would permit the establishment of a mineral aggregate operation on the subject lands.

BASIS

The County's Official Plan states that significant aggregate deposits will be identified and policies established to protect the resource and provide for appropriate extraction activities. The subject lands were identified by the Mineral Aggregate Area boundary prior to OPA 81 and included within the Mineral Aggregate Resource Overlay on Schedule "C" of the current County Official Plan. Pursuant to changes introduced by OPA 81, all new and expanded aggregate operations require an amendment to the County of Wellington Official Plan.

Existing licenced aggregate operations are permitted uses in Prime Agricultural Areas. Section 6.6.5 states that new or expanded aggregate operations shall only be established through amendment to the Mineral Aggregate Area shown on Schedule 'A' of the County Official Plan. James Dick Construction Limited has applied for an amendment to the County Official Plan to permit the proposed mineral aggregate operation by establishing the Mineral Aggregate Area designation on Schedule A3 (Guelph/Eramosa) for the subject lands.

The existing Core Greenlands designation applies to a wetland in the northwestern portion of the subject property. As well, the Core Greenlands designation applies to the central portion of the subject property as this relates to an intermittent watercourse and associated flood lands. A portion of the subject property is designated Greenlands. The subject property includes a plantation that was established and continuously managed for the sole purpose of complete removal at rotation without a reforestation objective. The Official Plan recognizes and provides an exception to the Greenlands designation for such situations.

Schedule 'C' of the County of Wellington Official Plan is the Mineral Aggregate Resource Overlay and identifies areas of high potential for mineral aggregate extraction. This amendment also proposes to amend Schedule 'C' by removing those portions of the subject property that are not proposed for aggregate extraction. Therefore, those areas of the subject property where extraction is not to take place will be removed from Schedule 'C'.

The operational design of the pit incorporates the recommendations of the technical reports prepared for the application in order that the proposed pit/quarry can operate within the Provincial guidelines and minimize social and environmental impacts. The proposed Hidden Quarry represents the wise use and management of provincially significant resources, is consistent with the Provincial Policy Statement (2014), and conforms to the Growth Plan for the Greater Golden Horseshoe (2006), and the County of Wellington Official Plan.

PART B – THE AMENDMENT

All of this part of the document entitled Part B – The Amendment, consisting of the following text and maps constitute Amendment No. ___ to the Official Plan for the County of Wellington.

DETAILS OF THE AMENDMENT

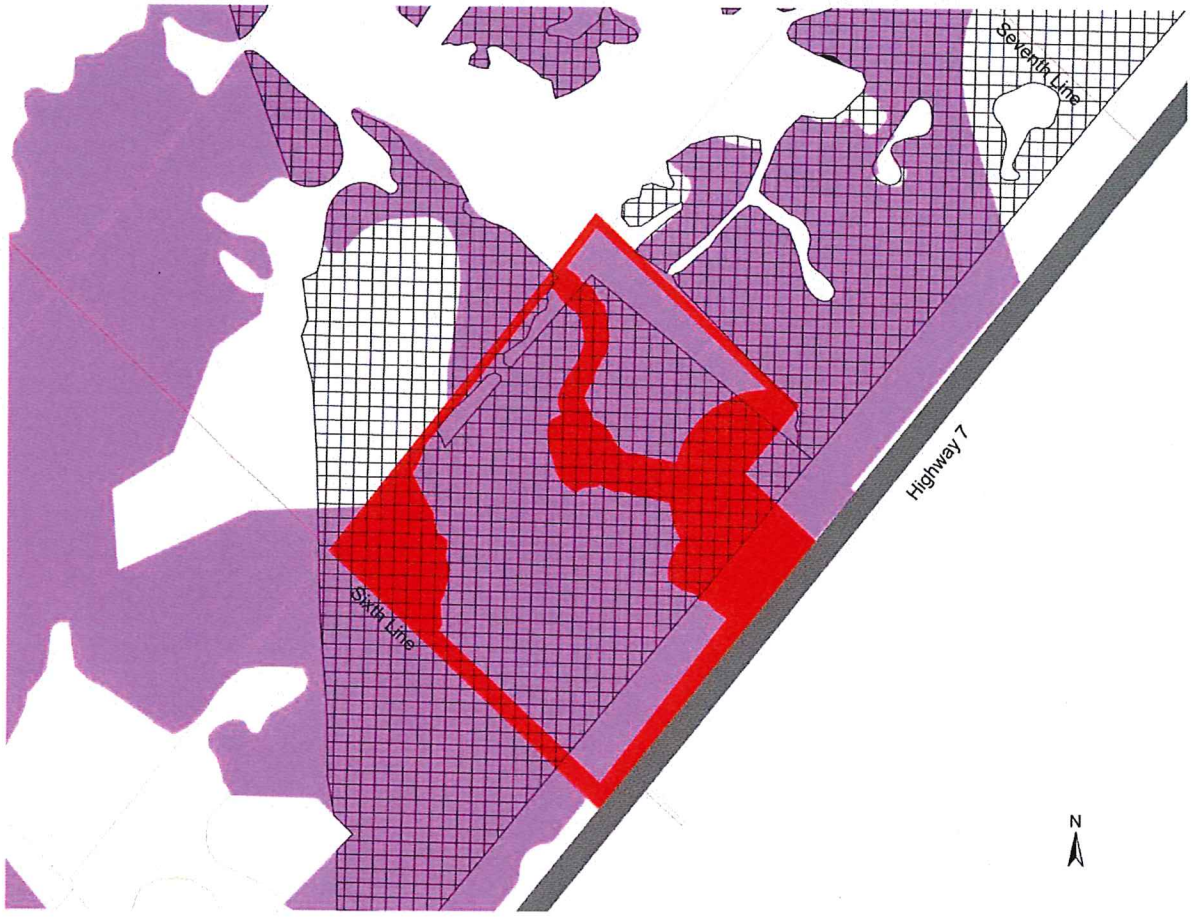
The Official Plan of the County of Wellington is hereby amended as follows:

1. THAT **SCHEDULE A3 (Guelph/Eramosa)** is amended as shown on Schedule "A" to this Amendment:

SCHEDULE "A"
OF
OFFICIAL PLAN AMENDMENT NO. ___

2. THAT **SCHEDULE "C" (Mineral Aggregate Resource Overlay)** is amended as shown on Schedule "B" to this Amendment:

SCHEDULE "B"
OF
OFFICIAL PLAN AMENDMENT NO. ___



AREA TO BE REMOVED FROM SCHEDULE 'C' – MINERAL AGGREGATE RESOURCE OVERLAY

SELECTED BEDROCK RESOURCES AREAS

SAND AND GRAVEL RESOURCES OF PRIMARY AND SECONDARY SIGNIFICANCE

ATTACHMENT 2

The Corporation of the Township of Guelph/Eramosa

By-Law Number __/2016

A BY-LAW TO AMEND TOWNSHIP OF GUELPH/ERAMOSA ZONING BY-LAW NUMBER 40/2016

Part Lot 1, Concession 6
Former Township of Eramosa
(Hidden Quarry)

WHEREAS the owner of the lands described as Part Lot 1, Concession 6, Former Township of Eramosa appealed a proposed zoning by-law amendment to the Ontario Municipal Board;

AND WHEREAS the Ontario Municipal Board, by its Decision/Order issued on [insert] in Board File No. PL150494, approved amendments to the Township of Guelph/Eramosa Comprehensive Zoning By-law 40/2016, as amended, with respect to the lands;

NOW THEREFORE pursuant to the Order of the Ontario Municipal Board, By-law 40/2016, the Comprehensive Zoning By-law of the Township of Guelph/Eramosa, is amended as follows:

1. That Zoning By-law Number 40/2016 is hereby amended by rezoning the lands on Schedule 'A' to this By-law from Agricultural (A) Zone and Environmental Protection (EP) Zone to Extractive Industrial (M3) Zone subject to Special Provision 21.189, from Agricultural (A) Zone to Environmental Protection (EP) Zone and Environmental Protection (EP) Zone subject to Special Provision 21.190, and from Environmental Protection Zone to Environmental Protection (EP) Zone subject to Special Provision 21.190.

2. That Zoning By-law Number 40/2016 is hereby amended by adding Special Provision 21.189 to Section 21 as follows:

   21.189 Notwithstanding the General Provisions of this By-law and the provisions of the Extractive Industrial (M3) Zone, on the lands described as Part Lot 1, Concession 6, Former Township of Eramosa illustrated on Schedule 'A' to this By-law, the following shall apply:

   i) Permitted uses shall be restricted to those permitted in the M3 Zone with the exception that the following uses shall be prohibited:
   Asphalt or concrete plants, including portable plants
   Recycling
   Importation and storage of snow

   ii) Setbacks for Excavation
   Notwithstanding the Setbacks for Excavation established in the M3 Zone, no excavation shall occur within 20 m from any body of water that is not the result of excavation below the water table.

3. That Zoning By-law Number 40/2016 is hereby amended by adding Special Provision 21.190 to Section 21 as follows:

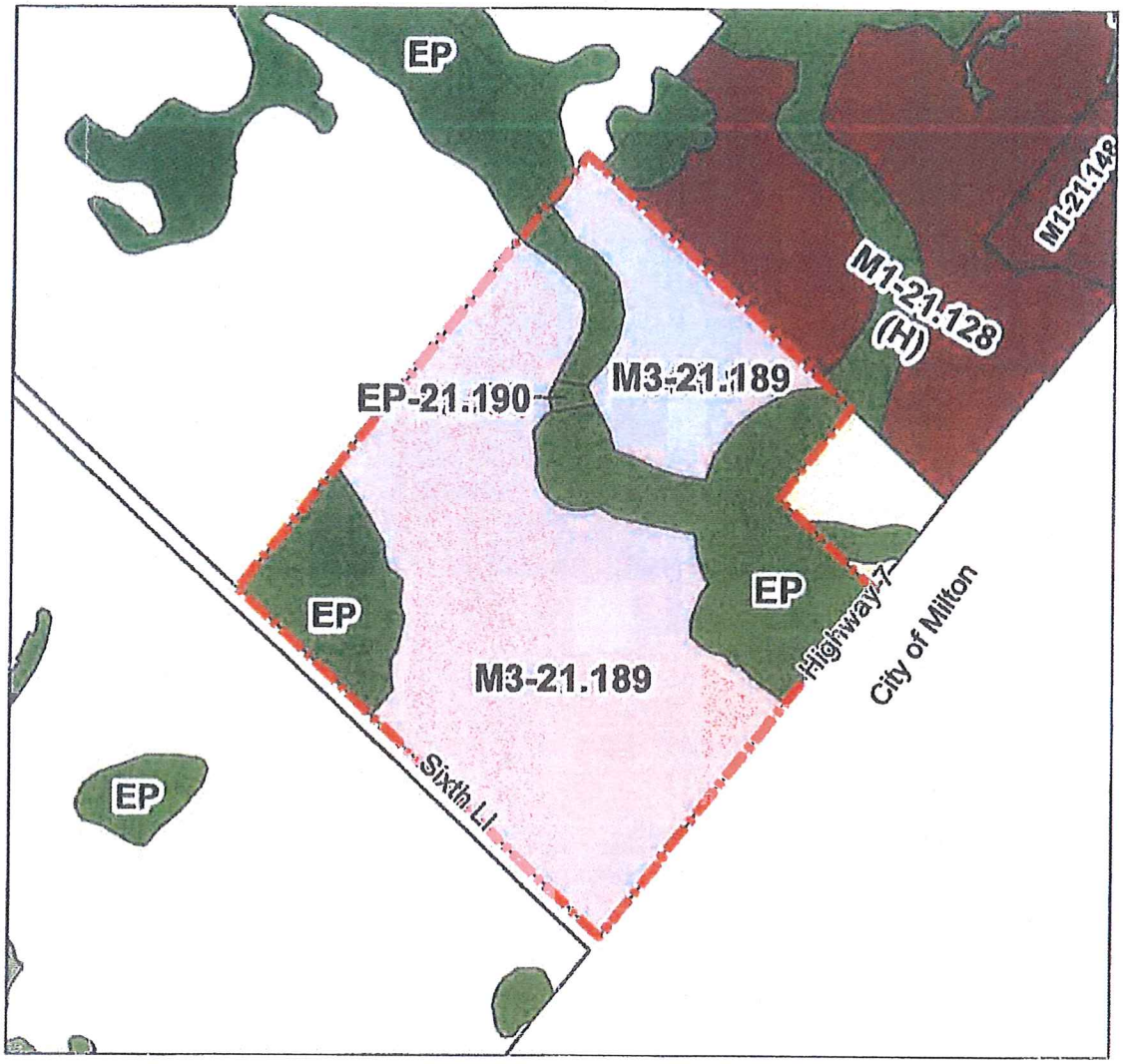
    21.190 Notwithstanding the General Provisions of this By-law and the provisions of the Environmental Protection (EP) Zone, on the lands described as Part Lot 1, Concession 6, Former Township of Eramosa illustrated on Schedule 'A' to this By-law, the following shall apply:

        i) Permitted uses shall include an internal haul route crossing and/or structure necessary and ancillary/accessory to the Quarry permitted in the M3 Zone subject to Special Provision 21.189 on lands described as Part Lot 1, Concession 6, Former Township of Eramosa

4. All other applicable provisions of By-law No. 40/2016 shall continue to apply to the lands affected by this amendment.

5. That this By-law shall become effective from the date of the passing hereof.

SCHEDULE "A" TO BY-LAW NUMBER _____/2016



Lands Subject to Special Provision___-___

Zone

- Agricultural (A)
- Environmental Protection (EP)
- Extractive Industrial (M3)
- Rural Industrial (M1)

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To be read in conjunction with Zoning By-law 42[illegible]
DO NOT USE FOR SURVEY OR NAVIGATION PURPOSES
This map is for reference only and may not be accurate
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