



FINAL

# Planning Justification Report Port Colborne Quarries Inc. Pit 3 Extension

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Part of Lot 17, 18 and 19, Concession 2,  
(formerly Township of Humberstone)  
and Plan 59R-16702  
City of Port Colborne, Ontario



Prepared For Port Colborne Quarries Inc.  
by IBI Group  
February 17, 2021

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## **Summary**

Applicant:	Port Colborne Quarries Ltd.
Property Location:	Part Lot 17, 18 and 19, Con 2, and 59R-16702 (formerly Township of Humberstone) City of Port Colborne, Ontario
Total Property Area:	106.3 hectares (262.6 acres)
Total Area to be Licensed:	106.3 hectares (175 acres)
Total Area to be Extracted:	71.1 hectares (175.7 acres)
Annual Extraction Volume:	1,815,000 tonnes
Available Tonnage Reserves:	+/-45,000,000 tonnes

### Required Planning Approvals:

- **Ministry of Natural Resources and Forestry** – Aggregate Resources Act Licence *Class A Licence* (Annual Extraction > 20,000 tonnes per year), *Category 2* (Quarry Below Water).
- **Regional Municipality of Niagara Official Plan** –
  - Add to Section 13 the site-specific policies to permit the Pit 3 extension quarry operation.
  - Identify the subject lands on Schedule D4 - *Mineral Resources* as a Licensed Pits and Quarries.
- **City of Port Colborne Official Plan** –
  - To change the designation from Agricultural to Mineral Aggregate Operations
  - Add a Special Policy Area to permit the proposed quarry.
- **Port Colborne Zoning By-Law** - Amendment to the City's Zoning By-Law 6575/30/18 to;
  - Rezone lands from Agriculture to Mineral Aggregate Operation
  - To reduce the minimum setback from a Provincial Highway from 90.0 metres to 30.0 metres
  - Additional permitted use to be applied to the existing houses at 1252 Main St., 1326 Main St., and 1645 Second Concession Road, including:
    - Dwelling, detached
    - Uses structures and buildings accessory thereto.

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# 1 Introduction

This Report has been prepared to support applications for the re-designation, rezoning and licensing of lands owned by Port Colborne Quarries Inc. (PCQ) to permit aggregate extraction. The subject lands are located east of the existing PCQ properties (Pit 2 and Pit 3) that are currently licensed under the Aggregate Resources Act (ARA) to operate a Category 2- Class A, Quarry Below Water, identified as Licence 4444.

PCQ is requesting approval to extend the existing Pit 3 licensed operation eastward on additional lands owned by PCQ.

In order for extraction to occur on the subject lands, the following approvals are required:

- **Regional Municipality of Niagara Official Plan (2014)**
  - Add to Section 13 the site-specific policies to permit the Pit 3 extension quarry operation.
  - Identify the subject lands on Schedule D4 - *Mineral Resources* as a Licensed Pits and Quarries.
- **City of Port Colborne Official Plan –**
  - To change the designation from Agricultural to Mineral Aggregate Operations
  - Add a Special Policy Area to permit the proposed quarry.
- **Port Colborne Zoning By-Law - Amendment to the City's Zoning By-Law 6575/30/18 to;**
  - Rezone lands from Agriculture to Mineral Aggregate Operation
  - To reduce the minimum setback from a Provincial Highway from 90.0 metres to 30.0 metres
  - Additional permitted use to be applied to the existing houses at 1252 Main St., 1326 Main St., and 1645 Second Concession Road, including:
    - Dwelling detached
    - Uses structures and buildings accessory thereto.
- **Amendment to the City of Port Colborne Zoning By-Law 6575/30/18, to:**
  - Rezone the lands from *Agricultural (A)* to *Mineral Aggregate Operation (MAO)*
  - To reduce the minimum setback from a Provincial Highway from 90.0 metres to 30.0 metres, and,
  - Additional permitted use to be applied to the existing houses at 1252 Main St., 1326 Main St., and 1645 Second Concession Road, including;
    - a) Dwelling detached
    - b) Uses structures and buildings accessory thereto.
- **Application to the Ministry of Natural Resources and Forestry - [Integrated Aggregate Operations Section - IAOS], under the Aggregate Resources Act for a Class A - Category 2 Licence (Quarry Below Water).**

The subject lands are located in the eastern portion of the City of Port Colborne just outside and to the northeast of the existing built-up area, near the intersection of Miller Road and Highway 3, (Main Street). The lands are bound by Second Concession Road to the north, Highway 3 to the south, existing quarry lands owned by PCQ to the west and the rear lot line of homes fronting onto Miller Road to the east, with a small portion of frontage directly onto Miller Road.

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The subject site is +/-106.3 hectares (262.7 acres). The legal description of the subject site is:

Part of Lots 17, 18 and 19, Concession 2,  
(formerly Township of Humberstone)  
and Plan 59R-16702 (former Carl road)  
City of Port Colborne,  
Regional Municipality of Niagara.

(refer to Figure 1 – Site Location Map).

## 1.1 Purpose of Report

The purpose of this report is to provide the Ministry of Natural Resources and Forestry (MNR), the Regional Municipality of Niagara, the City of Port Colborne, the Niagara Peninsula Conservation Authority and other government review agencies with the necessary information to evaluate and approve the required planning applications for the proposed 'Pit 3 Extension'. The report is also intended to provide a summarization of the application to assist the public during the public notification portion of the planning process. The report will also summarize the key supporting documents (refer to Appendices B-Q) which were undertaken collaboratively to ensure all recommendations and conclusions of each of the technical reports took into consideration the other disciplines.

The annual production volume being requested is 1,815,000 tonnes, which reflects the current annual tonnage of the existing Pit 3 quarry operation (Licence 4444) but will be restricted to not exceed 1,815,000 tonnes of production of Licence 4444 and the Pit 3 Extension, both individually and collectively. Therefore the threshold of all studies undertaken have utilized this production volume as both a minimum and maximum.

A (Zoom) Pre-submission Consultation meeting occurred on April 23, 2020, with the following applicable review agencies invited: Ministry of Natural Resources and Forestry, Ministry of Environment, Conservation and Parks, Ministry of Transportation, Ministry of Agricultural and Rural Affairs, Niagara Peninsula Conservation Authority, Region of Niagara, and the City of Port Colborne. Meeting Minutes are attached hereto as Appendix A.

## 2 Site Features

The subject lands to encompass the Pit 3 Extension comprises of seven separate land parcels located on both sides of Carl Road, and also includes the former road allowance for Carl Road. These holdings are characterized as primarily being cropland with frontage access onto one of three abutting roads; Second Concession Road, Highway 3 (Main Street) and Miller Road.

The two small parcels fronting onto Highway 3 both include rural residences (< 0.4 hectares each) and are referenced as 1252 and 1326 Main St. The remaining parcel includes the New Humberstone Speedway being a dirt-track car racing oval with grandstands. The race track lands are L-shaped extending to Miller Road to the east along with frontage on Highway 3 to the south. Refer to Figure 2 – Site Features.

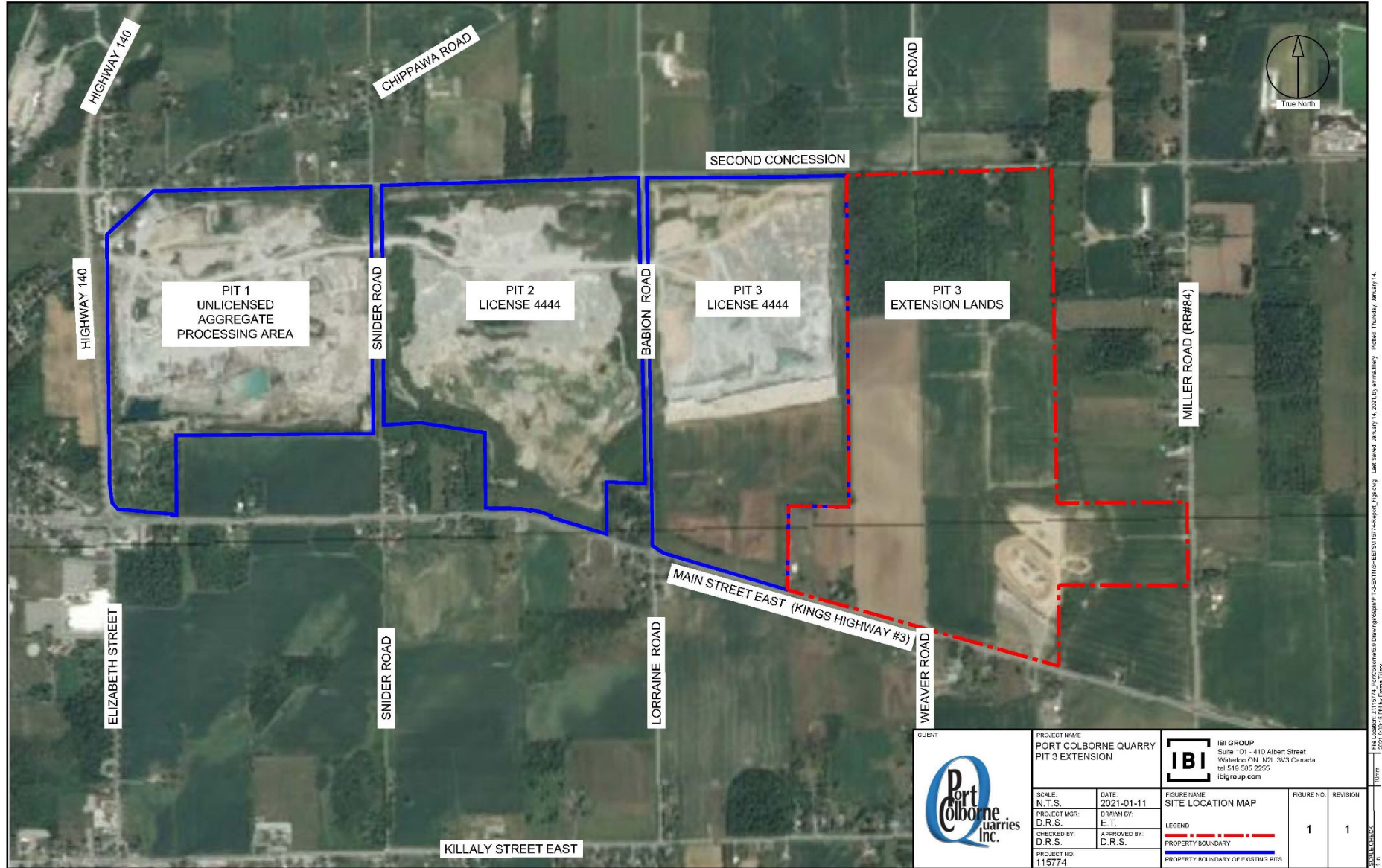
The northern portion of the site is occupied by woodlots that are part of the west and east branches of the Wignell Drain which becomes part of the City of Port Colborne municipal drain system as it generally traverses the subject site in a north to south direction, eventually flowing into Lake Erie.



In addition to the above noted buildings, an additional residential dwelling is located just east of the former Carl Road and referenced as 1645 Second Concession Road.

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 PORT COLBORNE QUARRIES INC.  
 PIT 3 EXTENSION

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Figure 1 Site Location Map



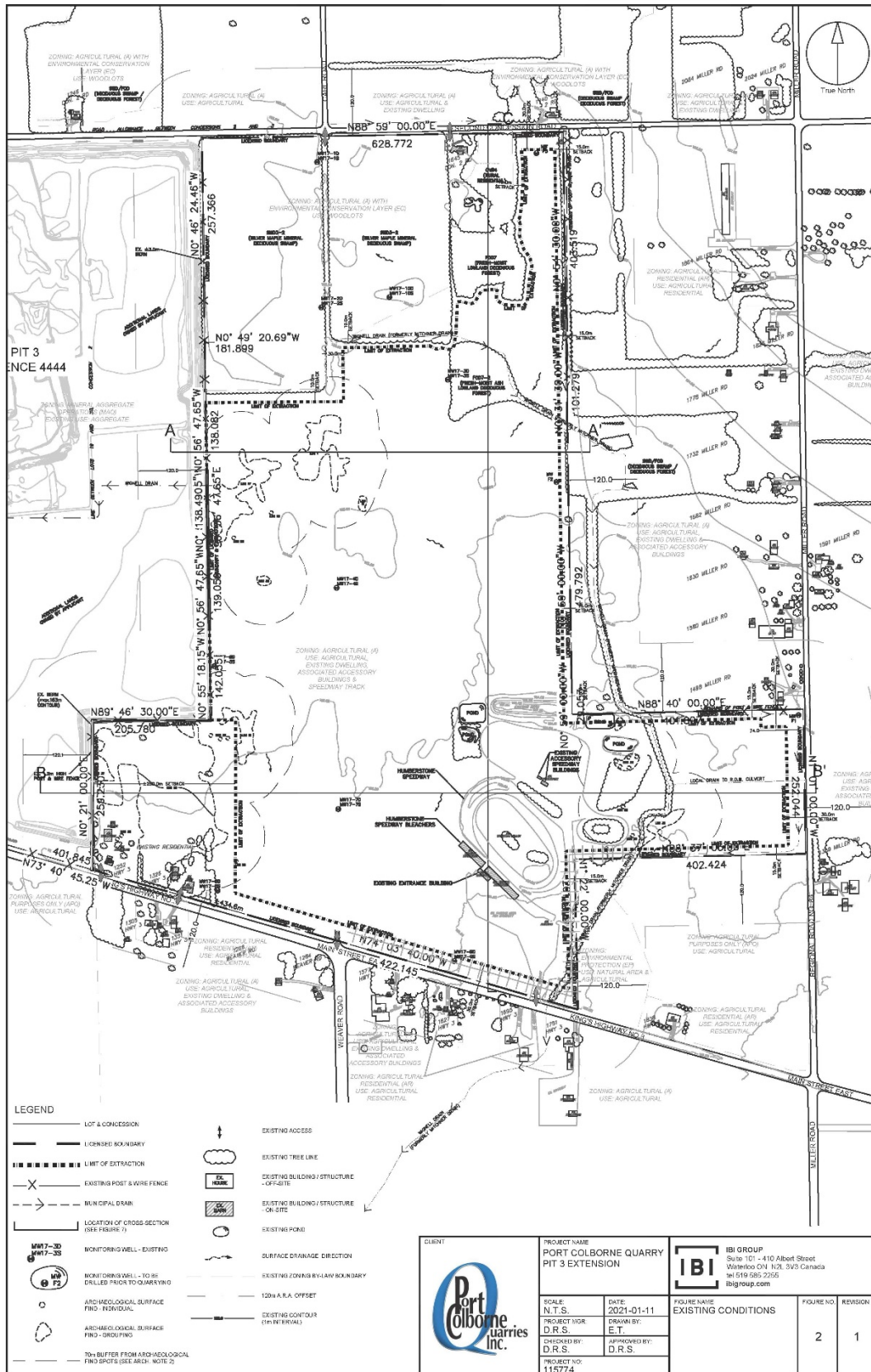
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SCALE: N.T.S.	DATE: 2021-01-11	FIGURE NAME SITE LOCATION MAP		FIGURE NO.	REVISION
PROJECT MGR: D.R.S.	DRAWN BY: E.T.	LEGEND		1	1
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 PIT 3 EXTENSION

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Figure 2 Site Features



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Carl Road was an open road allowance, but the road was never constructed to meet municipal road standards but rather only usable by off-road vehicles. PCQ acquired these lands from the City of Port Colborne in 2020 thereby ensuring the overall quarry extraction of the lands to be substantially more efficient in terms of resource access, and minimizing the potential for external land use impacts including noise and dust which could have been created by haul trucks being required to repeatedly crossing the right-of-way at its' current 'at-grade' elevation.

Total lands:

The total area of the lands owned by PCQ east of their existing Pit 3 (Licence 4444) operation are 106.3 hectares (262.7 acres).

Area of Lands to be Licensed:

The total area of lands to be licensed will be all of the lands held by Port Colborne Quarries Inc.: 106.3 hectares

Area of Lands to be Extracted:

Based on the recommendations from the technical studies which include such constraints as natural environment and archaeology, and subject to the prescribed setbacks of the ARA, the total lands for extraction are 71.1 hectares (175.7 acres).

### 3 Surrounding Land Uses

The subject site is in the eastern portion of the City of Port Colborne and just east of its' urban area. The abutting land uses within 500.0 metres include:

**North:** Second Concession Road (paved) is to the north. Further north are agricultural lands that are actively cropped. Fronting onto Miller Road north of Second Concession Road are three non-farm residences. Immediately north of Second Concession is a small +/- 2.5 hectare woodlot surrounding a single non-farm residence as well as a larger woodlot along the rear of the Miller Road homes.

**East:** The rear lot lines of several (6) non-farm rural residences are located to the east. These lots all have frontage on Miller Road (paved) and have a depth of +/-360 metres. In addition, there is an active chicken barn located at the southwest corner of Second Concession Road and Miller Road. East of Miller Road are crop lands and three farms homes and associated farm buildings.

Between the speedway lands and Miller Road are additional agricultural lands and a non-farm dwelling.

**South:** To the south is Highway 3 (Main Street) fronting onto the south side of Highway 3 are numerous rural land uses including farm land, non-farm rural residences, and light industrial uses (sales/servicing of farming machinery, kennel / pet grooming).

With frontage onto the north side of Killaly Street E., this includes several non-farm residences and a small (+/-5 hectare woodlot).

Along the west frontage side of Weaver Road are numerous non-farm residences, with all the lands on the east side being actively farmed.

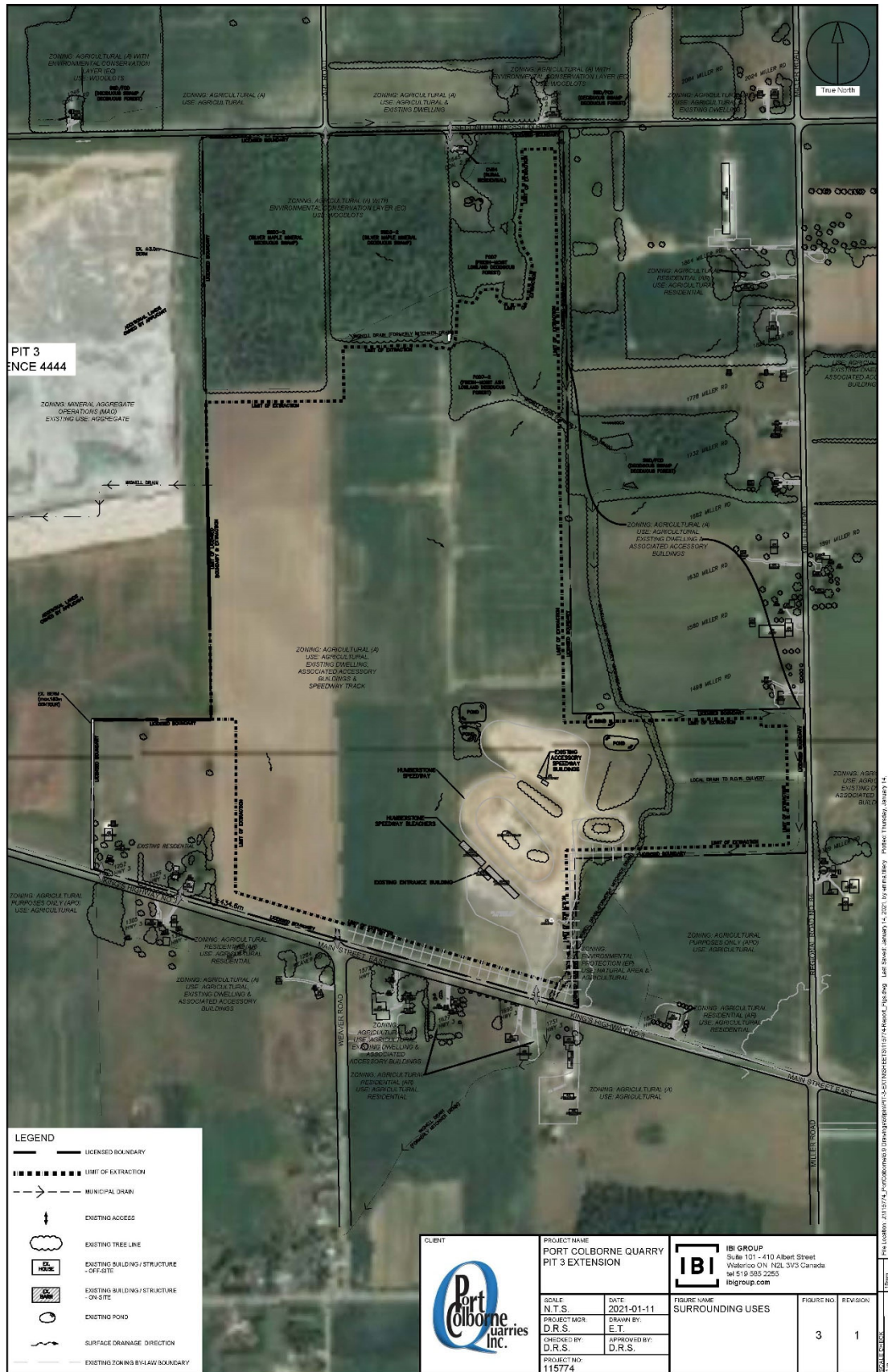
**West:** The existing Port Colborne Quarries Inc. lands are to the west and specifically their active Pit 3 operation (Licence 4444).

Figure 3 provides the zoning for the subject lands as well as the surrounding uses. The following is a description of those zone categories.

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 PIT 3 EXTENSION

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Figure 3 Surrounding Uses



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#### Subject Site

- A - Agricultural
- EC - Environmental Conservation

#### Abutting Lands Owned By PCQ

- MAO Mineral Aggregate Operations

#### Other Surrounding Lands

- A Agricultural
- AR Agricultural Residential
- APO Agricultural Purposes Only
- EP Environmental Protection

## 4 Aggregate Quality and Quantity

According to the Ontario Geological Survey: Aggregate Resources Inventory Paper (ARIP) No. 117 published in 1985 by the Ministry of Northern Development and Mines, for Niagara Region, the subject lands are identified as a *Selected Bedrock Resource Area, Deposit No. 3a*. They are part of the Onondaga Bedrock Formation and belong to the Edgecliff Member. This stone type is suitable for lower specification crushed stone, although material suitable for concrete and asphalt aggregate may be available at greater depths. Depth of overburden is estimated to be between 0 and 8 metres (25 feet) and consists predominantly of glacio-lacustrine clay. Specific on-site investigations by Golder confirmed that the site has a variable overburden thickness which increases in depth at the north extent. Portions of the southern property have a very shallow depth of overburden being 0.5 – 2.0 metres and upwards to 4.0 metres thick. However, in the northern extent, the overburden thickness increases to as much as 10-12 metres thick.

As noted above, the surface topography is generally level, with an overall relief of 3.0 – 4.0 metres across the entire site, with a gentle sloping to the south. The depth of accessible bedrock underlying the site, which includes both the Williamsville Unit and Falkirk Unit, both which are somewhat variable in thickness, range from 8.0 metres to 16.0 metres thick.

Golder has undertaken reserve estimates of the available bedrock resources and concluded that there is approximately 40 to 50 million tonnes. The quality of the rock is consistent with that historically and currently being extracted by Port Colborne Quarries Inc. at their existing Pit 3 operations abutting and to the west and the rock meets a large range of provincial road building technical specifications.

For further details, refer to Appendix J: Hydrogeological Assessment, Level 1 / 2 Water Resources Study, Golder Associates Inc., dated October 2020.

## 5 Soil Classifications

Section 2.1.2 of the Aggregate Resources Act (Report Standards for Category 2 Applications) states: “*the agricultural classification of the proposed site, using the Canada Land Inventory classes*” must be included in this report, and “*for the lands being returned to agriculture, the proposed rehabilitation techniques must be identified*”.

An Agricultural Impact Assessment was undertaken by Colville Consulting Inc. dated July 2020 and the following is a summary of the data compiled from that report for the ‘extraction area’.

SOIL SYMBOL	SOIL CLASSIFICATION	AREA (HA)	%	AGRICULTURAL CAPABILITY RATING
CGU.R	Chinguacousy-Red	16.14	22.7	2D
CGU.RW	Chinguacousy- Red Washed	15.91	22.4	2
JDD.R	Jeddo-Red	23.39	32.9	3W
FRM.S	Farmington-Very Shallow	2.79	3.9	4R
FKW.S	Franktown-Very Shallow	0.001	.001	4R
ZNM	Not mapped	12.89	18.1	
<b>Total</b>		<b>71.1</b>	<b>100.0</b>	

As shown above, approximately 55.4 ha (78%) of the proposed extraction area is comprised of Class 2 and 3 soils.

For further soils details, refer to Appendix C: Agricultural Impact Assessment, Colville Consulting Inc. dated September 2020.

## 6 Planning and Land Use Considerations

In order for aggregate extraction to proceed on the subject lands, the use must conform to the following:

- Provincial Policy Statement (PPS) 2020
- Growth Plan for the Greater Golden Horseshoe (GGH) 2019
- Regional Municipality of Niagara Official Plan (ROP) 2014
- City of Port Colborne Official Plan 2017
- City of Port Colborne Zoning By-Law No 83-38.

For purposes of completeness, it should be noted that:

- a) The subject site is not within the designated area of the Greenbelt Plan,
- b) The subject site is not within the designated area of the Niagara Escarpment Plan.

The following section highlights how the application conforms to the applicable Provincial, Regional and City land-use planning documents.

### 6.1 Provincial Policy Statement 2020

As stated in the Preamble of the Provincial Policy Statement (PPS), it provides policy direction on matters of provincial interest related to land-use planning and development. As a key part of Ontario’s policy-led planning system, the PPS sets the policy foundation for regulating the development and use of land and supports the provincial goal to enhance the quality of life for all Ontarians.

The PPS under Part III states that the PPS is more than a set of individual policies and that it is to be read in its entirety and the relevant policies are to be applied to each situation. When more than one policy is relevant, a decision-maker should consider all of the relevant policies to understand how they work together.

Based on this, we have determined that the relevant policies of the PPS, as they apply to the Pit 3 Extension application are:



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- 1.7 Long-Term Economic Prosperity
- 2.1 Natural Heritage
- 2.2 Water
- 2.3 Agriculture
- 2.5 Mineral Aggregate Resources
- 2.6 Cultural Heritage
- 3.2 Human-Made Hazards

### 6.1.1 Long-Term Economic Prosperity

Policy 1.7 states that:

*Long-term economic prosperity should be supported by:*

- a) *promoting opportunities for economic development and community investment-readiness;*

Response: The development of the Pit 3 Extension will support long-term economic prosperity as confirmed in the Financial Impact Assessment and Economic Benefits Report attached hereto as Appendix H. In summary, the quarry will: a) increase the Regional and City tax revenue by as much as \$1.2 million, b) provide aggregate levies to the Region and City by up to \$7.0 million, c) to maintain the same number of jobs (20) currently employed by PCQ, and d) have no anticipated impact on any of the Region's or City's capital programs.

- c) *optimizing the long-term availability and use of land, resources, infrastructure and public service facilities;*

Response: The development of the Pit 3 Extension will support the long-term availability of the aggregate resources which will provide a 'close to market' source for the provincial, regional and local aggregate markets. The aggregate reserves have been estimated to total 45 million tonnes, therefore, the minimum life duration for the quarry (based on 1,815,000 tonnes per year) is 25 years, thereby providing long-term access to the resources.

- e) *encouraging a sense of place, by promoting well-designed built form and cultural planning, and by conserving features that help define character, including built heritage resources and cultural heritage landscapes;*

Response: The development of the Pit 3 Extension has encouraged cultural planning as confirmed in the Archaeological Stage 1 and 2 Assessment and Addendum attached hereto as Appendix E i) and E ii) and the Cultural Heritage Screening Report attached hereto as Appendix G. Specifically, through the completion of these reports, significant archaeological and cultural heritage resources have been identified and have either been avoided or recommendations included for 'no-go zone' buffers until the completion of additional archaeological assessments are undertaken.

- i) *sustaining and enhancing the viability of the agricultural system through protecting agricultural resources, minimizing land use conflicts, providing opportunities to support local food, and maintaining and improving the agri-food network;*

The response to Policy 1.7 i) has been sub-divided as follows:

- a) *sustaining and enhancing the viability of the agricultural system through protecting agricultural resources,*

Response: As highlighted in the PPS Preamble, "*when more than one policy is relevant, a decision-maker should consider all of the relevant policies to understand how they work together*". As referenced within the Agricultural policies of the PPS, and as noted below, Policy 2.3.6.1 states that planning authorities may only permit non-agricultural uses in prime

agricultural areas in specific circumstances including: a) extraction of mineral aggregate resources.

The majority of the Pit 3 Extension lands will not be rehabilitated back to an agricultural use, therefore we reference the Mineral Aggregate Resources policies of the PPS, and as noted below, Policy 2.5.4 provides the very limited circumstances where complete rehabilitation back to agriculture is not required. However, those portions of the site that are outside the limit of extraction where quarrying activities are being excluded, agriculture will continue to be available.

*b) minimizing land use conflicts,*

Response: As referenced, the Mineral Aggregate Resources policies of the PPS, and as noted below, Policy 2.5.2.2 provides that 'extraction shall be undertaken in a manner which minimized social, economic and environmental impacts. The development of the Pit 3 Extension will minimize land use conflicts as summarized through this Planning Justification Report, and the Land Use Compatibility / Sensitive Land Use Study attached hereto as Appendix K, and the Social Impact Assessment as attached hereto as Appendix N and specifically as highlighted in the individual technical studies related to acoustical (noise), air quality (dust), blasting/vibration, traffic and visual impacts.

*c) providing opportunities to support local food, and maintaining and improving the agri-food network*

Response: The Pit 3 Extension will continue to be available to provide opportunities to support local food or improve the agri-food network on those portions of the subject site where pre-extraction topsoil/subsoil stripping has yet to occur, and the lands outside the Limit of Extraction (1252 and 1326 Main St.). As confirmed in the Agricultural Impact Assessment, attached hereto as Appendix C, Pit 3 Extension will not negatively impact existing agricultural opportunities within the surrounding community, subject to the incorporation of the report recommendations.

*d) promoting energy conservation and providing opportunities for increased energy supply:*

Response: The development of the Pit 3 Extension will promote energy conservation by providing a 'close to market' source for the provincial, regional and local aggregate markets, thereby reducing the need to import aggregate that is not 'close to market. As well, the establishment of an entrance/exit directly onto Highway 3 (versus a Miller Road location) will reduce the travel distance of every external truck by 1.4 km per trip, thus resulting in significant energy savings and greenhouse gas reductions over the life of the quarry.

## 6.1.2 Natural Heritage

Policy 2.1 states that:

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

Response: The underlying intent of the Pit 3 Extension design is based on avoidance of the natural features and given that premise, the application will protect all the natural features for the long-term as confirmed in the Natural Environment Level 1 / 2 Report (EIS), attached hereto as Appendix L. Furthermore, to confirm that no negative impacts will occur, monitoring related to surface water, groundwater and vegetation within the wetland will be included at critical junctures of the operation.

*2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.*

Response: The design and development of the Pit 3 Extension will provide for diversity and connectivity of the natural features and the long-term ecological function and biodiversity of the natural heritage systems will be maintained, restored and where possible, improved, recognizing

linkages between and among natural heritage features and areas, surface water features and groundwater features as confirmed in the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L.

In summary, the natural areas will be maintained through avoidance and excluding those sensitive portions of the site from the Limit of Extraction. Enhancement of diversity and connectivity will be provided through;

- Ecological linkages in the study area will be improved. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.
- The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas.
- Along the perimeter of the site, and specifically within the extraction setback areas, once the perimeter berms have been removed, the lands will be subject to natural succession. This will encourage the growth of numerous ecological linkages along the perimeter of the lake and property boundaries.
- Bisecting SWD3-2 – Silver Maple Mineral Deciduous Swamp is the former Carl Road alignment. The segment of Carl Road that bisects the deciduous swamp shall be rehabilitated following the decommissioning of the road. This linear disturbance has enabled invasive plants to infiltrate the swamp interior and may be increasing predation pressure on wildlife from domestic and feral animals (cats and dogs) as well as opportunistic wild predators and scavengers that benefit from anthropogenic disturbance such as coyotes or raccoons. Excavations in three or four areas along the length of the road should be created to improve surface water drainage. Plantings along this segment of Carl Road should include the dominant tree and shrub species found in the deciduous swamp.

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

- a) significant wetlands in Ecoregions 5E, 6E and 7E1; and*

Response: The design and development of the Pit 3 Extension will not include development or site alteration within a significant wetland as confirmed in the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L.

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

- b) significant woodlands in Ecoregions 6E and 7E*  
*c) significant valleylands in Ecoregions 6E and 7E*  
*d) significant wildlife habitat;*  
*e) significant areas of natural and scientific interest; and*

Response: The design and development of the Pit 3 Extension will not include development or site alteration within i) a significant woodland, ii) significant valleylands, iii) significant wildlife

habitat, nor, iv) within an ANSI as confirmed in the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L.

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

Response: The Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L has identified potential fish habitat within the existing ponds sited on the former Humberstone Speedway lands. If fish are present, they will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

*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.*

Response: The Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L has identified numerous Threatened and Endangered Species and/or potential habitat on and/or within 120 metres of the site including Bank Swallow, Bobolink, Eastern Meadowlark, Chimney Swift and Bats. The underlying intent of Pit 3 Extension design has been avoidance of such habitat and based on that, the design and development of the subject application does not include development or site alteration within such habitat 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.*

Response: The design and development of Pit 3 Extension has been evaluated in terms of the ecological functions of the subject site and adjacent lands, and demonstrated that there will be no negative impacts on the natural features or on their ecological habitat, as confirmed in the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L and as supported by the Hydrologic (surface water) Assessment attached hereto as Appendix I.

*2.1.9 Nothing in policy 2.1 is intended to limit the ability of agricultural uses to continue.*

Response: The development of Pit 3 Extension will encourage the on-going agricultural use of the subject lands to continue prior to the stripping of the topsoil in advance of the extraction operation as confirmed through the Site Plans. In addition, the portion of the subject site referenced as 1252 and 1326 Main Street will continue to be available for agricultural use throughout the life of the quarry as those lands are excluded from the Limit of Extraction. However, it is acknowledged that post-extraction, there is limited ability of the site to support agricultural crops since the majority of the site will become a 65 Ha. lake and its associated side slopes. Refer also to conformity of PPS Policy 2.5.4.1

**6.1.3 Water**

Policy 2.2 states that:

*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.*

Response: The design and development of the Pit 3 Extension includes development or site alteration in or near sensitive water features and sensitive groundwater features. However,

mitigative measures including setbacks are to be used to improve and/or restore sensitive surface water features, sensitive groundwater features and their hydrologic functions as confirmed in both the Hydrological Assessment, attached hereto as Appendix I and the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L. Furthermore, to confirm that the hydrologic functions are protected, improved or restored, monitoring related to surface water, groundwater and vegetation within the wetland will be carried out.

#### **6.1.4 Agriculture**

Policy 2.3.6.1 states that:

*Planning authorities may only permit non-agricultural uses in prime agricultural areas for:*

- a) *extraction of minerals, petroleum resources and mineral aggregate resources;*

Response: It has been confirmed by the attached Agricultural Impact Assessment attached hereto as Appendix C that the subject lands are within a prime agricultural area. Therefore, the proposed land use of aggregate extraction by PCQ will be in conformity to this PPS Policy.

#### **6.1.5 Mineral Aggregate Extraction**

Policy 2.5.2.1 states that:

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

Response: In addition to the prescribed setbacks mandated by the ARA, the technical studies undertaken in support of the application identified numerous land-use constraints, and in some situations, additional setback requirements, all which have reduced access to some of the rock resources at this time. However, through PCQ's acquisition of the Carl Road right-of-way, this will allow more resources to be available as well as enabling the overall extraction operation to be significantly more efficient.

Based on the availability of rock resources at this time, Golder has confirmed through the attached hydrogeological study that the site contains a large volume (40 – 50 million tonnes) of high-quality rock that meets Ontario Provincial Standard Specifications (OPSS) for road construction.

In addition, the application has included a reduction of the municipal setback to provincial highways from 90.0 metres (as specified in the City of Port Colborne Zoning By-Law) to 30.0 metres, which conforms to ARA Provincial Standards and ensures that as much resource as possible is made available. Access to these additional resources has been calculated to be approximately 1.3 million tonnes.

Policy 2.5.2.2 states that:

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

Response: As part of this application, PCQ retained experts to undertake the following technical studies to demonstrate that the proposed quarry operation will minimize land use impacts including social, economic and environmental;

- Acoustical (Noise) Impact Study
- Agricultural Impact Assessment
- Air Quality (Dust) Assessment
- Archaeological Stage 1 and 2
- Blasting Impact Assessment
- Cultural Heritage Assessment
- Financial Impact Assessment
- Land Use Compatibility / Sensitive Land Use Assessment

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- Hydrology (Surface water)
- Hydrogeology (Groundwater)
- Natural Environment Level 1 & 2 Report (EIS)
- Social Impact Assessment
- Traffic Impact Study
- Tree Preservation Plan

Each of these technical studies developed recommendations for Pit 3 Extension to ensure that the proposed quarry will operate with minimal land use impacts, and these recommendations have been incorporated into the Site Plans which, through specifically-dedicated MNRF enforcement staff, the Site Plan Notes are wholly enforceable. Therefore, subject to the approval of the Site Plans by the Minister of Natural Resources and Forestry (MNRF) the proposed land use of aggregate extraction by PCQ will be in conformity to this PPS policy.

In addition, because the Region, City and PCQ were persistent to secure a proposed Highway 3 entrance/exit with the provincial Ministry of Transportation, (MTO), this will reduce the travel distance of every truck for each and every trip by 1.4 km, resulting in significant energy savings and greenhouse gas reductions over the life of the quarry.

Policy 2.5.2.3 states that:

*Mineral aggregate resource conservation shall be undertaken, including using accessory aggregate recycling facilities with operations, wherever feasible.*

Response: The extracted rock from Pit 3 Extension will be transported initially west to the existing aggregate processing facility within PCQ Pit 2 until a new processing facility is sited within the existing Pit 3 lands. Within the existing facility (Pit 2) and as part of the proposed facility (Pit 3), PCQ will continue to undertake the off-site recycling of aggregate related resources (i.e., asphalt, concrete).

Policy 2.5.3.1 states that:

*Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.*

Response:

Rehabilitation:

Because the proposed quarry will be extracted up to 16.0 metres below the natural groundwater level, the post-extractive land use options are limited. Furthermore, the existing Pit 3 lands (Licence 4444) is required by its' Site Plans to be rehabilitated to a large lake, and since the subject site will be an open extension to those lands, the final land use will also be the same.

Progressive Rehabilitation:

The result of a below water quarry which is operated 'in the dry' through dewatering, is that progressive rehabilitation is focused on two areas;

- a) Fill: As extraction is completed progressively, moving through the 3 extraction phases, PCQ will progressively create side slopes. The side slopes from the top of the existing grade to the bottom of the quarry floor will be created using:
  - i. on-site overburden,
  - ii. excess waste rock/rubble, and
  - iii. during the final extraction phase, the redistribution of the topsoil/subsoil within the perimeter berms.

The side slopes will range from the ARA minimum allowable slope of 2:1, (2 horizontal to 1 vertical) and increase in shallowness to 3:1 and 4:1.

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As part of the backfill program, and at the proposed final lake level of 178.0 masl, PCQ will create shallow permanent ponds (wetland enhancement areas) which will provide ecological diversity for both plant life and amphibian species. Once the ponds are constructed, they will be lined with a veneer of clay to retain precipitation to become functional without having to wait until the final extraction is completed and the overall lands (177 hectares) fill with water.

- b) **Vegetation:** The post-extraction rehabilitation plan has been designed to fit into the overall regional context and complement the existing topography and terrestrial and aquatic features in the area. Because the extraction is below-water, the overall final rehabilitation plan will consist of a lake with surrounding wetland and upland areas.

All plantings (i.e., nodal plantings) included in the rehabilitation plan will be locally native, non-invasive species that create habitat in the short term and promote natural succession processes. The sourcing of plantings should consider the regionally adapted genetics of the species. Plantings from local sources are likely to be well adapted to the local climate and growing conditions and may have a higher likelihood of successful establishment. Therefore, plantings will be procured from local sources to the extent possible. Wetland and aquatic plants that may be planted in the nearshore or shoreline areas will include shrubs such as red-osier dogwood (*Cornus sericea*) and slender willow (*Salix petiolaris*), and herbaceous plants such as water plantain (*Alisma plantago-aquatica*), lake sedge (*Carex lacustris*), swamp milkweed (*Asclepias incarnata*), softstem bulrush (*Schoenoplectus tabernaemontani*), and common cattail (*Typha* spp.). Shallow wetland habitats will be created through construction of submerged benches, approximately 0.25 to 0.75 metres deep. Shallow emergent marsh vegetation (i.e., herbaceous species listed above) will be planted in water  $\pm 0.15$  metres deep and extend  $\pm 5$  metres from the shore and be interspersed with cover structures (e.g. boulders and root wads) in the shallow shoreline wetland areas. Organic material and topsoil will be added to the shoreline areas to promote shoreline vegetation. Basking logs, nesting platforms and boxes will be created for turtle, waterfowl and swallows respectively. This habitat will be designed to be suitable as snapping turtle aquatic habitat and bullfrog breeding habitat.

Upland areas will be seeded with a mix of grasses and legumes consisting of native, non-invasive species. It is recommended that common milkweed be planted in upland areas to provide host plants for monarch caterpillars. If terrestrial nodal plantings are included on the side slopes, they will include a mixture of coniferous and deciduous tree species to promote species diversity and provide a variety of species to compensate for any substrate deficiencies. The species may include white pine, sugar maple, red oak, trembling aspen, and white birch, with a secondary focus on species such as choke cherry (*Prunus virginiana*), alternate-leaved dogwood (*Cornus alternifolia*), highbush cranberry (*Viburnum opulus*), nannyberry (*Viburnum lentago*) and serviceberry (*Amelanchier* spp.). It is recommended that ash (*Fraxinus* spp.) species in rehabilitation plantings be avoided due to the invasion of emerald ash borer.

#### Final Rehabilitation:

As noted above, the final rehabilitated land use will be a large lake encompassing some 65 hectares (Pit 3 Extension lands) and overall, a lake that is approximately 117 hectares, when combined with the final rehabilitated proposed Pit 3 lake. The proposed lake will range in depth from 8.0 to 16.0 metres deep. The creation of such a lake will be in keeping with the surrounding land uses since Pit 2, also part of Licence 4444, and which is also required to be rehabilitated to a lake with a similar depth, and it will total approximately 50.0 hectares.

Policy 2.5.3.2 states that:

*Comprehensive rehabilitation planning is encouraged where there is a concentration of mineral aggregate operations.*

**Response:** It is recognized that the majority of the lands within the subject block bounded by Highway 140, Highway 3, Miller Road and Second Concession are all occupied by either active

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or previous quarry extraction activity. At this time, Licence 4444 (Pit 2 and Pit 3) are proposed to be rehabilitated into two separate large lakes. Significant progressive rehabilitation efforts have occurred around the perimeter of these two sites including sloping, tree planting and other vegetation planting.

For purposes of completeness, we will include comment on the PCQ Pit 1 lands. As noted above, these lands are not licensed under the *Aggregate Resources Act* (ARA) as full extraction of these lands occurred even prior to its predecessor, the *Pits and Quarries Control Act*, (1971). It is acknowledged that there is some documentation that these lands were also intended to be rehabilitated to a lake. Notwithstanding this and given that site's strategic location in terms of transportation, access, and visibility, PCQ continue to envision and advocate that the 'highest and best' use for those lands would be light-medium industrial. Refer also to the Comprehensive Rehabilitation Strategy attached hereto as Appendix M.

Based on the above, it is our opinion that the creation of a 65 Ha. lake conjoined with the Pit 3 lands to create a 117 hectare lake, will be in keeping with the overall future landscape. In addition, the continuation of the lands fronting onto Highway 3 (1252 and 1326) as agriculture, will also be in keeping with the general character of the landscape as that is the predominate land use south of the site.

Policy 2.5.4.1 regarding extraction in Prime Agricultural Areas states that:

*In prime agricultural areas, on prime agricultural land, extraction of mineral aggregate resources is permitted as an interim use provided that the site will be rehabilitated back to an agricultural condition.*

*Complete rehabilitation to an agricultural condition is not required if:*

- a) *outside of a specialty crop area, there is a substantial quantity of mineral aggregate resources below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible;*

Response: We note that complete agricultural rehabilitation is not being sought nor required based on the following responses. The response to Policy 2.5.4.1 a) is sub-divided as follows:

- i. 'outside of a specialty crop area'

As confirmed in the Agricultural Impact Assessment, (Appendix C ) the subject lands are designated as Agricultural, but are outside of a designated specialty crop land area.

- ii. there is a substantial quantity of mineral aggregate resources below the water table warranting extraction,

As confirmed in the Hydrogeological Assessment, (Appendix J), Golder has calculated that the site contains a large volume (40 – 50 million tonnes) of rock. This calculation considered the prescribed setbacks mandated by the ARA, and the technical studies undertaken in support of the application which identified numerous land-use constraints, and in some situations, additional setback requirements were applied. Based on those areas, Golder then interpolated the borehole documents available as well as the open quarry face of Pit 3 and knowing the general depth and characteristics of the underlying rock deposit, professional estimations as to the depth of the quality resource was utilized.

About rock quality, Golder has once again reviewed the existing Pit 3 face and examined the well drillings from the subject site and have confirmed which portions (by depth) of that the accessible rock will meet Ontario Provincial Standard Specification (OPSS) for road construction specifications.

PCQ has requested that the permitted annual tonnage volume be consistent with the historical level for Pit 2 and 3 being 1,881,500 tonnes. Given this maximum annual tonnage volume, the quarry would have a minimum life span of 21 – 25 years. Based on historical quarry extraction



levels along with anticipated market increases, practically, the life span of the quarry is expected to be somewhat longer and in the range of 30 to 40 years. Therefore, based on the overall tonnage volume and the anticipated duration that Pit 3 Extension, this would be deemed by typical industry standards as being substantial.

- iii. [or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible;](#)

As confirmed in the Hydrogeological Assessment, (Appendix J), Golder has determined that the natural water table elevation is generally at 178.0 masl and the depth of the quality rock extends to about 162 to 169.5 masl, resulting in the final quarry floor ranging from 8.0 to 16.0 metres below the water level. Although there is an abundance of excess clean inert fill within southern Ontario, the costs associated with trucking to back-fill the quarry by as much as 9.0 metres deep (retaining a 2.0 metre buffer above the known water table) in order to restore the site to a pre-extraction agricultural capability is not being considered. The ability to backfill the site might be practical and possible for higher order land uses such as residential or industrial uses, but not for agriculture.

- c) *other alternatives have been considered by the applicant and found unsuitable. The consideration of other alternatives shall include resources in areas of Canada Land Inventory Class 4 through 7 lands, resources on lands identified as designated growth areas, and resources on prime agricultural lands where rehabilitation is feasible. Where no other alternatives are found, prime agricultural lands shall be protected in this order of priority: specialty crop areas, Canada Land Inventory Class 1, 2 and 3 lands; and*

Response: Alternatives have been considered by the applicant and found unsuitable. Several variables have been considered to make this determination.

- a) Bedrock Resources: The City of Port Colborne Official Plan – Schedule C (Mineral Aggregate and Petroleum Resources) illustrates the extent of the ‘primary rock deposits’, referenced as Bobcaygeon and Onondaga. Note: Golder made a determination that the reference to the Bobcaygeon material is incorrect as it is actually Bois Blanc Formation. Figure 8 within the AIA identifies the extent of these deposits within the City of Port Colborne which are located partially north of the subject site, but primarily to the east, extending over 8.0 kilometres to the city limit.
- b) Agricultural Resources: All of the lands within the primary rock deposits are designated as Agricultural by the City of Port Colborne (Schedule A – City Wide Land Use) and all the lands are designated as Good General Agricultural Area by the Niagara Region Official Plan (Schedule B). As such, there is no differentiation of agricultural soil quality between the subject lands and those within the balance of the ‘primary rock deposit’ area. The AIA, Figure 2 provides a more detailed breakdown of the CLI classification, with most of the soils within the identified bedrock resource area being CLI 2 and 3.
- c) Natural Environment: Extraction is not permitted within most environmental areas, and as such, areas identified and protected by natural environment policies would be determined to be a land use constraint.
- d) Lot Fragmentation: There is no established or pre-determined minimum size required for a quarry producing general road construction material, however, in practical terms, in order for an operator to have sufficient land area for a) land use buffers and setbacks, and b) a large volume of quantity of rock resource to extract in order to justify the capital expense of licensing, it is our experience that as a minimum, a prospective site should to be approximately 60 hectares, and preferably as square as possible. Based on this variable, there are few sites within the ‘primary rock deposit’ that are of that size. However, it is possible through the assembly of multiple properties to amass a parcel that would meet and exceed such a minimum area.

Figure 8 of the AIA has identified eight possible land parcels and/or assembly sites within the ‘primary rock deposit area’. However, PCQ does not own any of these parcels and at

this time, they are not aware of any of these sites being available for purchase either individually or as multiple blocks.

Although not a land-use consideration, but certainly a key factor for an operator is the ability to extend an existing quarry operation to capitalize on the existing quarry infrastructure and operational efficiency such as the processing plant, (crushing, screening, blending, washing), weigh scale, administrative and repair facilities, etc.). As such, for PCQ to progress seamlessly eastward from their existing Pit 3 operation would be a significant operational advantage.

Based on the above, although numerous alternate sites have been identified, the proposed Pit 3 Extension site has been deemed to be the only available site.

*d) agricultural rehabilitation in remaining areas is maximized.*

Response: As a result of the rehabilitation design, the southwest portion of the site excluded from the Limit of Extraction (i.e., 1252 and 1326 Main Street, and where agriculture currently occurs), will continue to be available as an on-going agricultural use. For the balance of the site, the only remaining areas that won't be either lake or lake side slopes will be the narrow strips of land remaining as setbacks and these will be rehabilitated according to the rehabilitation concept.

### 6.1.6 Cultural Heritage and Archaeology

Policy 2.6 states that:

*2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.*

Response: The Archaeological Stage 1 and 2 Assessments attached hereto as Appendix E i) and E ii) and the Cultural Heritage Screening Report attached hereto as Appendix G confirm that the site does not contain any significant built heritage resources nor significant cultural heritage landscapes.

*2.6.2 Development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.*

Response: The Archaeological Stage 1 and 2 Assessments attached hereto as Appendix E i) and E ii) and the Cultural Heritage Screening Report attached hereto as Appendix G. Specifically, through the completion of these reports, significant archaeological resources have been identified and either avoided or recommendations included for no-go zone buffers which will remain in place until the completion of additional archaeological assessments (Stage 3) are undertaken. Other portions of the site which have been found to have significant archaeological resources through Stage 1 and 2 reports, have been excluded at this time from the Limit of Extraction (i.e., 1252 and 1326 Main Street).

### 6.1.7 Human-Made Hazards

Policy 3.2 states that:

*3.2.1 Development on, abutting or adjacent to lands affected by mine hazards; oil, gas and salt hazards; or former mineral mining operations, mineral aggregate operations or petroleum resource operations may be permitted only if rehabilitation or other measures to address and mitigate known or suspected hazards are under way or have been completed.*

Response: The Pit 3 Extension will be developed on lands abutting an active 'mineral aggregate operation', (Pit 3). Based on the Hydrology Assessment (Appendix I), and the Hydrogeological Assessment (Appendix J), no known or suspected hazards on those abutting lands were identified.

*3.2.2 Sites with contaminants in land or water shall be assessed and remediated as necessary prior to any activity on the site associated with the proposed use such that there will be no adverse effects.*

Response: A portion of the Pit 3 Extension lands encompass the New Humberstone Speedway and these lands may potentially contain petroleum related containments. To avoid the possibility of any such materials being removed from the site, these soils will be restricted for use only in the construction of the perimeter berms along Highway 3.

### 6.1.8 Summary of Provincial Policy Statement Policies

As part of the planning review for the Pit 3 Extension, the Provincial Policy Statement (2020) (PPS) were considered as they provide policy direction on matters of provincial interest related to land-use planning and development. As part of that review, it is acknowledged that the PPS is more than a set of individual policies but rather it was read in its entirety and the relevant policies were applied including:

- Policy 1.7 Long-Term Economic Prosperity
  - 1.7.1 a) c) e) i)
- Policy 2.1 Natural Heritage
  - 2.1.1
  - 2.1.2
  - 2.1.4
  - 2.1.5
  - 2.1.6
  - 2.1.7
  - 2.1.8
  - 2.1.9
- Policy 2.2 Water
  - 2.2.2
- Policy 2.3 Agriculture
  - 2.3.6.1
- Policy 2.5 Mineral Aggregate Resources
  - 2.5.2.1
  - 2.5.2.2
  - 2.5.2.3
  - 2.5.3.1
  - 2.5.3.2
  - 2.5.4.1 a) c) d)
- Policy 2.6 Cultural Heritage
  - 2.6.1
  - 2.6.2
- Policy 3.2 Human-Made Hazards
  - 3.2.1
  - 3.2.2

Based on the above review, it is our opinion that the Pit 3 Extension and specifically the submitted Site Plans, which have been designed based on the recommendations from the numerous technical studies are consistent with the above noted policies of the Provincial Policy Statement.

## 6.2 Growth Plan for the Greater Golden Horseshoe 2014

As stated in Section 5.2.1 (1) under General Interpretation of the Growth Plan for the Greater Golden Horseshoe 2014, “*The policies and schedules of this Plan should be read in a manner that recognizes this Plan as an integrated policy framework*”.

Based on this, we have determined that the relevant policies of the Growth Plan as it relates to the Pit 3 Extension application are:

- 3.2.7 Stormwater Management
- 4.2.2 Natural Heritage System
- 4.2.3 Key hydrologic features, key hydrologic areas and key natural heritage features
- 4.2.4 Lands adjacent to key hydrologic features and key natural heritage features
- 4.2.6 Agricultural System
- 4.2.8 Mineral Aggregate Resources

### 6.2.1 Stormwater Management

Policy 3.2.7 states that:

*Proposals for large-scale development proceeding by way of a secondary plan, plan of subdivision, vacant land plan of condominium or site plan will be supported by a stormwater management plan or equivalent, that:*

- a. is informed by a subwatershed plan or equivalent;*

Response: No subwatershed plan has been undertaken nor was it a requirement based on the Pre-Submission Consultation, however, extensive on-site surface and groundwater investigations have been completed as part of the Hydrological and Hydrogeological Assessments attached hereto as Appendix I and J. These reports also rely on decades of monitoring data from the existing PCQ quarry operations within Pit 2 and 3.

- b. incorporates an integrated treatment approach to minimize stormwater flows and reliance on stormwater ponds, which includes appropriate low impact development and green infrastructure;*

Response: Since the Pit 3 application is for the development of a quarry, during the life of the active quarry operation, storm-water captured on-site will be captured by the quarry dewatering pumps and discharged to the west or east branch of the Wignell Drain. As part of the discharge, the appropriate MECP discharge effluent approvals (ECA No. 6607-8X7GTZ) will be required and/or extended from the existing approvals for Pit 3. Post-extraction, this development application (Pit 3 Extension) in association with the existing active Pit 3 quarry lands will result in a final lake that is of 65 hectares in size, and thus any stormwater flows will be captured directed toward that lake.

On the peripheral of the site and outside the Limit of Extraction, there will be no increase in surface water flows toward the existing road ditch system for either: i) Provincial Highway 3, (Main St.), ii) Regional Road 84 (Miller Road) or iii) the City of Port Colborne (Second Concession Road) since no excavation will occur beyond the Limit of Extraction. These setbacks are 30.0 metres along Highway 3, Miller Road and Second Concession Road and 15.0 metres everywhere else that abuts lands owned by others.

- c. establishes planning, design, and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces; and*

Response: The Pit 3 Extension will result in the extraction of approximately 40 – 50 million tonnes of rock from the subject lands, of which the 8.0 metres to 16.0 metres of excavation will occur below the groundwater. In order to accomplish this, all the vegetation from within the extraction area will be progressively removed prior to each extraction phase being initiated. This vegetation is primarily in the form of row crops. The only exception will be the removal of a small grove of trees referenced as FOD7-2 – Moist Ash Lowland Deciduous Forest being dominated by immature green ash and wet areas dominated by red-osier dogwood and pussy willow, all which corresponds with extraction Phase 2.

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A Tree Preservation Plan has been completed (See Appendix P) which recommended that the trees within FOD7-2 (Vegetation Units 'A', 'B', and 'C') be removed to permit the Phase 2 extraction. The presence of Emerald Ash Borer damage, high occurrence of Ash trees, pioneer species and possible restoration plantings, within the study area as well as the relatively young age of the trees present on site contribute to a low preservation priority for the FOD7-2 feature.

The Report also provide numerous recommendations for tree protection for the surrounding woodlot areas that are to be retained.

To facilitate progressive extraction and rehabilitation, as each portion of the quarry is completed, PCQ will commence progressive rehabilitation that will include the backfilling of the side slopes with either on-site overburden and waste rock. These backfilled slopes will range from the ARA minimum allowed being 2:1 (horizontal to vertical) to shallower slopes of 3:1 to 4:1. Upon being created, the side slopes will be vegetated to maximize erosion and sediment control and include native species of groundcover as well as a range of shrubs and trees around what will eventually be the final 65 hectare lake shoreline. Refer to the Site Plans.

Based on the above, the Pit 3 Extension will not create new impervious surfaces but rather provide a site where stormwater from the surrounding lands will be accepted, and as confirmed in the Hydrological Assessment attached hereto as Appendix I.

- d. aligns with the stormwater master plan or equivalent for the settlement area, where applicable.*

Response: The City of Port Colborne does not have a Stormwater Master Plan that includes the subject lands.

### **6.2.2 Natural Heritage System**

Policy 4.2.2 states that:

#### *3. Within the Natural Heritage System for the Growth Plan:*

- a. new development or site alteration will demonstrate that:*

- i. there are no negative impacts on key natural heritage features key hydrologic features or their functions;*

Response: As confirmed in the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L, the proposed extraction will be within a key hydrologic feature which has been identified as the potential for fish within the existing ponds sited on the former Humberstone Speedway lands. If fish are present, they will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

- ii. connectivity along the system and between key natural heritage features and key hydrologic features located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;*

Response: There is one Key Natural Heritage Area north of the existing quarry. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and a distance of approximately 70 metres.

The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.

The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas.

- iii. the removal of other natural features not identified as key natural heritage features and key hydrologic features is avoided, where possible. Such features should be incorporated into the planning and design of the proposed use wherever possible;*

Response: The Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L, was prepared based on 'terms of reference' approved by the Region of Niagara and the NPCA to ensure that all key natural heritage features and key hydrological features were identified and evaluated. There are no other known features which have not been evaluated.

- iv. at least 30 per cent of the total developable area will remain or be returned to natural self-sustaining vegetation, except where specified in accordance with the policies in subsection 4.2.8; and*

Response: With the exception of the two small farm parcels fronting onto Highway 3 (1252 and 1326 Main Street) which will continue to be available for agriculture (7.0 hectares), and the proposed final extracted lake (65.0 hectares), the balance of the site will remain or be returned to natural self-sustaining vegetation including the lake side slopes above 178.0 masl and the setback areas.

- b. the full range of existing and new agricultural uses, agriculture-related uses, on-farm diversified uses, and normal farm practices are permitted. However, new buildings or structures for agricultural uses, agriculture-related uses, or on-farm diversified uses are not subject to policy 4.2.2.3 a), but are subject to the policies in subsections 4.2.3 and 4.2.4.*

Response: In accordance with the policies in subsection 4.2.8, the subject lands will be developed into a post-extractive lake in conjunction with the Pit 3 lands will ultimately be 117 hectares, with a depth of 8.0 metres to 16.0 metres deep. Based on Policy 4.2.2 a vi), the upper portions of the side slopes of the lake (above 178.0 masl), will be planted to create a natural self-sustaining vegetation as noted on the Rehabilitation Plans.

The two small farm parcels fronting onto Highway 3 (1252 and 1326 Main Street) will continue to be available for agriculture.

### **6.2.3 Key Hydrologic Features, Key Hydrologic Areas and Key Natural Heritage Features**

Policy 4.2.3 states that:

- 1. Outside of settlement areas, development or site alteration is not permitted in key natural heritage features that are part of the Natural Heritage System for the Growth Plan or in key hydrologic features, except for:*
  - d. mineral aggregate operations and wayside pits and quarries;*

Response: The Pit 3 Extension has been designed to ensure that *development or site alteration* of the quarry will not occur within *key natural heritage features* that are part of the *Natural Heritage System for the Growth Plan* or in *key hydrologic features* as confirmed in the Hydrology Assessment (Appendix I) and the Natural Environment Level 1 and 2 Report (EIS), attached

hereto as Appendix L. Specifically, such features were identified and evaluated and then intentionally excluded from the limit of extraction including the implementation of appropriate buffers.

The policy allows for mineral aggregate operations as the subject site is within a key hydrologic feature identified and evaluated which includes the potential for fish habitat within the former Humberstone Speedway ponds, and if present, will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

2. *Outside of settlement areas, proposals for large-scale development proceeding by way of plan of subdivision, vacant land plan of condominium or site plan may be permitted within a key hydrologic area where it is demonstrated that the hydrologic functions, including the quality and quantity of water, of these areas will be protected and, where possible, enhanced or restored through:*

- a. *the identification of planning, design, and construction practices and techniques;*

Response: The subject site is within a key hydrologic feature as identified by the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L, which includes the potential for fish habitat within the former Humberstone Speedway ponds, and if present, will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized. Because the ponds are not connected to any downstream fish-bearing surface water features, authorization under the Fisheries Act is not required.

- b. *meeting other criteria and direction set out in the applicable watershed planning or subwatershed plans; and*

Response: No watershed planning or subwatershed plans have been undertaken to provide any other criteria.

- c. *meeting any applicable provincial standards, guidelines, and procedures.*

Response: The meeting of provincial standards, guidelines and procedures has been done and is addressed in Section 6.16 of this report.

#### **6.2.4 Lands Adjacent to Key Hydrologic Features and Key Natural Heritage Features**

Policy 4.2.4 states that:

1. *Outside settlement areas, a proposal for new development or site alteration within 120 metres of a key natural heritage feature within the Natural Heritage System for the Growth Plan or a key hydrologic feature will require a natural heritage evaluation or hydrologic evaluation that identifies a vegetation protection zone, which:*
  - a. *is of sufficient width to protect the key natural heritage feature or key hydrologic feature and its functions from the impacts of the proposed change;*
  - b. *is established to achieve and be maintained as natural self-sustaining vegetation; and*
  - c. *for key hydrologic features, fish habitat, and significant woodlands, is no less than 30 metres measured from the outside boundary of the key natural heritage feature or key hydrologic feature.*

Response: As confirmed in the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L, the subject site is within 120 metres of a key natural heritage feature

and within a key hydrologic feature. The key natural heritage feature is located just north of the existing quarry and the key hydrologic feature is identified as being potential for fish habitat within the former Humberstone Speedway ponds.

Ecological linkages between the key natural heritage features in the study area will be improved. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.

The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas.

The key hydrologic feature, if fish are present, will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

- 2. Evaluations undertaken in accordance with policy 4.2.4.1 will identify any additional restrictions to be applied before, during, and after development to protect the hydrologic functions and ecological functions of the feature.*

Response: The Hydrology Assessment (Appendix I), Hydrogeological Assessment (Appendix J) and the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L were undertaken in accordance with Policy 4.2.4.1 and recommended applicable restrictions before, during and after the development of the quarry to protect the protect the hydrologic functions and ecological functions of the feature. These recommendations include the ongoing monitoring of surface water and groundwater monitors, the evaluation of the vegetation within SWD3-2 – Silver Maple Mineral Deciduous Swamp during the operational life of the quarry, and have been included onto the Site Plans, all which are enforceable by provincial staff of the Ministry of Natural Resources and Forestry.

As well, within the key hydrologic feature, if fish are present, they will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

- 3. Development or site alteration is not permitted in the vegetation protection zone, with the exception of that described in policy 4.2.3.1 or shoreline development as permitted in accordance with policy 4.2.4.5.*

Response: The exception noted in Policy 4.2.3.1 allows for mineral aggregate operations within key natural heritage features that are part of the Natural Heritage System for the Growth Plan and key hydrologic features.



## 6.2.5 Agricultural System

Policy 4.2.6 states that:

2. *Prime agricultural areas, including specialty crop areas, will be designated in accordance with mapping identified by the Province and these areas will be protected for long-term use for agriculture.*

Response: The subject lands are designated as a prime agricultural area, however, as specified under 4.2.8 (3) (Mineral Aggregate Resources) and as noted below, in such areas, applications for new mineral aggregate operations are permitted subject to being supported by an agricultural impact assessment and, where possible, where the new mineral aggregate operation seeks to maintain or improve connectivity of the Agricultural System. The Agricultural Impact Assessment (AIA) is attached hereto as Appendix C. and has identified and provided recommendations on how Pit 3 Extension seeks to maintain or improve connectivity of the Agricultural System.

3. *Where agricultural uses and non-agricultural uses interface outside of settlement areas, land use compatibility will be achieved by avoiding or where avoidance is not possible, minimizing and mitigating adverse impacts on the Agricultural System. Where mitigation is required, measures should be incorporated as part of the non-agricultural uses, as appropriate, within the area being developed. Where appropriate, this should be based on an agricultural impact assessment.*

Response: The Agricultural Impact Assessment (AIA) is attached hereto as Appendix C. and has identified how Pit 3 Extension has provided land use compatibility by avoiding or where avoidance is not possible, minimizing and mitigating adverse impacts on the *Agricultural System*. Mitigation measures have been recommended and incorporated into the ARA Site Plans relative to activities prior to, during and after extraction occurs.

4. *The geographic continuity of the agricultural land base and the functional and economic connections to the agri-food network will be maintained and enhanced.*

Response: The Agricultural Impact Assessment (AIA) is attached hereto as Appendix C. and has identified how Pit 3 Extension has maintained geographic continuity of the agricultural land base and the functional and economic connections to the *agri-food network* has been maintained.

5. *The retention of existing lots of record for agricultural uses is encouraged, and the use of these lots for non-agricultural uses is discouraged.*

Response: The subject lands have been designated as a prime agricultural area, however, as specified under 4.2.8 (3) (Mineral Aggregate Resources) and as noted below, in such areas, applications for new mineral aggregate operations are permitted subject to being supported by an agricultural impact assessment. The Agricultural Impact Assessment (AIA) is attached hereto as Appendix C. and has identified how Pit 3 Extension seeks to maintain or improve connectivity of the Agricultural System, including where lots of record are not retained. Specifically, the application reflects the inclusion of all the PCQ lands, even those lands where extraction is not being proposed.

6. *Integrated planning for growth management, including goods movement and transportation planning, will consider opportunities to support and enhance the Agricultural System.*

Response: The AIA has provided numerous recommendations to support the Agricultural System some of which include:

- Excess topsoil not required for berm construction or post-extractive rehabilitation could be used to accommodate and improve the agricultural conditions for cultivation at other locations where opportunities exist.
- Lands not immediately required for extraction shall remain available for agricultural production when possible.
- Appropriate buffering abutting agricultural lands shall employ such things as:

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- i. Vegetated berms, which can offer both visual and physical buffers,
  - ii. Dust suppression techniques and noise management according to appropriate regulations.
- Perimeter fencing shall be established to minimize the potential for trespass and vandalism.
  - Providing farm-equipment access that doesn't require traversing the active operational portion of the quarry lands.
  - Monitoring of all vegetation within the setbacks and on berms will continue throughout the life of the quarry and if any vegetation dies, it will be replaced immediately (during the proper planting season).
  - The licensee shall ensure that quarry signage on Highway 3 (Main Street) includes a phone number for neighbours to call if any issues should arise.
  - The licensee shall ensure that all MECP standards regarding blasting, noise and dust emissions are met.

Response: Further, because of the Region, City and PCQ insisted on a proposed Highway 3 entrance/ exit versus one on Miller Road, this has supported the opportunity to avoid conflicts between farm related traffic using Miller Road and aggregate haul trucks.

## 6.2.6 Mineral Aggregate Resources

Policy 4.2.8 states that:

2. *Notwithstanding the policies in subsections 4.2.1, 4.2.2, 4.2.3 and 4.2.4, within the Natural Heritage System for the Growth Plan, mineral aggregate operations and wayside pits and quarries are subject to the following:*
- a) *no new mineral aggregate operation and no new wayside pits and quarries, or any ancillary or accessory use thereto, will be permitted in the following key natural heritage features and key hydrologic features:*
    - i. *significant wetlands;*
    - ii. *habitat of endangered species and threatened species; and*
    - iii. *significant woodlands unless the woodland is occupied by young plantation or early successional habitat, as defined by the Province, in which case, the application must demonstrate that policies 4.2.8.4 b) and c) and 4.2.8.5 c) have been addressed and that they will be met by the operation;*

Response: As confirmed by the Natural Environment Level 1 and 2 Report (Appendix L), and as confirmed in the Hydrologic and Hydrogeological reports (Surface and Groundwater), (Appendix I and J), no portion of Pit 3 Extension will be located in any key natural heritage feature area nor key hydrologic feature which include significant wetlands. Numerous habitats of endangered species and threatened species were identified either on or adjacent to the subject lands, but in and in all instances, the habitat will either not be disturbed and/or will be improved through the creation of new wetland enhancement areas.

- a) *any application for a new mineral aggregate operation will be required to demonstrate:*
  - i. *how the connectivity between key natural heritage features and key hydrologic features will be maintained before, during, and after the extraction of mineral aggregate resources;*

Response: This will include enhancing ecological linkages. Ecological linkages between the key natural heritage features in the study area will be improved as follows:

- a) The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by

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Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.

- b) The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas and may include: red oak, trembling aspen, eastern white cedar, red maple, basswood, bur oak, white pine, serviceberry species, gray dogwood (*Cornus racemosa*) and staghorn sumac (*Rhus typhina*).

ii. *how the operator could replace key natural heritage features and key hydrologic features that would be lost from the site with equivalent features on another part of the site or on adjacent lands;*

Response: No extraction will occur within any key natural heritage features. Extraction will occur within the key hydrologic features (Humberstone ponds) and as such, they will be lost because of the application.

- Ecological linkages between the key natural heritage features in the study area will be improved. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.
- The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas and may include: red oak, trembling aspen, eastern white cedar, red maple, basswood, bur oak, white pine, serviceberry species, gray dogwood (*Cornus racemosa*) and staghorn sumac (*Rhus typhina*).
- Key hydrologic feature: Through the creation of two rehabilitation features, the key hydrologic features will be replaced;
  - c) During the progressive rehabilitation to create the side slopes from the top of the existing grade to the bottom of the final quarry floor, the licensee will create several wetland enhancement areas, as shown on the Site Plans. These will be pond-like depressions established at the final water level of 178.0 masl. Because the final rehabilitated lake will require numerous years to be created (quarried) and then subsequently years to naturally fill with water, to provide timely replacements for these

features, the pond-like depressions will be lined with a veneer of clay to allow the retention of rain water/precipitation. The wetland enhancement areas shall be:

- Shallow wetland habitats created through the construction of submerged benches, (+/- 0.25 metres – 0.75 metres deep).
  - Shallow emergent marsh vegetation to be planted in water +/- 0.15 metres deep and extends +/- 5.0 metres from the shore and be interspersed with cover structures (e.g., boulders and rood wads) in the shallow shoreline wetland areas.
  - Organic material and topsoil will be added to the shoreline areas to promote shoreline vegetation and include basking logs, nesting platforms and boxes will be created for turtle, waterfowl and swallows respectfully and be designed to be suitable for snapping turtle and bullfrog breeding habitat.
- d) During the ongoing extraction of the quarry, progressively, all the side slopes will be created from the bottom of the quarry floor to the top of the existing grade and range in slope from the maximum allowed by the Aggregate Resources Act being 2:1 (horizontal to vertical) to shallower slopes of 3:1 and 4:1. Once all the extraction phases are done and all the side sloping completed, the dewatering pumps will be removed and the lands will gradually be allowed to fill. The proposed lake within the Pit 3 Extension will be approximately 65 hectares, and 8.0 metres – 16.0 metres deep. Because this extraction is a continuation of the existing Pit 3 extraction, the overall lake size for both sites will total approximately 117 hectares.

Once the lake begins to naturally fill, native fish species will be introduced to the lake based on recommendations by the NPCA.

*iii. how the water resource system will be protected or enhanced;*

Response: Before, during and after the development of the quarry, there will be ongoing monitoring of surface water and groundwater monitors, the evaluation of the vegetation within SWD3-2 – Silver Maple Mineral Deciduous Swamp during the operational life of the quarry, and have been included onto the Site Plans, all which are enforceable by provincial staff of the Ministry of Natural Resources and Forestry.

*iv. how any key natural heritage features and key hydrologic features and their associated vegetation protection zones not identified in policy 4.2.8.2 a) will be addressed in accordance with policies 4.2.8.4 b) and c) and 4.2.8.5 c); and*

Response: As confirmed by the Natural Environment Level 1 and 2 Report undertaken by Golder (Appendix L), and as confirmed in the Hydrology Report (Surface and Groundwater) undertaken by Golder, (Appendix I and J), all key natural heritage features and key hydrologic features have been identified.

- c) an application requiring a new approval under the Aggregate Resources Act to expand an existing mineral aggregate operation may be permitted in the Natural Heritage System for the Growth Plan, including in key natural heritage features, key hydrologic features and any associated vegetation protection zones, only if the related decision is consistent with the PPS and satisfies the rehabilitation requirements of the policies in this subsection.*

Response: As confirmed by the Natural Environment Level 1 and 2 Report (Appendix L), the proposed Pit 3 Extension application can be extracted while protecting the key natural heritage features for the key hydrologic features, if fish are present, they will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized. In addition, the progressive and final rehabilitation of the lands will introduce new and enhanced

opportunities for these features. The application also is also consistent with the PPS and satisfies the rehabilitation requirements as noted above in Section 6.1.

3. *In prime agricultural areas, applications for new mineral aggregate operations will be supported by an agricultural impact assessment and, where possible, will seek to maintain or improve connectivity of the Agricultural System.*

Response: The City of Port Colborne Official Plan, Policy 3.5 specifies that all lands identified on Schedule A as 'Agricultural' are deemed to be Prime Agricultural Areas. Furthermore, we confirm that the subject lands are identified as Agricultural by Schedule A, and therefore, the preparation of an Agricultural Impact Assessment is a requirement of the Growth Plan. A copy of the Agricultural Impact Assessment is included herein as Appendix C.

In terms of the application ensuring that there will be improved and/or maintained connectivity to the Agricultural System, the AIA provided numerous recommendations all which have been incorporated into the Site Plans.

4. *For rehabilitation of new mineral aggregate operation sites, the following apply:*
- a) *the disturbed area of a site will be rehabilitated to a state of equal or greater ecological value and, for the entire site, long-term ecological integrity will be maintained or enhanced;*

Response: The existing land use of the extraction area is primarily agriculture, with the only exception being the woodlot referenced FOD7-2 – Fresh-Moist Ash Lowland Deciduous Forest. As confirmed by the Tree Preservation Plan (attached hereto as Appendix P), this woodlot is being recommended for removal (including Vegetation Units 'A', 'B', and 'C'), based on the presence of Emerald Ash Borer damage, high occurrence of Ash trees, pioneer species and possible restoration plantings, within the study area as well as the relatively young age of the trees present on site contribute to a low preservation priority for the FOD7-2 feature.

Therefore, the agricultural lands and the FOD7-2 woodlot will be replaced by the following;

- i) During the progressive rehabilitation, the creation of several wetland enhancement areas. These will be pond-like depressions will be established at the final water level of 178.0 masl and lined with a veneer of clay to allow the retention of rain water/precipitation. The wetland enhancement areas shall be:
- Shallow wetland habitats created through the construction of submerged benches, (+/- 0.25 metres – 0.75 metres deep).
  - Shallow emergent marsh vegetation to be planted in water +/- 0.15 metres deep and extend +/- 5.0 metres from the shore and be interspersed with cover structures (e.g., boulders and rood wads) in the shallow shoreline wetland areas,
  - Organic material and topsoil will be added to the shoreline areas to promote shoreline vegetation and include basking logs, nesting platforms and boxes will be created for turtle, waterfowl and swallows respectfully and be designed to be suitable for snapping turtle and bullfrog breeding habitat.
- ii) During the ongoing extraction of the quarry, progressively, all the side slopes will be created from the top of the existing grade to the bottom of the final quarry floor and range in slope from the maximum allowed by the Aggregate Resources Act being 2:1 (horizontal to vertical) to shallower slopes of 3:1 and 4:1. Once all the extraction phases are done and all side sloping completed, the dewatering pumps will be removed and the lands will gradually be allowed to fill. The proposed lake within the Pit 3 Extension will be approximately 65 hectares and 8.0 metres – 16.0 metres deep. Because this extraction is a continuation of the existing Pit 3 extraction, the overall lake size for both sites will total approximately 117 hectares. Once the lake begins to naturally fill, native fish species will be introduced to the lake.

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- iii) Along the perimeter of the site, and specifically within the extraction setback areas, and once the perimeter berms have been removed, the lands will be subject to natural succession. This will encourage the growth of numerous ecological linkages along the perimeter of the lake and property boundaries.
- iv) Bisecting SWD3-2 – Silver Maple Mineral Deciduous Swamp is the former Carl Road alignment. The segment of Carl Road that bisects the deciduous swamp shall be rehabilitated following the decommissioning of the road. This linear disturbance has enabled invasive plants to infiltrate the swamp interior and may be increasing predation pressure on wildlife from domestic and feral animals (cats and dogs) as well as opportunistic wild predators and scavengers that benefit from anthropogenic disturbance such as coyotes or raccoons. Excavations in three or four areas along the length of the road should be created to improve surface water drainage. Plantings along this segment of Carl Road should include the dominant tree and shrub species found in the deciduous swamp including silver maple, pin oak, swamp white oak, bur oak, red maple, and spicebush. Invasive shrub species including multiflora rose, common buckthorn, and Tartarian honeysuckle have become established in this area and may prevent the successful establishment of the native plantings. These invasive shrubs should be removed prior to the planting of Carl Road.

As confirmed by the Natural Environment Level 1 and 2 Assessment (Appendix L) the disturbed area of a site will be rehabilitated to a state of equal or greater ecological value and, for the entire site, long-term ecological integrity will be maintained or enhanced.

- b) if there are key natural heritage features or key hydrologic features on the site, or if such features existed on the site at the time of the application:
  - i. the health, diversity, and size of these key natural heritage features and key hydrologic features will be maintained or enhanced; and
  - ii. any permitted extraction of mineral aggregate resources that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation;

Response: As confirmed by the Hydrology Assessment (Appendix I) and Hydrogeological Assessment (Appendix J) and the Natural Environment Level 1 and 2 Assessment (Appendix L) the key natural heritage features and key hydrologic features have been identified and evaluated.

As well, within the key hydrologic feature, if fish are present, they will be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

To ensure that any permitted extraction of mineral aggregate resource that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation, during the progressive rehabilitation, the creation of several wetland enhancement areas. These will be pond-like depressions will be established at the final water level of 178.0 masl and lined with a veneer of clay to allow the retention of rain water/precipitation. Subsoil and topsoil will be replaced around the pond edges and native aquatic and riparian plants will be planted around the perimeter to initiate a wetland habitat and accommodate any possible local fish species. The wetland enhancement areas shall be:

- Shallow wetland habitats created through the construction of submerged benches, (+/- 0.25 metres – 0.75 metres deep).

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- Shallow emergent marsh vegetation to be planted in water +/- 0.15 metres deep and extend +/- 5.0 metres from the shore and be interspersed with cover structures (e.g., boulders and rood wads) in the shallow shoreline wetland areas.
  - Organic material and topsoil will be added to the shoreline areas to promote shoreline vegetation and include basking logs, nesting platforms and boxes will be created for turtle, waterfowl and swallows respectfully and be designed to be suitable for snapping turtle and bullfrog breeding habitat.
- c) *aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which will be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation will meet the intent of policy 4.2.8.4 b); and*

Response: In addition, the Natural Environment Level 1 and 2 Assessment (Appendix L), has confirmed that these aquatic enhancements are representative of the natural ecosystem that the subject lands are within, specifically 7E-5: Niagara Ecodistrict, and that the combined terrestrial and aquatic rehabilitation has met the intent of policy 4.2.8.4 b) as noted above.

- d) *outside the Natural Heritage System for the Growth Plan, and except as provided in policies 4.2.8.4 a), b) and c), final rehabilitation will appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies. In prime agricultural areas, the site will be rehabilitated in accordance with policy 2.5.4 of the PPS, 2014.*

Response: Final rehabilitation will be the creation of a lake. This land use reflects the long-term land use of the Pit 3 lands which abut to the west and for which will be create a common lake totaling approximately 117 hectares in size. In addition, the lands west of Babion Road (Pit 2 lands) are also currently licensed with the requirement to be rehabilitated to a lake, being +/- 50 hectares.

Furthermore, those lands outside the limit of extraction (1252 and 1326 Main Street) will continue to be available for agriculture prior to, during and after extraction is complete, as part of the overall final rehabilitation design and therefore in accordance with policy 2.5.4 of the PPS (2020).

5. *Final rehabilitation for new mineral aggregate operations in the Natural Heritage System for the Growth Plan will meet these additional criteria:*

- b) *where there is extraction below the water table, no less than 35 per cent of the non-aquatic portion of the land subject to each licence in the Natural Heritage System for the Growth Plan is to be rehabilitated to forest cover, which will be representative of the natural ecosystem in that particular setting or ecodistrict. If the site is also in a prime agricultural area, the remainder of the land subject to the licence is to be rehabilitated in accordance with policy 2.5.4 of the PPS, 2014; and*

Response: The lands to be licensed total 106.3 hectares. The proposed lake and associated side slopes up to the pre-extraction grade will total 71.1 hectares (Limit of Extraction). The balance of the land is 35.2 hectares of which 35% equates to 10.5 hectares. Except for the +/- 7.0 hectares, corresponding to 1252 and 1326 Main Street which will continue to be available for agriculture and in accordance with policy 2.5.4 of the PPS, the balance of the lands (28.2 hectares) will be retained or rehabilitated to forest cover, which will be representative of the natural ecosystem in the particular setting or ecodistrict.

- c) *rehabilitation will be implemented so that the connectivity of the key natural heritage features and the key hydrologic features on the site and on adjacent lands will be maintained or enhanced. 6. Except as provided by the policies of this subsection, decisions on planning matters must be consistent with the policies in the PPS that pertain to the management of mineral aggregate resources.*

Response: The Site Plans have been designed so that rehabilitation will be implemented ensuring the connectivity of the key natural heritage features will be enhanced. Ecological linkages between the key natural heritage features in the study area will be improved. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.

The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas.

The key hydrologic features, if fish are present within the shallow ponds within the existing Humberstone Speedway, will be removed, but through the creation of wetland enhancement areas and the proposed final 65 hectare lake, the key hydrologic habitat will be enhanced.

Furthermore, refer to our responses in Section 6.1.5 regarding PPS 2.5.4.

## 6.2.7 Summary of the Growth Plan Policies

As part of the planning review for the Pit 3 Extension, and as stated in Section 5.2.1 (1) under General Interpretation of the Growth Plan for the Greater Golden Horseshoe 2014, “*The policies and schedules of this Plan should be read in a manner that recognizes this Plan as an integrated policy framework*”.

Based on this approach, Growth Plan was read in its entirety and the relevant policies were applied including;

- Policy 3.2.7 Stormwater Management
  - 3.2.7 a) b) c) d)
- Policy 4.2.2 Natural Heritage System
  - 4.2.2 3 a) i) ii) iii) iv)
  - 4.2.2.3 b)
- Policy 4.2.3 Key Hydrologic Features, Key Hydrologic Areas and Key Natural Heritage Features
  - 4.2.3 1 d)
  - 4.2.3 2 a) b) c)
- Policy 4.2.4 Lands Adjacent to Key Hydrologic Features and Key Natural Heritage Features
  - 4.2.4 1 a) b) c)
  - 4.2.4. 2
  - 4.2.4 3
- Policy 4.2.6 Agricultural System
  - 4.2.6 2
  - 4.2.6 3
  - 4.2.6 4
  - 4.2.6 5
  - 4.2.6 6
- Policy 4.2.8 Mineral Aggregate Resources



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- 4.2.8 2a i) ii) iii)
- 4.2.8 2b i) ii) iii) iv)
- 4.2.8 2c
- 4.2.8 3
- 4.2.8 4 a) b) c) d)
- 4.2.8 5 b) c)

Based on the above review, it is our opinion that the Pit 3 Extension and specifically the Site Plans, which have been designed based on the recommendations from the numerous technical studies; are consistent with the goals and objectives of the above noted policies of the Growth Plan.

## 6.3 Other Provincial Plans

### 6.3.1 Greenbelt Plan (2017) / Niagara Escarpment Plan (2017)

For completeness and to highlight that there has been no oversight, we confirm that the subject lands are not encompassed within the planning boundaries of either the Greenbelt Plan or Niagara Escarpment Plan.

## 6.4 Niagara Region Official Plan (2014)

Policy 14.C.1 of the Region of Niagara Official Plan (ROP) states that “*When reading and interpreting this Plan, the objectives and policies should be read in their entirety*”. Based on this, and through the Pre-Submission Consultation process, the relevant policies of the ROP are focused on:

- Policy 5.B – Agriculture
- Policy 6.C – Mineral Resources
- Policy 7.A.2.6 - Stormwater Management
- Policy 7.B Core Natural Heritage System
- Policy 9.H.3 Major Goods Movement Facilities and Corridors
- Policy 14.D.5 - Implementation (Financial Impact Assessment / Economic Benefits).

### 6.4.1 Agriculture

The subject lands are designated as *Good General Agriculture Area* as shown on Schedule A – Regional Structure and Schedule B: Agricultural Land Base, of the Regional Official Plan (ROP). The *Good General Agriculture Area* includes “*organic soils, areas of Classes 1 and 2 lands, areas of 60 to 70 percent Class 1 and 2 lands, and the majority of Class 3 lands.*” This designation has been identified using Canada Land Inventory: Soil Capability for Agriculture and in consultation with local agriculturalists.

Policy 5.B.5 states that:

*Changes to the Good General Agricultural Areas and Rural Areas on Schedule B will be made only after consultation with the local municipalities, agricultural representatives and interested local and Provincial agencies and organizations and will be done through a Regional Official Plan amendment. Revisions to the Greenbelt Plan and to the Niagara Escarpment Plan boundaries and the redesignation of Unique Agricultural Areas are prohibited.*

Response: It is confirmed that PCQ is requesting a re-designation from the Good General Agricultural Areas and Rural Areas on Schedule B to ‘Licensed Pits and Quarries’ on Schedule D. As such, we confirm that PCQ has undertaken consultation with the local municipalities,

agricultural representatives and interested local and Provincial agencies and organizations and that they have applied for a Regional Official Plan amendment.

Policy 5.B.7 provides specific direction on the criteria to be used to support the re-designation of agricultural lands. Table 1 below provides each policy requirement along with confirmation of how each criteria has been addressed by the subject application.

Policy 5.B.7 states that:

*Non-agricultural uses should not be located in Agricultural Areas. The introduction of new non-agricultural development of all types into the Agricultural Areas has an adverse impact on the agricultural and natural resources and shall be strictly limited. However, applications for individual non-agricultural uses may be considered. These applications will be reviewed through a Regional Official Plan Amendment subject to the following conditions:*

<b>TABLE 1 – REGIONAL OFFICIAL PLAN 2031 POLICY FULFILLMENT</b>	
<b>POLICY 5.B.7 - CONVERSION OF AGRICULTURAL LANDS</b>	
<b>POLICY 5.B.7</b>	<b>COMMENTARY</b>
a) Non-agricultural uses are not permitted in Unique Agricultural Areas - Good Tender Fruit and Good Grape Areas.	The subject lands do not contain any Unique Agricultural Areas – Good Tender Fruit and Good Grape Areas, therefore this is OP policy is not applicable to the subject application.
b) Non-farm residential lots and uses are not permitted in Good General Agricultural Areas or in Rural Areas in close proximity to agricultural activity.	The subject application does not propose any non-farm residential lots or uses, therefore this OP policy is not applicable to the subject application. The two non-farm residential lots with frontage onto Highway 3 will remain zoned agriculture.
c) A demonstrated need for additional land to be designated within the municipality and the desirability of the proposed use to the community.	We confirm that PPS Policy 2.5.2.1 specifies that the applicant does not require demonstration of need for <i>mineral aggregate resources</i> , including any type of supply/demand analysis, notwithstanding the availability, designation or licensing for extraction of <i>mineral aggregate resources</i> locally or elsewhere.
d) There are no reasonable alternatives in Rural Areas or in Urban Areas.	Refer to our response under PPS 2.5.4.1 c) regarding alternative lands assessment within Rural Areas and in Urban Areas.
e) There are no reasonable alternative locations in other Good General Agricultural Areas with lower priority agricultural land.	Refer to our response under PPS 2.5.4.1 c) regarding alternative lands assessment within Rural Areas and in Urban Areas.
f) The degree of conflict with surrounding agricultural uses. Any conflict should be mitigated to the extent feasible. This would depend on the size and nature of the proposed use, the existing agricultural uses, and on any buffering factors between them. For example, creeks, roadways and other prominent features would be helpful in defining and screening a non-agricultural use from surrounding farms;	The AIA (Appendix C) provides recommendations that are intended to address potential conflicts with surrounding agricultural uses and these have been incorporated into the Site Plans.
g) Compliance with policies contained in Chapters 6 and 7, Environmental Policies including the Natural Heritage and Aggregate Resource Policies.	Refer to policy conformity below for response on how Environmental Policies including Natural Heritage and Aggregate Resource Policies have been fulfilled.

<b>TABLE 1 – REGIONAL OFFICIAL PLAN 2031 POLICY FULFILLMENT</b>	
<b>POLICY 5.B.7 - CONVERSION OF AGRICULTURAL LANDS</b>	
<b>POLICY 5.B.7</b>	<b>COMMENTARY</b>
<p>h) Applications must be supported by adequate technical assessment to ensure that private water supply and private sewage services can be provided.</p>	<p>PCQ will not utilize any municipal utilities (water or sanitary sewage).</p> <p>Initially, the aggregate from the proposed Pit 3 will be trucked to the existing processing facility (within Pit 1.) which currently already operates on an approved MECP - PTTW for the wash plant, water trucks for dust mitigation etc. As well, the existing administration offices utilize a private septic system. These facilities will continue to be utilized during the initial operation of Pit 3 Extension (i.e., Phase 1).</p> <p>The <u>Hydrogeology Assessment</u> (Appendix J), has confirmed that there is adequate groundwater to support the future aggregate processing operation (i.e., wash plant), and any other related needs of the operation (i.e., dust mitigation).</p> <p>The siting of a future administration office at the new quarry access will be serviced by a water supply that is comparable to or less than a typical household.</p>
<p>i) Compliance with other policies contained in the Regional Official Plan.</p>	<p>It is our opinion that the subject application is in compliance with all other Regional OP policies.</p>

**6.4.2 Mineral Resources**

Policy 6.C.4 regarding the development of adjacent lands to licensed pits/quarries, states that:

*Only those uses permitted under Chapter 5.B, Policies for Agriculture, and Niagara Escarpment Plan policies within the Niagara Escarpment Plan area, should be considered for areas adjacent to either licensed pits or quarries or possible aggregate areas which are outside the urban areas boundaries of local municipalities as shown in this Plan.*

*Also, in areas adjacent to or in known deposits of mineral aggregate resources, development and activities which would preclude or hinder the establishment of new operations or the expansion of existing operations or access to the resources shall only be permitted if:*

- a) Resource use would not be feasible; or*
- b) The proposed land use or development serves a greater long-term public interest; and*
- c) Issues of public health, public safety and environmental impact are addressed.*

Response: The preceding section (6.4.1) confirms that the Pit 3 Extension proposed land use of quarry extraction meets the criteria noted under Chapter 5.B.

Policy 6.C.5 states that:

*Applications for licenses to open new pits or quarries and applications for changes to or expansions of existing licensed pits or quarries will be considered in relationship to the Niagara Escarpment Plan policies within the Niagara Escarpment Plan area and to the following conditions:*

The subject lands are not located within the Niagara Escarpment Plan area and further to communication with the Region’s Planning Department (S. Norman dated May 20, 2020) this portion of the Policy is not applicable to the PCQ application.

Policy 6.C.5 (Continued):

- e) compliance with the provisions of other policies in this Plan including Policies 7.B.1.31 to 7.B.1.34 inclusive in Chapter 7 of this Plan;
- b) compatibility with surrounding land uses;
- c) the impact on the natural environment including surface watercourses and Groundwater;
- d) the proposed manner of operation, site plan, and rehabilitation;
- e) the proposed haulage roads and the possible effect on the roads concerned and on adjacent development.

Response: With regard to the above:

- ROP policies 7.B.31 to 7.B.34 are only applicable to lands sited within the Greenbelt Natural Heritage System and the subject lands are not located within the Greenbelt Natural Heritage System.
- In support of the application, PCQ retained experts to identify potential land use impacts and to provide recommendations in how PCQ can operate the proposed extraction operation in a manner which minimizes social, economic and environmental impacts. The recommendations from the following reports have been incorporated into the Site Plans:
  - Acoustical (Noise) Impact Study
  - Agriculture Impact Assessment
  - Air Quality (Dust) Report
  - Archaeology Assessment
  - Blasting (Vibration) Impact Assessment
  - Cultural Heritage Screening Report
  - Hydrology (Surface and Groundwater)
  - Natural Environment Level 1 and 2 Report (EIS)
  - Traffic Impact Study

In addition:

- A comprehensive Land Use Compatibility / Sensitive Land Use Study was completed to provide a synthesis of all the specific impacts and to assess and summarize the recommendations specifically from the noise, air quality and blasting reports.
- A comprehensive Social Impact Assessment was completed to review all the land use compatibility issues and assess that resulting recommendations to ensure that specifically, social impacts would be minimized.
- The impact on the natural environment including surface watercourses and Groundwater has been assessed in the following documents:
  - Hydrology Assessment attached hereto as Appendix I.
  - Hydrogeological Assessment attached hereto as Appendix J.
  - Natural Environment Level 1 & 2 Report (EIS), attached hereto as Appendix L.

Furthermore, there was co-operation of information and findings during the preparation of these specific reports and therefore the reports were not prepared in isolation, but the recommendations are based on a collaborative approach.

- The proposed manner of operation, site plan, and rehabilitation are detailed most importantly on the Site Plans as those are the required tool used by MNRF to ensure that the operation is enforced. As well, a description of the rehabilitation is contained herein and in the Rehabilitation Strategy report attached hereto as Appendix M.

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- The proposed haulage roads and the possible effect on the roads concerned and on adjacent development have been addressed in the Traffic Impact Study. Through the utilization of a Highway 3 entrance/exit will be significant to minimizing conflicts with users of the local roads.

Policy 6.C.8 states that:

*In the case of adjacent pit or quarry operations, the Region will, wherever practical, encourage the removal of all economically viable material between the pits, and encourage continuous and harmonious rehabilitation.*

Response: PCQ owns and operates the abutting quarry (Pit 3) and the submitted Site Plans (Operational Plan: - Sheet 3 of 8), illustrates that the existing eastern quarry face of Pit 3 will be continued and worked into the Pit 3 Extension lands. As such, the prescribed combined 30.0 metre setback (15.0 metres on each side) will be able to be excavated. Furthermore, in advance of submitting for the proposed Licence and planning approvals, and in conjunction with PCQ's purchase of the numerous landholdings associated with the Pit 3 Extension, they also negotiated with the City of Port Colborne to purchase the Carl Road right-of-way. Through the acquisition of these lands, PCQ can both: i) access the aggregate underlying the right-of-way, and also, ii) all the aggregate that might have been sterilized within the prescribed 30.0 metre setbacks that would have paralleled the right-of-way.

Policy 6.C.13 states that:

*Where a new pit or quarry or an extension to an existing licensed pit or quarry are to be located outside a possible aggregate area, an amendment to this Plan is required.*

Response: It is acknowledged that the Pit 3 extension lands are not shown on Schedule D4 (Mineral Aggregates) as a Licensed Pits and Quarries nor as a Possible Aggregate Area. Therefore an amendment to the Regional Official Plan (ROPA) is necessary to undertake the following:

- Add to Section 13 the site-specific policies to permit the Pit 3 extension quarry operation.
- Identify the subject lands on Schedule D4 - *Mineral Resources* as a Licensed Pits and Quarries.

### **6.4.3 Stormwater Management**

Policy 7.A.2.6 states that:

*A stormwater management plan and a sediment and erosion control plan shall not be required for a new mineral aggregate operation or an expansion to an existing operation where these matters are adequately addressed through studies prepared to meet the require*

The external portion of the subject lands will have variable setbacks between the abutting lands/roads and the extraction as prescribed by the ARA which and/or recommendations from the technical reports and vary from 15.0 metres to 250.0 metres. Within all external setbacks will be constructed a noise/visual/dust mitigation berm. The extraction activity within the Limits of Extraction will result in the removal of aggregates and therefore, a process to lower the existing site grades. Consequently, combined with the i) setback, ii) physical berm barrier and iii) deepening of the subject lands, all surface water that is captured on the site will be retained within the site. Therefore, there will be no alteration to any existing external roadway ditching, nor any significant increase in the surface water being directed to it.

Given that the quarry operation will be undertaken through a dewatering process with a dry floor, all surface water that does collect on the expanding and open quarry floor will be directed to the dewatering pumps and discharged from the site via the Wignell Drain.

#### 6.4.4 Natural Environment

Policy 7.B.1.6 regarding Key Hydrologic Features, states that:

*Key hydrologic features include permanent and intermittent streams, lakes and their littoral zones, seepage areas, springs and wetlands. When key hydrologic features are identified through watershed or other studies the Region will consider an amendment to this Plan to show those features on a Schedule. In the interim, within the Greenbelt Area, if potentially permitted development is proposed in an area within the Unique Agricultural Areas where key hydrologic features have not been identified, the applicant may be required to identify the hydrologic features on the site of the proposed development as well as within 120 meters of the site boundary.*

Response: The ponds within the former Humberstone Speedway may contain fish and as such, would represent a key hydrologic feature. If fish are present, the Licensee will need to remove the fish prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

Policy 7.B.1.8 regarding Environmental Features or Function, states that:

*Where, through the review of a planning application, it is found that there are important environmental features or functions that have not been adequately evaluated, the applicant shall have an evaluation prepared by a qualified biologist in consultation with the Region, the local municipality and, where appropriate, the Ministry of Natural Resources and the Niagara Peninsula Conservation Authority. If the evaluation finds one or more natural heritage features meeting the criteria for identification as Core Natural Heritage System components, the appropriate Core Natural Heritage System policies shall apply.*

Response: It was confirmed by The Hydrology Assessment (Appendix I), Hydrogeological Assessment (Appendix J) and the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L that there are no important environmental features or functions that have identified which have not been adequately evaluated. As part of the evaluation, no natural heritage features meeting the criteria for identification as Core Natural Heritage System were identified.

Policy 7.B.1.10 regarding Vegetation Protection Zones, states that:

*Notwithstanding Policies 7.B.1.15 and 7.B.1.20 and the Policies in Chapter 7.A.2, within Environmental Protection Areas, within Fish Habitat in the Greenbelt Natural Heritage System, within key hydrologic features within the Unique Agricultural Areas, and within any associated vegetation protection zones in the Greenbelt Area, development and site alteration shall not be permitted except for the following:*

- a) forest, fish and wildlife management;*
- b) conservation and flood or erosion control projects where it has been demonstrated that they are necessary in the public interest and other alternatives are not available; and*
- c) small scale, passive recreational uses and accessory uses such as trails, boardwalks, footbridges, fences, docks and picnic facilities that will have no significant negative impact on natural features or ecological functions of the Core Natural Heritage System.*

*Where such uses are proposed, the proponent shall be required to prepare an Environmental Impact Study (EIS) to the satisfaction of the Region in accordance with Policies 7.B.2.1 to 7.B.2.5.*

Response: The subject lands are not within Environmental Protection Areas, within Fish Habitat in the Greenbelt Natural Heritage System, within key hydrologic features within the Unique Agricultural Areas, and within any associated vegetation protection zones in the Greenbelt Area.

Policy 7.B.1.13 regarding Natural Heritage Corridor, states that:

*Where development or site alteration is proposed in or near a Potential Natural Heritage Corridor the Corridor shall be considered in the development review process. Development should be located, designed and constructed to maintain and, where possible, enhance the ecological functions of the Corridor in linking Core Natural Areas or an alternative corridor should be developed. The Potential Natural Heritage Corridors are illustrated conceptually on Schedule C. The Region shall undertake a study to further define Corridors within the Core Natural Heritage System.*

Response: The subject lands and specifically the SWD3-2 Silver Maple Mineral Deciduous Swamp are defined as being part of the Core Natural Heritage System but not a Potential Natural Heritage Corridor. Notwithstanding, the Pit 3 Extension has been designed and constructed to maintain and, where possible, enhance the ecological functions of this feature by;

- Creating a range of new ecological habitat both south and east of the woodlot including the post extractive 65 hectare lake being 8.0 metres – 16.0 metres deep.
- Wetland enhancement areas the fringe of the lake.
- Setback areas proposed to be subject to natural succession.
- The natural succession of the former Carl Road right of way.

Policy 7.B.1.15 regarding Fish Habitat, states that:

*Within Fish Habitat as identified on Schedule C, or adjacent lands as specified in Table 7-1, development and site alteration may be permitted if it will result in no net loss of the productive capacity of fish habitat as determined by the Department of Fisheries and Oceans or its designate. The proponent shall be required to prepare an Environmental Impact Study (EIS) to the satisfaction of the Department of Fisheries and Oceans, or its designate, in accordance with Policies 7.B.2.1 to 7.B.2.5.*

Response: The ponds within the former Humberstone Speedway may contain fish and as such, would be fish habitat. If fish are present, the Licensee will remove the fish prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

Policy 7.B.1.16 regarding Municipal Drains, states that:

*The Region recognizes that the primary function of the Municipal Drains shown on Schedule C is to provide drainage for agricultural lands. These drains also may be used to convey irrigation water for agricultural use. The Region supports ongoing drain maintenance in accordance with the Federal Department of Fisheries and Oceans' Class Authorization System for Agricultural Municipal Drains. Where development, site alteration or building is proposed adjacent to a Municipal Drain a buffer zone a minimum 15 metres in width measured from the stable top of bank shall be required to provide access for drain maintenance, protect the integrity of the drains and protect environmental health. A narrower buffer may be permitted where it has been demonstrated to the satisfaction of the local municipality and the Niagara Peninsula Conservation Authority that there will not be a significant negative impact on the maintenance and functioning of the drain.*

Response: The west branch of the Wignell Drain and the east branch of the Wignell Drain, (formerly the Michener Drain) are part of a drainage system managed by the City of Port Colborne under the Drainage Act. The City is preparing formal engineering drawings to oversee the realignment of the east branch of the Wignell Drain. Once that alignment is finalized, and specifically pertaining to the east-tab, the Licensee will be able to comment on the possibility of narrower buffers be permitted, where it has been demonstrated to the satisfaction of the local municipality and the Niagara Peninsula Conservation Authority that there will not be a significant negative impact on the maintenance and functioning of the drain.

Policy 7.B.1.19 regarding Core Natural Features (Tree Saving Plan), states that:

*Where development or site alteration is approved within the Core Natural Heritage System or adjacent lands as set out in Table 7-1 the applicant shall submit a Tree Saving Plan maintaining or enhancing the remaining natural features and ecological functions. The Plan shall be prepared in accordance with the Regional Forest Conservation By-Law and the local tree conservation By-Law as appropriate and its implementation monitored by a member of the Ontario Professional Forestry Association.*

Response: Because the woodlot SWD3-2 – Silver Maple Mineral Deciduous Swamp is part of the Core Natural Heritage System, and since the applicant proposes to remove the FOD7-2 Fresh-Moist Ash Lowland Deciduous Forest vegetation, a Tree Preservation Plan is required. A Tree Preservation Plan has been completed and is attached hereto as Appendix P. The report concluded that trees located within FOD7-2, (including Vegetation Units ‘A’, ‘B’, and ‘C’) recommend removal to permit the Phase 2 extraction work of the proposed quarry expansion. The presence of Emerald Ash Borer damage, high occurrence of Ash trees, pioneer species and possible restoration plantings, within the study area as well as the relatively young age of the trees present on site contribute to a low preservation priority for the FOD7-2 feature.

Notwithstanding the justification for the removal of FOD7-2 woodlot and the agricultural fields, no other identified vegetation from the site will be removed and therefore maintaining the natural features and ecological functions. The enhancement of the remaining natural features and ecological functions will be undertaken by:

- Ecological linkages between the key natural heritage features in the study area will be improved. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.
- The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas and may include: red oak, trembling aspen, eastern white cedar, red maple, basswood, bur oak, white pine, serviceberry species, gray dogwood (*Cornus racemosa*) and staghorn sumac (*Rhus typhina*).
- Along the perimeter of the site, and specifically within the extraction setback areas, and once the perimeter berms have been removed, the lands will be subject to rehabilitation according to the rehabilitation concept. This will encourage the growth of numerous ecological linkages along the perimeter of the lake and property boundaries.
- Bisecting SWD3-2 – Silver Maple Mineral Deciduous Swamp is the former Carl Road alignment. The segment of Carl Road that bisects the deciduous swamp shall be rehabilitated following the decommissioning of the road. This linear disturbance has enabled invasive plants to infiltrate the swamp interior and may be increasing predation pressure on wildlife from domestic and feral animals (cats and dogs) as well as opportunistic wild predators and scavengers that benefit from anthropogenic disturbance such as coyotes or



raccoons. Excavations in three or four areas along the length of the road should be created to improve surface water drainage. Plantings along this segment of Carl Road should include the dominant tree and shrub species found in the deciduous swamp including silver maple, pin oak, swamp white oak, bur oak, red maple, and spicebush. Invasive shrub species including multiflora rose, common buckthorn, and Tartarian honeysuckle have become established in this area and may prevent the successful establishment of the native plantings. These invasive shrubs should be removed prior to the planting of Carl Road.

Policy 7.B.1.31 regarding Extraction within an Environmental Conservation Area, states that:

*Where a new mineral aggregate operation or an expansion to an existing operation is proposed outside the Greenbelt Natural Heritage System within an Environmental Conservation Area, a Potential Natural Heritage Corridor or Fish Habitat or within adjacent lands as set out in Table 7-1 the Environmental Impact Study will include consideration of:*

- a) *Whether the following will be maintained or enhanced before, during and after mineral aggregate extraction,*
  - i) *connectivity among Core Natural Areas and hydrologic features; and*
  - ii) *significant hydrologic features and functions; and*
- b) *How significant natural heritage features and ecological functions that would be affected will be replaced, on or off site, with features and functions of equal or greater ecological value that are representative of the natural ecosystem in that particular setting or ecodistrict.*

Response: As noted above, woodlot SWD3-2 – Silver Maple Mineral Deciduous Swamp is part of the Core Natural Heritage System. This feature will be maintained and enhanced before, during and after mineral aggregate extraction as detailed in our reply to Policy 7.B.1.19 above.

Furthermore, significant hydrologic features have been identified as the ponds within the former Humberstone Speedway may contain fish, and if present, will need to be removed prior to dewatering or destruction of the ponds. This will require a permit to collect fish for from MNRF and be obtained prior to relocation to avoid contravention of the Fisheries Act. Any native fish present are to be relocated to suitable nearby habitat and non-native fish are to be euthanized.

As well, before, during and after the development of the quarry, there will be ongoing monitoring of surface water and groundwater monitors, the evaluation of the vegetation within SWD3-2 – Silver Maple Mineral Deciduous Swamp during the operational life of the quarry, and have been included onto the Site Plans, all which are enforceable by provincial staff of MNRF.

Lastly, as confirmed by the NEL 1/2, no significant natural heritage features or ecological functions will be affected on or off site. However, features and functions of equal or greater ecological value are being proposed to augment the ecological character of the site through the introduction of proposed site features which will be representative of the natural ecosystem within this particular setting or ecodistrict including;

- Creating a range of new ecological habitat both south and east of the woodlot including the post extractive 65 hectare lake being 8.0 metres – 16.0 metres deep.
- Wetland enhancement areas the fringe of the lake.
- Setback areas proposed to be subject to natural succession.
- The natural succession of the former Carl Road right of way.

Policy 7.B.1.33 as required by Policy 6.C.5 states that:

*When operators are undertaking rehabilitation of mineral aggregate operation sites within the Unique Agricultural Areas in the Greenbelt Area the following provisions apply:*

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As noted above, the subject lands are not within the Greenbelt Plan area and therefore, this Policy is not applicable to this application.

7.B.34 as required by 6.C.5

*Final rehabilitation of mineral aggregate operations in the Greenbelt Natural Heritage System shall meet these additional provisions:*

Response: As noted above, the subject lands are not within the Greenbelt Plan area and therefore, this Policy is not applicable to this application.

Policy 7.B.2 regarding Environmental Impact Statement, states that:

*An Environmental Impact Study (EIS) required under this Plan shall be submitted with the development application and shall be prepared and signed by a qualified biologist or environmental planner in accordance with the Environmental Impact Study Guidelines (EIS Guidelines) adopted by Regional Council. An EIS shall be prepared to the satisfaction of the appropriate Planning Authority, in consultation with the NPCA and the other commenting body. Within Settlement Areas as delineated in this Plan, an EIS shall be prepared to the satisfaction of the appropriate local municipality in consultation with the Region and the NPCA. Outside of Settlement Areas, an EIS shall be prepared to the satisfaction of the Region, in consultation with the appropriate local municipality and the NPCA. The Planning Authority, the other commenting body and the NPCA shall work collaboratively throughout the EIS process.*

Response: As part of the Pre-Submission Consultation, the Terms of Reference for the EIS were provided to the Region for their review. A copy of the Natural Environment Level 1 and 2 (EIS) is attached hereto as Appendix L.

#### **6.4.5 Major Goods Movement Facilities**

Policy 9.H.3 states that:

*The Niagara Region and its local municipalities will ensure that development of lands adjacent to or near major goods movement facilities and corridors will be compatible with the goods movement function of those facilities and be designed to avoid, mitigate or minimize negative impacts on and from the facilities and corridors.*

Response: Currently, PCQ haul truck traffic utilizes an entrance/exit onto Highway 140 via Second Concession Road. This access will continue during the initial extraction of Phase 1 of Pit 3 Extension until such time that PCQ will construct a new entrance / exit onto Highway 3 coincident to the Weaver Street intersection. This location avoids a Miller Road option which would have had the potential to create land use impacts. The Traffic Impact Study which is attached hereto as Appendix O, recommends the construction of an eastbound deceleration lane into the quarry and the overall quarry entrance will be constructed to meet provincial MTO standards.

#### **6.4.6 Implementation**

Policy 14.D.5 states that:

*Where an Amendment is proposed to the Regional Official Plan, the Region shall consider the following criteria in evaluating the Amendment:*

- v. The effect of the proposed change on regional services and infrastructure.*
- viii. The effect of the proposed change on the financial health, safety and economic sustainability of the Region.*

Response: As specified through the Pre-submission Consultation, fulfillment of this policy necessitated the completion of a Financial Impact Assessment / Economic Benefit Report and subsequently, PCQ retained IBI Group to undertake the applicable report which is attached

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hereto as Appendix H. In summary, the report concluded that the quarry will: a) increase in Regional and City tax revenue by as much as \$1.2 million, b) provide aggregate levies to the Region and City up to \$7.0 million, c) to maintain the same number of jobs (20) currently employed, and d) have no anticipated impact on any of the Region's or City's capital programs. Specifically, the design and construction of the quarry entrance/exit will be at the full expense of PCQ.

#### 6.4.7 Summary of the ROP Policies

As part of the planning review for the Pit 3 Extension, and as stated in Chapter 14 under Policy 14.C.1, *“When reading and interpreting this Plan, the objectives and policies should be read in their entirety”*. Based on this, the relevant policies of the ROP focused on:

- Policy 5.B – Agriculture
  - 5.B.5
  - 5.B.7
- Policy 6.C – Mineral Resources
  - 6.C.4
  - 6.C.5
  - 6.C.8
  - 6.C.13
- Policy 7.A.2.6 - Stormwater Management
- Policy 7.B - Core Natural Heritage System
  - 7.B.1.6
  - 7.B.1.8
  - 7.B.1.10
  - 7.B.1.13
  - 7.B.1.15
  - 7.B.1.16
  - 7.B.1.19
  - 7.B.1.31
  - 7.B.1.33
  - 7.B.1.34
  - 7.B.2
- Policy 9.H.3 - Major Goods Movement Facilities and Corridors
- Policy 14.D.5 - Implementation (Financial Impact Assessment / Economic Benefits)
  - 14.D.5 v) viii)

Based on the above review, it is our opinion that the Pit 3 Extension and specifically the Site Plans which have been designed based on the recommendations from the numerous technical studies, are consistent with the goals and objectives of the above noted policies of the Niagara Region Official Plan subject to the following amendment to the ROP:

- i. Add to Section 13 the site-specific policies to permit the Pit 3 extension quarry operation.
- ii. Identify the subject lands on Schedule D4 - *Mineral Resources* as a Licensed Pits and Quarries.

#### 6.5 City of Port Colborne Official Plan (2017)

Under Section 1.2 (b), Purpose of the Plan, the City of Port Colborne Official Plan (OP) states, “It is the intent that the Plan will be a guide to all public and private agencies concerned with development of the City. Accordingly, the subject matter in the Plan is specific to Port Colborne which results in a concise document that speaks to the needs of the local community while having regard for good planning principals.

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Accordingly, the Official Plan has identified the subject lands to have the following designations:

Schedule A – City Wide Land Use	Agricultural
Schedule B – Natural Heritage	Environmental Conservation Area Environmental Protection Area and Streams
Schedule B1 Environmental Protection Zone	Natural Hazard
Schedule B2 Environmental Conservation Area	Significant Woodlands, Non Provincial Significant Wetlands and Streams

Based on our review of the OP and through the Pre-Submission Consultation process, the relevant policies of the OP are focused on:

- Policy 3.5 Agriculture
- Policy 4.1 Natural Heritage Features
- Policy 4.2 Environmental Protection Areas
- Policy 4.3 Environmental Conservation Areas
- Policy 7.3 Archaeological Resources
- Policy 8.2 Stormwater Management
- Policy 10.2 Aggregate / Extractive Industrial Sites

### 6.5.1 Agriculture

Policy 3.5 states that:

Areas identified on Schedule A as Agricultural are Prime Agricultural Areas as defined by the Provincial Policy Statement and as identified on the Agricultural Land Base Map of the Regional Policy Plan and are used primarily for agricultural purposes.

Response: *Prime Agricultural Areas* as defined by the Provincial Policy Statement permit “the extraction of mineral aggregate resources as an interim use provided that the lands are rehabilitated to an agricultural condition (PPS 2014, Policy 2.5.4).

Justification for the permanent loss of agricultural lands has been provided in Section 6.1 above.

### 6.5.2 Natural Heritage Features

Policy 4.1.2.2 regarding Environmental Impact Studies states that:

- a) *An Environmental Impact Study shall be carried out by professionals qualified in the field of environmental sciences and acceptable to the City, the Regional Municipality of Niagara, and the Niagara Peninsula Conservation Authority, as required. Prior to the commencement of the Study, Terms of Reference, prepared by the applicant, or consultant acting on behalf of the applicant, acceptable to the City of Port Colborne shall be prepared in consultation with the Niagara Peninsula Conservation Authority, the Region and any other applicable agencies.*

Response: In advance of the preparation of the Environmental Impact Study (EIS), the applicant participated in Pre-Submission Consultation, (April 23, 2020) which included staff from the MNRF, Niagara Region, City of Port Colborne and NPCA. We can also confirm that the Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L, has been prepared by professionals in their field. Curriculum Vitae for H. Melcher and L. Owen are attached to that report.

- b) *In general the Environmental Impact Study (EIS) shall include:*
  - i) *A description of and statement of the rationale for the proposal and alternatives to the proposal;*

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- ii) *A description of adjacent land use and the existing regulations affecting the proposal and adjacent lands;*
- iii) *A description of the proposed undertaking, including a location map showing proposed buildings, existing land uses and buildings, existing vegetation, fauna, site topography, drainage, hydrology, soils and habitat areas;*
- iv) *A description of all natural features and functions, including hydrologic, surface and ground water functions, on site and on adjacent lands that might directly or indirectly be affected by the proposal;*
- v) *A description of alternate forms that the proposal could take including an assessment of the advantages and disadvantages of each;*
- vi) *An assessment of the impacts that might reasonably be caused to the natural features and functions by the proposal including the cumulative effect of the impacts;*
- vii) *An identification and evaluation of the actions necessary to prevent, change, mitigate or remedy any assessed impacts upon natural heritage features and functions and the alternative methods of protecting the functions and values of the areas affected;*
- viii) *A concluding statement that the policy objectives of the Environmental Protection Area or Environmental Conservation Area designation are being complied with;*
- ix) *The required scope and/or content of an EIS may be reduced in consultation with the appropriate agencies where;*
  - a) *The environmental impacts of the development are thought to be limited; or*
  - b) *Other environmental studies fulfil all or some of the requirements*
- x) *Any other information required by the City, the Ministry of Natural Resources, the Niagara Peninsula Conservation Authority, or the Region that is deemed necessary to evaluate the proposal in relation to the Natural Heritage Feature identified; and*
- xi) *For development or site alteration within or adjacent to an Environmental Conservation Area within the Urban Area Boundary, an EIS shall be prepared to the satisfaction of the Region and in consultation with the City and the Niagara Peninsula Conservation Authority. Development or site alteration within or adjacent to Environmental Conservation Areas outside the Urban Area Boundary, as well as adjacent to Environmental Protection Areas requires the preparation of an EIS to the satisfaction of the Region in consultation with the City, the Niagara Peninsula Conservation Authority and the Ministry of Natural Resources, as required.*

Response: The Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L was prepared with all the above noted criteria.

Policy 4.1.2.5 regarding Tree Saving Plans states that:

*Where development or site alteration is approved in accordance with the policies of this Plan, the applicant shall submit a Tree Saving Plan maintaining or enhancing the remaining natural features and ecological functions. The Plan shall be prepared in accordance with the administrable Tree Conservation By-Laws and related Environmental Impact Study and its implementation monitored by a member of the Ontario Professional Forestry Association or consultant who prepared the Environmental Impact Study.*

Response: A Tree Preservation Plan was prepared by IBI and dated October 2020 and is attached hereto as Appendix P. The Tree Preservation Plan concluded that trees located within the FOD7-2 community (including Vegetation Units 'A', 'B', and 'C') are recommended for

removal to permit the Phase 2 extraction work of the proposed quarry expansion. The presence of Emerald Ash Borer damage, high occurrence of Ash trees, pioneer species and possible restoration plantings, within the study area as well as the relatively young age of the trees present on site contribute to a low preservation priority for the FOD7-2 feature.

The Report also provide numerous recommendations for tree protection for the surrounding woodlot areas that are to be retained.

Notwithstanding the justification for the removal of FOD7-2, and the agricultural fields, no other vegetation from the site will be removed and therefore maintaining the remaining natural features and ecological functions. The enhancement of the remaining natural features and ecological functions will be undertaken by:

- Ecological linkages between the key natural heritage features in the study area will be improved. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.
- The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime.
- Along the perimeter of the site, and specifically within the extraction setback areas, and once the perimeter berms have been removed, the lands will be subject to natural succession. This will encourage the growth of numerous ecological linkages along the perimeter of the lake and property boundaries.
- Bisecting SWD3-2 – Silver Maple Mineral Deciduous Swamp is the former Carl Road alignment. This segment of Carl Road shall be rehabilitated following the decommissioning of the road. This linear disturbance has enabled invasive plants to infiltrate the swamp interior and may be increasing predation pressure on wildlife from domestic and feral animals (cats and dogs) as well as opportunistic wild predators and scavengers that benefit from anthropogenic disturbance such as coyotes or raccoons. Excavations in three or four areas along the length of the road should be created to improve surface water drainage.

Policy 4.1.3 regarding Surface Water and Groundwater Protection, states that:

- a) *Development and site alteration shall only be permitted if it will not have negative impacts, including cross-jurisdictional and cross-watershed impacts on:*
  - i) *The quantity and quality of surface and ground water;*
  - ii) *The functions of ground water recharge and discharge areas, aquifers and headwaters;*
  - iii) *The natural hydrologic characteristics of watercourses such as base flow;*
  - iv) *Surface or ground water resources adversely impacting on natural features or ecological functions of the Core Natural heritage system or its components;*
  - v) *Natural drainage systems, stream forms and shorelines; and*

*vi) Flooding or erosion.*

Response: The Hydrology Assessment (Appendix I) and the Hydrogeology Assessment (Appendix J and the Natural Environment Level 1 and 2 Report (EIS), (Appendix L) were prepared collaboratively so that all the above criteria was included.

*b) Development and site alteration shall be restricted in the vicinity of vulnerable surface and ground water features of importance to municipal water supplies so that the safety and quality of municipal drinking water will be protected or improved.*

Response: As confirmed in the Hydrogeological Assessment (Appendix J), there are no municipal water supplies near the proposed Pit 3 Extension nor within the identified anticipated drawdown cone around beyond the proposed quarry lands. Although not a component identified by this policy, the Hydrogeological Assessment does also address the on-going protection of private domestic wells within the vicinity and provides recommendations for both long-term monitoring of the groundwater levels and quality, but also a specific well interference protocol if necessary.

*c) Prior to any planning approvals, new development applications requiring a Provincial Permit to Take Water shall satisfy the Region that the water taking will not have negative impacts on the natural ecosystems or the quality and quantity of water to meet existing and planned uses.*

Response: As confirmed in the Hydrogeological Assessment (Appendix J), the existing Port Colborne Quarries Inc. quarry operation operates under a current Provincial (Ministry of Environment, Conservation and Parks – MECP) Permit to Take Water (PTTW). This reflects the current dewatering program of the abutting Pit 3. The operation of the proposed Pit 3 Extension will require a new PTTW application to allow the dewatering process. The Hydrology Assessment, (Appendix I) Hydrogeological Assessment (Appendix J) and the Natural Environment Level 1 / 2 (EIS) (Appendix L) all identified the potential for impact due to the PTTW and through avoidance of key natural features within the 'limits of extraction' as well as buffers and the numerous design recommendations in each report, no negative impacts are predicted on the natural ecosystem or the quality and quantity of water to meet existing and planned uses. To further safeguard these features, on-going hydrology, hydrogeological and natural environment monitoring are being recommended, all which have been incorporated into the Site Plans and which will be enforceable by applicable MNRF staff.

## **6.5.2 Environmental Protection Areas**

Policy 4.2 regarding Environmental Protection Areas states that:

*Areas designated as Environmental Protection on Schedule B are those lands that are classified as Provincially significant wetlands (PSW's), Provincially Significant Areas of natural and scientific interest (ANSI's), the Significant Habitat of Threatened and Endangered species and Natural Hazard Areas as identified on Schedule B1. The predominant uses for lands designated Environmental Protection Area shall include forest, fish and wildlife management; small-scale passive recreational uses and accessory uses such as: trails, boardwalks, footbridges, fences, docks and picnic facilities that will not negatively impact on the natural features or ecological function of the areas; and conservation and flood erosion control projects where it has been demonstrated that they are necessary in the public interest and no other alternatives are available*

Response:

The Habitat for Threatened and Endangered Species are addressed below under 4.2.3.

The Natural Hazards are addressed below under 4.2.4.

Policy 4.2.3 regarding Significant Habitat of Threatened and Endangered species states that:

*The Significant Habitats of Threatened and Endangered Species are identified by the Ministry of Natural Resources. This designation intends to protect these habitats within the City.*

*4.2.3.1 General Policies*

*a) Development and site alteration will not be permitted within the boundary of the Significant Habitat of Threatened and Endangered Species. Development may only be permitted in accordance with Provincial requirements.*

*b) The City will require an Environmental Impact Study for new development and site alteration proposals for all adjacent lands within 50 metres of the Significant Habitat of Threatened and Endangered species boundary to demonstrate that there will be no negative impacts on the feature or its ecological functions.*

*c) Significant Habitats of Threatened and Endangered Species are not shown on the land use schedules. In instances where the habitat of threatened and endangered species is identified by study or agency review of applications, the Policies of Section 4.2.3.1 shall apply.*

*d) The Ministry of Natural Resources should be contacted to determine the potential implications of the Endangered Species Act on the proposed development or site alteration.*

Response: The Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L has identified numerous Threatened and Endangered Species and/or potential habitat on and/or within 120 metres of the site including Bank Swallow, Bobolink, Eastern Meadowlark, Chimney Swift, Bats. The underlying intent of Pit 3 Extension design has been avoidance of such habitat and based on that, the design and development of the subject application does not include development or site alteration within such habitat except in accordance with provincial and federal requirements.

Policy 4.2.4 regarding Natural Hazards states that:

*The areas identified on Schedule B1 are lands and/or specific properties which could be unsafe for development due to naturally occurring processes. Hazardous Sites are defined as lands having inherent environmental hazards such as flood susceptibility, erosion, steep slopes, unstable soils or any other physical condition that might present a risk in terms of loss of life, property damage or social disruption. Natural Hazards may include: flooding hazards, erosion hazards or dynamic beach hazards (which include Dune Protection areas). There are Natural Hazards associated with the Lake Erie shoreline as well as for river and stream systems throughout the municipality. The Policies of this Section shall also apply where lands are found, through study, to exhibit characteristics of Hazardous Lands, but are not shown on Schedule B1 of this Plan.*

Response: Schedule B1 of the Official Plan identifies Natural Hazards on the subject site, which are associated with the west and east branches of the Wignell Drain. The Wignell Drain is managed by the City of Port Colborne under the Drainage Act and is currently looking to realign the drain as it traverses the site. Based on the Hydrological Assessment (Appendix I) and Hydrogeological Assessment (Appendix J), there are no other known or suspected hazards on those abutting lands. Specifically, the existing quarry lands are properly fenced, and the slopes continue to be progressively rehabilitated to create slopes which meet MNR requirements.



### 6.5.3 Environmental Conservation Areas

Policy 4.3 regarding Environmental Conservation Areas states that:

*Areas designated as Environmental Conservation Areas on Schedule B are those lands that are classified as; Regionally Significant Areas of natural and scientific interest, Non-Provincially Significant Wetlands, Significant Wildlife Habitat, Significant Woodlands, Significant Valleylands, Habitats of Species of concern and Environmental Corridors and Linkages as identified on Schedule B2. The predominant uses for lands designated Environmental Conservation Area shall include existing uses, conservation uses, flood and erosion control, fish, forestry and wildlife management, as well as passive recreational activities.*

Response: As highlighted on the City Official Plan Schedule B, the subject site contains lands designated as Environmental Conservation Area and specifically those areas referenced as SWD3-2 – Silver Maple Mineral Deciduous Swamp. The lands designated as Environmental Conservation Areas will not be disturbed and their use will continue to be conservation uses, flood and erosion control, forestry and wildlife management, as well as passive recreational activities, while remaining in private ownership.

#### 4.3.1 General Policies

d) *If an Environmental Impact Study is completed and a feature or function is identified that warrants the protection of the Environmental Conservation Area as an Environmental Protection Area, then the policies of the Environmental Protection Area shall apply. Non-Provincially Significant Wetlands or unevaluated wetlands will only be reclassified to a Provincially significant wetland and designated as an Environmental Protection Area upon the completion and approval of a wetland evaluation by the Ministry of Natural Resources.*

Response: The Policies of the Environmental Protection Area are addressed below.

e) *The boundaries of an Environmental Conservation Area may be refined through an Environmental Impact Study or Environmental Planning Study. Minor boundary adjustments will not require an amendment to this plan.*

Response: The boundaries of an Environmental Conservation Area are not being recommended for modification as a result of the completion of the Environmental Impact Study.

f) *The City will require an Environmental Impact Study for new development proposals for all adjacent lands within 50 metres of lands designated as Environmental Conservation to demonstrate that there will be no negative impacts on any surrounding features.*

Response: The Natural Environment Level 1 and 2 Report (EIS), attached hereto as Appendix L has been completed and has demonstrate that there will be no negative impacts on any surrounding features.

g) *The Niagara Peninsula Conservation Authority should be consulted as to whether a permit is required to address Regulations under the Conservation Authorities Act.*

Response: The NPCA has participated in Pre-Submission Consultation and their review comments will be required as part of the overall planning process under both the Planning Act and Aggregate Resources Act.

### 6.5.4 Archaeological Resources

Policy 7.3 regarding archaeological resources states that:

a) *A minimum of a Stage 1 Archaeological Assessment is required to be submitted to the Ministry of Tourism, Culture and Sport for approval where development is proposed on lands which have archaeological potential as determined by the City, the Region and/or the Ministry of Tourism, Culture and Sport.*

- b) *Depending on the results of the Stage 1 Archaeological Assessment referenced in Policy 7.3 (a), it may be necessary to undertake Stage 2 to 4 assessments.*
- c) *Pioneer and other cemeteries shall be retained in their original location and will not be relocated to accommodate private development.*
- d) *Development and site alteration shall only be permitted on lands containing archaeological resources or areas of archaeological potential if the significant archaeological resources have been conserved by removal and documentation, or by preservation on site. Where significant archaeological resources must be preserved on site, only development and site alteration which maintains the heritage integrity of the site may be permitted.*

Response: An Archaeological Stage 1, (Background Study) and Archaeological Stage 2 (Property Assessment) was prepared and attached hereto as Appendix E i) as well as Supplementary Documentation regarding the Stage 1 and 2 Assessment as Appendix E ii) both being submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries. The findings of the Stage 1 and 2 reports identified that the site contained numerous archaeological findspots and many were cleared as a result of the Stage 1 and 2 work. Additional sites remain that have been identified as requiring further Stage 3 assessment, but in keeping with Ministry protocol, a 70.0 metre no-go buffer has been identified around these features. Within the buffers, no soil/site disturbance is permitted except for on-going agricultural use until the Stage 3 (and potentially 4) assessment work clears the sites.

No pioneer or other cemeteries were discovered and the above noted studies have confirmed that within the proposed extraction area, all archaeological resources have been recovered.

### 6.5.5 Stormwater Management

Policy 8.2 states that:

- a) *Stormwater will be managed on-site and will not have an adverse impact to neighbouring properties or the drainage patterns of the surrounding area.*
- b) *A stormwater management plan and a sediment and erosion control plan prepared and signed by a qualified engineer may be required with a development application depending on the scale and nature of the proposal and site specific environmental conditions. Stormwater management plans shall be prepared in accordance with Policy 7.A.2.1, of the Ontario Ministry of the Environment Stormwater Management Planning and Design Manual 2003 or its successor, and with watershed and/or environmental planning studies for the area. **A stormwater management plan and a sediment and erosion control plan shall not be required for a new mineral aggregate operation or the expansion to an existing operation where these matters are adequately addressed through studies prepared to meet the requirements of the Aggregate Resources Act.** [Emphasis added]*

Response: It is acknowledged that the City OP does not require a stormwater management plan for new mineral aggregate operations where these matters are adequately addressed through the studies prepared in support of the application. In that regard, we confirm that the Hydrology Assessment (Appendix I) included a description of how stormwater will be managed.

### 6.5.6 Aggregate/Extractive Industrial Sites

Policy 10.2 provides direction on how amendment applications are to be evaluated. Table 3 below summaries the requirements of Policy 10.2.2 and how this has been addressed.

TABLE 3 – CITY OF PORT COLBORNE OFFICIAL PLAN POLICY FULFILLMENT MATRIX	
POLICY 10.2.2 NEW PITS/QUARRIES OR EXPANSION OF PITS/QUARRIES	
POLICY 10.2.2	POLICY FULFILLMENT
<p><i>a) In considering an application for an amendment pursuant to Section 10.2 (a-d) the following will be evaluated based on submitted studies:</i></p> <p><i>i. Compatibility with adjacent, existing and planned land uses with respect to noise, dust, blasting, vibration and truck traffic;</i></p>	<p>Compatibility with adjacent, existing and planned land uses has been addressed with respect to:</p> <ul style="list-style-type: none"> <li>• Noise (Acoustical): refer to Appendix B,</li> <li>• Dust (Air Quality): refer to Appendix D,</li> <li>• Blasting/vibration: refer to Appendix F, and,</li> <li>• Truck traffic: refer to Appendix O.</li> </ul> <p>In addition, refer to the comprehensive Land Use Compatibility Report (Appendix K).</p>
<p><i>ii. Potential impacts on the natural environment, including measures required to minimize or avoid adverse impacts;</i></p>	<p>Potential impacts on the natural environment including measure required to minimize or avoid adverse impacts are confirmed in the Natural Environment Level 1 / 2 (EIS) report (Appendix L)</p>
<p><i>iii. Potential impacts on the quality and quantity of surface and groundwater systems;</i></p>	<p>Potential impacts on the quality and quantity of surface and groundwater systems have been identified and addressed in the Hydrology Assessment (Appendix I) and the Hydrogeology Assessment Level 1 / 2 (Appendix J).</p>
<p><i>iv. Potential impacts on surrounding agricultural operations and lands, including measures to mitigate these impacts;</i></p>	<p>Potential impacts on surrounding agricultural operations and lands, including measures to mitigate these impacts have been addressed in the Agricultural Impact Assessment (Appendix C)</p>
<p><i>v. Potential impacts on the transportation system which will require truck routes and points of site access to be established;</i></p>	<p>Potential impacts on the transportation system which will require truck routes and points of site access to be established are addressed in the Traffic Impact Study (Appendix O).</p>
<p><i>vi. The manner in which the mineral aggregate resource extraction and processing operations will be carried out including hours of operation;</i></p>	<p>The way the mineral aggregate resource extraction and processing operations will be carried out including hours of operation is addressed in a general description form as part of this Planning Report (Section 7.2) but more specifically and formally as part of the ARA Site Plans which total 8 drawings.</p>
<p><i>vii. If applicable, the capability of the land for agricultural uses;</i></p>	<p>The capability of the lands for agricultural uses has been addressed in the AIA (Appendix C) but in terms of the ability of the site to provide post-extractive lands for agriculture, refer to the Site Plans and specifically Sheet 8 of 8.</p>
<p><i>viii. Proposed progressive rehabilitation plan; and</i></p>	<p>The details of the progressive rehabilitation of the site are generally addressed within this report in Section 7.4 but more specifically on the Site Plans on Sheet 8 of 8. As noted within those documents, because of the limitations of below water table quarry operations, progressive rehabilitation is primarily limited to the creation of side slopes (ranging from 2:1 to 4:1) that will be</p>

TABLE 3 – CITY OF PORT COLBORNE OFFICIAL PLAN POLICY FULFILLMENT MATRIX	
POLICY 10.2.2 NEW PITS/QUARRIES OR EXPANSION OF PITS/QUARRIES	
POLICY 10.2.2	POLICY FULFILLMENT
	constructed from on-site overburden and on-site subsoil and topsoil.
<i>ix. Any other matters as the City deems necessary.</i>	No additional specific matters were raised by the City as part of the Pre-Submission Consultation held on April 23, 2020.
<i>c) For applications on Prime agricultural land, the site will be progressively rehabilitated to agriculture so that substantially the same area and average soil capability for agriculture are restored. Complete agricultural rehabilitation shall not be required if: i) There is a substantial quantity of aggregate resource below the water table warranting extraction; ii) The depth of planned extraction makes restoration of pre-extraction agricultural capacity unfeasible and other alternatives have been considered by the applicant and found unsuitable. The consideration of other alternatives shall include resources in areas of Canada Land Inventory Class 4 to 7 soils, resources on lands identified as greenfield area, and resources on prime agricultural lands where rehabilitation is feasible. Where no other alternatives are found, prime agricultural lands shall be protected in this order of priority. Canada Land Inventory Classes 1, 2 and 3; and iii) Agricultural rehabilitation in remaining areas will be maximized.</i>	Complete agricultural rehabilitation of the site is not planned. Justification for the final rehabilitation not being returned to complete agriculture is found in Section 6.2.5, 6.2.6, 6.4.1, and 6.5.1. Post-extractive rehabilitation will be primarily a lake totaling 117 hectares (in combination with the abutting Pit 3 lands) and be approximately 8.0 metres – 16.0 metres deep. Portions of the extraction lands outside of the proposed lake include the lake shore lines and setback areas (10.0 metres – 15.0 metres wide) which are too narrow to efficiently accommodate agriculture, and which will be the focus of planting natural vegetation. Areas where agriculture will be available will primarily be focused on those lands licensed lands outside the 'limit of extraction' and include those north of 1252 and 1326 Main Street that were excluded from extraction due to significant archaeological findings.
<i>d) Outside the prime agricultural areas or where agricultural rehabilitation is not required, the City will require progressive rehabilitation of pits and quarries to an appropriate after use as determined by the City that is in conformity with the adjoining land use designation and policies, the surrounding natural environment and existing uses.</i>	Final rehabilitation will be the creation of a lake. This land use reflects the long-term land use of the Pit 3 lands which abut to the west and for which will be created a common lake totaling approximately 117 hectares in size. In additional, the lands west of Babion Road (Pit 2 lands) are also currently licensed with the requirement to be rehabilitated to a lake, being +/- 50 hectares.
<i>e) In environmental areas, as provided in Section 4, the City will require rehabilitation to enhance the restoration of ecosystem integrity in accordance with the policies of this Plan, the Regional Policy Plan and the appropriate watershed/sub-watershed study.</i>	Key considerations arising from Section 4 of the OP are the requirements for a: a) Environmental Impact Study. b) Tree Preservation Plan. c) MNRF Wetland Evaluation. d) 15 m buffer from the Municipal Drain system. A discussion on how the proposed operation has addressed these requirements and incorporated the protection and restoration of environmental features is provided in Section 7.4 and 7.5 of this Report and as documented on the Site Plans.
<i>f) Where such resources exist, the City will promote and encourage rehabilitation of aggregate operations in a manner which incorporates the cultural and heritage resources in or adjacent to the site, including the conservation of significant cultural or heritage features where practical.</i>	Cultural Heritage resources in or adjacent to the site including the conservation of significant cultural or heritage features have been addressed by the Cultural Heritage Screening Report (Appendix G). Of note, none were identified on the site nor on adjacent lands.

### 6.5.7 Summary of the City of Port Colborne Official Plan Policies

As part of the planning review for the Pit 3 Extension, and through the Pre-Submission Consultation process, the relevant policies of the City of Port Colborne Official Plan were focused on;

- Policy 3.5 Agriculture
- Policy 4.1 Natural Heritage Features
  - 4.1.2.2 a)
  - 4.1.2.2 b) i) – ix)
  - 4.1.2.5
  - 4.1.3 a) i) ii) iv)
  - 4.1.3 b)
  - 4.1.3 c)
- Policy 4.2 Environmental Protection Areas
- Policy 4.3 Environmental Conservation Areas
  - 4.2.3.1 a) b) c) d)
  - 4.2.4
  - 4.3
  - 4.3.1 d) e) f) g)
- Policy 7.3 Archaeological Resources
  - 7.3 a) b) c) d)
- Policy 8.2 Stormwater Management
  - 8.2 a) b)
- Policy 10.2 Aggregate / Extractive Industrial Sites
  - 10.2 a i) – ix)
  - 10.2 c)
  - 10.2 d)
  - 10.2 e)
  - 10.2 f)

Based on the above review, it is our opinion that the Pit 3 Extension and specifically the Site Plans which have been designed based on the recommendations from the numerous technical studies, are consistent with the goals and objectives of the above noted policies of the City of Port Colborne Official Plan subject to the following amendment to the Official Plan:

- To change the designation to Mineral Aggregate Operations and add a Special Policy Area to permit the proposed quarry.

### 6.6 Niagara Peninsula Conservation Authority (NPCA)

As specified in the Niagara Peninsula Conservation Authority (NPCA) Policy Document: Policies For The Administration Of Ontario Regulation 155/06 And The Planning Act, under Section 2.2 entitled The Conservation Authorities Act, it states: “*Section 28.11 of limits the role of conservation authorities in regards to aggregate resource extraction, stating that “a requirement for permission of an authority in a regulation made under clause 28(1) (b) or (c) does not apply to an activity approved under the Aggregate Resources Act”.*”

Based on the above, no regulatory permits are required by PCQ for the Pit 3 extension from the NPCA. Notwithstanding the above, the application must still be consistent with the NPCA’s Policy Document: Policies For The Administration Of Ontario Regulation 155/06 and The Planning Act.

Based on our review of the NPCA Policy Document, the relevant policies are focused on:

- Policy 3.3.5 Use of Native Plant Species
- Policy 7.1.1 Hazardous Sites and Hazardous Lands
- Policy 8.0 Wetlands

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- Policy 9.1.1 Watercourses
- Policy 9.1.2 Need for an EIS/Hydrological Study
- Policy 10.2 Placement of Fill and Aggregate / Extractive Industrial Sites
- Policy 11.1 Municipal Drains
- Policy 12.4 Supporting Studies

NPCA mapping illustrates that much of the lands along the north boundary which are occupied by the wetlands, are within the NPCA *Permit Review Area*. The following environmental features have been identified by the NPCA as being on site:

- *Regulated Flood Plains*
- *Regulated Wetlands*
- *Environmental Conservation Areas.*

NPCA mapping also identifies the lands as being within the *Highly Vulnerable Aquifer* and *Significant Groundwater Recharge* overlays.

For reference, the Pit 3 Extension lands are located within the Lake Erie North Shore 'Watershed Planning Boundary'.

### **6.6.1 Use of Native Plant Species**

Policy 3.3.5 states that:

*The NPCA recognizes the importance of a natural approach to landscaping through the use of native, non-invasive and locally appropriate species. Some Planning Act applications and work permits may require re-vegetation for disturbed areas and in these instances, the NPCA will encourage re-vegetation plans and landscaping projects to include an appropriate mix of native, non-invasive and locally appropriate plantings.*

Response: All plantings (i.e., nodal plantings) included in the rehabilitation plan will be locally native, non-invasive species that create habitat in the short term and promote natural succession processes. The sourcing of plantings will consider the regionally adapted genetics of the species. Plantings from local sources are likely to be well adapted to the local climate and growing conditions and may have a higher likelihood of successful establishment. Therefore, plantings will be procured from local sources to the extent possible.

### **6.6.2 Hazardous Sites and Hazardous Lands**

Policy 7.1.1 states that:

*The Provincial Policy Statement defines hazardous sites as lands that could be unsafe for development due to naturally occurring hazards. These may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography). The Conservation Authorities Act uses a similar term, referring to hazardous lands, which are lands that are unsafe to development due to naturally occurring processes. Naturally occurring processes includes flooding, erosion, dynamic beaches and unstable soils. In the context of the Conservation Authorities Act, the term hazardous lands is used as a general term, referring to a full range of natural hazards (i.e., flooding, erosion, unstable soils).*

Response: As noted above in Section 6.1.7 regarding PPS Policy 3.2.1 states that "Development on, abutting or adjacent to lands affected by mine hazards: oil, gas and salt hazards or former mineral mining operations, mineral aggregate operations or petroleum resource operations may be permitted only if rehabilitation or other measures to address and mitigate known or suspected hazards are under way or have been completed."

The Pit 3 Extension will be developed on lands abutting an active mineral aggregate operation (Pit 3). Based on the Hydrological Assessment (Appendix I) and Hydrogeological Assessment (Appendix J), there are no known or suspected hazards on those abutting lands. Specifically, the existing quarry lands are properly fenced and the slopes continue to be progressively rehabilitated to create slopes which meet MNRF requirements.

### 6.6.3 Wetlands

Policy 8.0 states that:

*Wetlands are “lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case, the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens. Periodically soaked or wet land being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition” (PPS, 2014). The Conservation Authorities Act provides a similar definition of wetlands: “means land that:*

- a) is seasonally or permanently covered by shallow water or has a water table close to or at its surface;*
- b) directly contributes to the hydrological function of a watershed through connection with a surface watercourse;*
- c) has hydric soils, the formation of which has been caused by the presence of abundant water; and,*
- d) has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water, but does not include periodically soaked or wet land that is used for agricultural purposes and no longer exhibits a wetland characteristic referred to in clause c) or d).*

Response: The Hydrology Assessment (Appendix I) and the Natural Environment Level 1 / 2 Report (EIS), (Appendix L) have identified and evaluated the wetlands on the site (SWD3-2) and on adjacent lands SWD/FOD [north of Second Concession Road].

### 6.6.4 Environmental Impact Study

Policy 8.1.4 states that:

*Depending on the nature of the proposed development, the NPCA may request that the applicant undertake an EIS to evaluate the potential impacts on a wetland. Chapter 12 provides additional direction for undertaking an EIS.*

Response: For continuity, we have included NPCA Policy 12.4.4 within this section of the report.

#### 12.4.4 Environmental Impact Study (EIS)

##### 12.4.4.1 Need for an EIS

An EIS is a tool for objectively assessing the environmental impacts of a proposed development or site alteration, and is both a planning and decision-making tool. An EIS is required where development and site alteration is proposed wholly or partially within, or adjacent to, a natural heritage feature as defined in Provincial, Regional, local policies and regulations. It is also required where development and site alteration is proposed in the Greenbelt Natural Heritage System and on lands adjacent to key hydrologic features in the Greenbelt. In the context of an application under the Planning Act, an EIS is required to confirm the impact of the proposed development on a Regulated feature(s) and/or functions. An EIS can also be required to support a work

permit application under the Conservation Authorities Act where proposed development has potential to impact natural and/or hydrological features and functions (i.e., conservation of land, interference with a watercourse or wetland, control of pollution, etc.). Note that not all work permit applications under the Conservation Authorities may have been subject to a Planning Act application (hence the need for an EIS under the CA Act).

#### 12.4.4.2 EIS Requirements

There are different standards and requirements for completing an EIS within the watershed. Niagara Region, the City of Hamilton and County of Haldimand each maintain different technical guidelines for conducting an EIS. When preparing an EIS, the applicant and NPCA should refer to the appropriate EIS guideline based on the location of the proposed development, until such time as the NPCA-approved EIS Guidelines for Regulated areas is available. Where a municipality does not have formal EIS guidelines, the NPCA will refer to the Ministry of Natural Resources and Forestry's Natural Heritage Reference Manual. In all cases the applicant must obtain site-specific scoping of the EIS from the NPCA prior to the commencement of the field studies. Furthermore, the NPCA may require a water balance to demonstrate no negative impact to the Hydrological function of a wetland.

Response: The Natural Environment Level 1 and 2 Report (EIS), is attached hereto as Appendix L. In addition, the Hydrology Assessment (Appendix I) did complete a water balance to demonstrate no negative impact to the Hydrological function of the wetland as a result of the proposed Pit 3 Extension operation or during progressive and final rehabilitation.

Policy 8.1.5 regarding Hydrogeology Studies states that:

*Depending on the nature of the proposed development, the NPCA may request that the applicant undertake a hydrological study to confirm potential impacts on the hydrologic function the wetland. Refer to Chapter 12 for additional details.*

Response: For continuity, we have included NPCA Policy 12.4.8.2 within this section of the report.

#### 12.4.8.2 Hydrological Study

A hydrological study may be required to confirm potential impacts on water quality or water quantity. Hydrological studies shall, at a minimum, address the following:

- a) demonstrate that the development or site alteration will have no adverse effects on the hydrologically sensitive feature or on the related hydrological functions;
- b) identify planning, design and construction practices that will maintain and, where possible, improve or restore the health, diversity and size of the hydrologically sensitive feature; and,
- c) determine whether the minimum vegetation protection zone is sufficient and, if it is not sufficient, specify the dimensions of the required minimum vegetation protection zone and provide for the maintenance and, where possible, improvement or restoration of natural self-sustaining vegetation within it.

Response: The Hydrology Assessment (Appendix I) and the Natural Environment Level 1 and 2 Report (EIS), (Appendix L) were prepared with all the above criteria included.

Policy 8.2.2.1 regarding Development and Interference within a Wetland states that:

*Unless otherwise stated in this Document, no development and/or site alteration shall be permitted within a wetland.*



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Response: The Hydrology Assessment (Appendix I) and the Natural Environment Level 1 and 2 Report (EIS), (Appendix L) attached hereto as Appendix I confirmed that no portions of the 'limit of extraction' shall be within the identified wetland.

Policy 8.2.6 regarding stormwater states that:

*The NPCA may require enhanced stormwater controls where development is proposed to outlet into a wetland.*

Response: The Hydrology Assessment (Appendix I) and the Natural Environment Level 1 and 2 Report (EIS), (Appendix L) confirmed that no additional site water will be outlet or be directed to the identified wetlands.

Policy 9.1.1 watercourses states that:

*A watercourse is an identifiable depression in the ground in which a flow of water regularly or continuously occurs (Conservation Authorities Act). Watercourses are complex, multifunctional, living systems. They transport water, sediment and energy. They are ecosystems, providing habitat for fish, amphibians, invertebrates, birds, plants and other species. Watercourses provide drinking water for communities, wildlife and livestock. Watercourses are also highly valued socio-economic resources, offering recreational opportunities, food, hydro generation, land drainage and educational experiences.*

Response: The Hydrology Assessment (Appendix I) and the Natural Environment Level 1 and 2 Report (EIS), (Appendix L) have identified and evaluated all watercourses within and adjacent to the site.

### **6.6.5 Need for an EIS/Hydrological Study**

Policy 9.1.2 states that:

*An EIS and/or hydrological study may be required to confirm the location and limits of a watercourse, as well as any potential impacts of the proposed development on the hydrological and ecological features and functions. An EIS may also be required to confirm the extent of any natural buffers (refer to policy 9.2.5 for additional details) or for morphological assessments or any impacts on established natural buffers.*

Response: The Hydrology Assessment (Appendix I) and the Natural Environment Level 1 and 2 Report (EIS), (Appendix L) have been completed and include the locations and limits of watercourses, provided recommendations for avoidance and mitigation from potential impacts including buffers.

### **6.6.6 Placement of Fill and Aggregate / Extractive Industrial Sites**

Policy 10.1.1 regarding Fill Placement and Authority to Regulate Fill Placement states that:

*Fill is any material that can be placed, dumped or removed originating from the site or elsewhere, such as earth, sand, gravel or rubble, which is used to raise, lower or alter the existing grade. Fill is considered to be a form of development defined in Conservation Authorities Act, as site grading and the placement/removal of any material from a site are both examples of development (Conservation Authorities Act, Section 28(25c,d). Accordingly, the placement of fill within the areas regulated by the Niagara Peninsula Conservation Authority are subject to five tests listed under Section 28(1c) of the Act. The placement of fill outside of the NPCA's regulated areas are subject to local site alteration by-laws, meaning that in some cases, the placement of fill requires a shared regulatory framework, whereby the NPCA regulates the placement of fill within regulated areas and the local municipalities regulate the placement of fill elsewhere on the site (where the lands are outside of the NPCA's regulated areas).*

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Policy 10.1.2 regarding Exceptions states that:

The policies of this chapter generally do not apply to the following items:

- a) Approved development applications under the Planning Act as of May 4, 2006;
- b) Fill activities proposed in accordance with a site licence under the Aggregate Resources Act; or [Emphasis added]
- c) Projects under the Ontario Environmental Assessment Act.

Response: As part of the proposed progressive rehabilitation plan to create a variety of side slopes ranging from 2:1 to 4:1, the use of imported clean inert fill as per MECP Guidelines is not being proposed.

### 6.6.7 Municipal Drains

Policy 11.1 states that:

*Municipal drains are an important piece of infrastructure for rural and agricultural land management, providing drainage systems which manage the impacts of flooding. Municipal Drains are created under the Drainage Act and municipalities are required to maintain and repair existing municipal drains and also make decisions for applications for new drains. Generally, municipal drains are considered watercourses as defined under the Conservation Authorities Act.*

Response: The Hydrology Assessment (Appendix I) and the Natural Environment Level 1 and 2 Report (EIS), (Appendix L) identify that the Wignell Drain is part of an existing Municipal Drain system. At this time, The East Branch of the Wignell Drain is being proposed to be realigned by the City of Port Colborne.

### 6.6.8 Erosion and Sedimentation Control Plans

Policy 12.4.9 states that:

*An Erosion and Sediment Control Plan may be required to illustrate how a proposed development will address concerns of erosion and sediment control during and after construction. The detailed requirements for erosion and sediment control plans will be determined through pre-consultation with the NPCA. In general, the Plan should be guided by the following principles:*

- a) *Retain existing vegetation and stabilize exposed soils with new vegetation, where appropriate;*
- b) *Minimize the duration of soil exposure;*
- c) *Minimize slope length and gradient of disturbed areas;*
- d) *Maintain overland sheet flow and avoid concentrated flows;*
- e) *Store/stockpile soil away (e.g. greater than 15 metres, 49 feet) from watercourses, drainage features and top of steep slopes;*
- f) *Monitor and adjust the Erosion and Sediment Control Plan to adapt to site features.*

Response: The Site Plans for the Pit 3 Extension provides detail to address erosion and sedimentation including on-going visual monitoring.

### 6.6.9 Landscaping and Vegetation Plans

Policy 12.4.10 states that:

*Landscaping and vegetation plans may be required to illustrate how disturbed areas will be rehabilitated. The detailed requirement for landscaping and vegetation plans will*

*depend on the nature of the application and site conditions. In general, the Plan should be guided by the following principles:*

- a) To the extent possible, all existing vegetation and drainage patterns should be maintained;*
- b) Site restoration should include native, non-invasive and locally appropriate species;*
- c) Where possible, the vegetation and landscaping plans should provide opportunities for connections to adjacent features, with a particular emphasis on improving connections to the natural heritage system;*
- d) The plans should support biodiversity;*
- e) The plans should conform to any applicable municipal tree preservation by-laws.*

Response: The Site Plans for the Pit 3 Extension provides detail to address all the issues noted in this policy and a specific Landscape Plan has been prepared to highlight;

- How existing vegetation and drainage patterns have been maintained;
- Site restoration has included native, non-invasive and locally appropriate species;
- The vegetation and landscaping plans have provided opportunities for connections to adjacent features, with a particular emphasis on improving connections to the natural heritage system;
- The plans provide and support biodiversity;
- The plans conform to applicable municipal Tree Preservation By-Laws.

### **6.6.10 Summary of NPCA Policies**

As noted above, no regulatory permits are required by PCQ for the Pit 3 extension from the NPCA, however, the application must still be consistent with the NPCA's Policy Document: Policies For The Administration Of Ontario Regulation 155/06 and The Planning Act including the following applicable policies:

- Policy 3.3.5 Use of Native Plant Species
- Policy 7.1.1 Hazardous Sites and Hazardous Lands
- Policy 8.0 Wetlands
- Policy 8.1.4 Environmental Impact Study
- Policy 8.1.5 Hydrological Study
- Policy 8.2.2 Development and Interference within a Wetland
  - 8.2.2.1
  - 8.2.2.2
- Policy 8.2.6 Stormwater
- Policy 9.1.1 Watercourses
- Policy 9.1.2 Need for an EIS/Hydrological Study
- Policy 10.2 Placement of Fill and Aggregate / Extractive Industrial Sites
- Policy 11.1 Municipal Drains
- Policy 12.4.4 Supporting Studies: Environmental Impact Study
- Policy 12.4.8.2 Hydrogeological Study
- Policy 12.4.9 Erosion and Sedimentation Control Plans
- Policy 12.4.10 Landscaping and Vegetation Plans

Based on the above review, it is our opinion that the Pit 3 Extension and specifically the Site Plans which have been designed based on the recommendations from the numerous technical studies, are consistent with the goals and objectives of the above noted policies of the NPCA's Policy Document: Policies For The Administration Of Ontario Regulation 155/06 and The Planning Act.

## 6.7 Summary of Policy Documents

As part of the planning review of the approval of the Pit 3 Extension, the following planning documents and specific relevant policies were reviewed;

- i. Provincial Policy Statement 2020:
  - 1.7 Long-Term Economic Prosperity
  - 2.1 Natural Heritage
  - 2.2 Water
  - 2.3 Agriculture
  - 2.5 Mineral Aggregate Resources
  - 2.6 Cultural Heritage
  - 3.2 Human-Made Hazards
- ii. Growth Plan for the Greater Golden Horseshoe 2014:
  - 3.2.7 Stormwater Management
  - 4.2.2 Natural Heritage System
  - 4.2.3 Key Hydrologic Features, Key Hydrologic Areas and Key Natural Heritage Features
  - 4.2.4 Lands Adjacent to Key Hydrologic Features and Key Natural Heritage Features
  - 4.2.6 Agricultural System
  - 4.2.8 Mineral Aggregate Resources
- iii. Region of Niagara Official Plan:
  - Policy 5.B Agriculture
  - Policy 6.C Mineral Resources
  - Policy 14.D.5 Implementation
- iv. City of Port Colborne Official Plan (2017):
  - Policy 3.5 Agriculture
  - Policy 4.1 Natural Heritage Features
  - Policy 4.2 Environmental Protection Areas
  - Policy 4.3 Environmental Conservation Areas
  - Policy 7.3 Archaeological Resources
  - Policy 8.2 Stormwater Management
  - Policy 10.2 Aggregate / Extractive Industrial Sites
- v. Niagara Peninsula Conservation Authority (NPCA) Policy Document: Policies For The Administration Of Ontario Regulation 155/06 And The Planning Act (2018):
  - Policy 3.3.5 Use of Native Plant Species
  - Policy 7.1.1 Hazardous Sites and Hazardous Lands
  - Policy 8.0 Wetlands
  - Policy 8.1.4 Environmental Impact Study
  - Policy 8.1.5 Hydrological Study
  - Policy 8.2.2 Development and Interference within a Wetland
  - Policy 8.2.6 Stormwater
  - Policy 9.1.1 Watercourses
  - Policy 9.1.2 Need for an EIS/Hydrological Study
  - Policy 10.2 Placement of Fill and Aggregate / Extractive Industrial Sites
  - Policy 11.1 Municipal Drains
  - Policy 12.4.4 Supporting Studies: Environmental Impact Study
  - Policy 12.4.8.2 Hydrogeological Study
  - Policy 12.4.9 Erosion and Sedimentation Control Plans

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- Policy 12.4.10 Landscaping and Vegetation Plans

Based on our comprehensive review of all these planning policy documents and all the specific relevant policies, it is our opinion that the Pit 3 Extension and specifically the Site Plans which have been designed based on the recommendations from the numerous technical studies, are consistent with the goals and objectives of the above noted policies subject to the following amendments:

Region of Niagara Official Plan

- Add to Section 13 the site-specific policies to permit the Pit 3 extension quarry operation.
- Identify the subject lands on Schedule D4 - *Mineral Resources* as a Licensed Pits and Quarries.

Refer to Appendix R, attached hereto for the draft of the 'Regional Official Plan Amendment (ROPA) document.

City of Port Colborne Official Plan

- To change the designation to Mineral Aggregate Operations and add a Special Policy Area to permit the propped quarry.

Refer to Appendix S, attached hereto for the draft of the 'City of Port Colborne Official Plan Amendment (OPA) document.

The following is a summary of which technical study (via Appendix number) addressed which applicable policy.

**Table 1 Policy Conformity Matrix**

ETR	APPENDIX																PJR
	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
<b>P P S</b>																	
1.7		*		*		*	*			*			*				
2.1								*	*		*						
2.2								*	*								
2.3		*															
2.4																	
2.5	*	*	*		*			*	*	*	*	*	*	*		*	
2.6				*		*											
3.2								*	*								
<b>Growth Plan</b>																	
3.3.7								*									
4.2.2								*	*		*						
4.2.3								*	*		*						
4.2.4								*	*		*						
4.2.6		*															
4.2.8								*	*	*	*	*	*				

PLANNING JUSTIFICATION REPORT  
 PORT COLBORNE QUARRIES INC.  
 PIT 3 EXTENSION

Prepared for Port Colborne Quarries Inc.

Region of Niagara O.P.																	
5.B		*															*
6.C	*	*	*		*			*	*		*	*	*				
7.A.2.6								*									
7.B								*	*		*						
9.H.3														*			
14.D.5								*									
City of Port Colborne O.P.																	
3.5		*															*
4.1								*	*		*					*	
4.2								*	*		*						
4.3								*	*		*						
7.3				*		*											
8.2								*									
10.2	*	*	*		*	*						*	*	*			
NPCA																	
3.3.5											*						
7.1.1								*	*								
8.0								*			*						
8.1.4								*			*						
8.1.5								*			*						
8.2.2								*			*						
8.2.6								*			*						
9.1.1								*			*						
9.1.2								*			*						
10.2								*									
11.1								*			*						
12.4.4								*			*					*	

## 6.8 City of Port Colborne Zoning By-Law (By-Law No. 6575/30/18)

The lands are currently zoned A (Agricultural) and Environmental Conservation per the City of Port Colborne Comprehensive Zoning By-Law. In order for the existing aggregate operations to be expanded onto the subject lands an amendment to the Zoning By-Law is necessary. The lands must be rezoned from Zone A (Agricultural) to Zone MAO (Mineral Aggregate Operations) to permit the extraction of mineral aggregates.

Policy 28.2 of the City of Port Colborne Zoning By-Law states that permitted uses in Zone MAO (Mineral Aggregate Operations) include:

- a) *Mineral Aggregate Operations;*
- b) *Making or establishment of pits and quarries for the purpose of extracting natural materials from the earth including soil, clay, sand, gravel, stone, rock, shale and minerals;*
- c) *Processing of natural materials including screening, sorting, washing, crushing, storing and other similar operations related to an extractive industrial operation;*
- d) *Agricultural uses;*
- e) *Uses, structures and buildings accessory thereto excepting any building or structure used for human habitation.*

Therefore, the request for zoning is as follows:

1. Amend the current A (*Agricultural*) zoning on the site and rezone the lands to MAO (*Mineral Aggregate Operations*) Zone.
2. Within the MOA zoning provisions, it specifies that “*No pit, quarry or excavation shall be made or established within 15 metres of any lot line which does not abut a public street or 90 metres of any lot line which abuts a Provincial Highway or 30 metres of any lot line which abuts any other public street*”. PCQ is requesting that the 90.0 metres setback along the site’s Highway 3 frontage be reduced to 30.0 metres for the following reasons:
  - a. 30.0 metres is in-keeping with the Ontario Aggregate Resources Act: Provincial Standards that applies equally to all pits and quarries throughout the Province where the ARA applies,
  - b. There has been no recommendations forthcoming from any of the technical studies attached hereto to support an increase in this setback,
  - c. The PPS 2.5.2.1 states: “*As much of the mineral aggregate resources as is realistically possible shall be made available as close to the markets as possible*”. Golder Assoc. has estimated that the potential loss/sterilization of aggregate material that would result from an increased setback back is approximately 1,700,000 tonnes. That volume is equivalent to numerous years of aggregate production and as such, is deemed to be an extremely significant volume.
  - d. In ensuring that these additional rock reserves are made available, the overall site extraction will be more efficient since the necessary infrastructure (i.e., relocation of processing plant/wash plant, construction of entrance/exit and external haul road upgrades etc., and completion of site improvements to address sensitive land use issues) will all be available for a longer duration.
3. Within the overall proposed ‘area to be licensed’, it includes lands both within the limit of extraction and buffer lands where extraction will not be permitted. As recommended by the AIA, and to ensure the overall integrity of the property boundary is retained, and because the Site Plans will necessitate the operator to undertake and maintain those lands for monitoring, planting, etc., it is our opinion that the Licence should include all the lands

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shown. However, within those lands are three existing residences, (1252 Main Street, 1326 Main Street, and 1645 Second Concession Road) and they all continue to be occupied.

To retain all three homes as ongoing viable residences, PCQ is requesting that the additional permitted use of dwelling be added to the MAO zoning that would be site-specific to each of those properties. Specifically, the permitted use would include:

- a) Dwelling, Detached
- b) Uses, structures and buildings accessory thereto.

Based on the above, a draft Zoning By-Law is attached hereto as Appendix T.

## 6.9 Summary of Planning Approvals

### 6.9.1 Planning Act

#### **Region of Niagara Official Plan (ROP) 2014:**

Regional Policy 6.C.13 states that: "Where a new pit or quarry or an extension to an existing licensed pit or quarry are to be located outside a possible aggregate area, an amendment to this Plan is required".

It is acknowledged that the Pit 3 extension lands are shown on Schedule D4 (Mineral Aggregates) as a Licensed Pits and Quarries nor as a Possible Aggregate Area. Therefore, an amendment to the Regional Official Plan (ROPA) is necessary to undertake the following:

- Add Section 13 the site-specific policies to permit the Pit 3 extension quarry operation.
- Identify the subject lands on Schedule D4 - *Mineral Resources* as a Licensed Pits and Quarries.

#### **City of Port Colborne Official Plan (OP) 2017:**

Policy 10.2 of the City of Port Colborne OP states: "The establishment of a new or an expansion to an existing mineral aggregate operation shall require an amendment to this Plan..."

Therefore an Official Plan Amendment through the City of Port Colborne is required to:

- Change the designation to Mineral Aggregate Operations and add a Special Policy Area to permit the propped quarry.

#### **City of Port Colborne Zoning By-Law No. 6575/30/18:**

The lands are currently zoned (A) *Agricultural* within the City's Comprehensive Zoning By-Law. Extraction and related uses are not a permitted use. Therefore, the lands must be rezoned to (MAO) *Mineral Aggregate Operations* in order to permit extraction and all the permitted accessory uses. This requires an amendment to the City's Zoning By-Law No. 6575/30/18.

As well, to address, site-specific Site Plan and operational requirements, the zoning will reduce the Highway 3 setback from 90.0 metres to 30.0 metres and permit the legal-conforming on-going occupancy of the existing three residences.

In addition to the above Planning Approvals under the Planning Act, PCQ also requires approval of a Class A Category 2 Licence by the Minister of Natural Resources and Forestry as processed through the Ministry of Natural Resources and Forestry.

### 6.9.2 Aggregate Resources Act

PCQ has also applied for a Class A, Category 2 Licence.

The Class A portion distinguishes the Licence as having an annual extraction limit exceeding 20,000 tonnes per year. The annual production volume being requested is 1,815,000 tonnes,



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which reflects the current annual tonnage of the existing Pit 3 quarry operation (Licence 4444). However, the Pit 3 Extension will be restricted to not exceed 1,815,000 tonnes of production of both Licence 4444 and the Pit 3 Extension individually or collectively.

The Category 2 portion distinguishes the Licence as being a below water quarry. As discussed above, the quarry will operate under dry-conditions, but this will only happen as a result of the use of dewatering to lower the natural groundwater to a level below the quarry floor.

Once the Council for the City of Port Colborne has approved the OPA and the Zone Change and the Region of Niagara has approved City of Port Colborne OP and the Regional ROPA, the Minister of Natural Resources and Forestry (MNRF) will then be in a position to issue the Licence.

### 6.9.3 Other Required Approvals

Although it is anticipated to not a complete list, the following are potential additional Acts and Guidelines which may be applicable to the on-going operation of the Pit 3 Extension quarry.

- a) Federal Department of Fisheries and Oceans (DFO): Federal Fisheries Act (if required)
- b) Ministry of Environment, Conservation and Parks (MECP):
  - Permit to Take Water
  - Sewage Discharge ECA
- c) Ministry of Transportation (MTO): Entrance Permit
- d) The Drainage Act
- e) The Federal Fisheries Act
- h) The Federal Species at Risk Act (SARA)
- i) The Endangered Species Act (2007)
- j) Ontario Gasoline Handling Act
- k) Ontario Labour Standards Act
- l) Ontario Health and Safety Act

## 7 Proposed Extraction Design

Extraction activities are typically divided up into several key components including: a) the start-up stage, b) the extraction operation, c) progressive rehabilitation of the extraction area, d) final rehabilitation, and e) the ultimate surrendering of the Licence. With de-watering quarry operations, although progressive rehabilitation is an ongoing activity through the creation of final side-slopes in those areas fully extracted, incremental final rehabilitation of those areas is possible since the quarry pumps must operate until the final extraction is completed. The following section provides details of the operational, progressive and final rehabilitation plans.

### 7.1 Start Up Activities

Prior to extraction being initiated, the following activities will occur:

- a) The repair of existing perimeter fencing and/or installation of new fencing. This fencing will include perimeter fencing around the entire site that will be 1.2 metre high post and wire fence with the following exceptions:
  - i. The western common boundary with Licence 4444.
  - ii. A 1.2 metre high post and wire fence will be erected along the eastern limit of 1326 Main Street and along the rear limit of both 1252 and 1326 Main Street.

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- b) Minimum 1.2 metre high gates will be erected at the Highway 3 quarry entrance and a 1.2 metre high farm type gate will be erected midway along the Miller Road frontage with access limited to quarry staff and/or farm equipment.
- c) Woodlot protection fencing will be erected along the southern edge of SWD3-2 and the eastern edge of FOD7 as per the Tree Preservation Report.
- d) Once the Wignell Drain has been realigned along the eastern property limit, the remnant portion of the ditch along the southern extent of SWD3-2 will be truncated at its eastern end.
- e) All required monitoring surface and groundwater wells will be installed.
- f) The site has very limited overburden overlying the site, but it will be stripped and applied as a top covering to the perimeter berms which will be built primarily from on-site clay.

Specifically, all topsoil and subsoil stripped from the former Humberstone Speedway will be used exclusively for the construction of berms along the Highway 3 frontage.

- g) Vegetation removal: Removal of FOD7-2 woodlot as per the Tree Preservation Plan.
- h) Vegetation planting:
  - i. Along the Highway 3 frontage,
  - ii. Ecological linkages between the key natural heritage features in the study area will be improved. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp shall be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated Second Concession Road and distance of approximately 70 metres. The area to be rehabilitated consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.
  - iii. The setback area at the north end of extraction area 3 and east of the deciduous swamp will be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas and may include red oak, trembling aspen, eastern white cedar, red maple, basswood, bur oak, white pine, serviceberry species, gray dogwood (*Cornus racemosa*) and staghorn sumac (*Rhus typhina*).
  - iv. Bisecting SWD3-2 – Silver Maple Mineral Deciduous Swamp is the former Carl Road alignment. The segment of Carl Road that bisects the deciduous swamp shall be rehabilitated following the decommissioning of the road. This linear disturbance has enabled invasive plants to infiltrate the swamp interior and may be increasing predation pressure on wildlife from domestic and feral animals (cats and dogs) as well as opportunistic wild predators and scavengers that benefit from anthropogenic disturbance such as coyotes or raccoons. Excavations in three or four areas along the length of the road should be created to improve surface water drainage. Plantings along this segment of Carl Road should include the dominant tree and shrub species found in the deciduous swamp including silver maple, pin oak, swamp white oak, bur oak, red maple, and spicebush. Invasive shrub species including multiflora rose, common buckthorn, and Tartarian honeysuckle have become established in this area and may prevent the successful establishment of the native plantings. These invasive shrubs should be removed prior to the planting of Carl Road.

## 7.2 Extraction Operation

Extraction of the rock will commence using the existing Pit 3 (Licence 4444) quarry as the starting face and move eastward. Through the progression of three extraction phases using 2 to 3 lifts (of 8.0 metres each), extraction of Phase 1 will move toward Miller Road. The direction of extraction is noted on the Site Plans but generally it will move toward the nearest sensitive land uses so that the quarry face can always act to provide additional noise attenuation.

Depending on the blast size, blasting of the rock will occur several times per week.

The blasted rock will be hauled westward along using off-road quarry trucks along the existing haul road through Pit 3, crossing Babion Road at grade, through Pit 2, crossing Snyder Road at grade and to Pit 1. In Pit 1 the rock will be processed (crushed, screened, washed) and then stockpiled using stackers into various stockpiles of varying sizes to meet specific road construction specifications. The material will then be loaded into dump trucks and hauled to the market via Ramey Road and to Highway 140.

During Phase 1 extraction, PCQ intends to construct a new processing plant within Pit 3 and which will necessitate a Pit 3 site plan amendment. This will require the extension of phase 3 power being extended from Pit 1 to Pit 3. At this location, will also be a wash plant, stockpiles and where the loading of dump trucks will occur.

In conjunction with this plant being operational, PCQ will construct the new quarry entrance onto Highway 3 based on MTO design standards and include a minimum 35-metre-long eastbound left-turning land on Highway 3. To access the proposed new entrance/exit (at grade), a ramp down to the quarry floor (+/-16 metres deep) will be constructed. All required MTO approvals and permits will be obtained at the time of construction.

Phase 1 is completed, then extraction will proceed through Phases 2 and 3 moving northwards toward Second Concession Road. The extent of the limit of extraction is illustrated on the Site Plans.

Refer to Figure 4 Operational Plan.

## 7.3 Projected Quarry Lifespan

Based on the calculated tonnage volume total of 45 million tonnes and based on a maximum annual extraction rate of 1,815,000 tonnes, the minimum life span will be 25 years. Current production is not at this full level but PCQ is anticipating production to increase. As such, the anticipated quarry life is expected to be closer to 35 years.

## 7.4 Progressive Rehabilitation of Extraction Area

As the site is progressively extracted through the three phases, rehabilitation will also occur progressively. As shown on Site Plan Sheet 5 of 8, as each portion of the quarry is fully extracted to the final quarry floor depth, the side slopes will begin to be constructed from the top of the existing grade to the bottom of the quarry floor using:

- i. on-site overburden,
- ii. excess waste rock/rubble, and
- iii. imported clean inert MECP approved fill.

The side slopes will range from the ARA minimum allowable slope of 2:1, (2 horizontal to 1 vertical) and increase in shallowness to 3:1 and 4:1.

As part of the backfill program, and at the proposed final lake level of 178.0 metres, PCQ will create shallow permanent ponds (wetland enhancement areas) which will provide ecological diversity for both plant life and amphibian species. Once the ponds are constructed, they will be

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lined with a veneer of clay to retain precipitation to become functional without having to wait until the final extraction is completed and the overall lands.

Along the perimeter of the site, and specifically within the extraction setback areas, and once the perimeter berms have been removed, the lands will be subject to rehabilitation according to the rehabilitation concept. This will encourage the growth of numerous ecological linkages along the perimeter of the lake and property boundaries.

Throughout the life of the quarry, once the side slopes are created, with the portion above 178.0 masl top-dressed with topsoil and vegetated with native legume grasses. These slopes will be monitored and if there is significant erosion of the soils and loss of vegetation, the erosion will be repaired immediately, and replanting will occur during the next suitable planning season.

Refer to Figure 5 Phasing Details Plan and Figure 6 Notes Page as well as Figure 7 Existing Conditions Cross-Sections and Figure 8 Rehabilitation Cross-Sections.

## 7.5 Final Rehabilitation

The subject lands will become a 177 hectare passive lake connected with the Pit 3 lands. For details regarding the comprehensive overall rehabilitation of the lands, refer to Appendix M.

Refer to Figure 9 Progressive and Final Rehabilitation Plan.

## 7.6 Surrendering of Licence

Once the extraction and the progressive rehabilitation is completed (side slopes, vegetation planting and fish habitat enhancements), and the dewatering pumps removed, the quarry will begin to fill. At this stage, PCQ will contact MNR staff to undertake a final inspection of the site and request the licence be surrendered.

Refer to Figure 9 Progressive and Final Rehabilitation Plan.

# 8 Supporting Studies

## 8.1 Noise (Acoustical) Impact Assessment (Appendix B)

A Noise (Acoustical) Impact Assessment has been completed and is attached hereto as Appendix B. The report was prepared by Golder Associates Inc. by J. Tomaselli and is dated November 2020. The CV for J. Tomaselli is attached to the noise report.

The Acoustical Impact Study was prepared to satisfy numerous policy requirements, including:

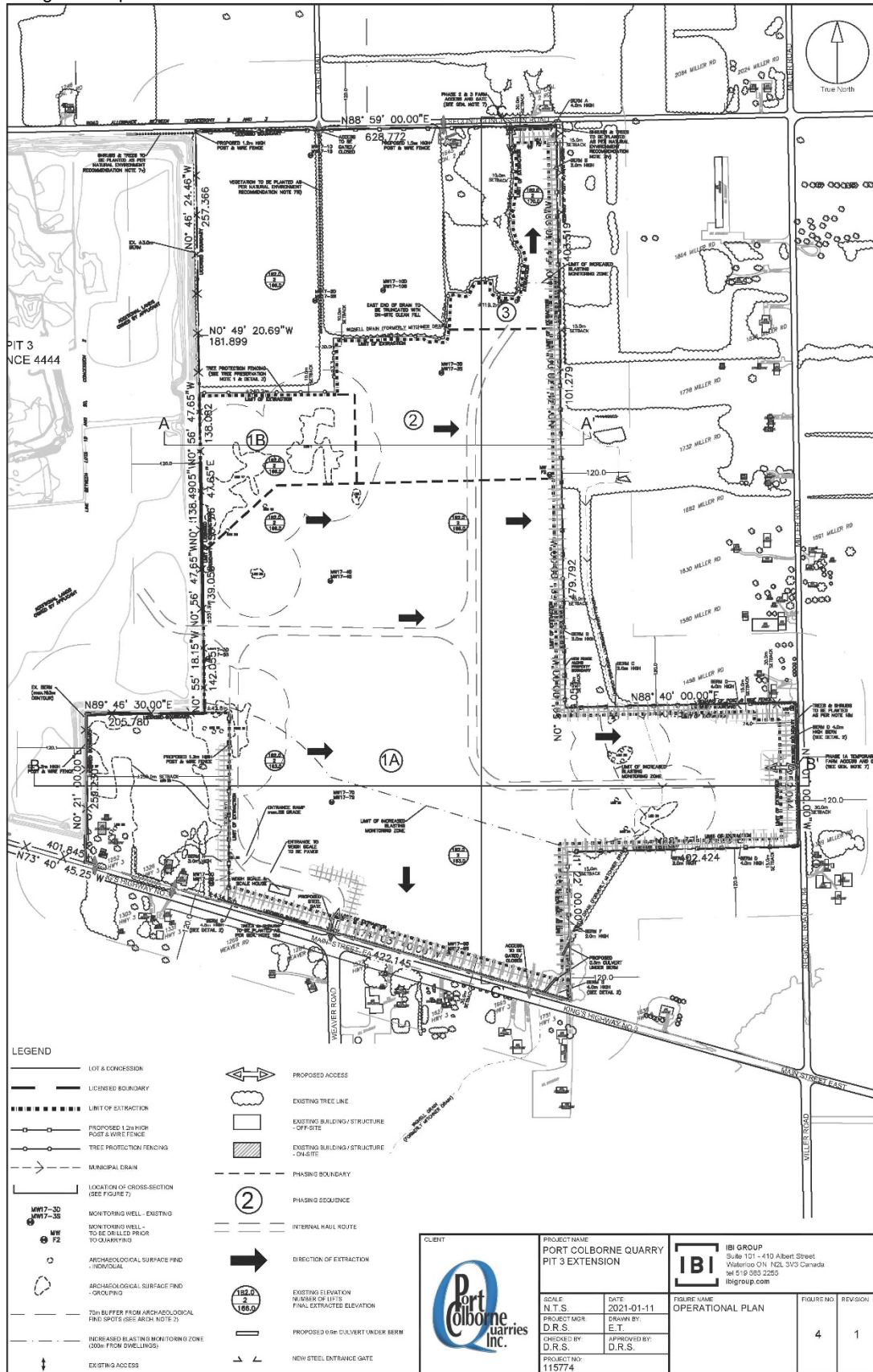
- Provincial Policy Statement 2020  
Policy 2.5 Mineral Aggregate Resources and specifically 2.5.2.2
- Region of Niagara Official Plan (2014)  
Policy 6.C.5 Mineral Resources
- City of Port Colborne Official Plan (2017)  
Policy 10.2 Aggregate / Extractive Industrial Sites

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.2.8) require the completion of this study where sensitive receivers exist within 500.0 metres.

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 PORT COLBORNE QUARRIES INC.  
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Figure 4 Operational Plan



LEGEND

- LOT & CONVESSION
- LICENCED BOUNDARY
- LIMIT OF EXTRACTION
- PROPOSED 1.2m HIGH POST & WIRE FENCE
- TREE PROTECTION FENCING
- MUNICIPAL DRAIN
- LOCATION OF CROSS-SECTION (SEE FIGURE 7)
- MONITORING WELL - EXISTING
- MONITORING WELL - TO BE DRILLED PRIOR TO CHANGING
- ARCHAEOLOGICAL SURFACE FIND - INDIVIDUAL
- ARCHAEOLOGICAL SURFACE FIND - GROUPING
- 70m BUFFER FROM ARCHAEOLOGICAL FIND SPOTS (SEE SECTION NOTE 7)
- INCREASED BLASTING MONITORING ZONE (300m FROM DRILLINGS)
- EXISTING ACCESS
- PROPOSED ACCESS
- EXISTING TREE LINE
- EXISTING BUILDING / STRUCTURE - OFF-SITE
- EXISTING BUILDING / STRUCTURE - ON-SITE
- PHASING BOUNDARY
- PHASING EQUIDENCE
- INTERNAL HAUL ROUTE
- DIRECTION OF EXTRACTION
- EXISTING ELEVATION NUMBER OF I.M.T.S. FINAL EXTRACTED ELEVATION
- PROPOSED 0.9m CULVERT UNDER BERM
- NEW STEEL ENTRANCE GATE

	CLIENT PORT COLBORNE QUARRY PIT 3 EXTENSION		PROJECT NAME PORT COLBORNE QUARRY PIT 3 EXTENSION		IBI GROUP Suite 101 - 410 Albert Street Waterloo ON, N2L 3V3 Canada tel 519 350 2255 ibigroup.com
	SCALE N.T.S.	DATE 2021-01-11	PROJECT MGR. D.R.S.	DRAWN BY E.T.	
CHECKED BY D.R.S.	APPROVED BY D.R.S.	FIGURE NAME OPERATIONAL PLAN		FIGURE NO. 4	REVISION 1
PROJECT NO. 115774		SCALE: 1:1			

PLANNING JUSTIFICATION REPORT  
PORT COLBORNE QUARRIES INC.  
PIT 3 EXTENSION

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Figure 5 Reduction of Phasing Details Plan

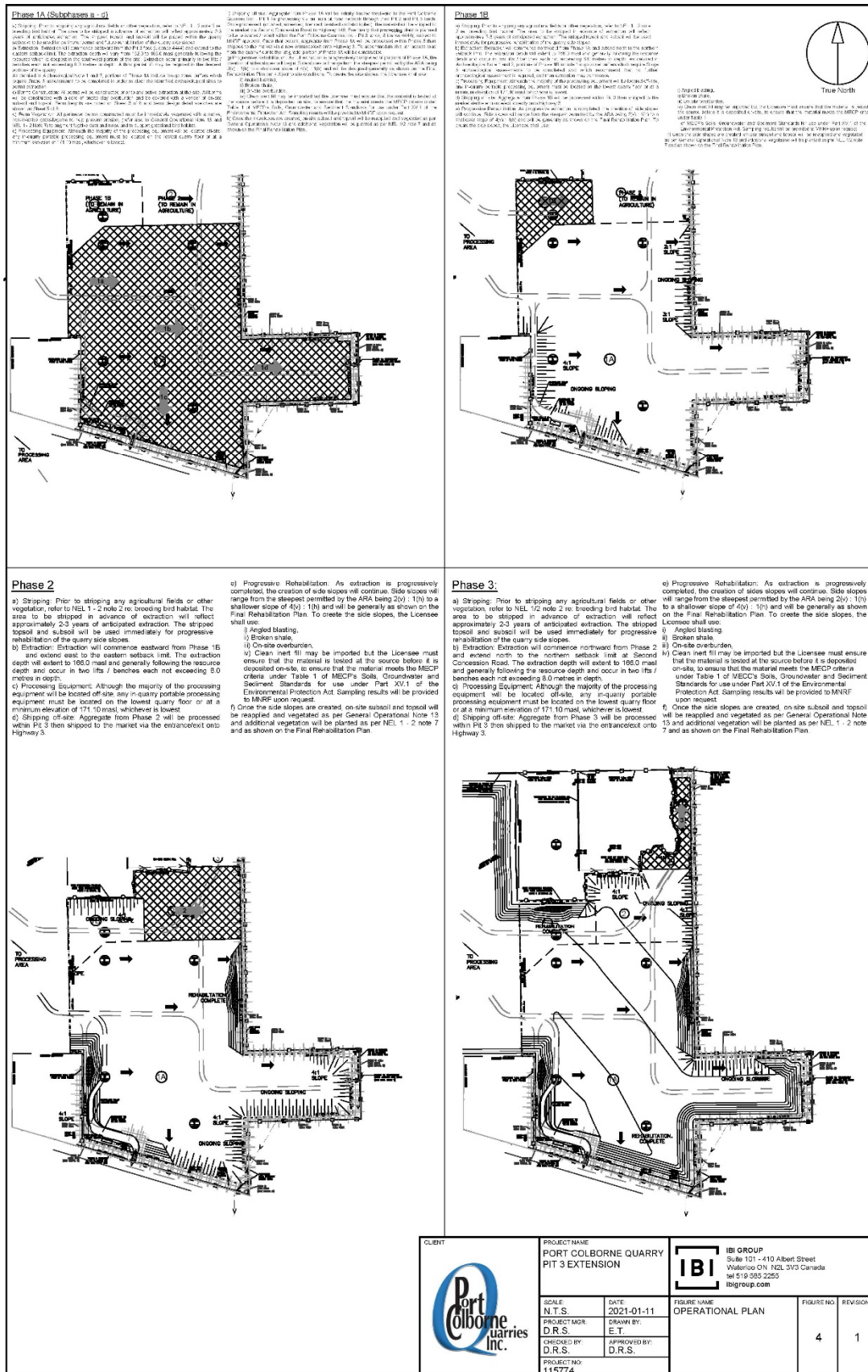








Figure 7 Reduction of Existing Conditions Cross-Sections

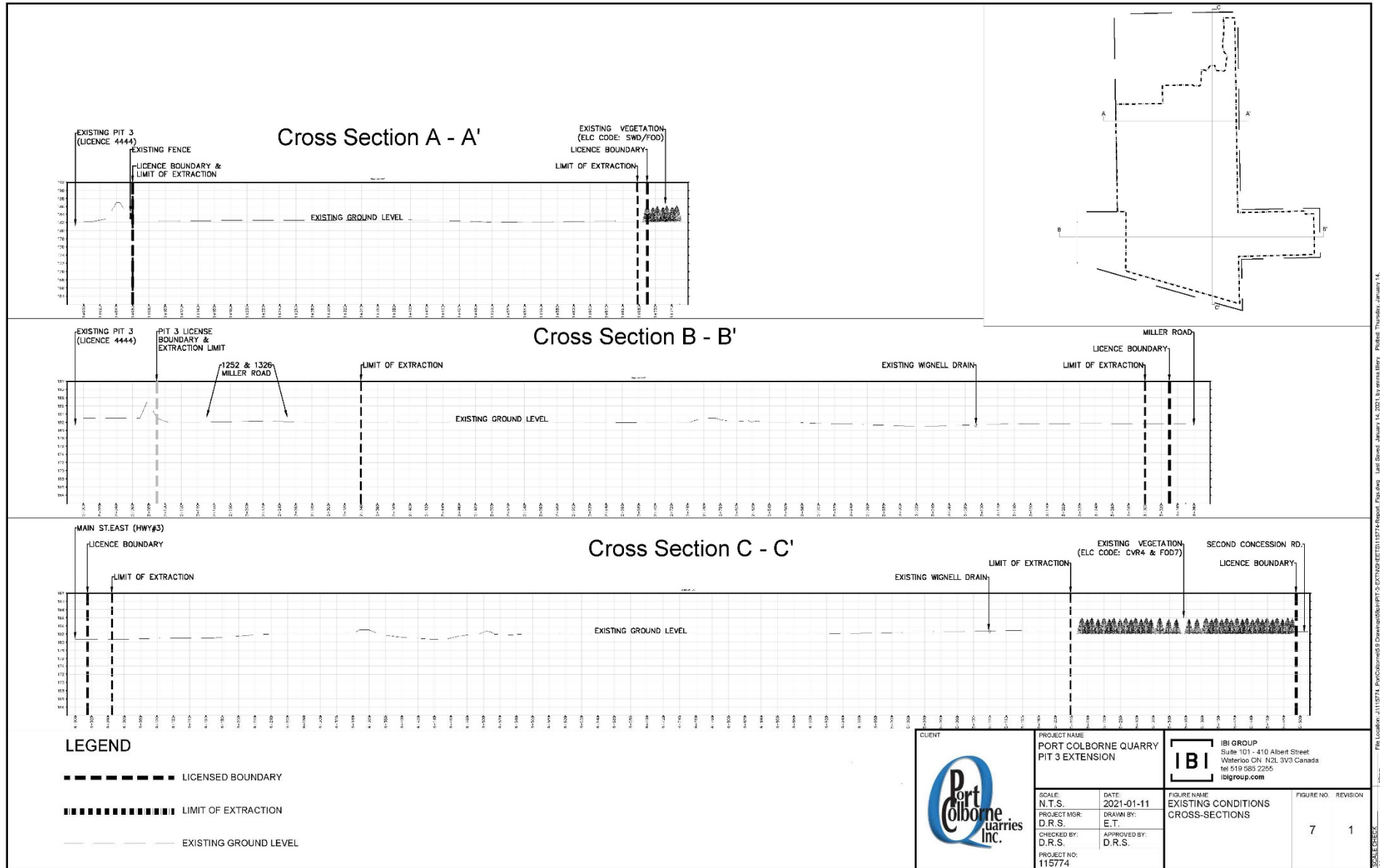
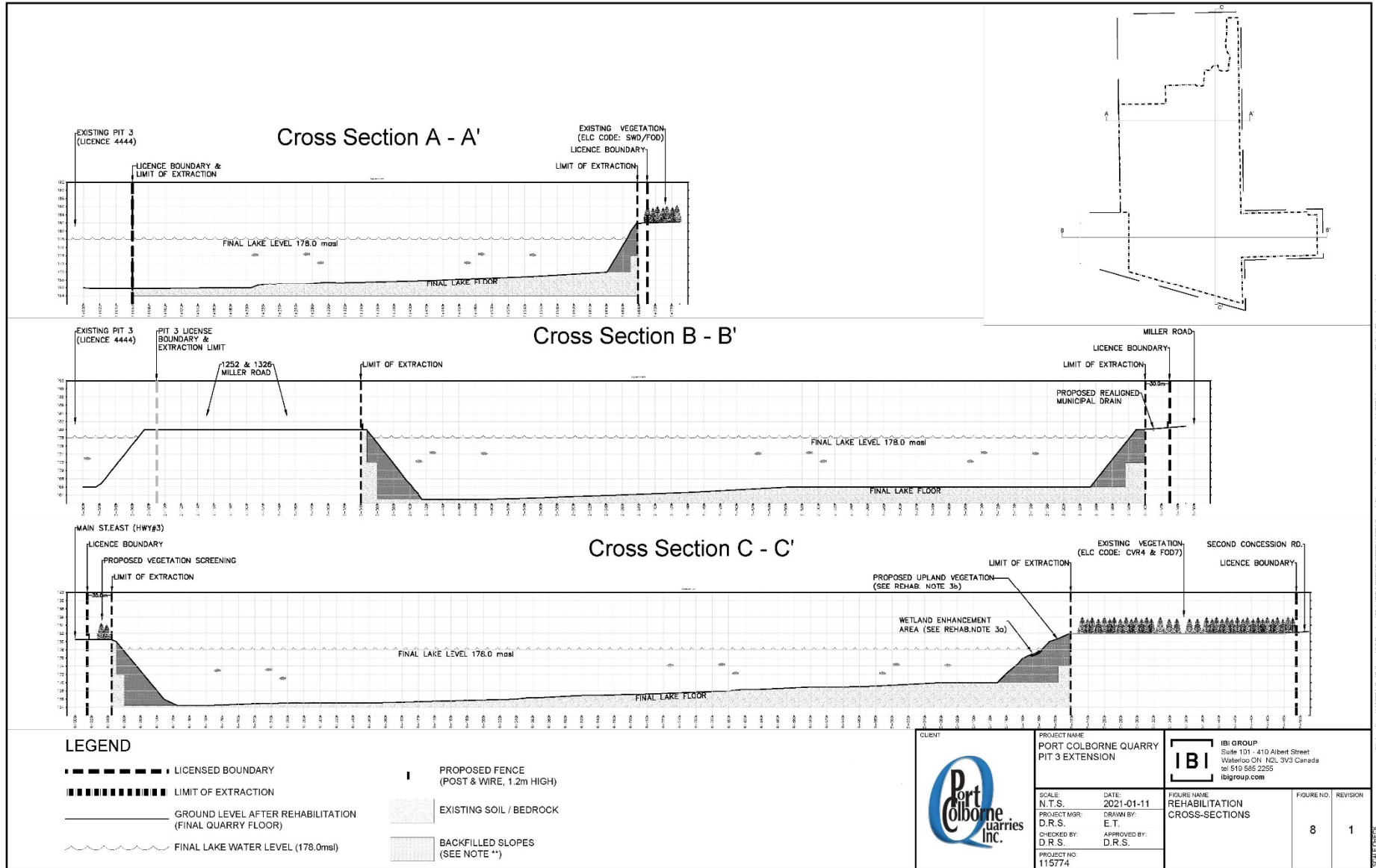


Figure 8 Reduction of Rehabilitation Cross-Sections

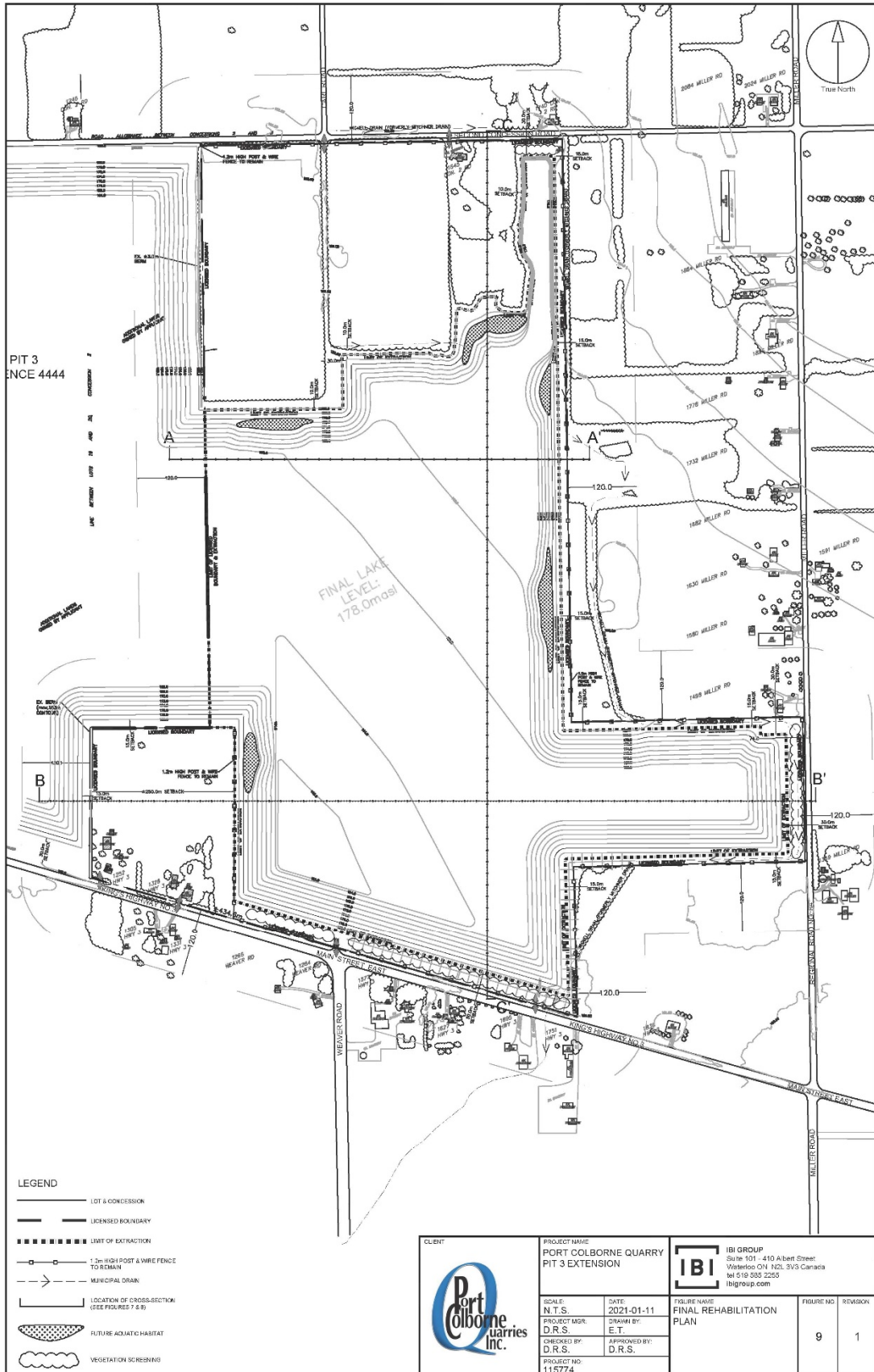


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 PIT 3 EXTENSION

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Figure 9 Reduction of Progressive and Final Rehabilitation Plan



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Findings of the report include the conclusion that the northern frontages of the site, (Second Concession Road and Miller Road), reflect a MECP Class 3 area which limits daytime noise levels to 45 dBA and is generally characterized as being rural, being an environment dominated by natural sounds and little traffic. The balance of the site with frontage onto Highway 3 (Main St.) and Highway 140 has been determined to reflect a MECP Class 2 area which limits daytime noise levels to 50 dBA and is generally characterized as a combination of urban including a contribution of road traffic and existing industry, as well as rural, dominated by natural sounds and little traffic.

Based on the above, the report identified 30 neighbouring residences or ‘Points of Reception’ (POR) as being within the Class 3 area and 31 POR within the Class 2 area.

Because the proposed Pit 3 Extension will be a continuation of the existing Pit 3 extraction, all the same extraction, processing and haulage equipment will be consistent. Based on the assumption that the use of this equipment will be deemed ‘worst-case scenario’, and that any future equipment will be quieter, the report categorized and identified each piece of equipment and determined its maximum noise levels (refer to Table 1 or the Noise Impact Assessment). This information was then inputted into a noise computer model along with the proposed Pit 3 extraction design, quarry depths, existing barriers, haul routes.

The result was that the Noise Impact Assessment made the following recommendations;

1. The following minimum perimeter berms (or acoustically equivalent measures/barrier) will be implemented prior to extraction:
  - A 4 metre high (above existing grade) berm along the south property line.
  - A minimum 2 metre high (above existing grade) berm along the east and north property lines of the extension area.
2. The location of the berms is shown on the Operational Plan. In addition to 1 above, specific berm requirements, including additional required berm heights, will be determined through both noise and blast monitoring as the areas of extraction move towards the Points of Reception (PORs) as shown on the Operational Plan within the ‘Increased Blast Monitoring Zone’.
3. Areas requiring additional and/or specific noise controls and/or quieter types of equipment are shown on the Operational Plan as Noise Zone 1, Noise Zone 2 and Noise Zone 3. The local barrier height and alternative controls required to achieve compliance with applicable noise limits within the identified areas are noted below:

NOISE ZONE	EQUIPMENT SPECIFIC NOISE CONTROLS
1	Drill – local barrier extending 2.0 metres above major noise source associated with the drill.
2	Drill – local barrier extending 3.0 metres above major noise source associated with the drill.
3	Drill – attenuated equipment (i.e., reduced noise emissions or replace with quieter equipment)

4. Extraction and processing operations will occur only during the daytime period (7:00 am – 7:00 pm).
5. The general extraction progression to be followed is shown on the Operational Plan.
6. Setback distances between the drilling rig / blasting and receptors will be determined/confirmed through the blast monitoring program.
7. All existing on-site / external perimeter berms shall remain in place for the Port Colborne Quarries Inc.: Pit 1, Pit 2 and Pit 3 lands.

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8. Extraction equipment will not exceed the following Overall Sound Power Levels Equipment list.

SOURCE DESCRIPTION	OVERALL SOUND POWER LEVELS (DBA)
Screen 115E - Upper deck west	127
Screen 115E – Lower deck west	127
Screen 115E – Upper deck east	123
Screen 115E – Lower deck east	123
Impact Crusher 177 - west	104
Impact Crusher 187 - east	104
Jaw Crusher Norberg	110
Impact Crusher 154	104
Wash plant 155E – west screen top	111
Wash plant 155E – west screen walls	107
Wash plant 155E – east screen top	111
Wash plant 155E – east side walls	107
Drill	121
Loader Extraction	107
Haul Truck empty	112
Haul Truck full	116
Highway truck	102

9. On-site haul trucks will not exceed 35 km/h.
10. Equipment will be maintained in good condition.
11. On-site roadways will be maintained to limit noise resulting from trucks over ruts and pot-holes.

Based on the above, the Noise Impact Assessment was able to model and predict noise levels and recommended appropriate barrier (berm) heights based on the extraction operation. The drill-rig used for blasting and the actual blasting are additional elements that have been identified and acknowledged will require augmented acoustical attenuation especially as the extraction operation moves closer to the ‘POR’s. Based on this, the augmented mitigation will be in the form of a temporary / additional ‘local barrier’ to be placed above the proposed berm height. These temporary measures may include as an example, shipping containers that can be easily positioned and relocated. At the time when the Pit 3 Extension operation proceeds to these identified areas (Zones 1, 2, 3), PCQ may have other options obtainable to them, and / or quieter drill-rig and blasting options may be available.

In addition, the Blasting Impact Assessment identified that all blasting within 300.0 metres will necessitate additional monitoring. As such, it will be necessary for monitoring of the blasting component be dovetailed with the monitoring of the noise within Zones 1, 2 and 3.

Subject to the implementation of the recommendations from the Noise Impact Assessment, it is predicted that MECP noise guidelines within the identified Class 2 and Class 3 areas will be achieved.

The recommendations are noted in Appendix U (Site Plan Notes).

## 8.2 Agricultural Impact Assessment (Appendix C)

An Agricultural Impact Assessment (AIA) has been completed and is attached hereto as Appendix C. The report was prepared by Colville Consulting Inc. by S. Colville and is dated September 22, 2020. The CV for S. Colville is attached to the AIA report.

The AIA was prepared to satisfy numerous policy requirements, including:

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- Provincial Policy Statement 2020  
Policy 2.3 - Agriculture  
Policy 2.5 - Mineral Aggregate Resources and specifically 2.5.3 and 2.5.4.1
- Growth Plan for the Greater Golden Horseshoe 2014  
Policy 4.2.5 - Agricultural System
- Region of Niagara Official Plan  
Policy 5.B.7 - Agriculture  
Policy 6.C.5 - Mineral Resources and specifically
- City of Port Colborne Official Plan (2017)  
Policy 3.5 – Agriculture

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.1.2) requires the agricultural classification of the proposed site, using the Canada Land Inventory classes.

The report confirmed that approximately 76% of the site contains CLI 2 or 3 soils and the balance of the site was determined to be disturbed as it coincides with the New Humberstone Speedway.

The report concluded that the PCQI's proposal will have some potential to negatively impact agricultural resources within the Subject Lands, and on-farm operations within the Study Area, but through the implementation of recommended mitigation measures, the majority of the potential impacts can be avoided or significantly minimized.

Of note however, of the 107.35 ha comprising the total site, approximately 55 ha of CLI Class 2 and 3 lands will eventually be removed from the agricultural land base as below water table extraction makes rehabilitation not feasible. To minimize the impact on the agricultural land base, the following are some of the recommendations;

- Excess topsoil not required for berm construction or post-extractive rehabilitation could be used to accommodate and improve the agricultural conditions for cultivation at other locations where opportunities exist.
- Lands not immediately required for extraction shall remain available for agricultural production when possible.
- Appropriate buffering abutting agricultural lands shall employ such things as;
  - a) Vegetated berms, which can offer both visual and physical buffers,
  - b) Dust suppression techniques and noise management according to appropriate regulations.
- Perimeter fencing shall be established to minimize the potential for trespass and vandalism.
- If agricultural vehicles need to utilize the interior quarry roads to access agricultural lands within the licenced area, a safety protocol will be developed to ensure the safety of all farm traffic through the licenced area.
- Monitoring of all vegetation within the setbacks and on berms will continue throughout the life of the quarry and if any vegetation dies, it will be replaced immediately (during the proper planting season).
- The licensee shall ensure that quarry signage on Miller Road includes a phone number for neighbours to call if any issues should arise.
- The licensee shall ensure that all MOECC standards regarding blasting, noise and dust emissions are met.

Further, as a result of the Region, City and PCQ insisting on a proposed Highway 3 entrance/ exit versus one on Miller Road, has supported the opportunity to avoid conflicts between farm related traffic using Miller Road and aggregate haul trucks.

For further details, refer to Appendix C: AIA.

### 8.3 Air Quality (Dust) Impact Assessment (Appendix Di) And Best Management Practices Plan for the Control of Fugitive Dust (BMPP) (Appendix Dii)

An Air Quality Impact Assessment has been completed and is attached hereto as Appendix Di. The report was prepared by Golder Associates Inc. by E. Lau and is dated December 2020. CV for E. Lau is attached to the report. In addition, Golder Associates also prepared a Best Management Practices Plan for the Control of Fugitive Dust (BMPP) and it is attached hereto as Appendix Dii).

The Air Quality Impact Study was prepared to satisfy numerous policy requirements, including:

- Provincial Policy Statement 202  
Policy 2.5 Mineral Aggregate Resources and specifically 2.5.2.2
- Region of Niagara Official Plan (2014)  
Policy 6.C.5 Mineral Resources
- City of Port Colborne Official Plan (2017)  
Policy 10.2 Aggregate / Extractive Industrial Sites

The Air Quality Impact Assessment was completed to achieve the following:

- Characterize the existing air quality in the surrounding area,
- Estimate the emissions from the current and future quarry operations
- Predict the impact of the current and proposed quarry extension on local air quality through dispersion modelling,
- Recommend best management practices to help mitigate the potential for fugitive dust generation.

The air quality indicators for relevant air quality criteria include:

- a) Particulate matter: suspended particulate matter (SPM) nominally >10um (PM10) and particles > 2.5um (PM25).
- b) Crystalline silica: as a fraction of PM10,
- c) Combustion gases: nitrogen dioxide (NO<sub>2</sub>) sulphur dioxide (SO<sub>2</sub>) and carbon monoxide (CO).

The criteria and federal objectives for air quality are the National Ambient Air Quality Objectives (NAAQOs) and the Canadian Ambient Air Quality Standards (CAAQSS).

Existing emission sources included, extraction phasing, crushing plant, wash plant, stockpiles, vehicles on paved and unpaved roads, vehicle exhaust emissions, non-vehicle exhaust emissions, material handling, drilling and blasting. The report also identified a total of 76 sensitive receivers surrounding the entire site, including Pit 1 where the main processing will continue during the initial extraction operation.

As a result of the modelling scenario's, it was concluded that maximum cumulative predicted concentrations are above some of the assessment criteria, but that the concentrations are significantly lower at the sensitive receptors. In order to reduce the maximum cumulative predicted concentrations, conservative aspects of the model have the potential for further refinement regarding:

- Blasting,
- Haul truck traffic,
- Material handling and
- Use of water deposition.

Furthermore, Golder has prepared a Best Management Practices Plan for the Control of Fugitive Dust (BMPP). The BMPP addresses issues related to:

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- Paved roadways
- Unpaved roadways
- Material Handling and stockpiles
- Material Processing
- Drilling
- Blasting

Subject to the implementation of the recommendations from the Air Quality Impact Assessment and the implementation of the BMPP, it is predicted that there is a very low likelihood that the i) worst-case meteorology, ii) maximum extraction operations, and iii) the conditions that result in 90% percentile of the existing air quality compounds would occur simultaneously since the maximum predicted cumulative concentrations modelled, are very conservative.

The recommendations are noted in both Appendix Di) and Dii) F and identified on Appendix U (Site Plan Notes).

## 8.4 Archaeological Resource Assessment (Appendix Ei and Eii)

Archaeological Reports were completed and include the following:

- Archaeological Assessment Stage 1 and 2 (Background Study and Property Assessment) prepared by Golder and dated July 21, 2020.
- Archaeological Assessment Stage 1 and 2 Supplementary Documentation.

These reports are attached hereto as Appendix E i) and E ii) respectfully and were prepared by Golder Associates Inc. (M. Teal) and are dated July 21, 2020. CV for M. Teal is attached to these reports.

The Archaeological Stage 1 and Stage 2 reports were prepared to satisfy numerous policy requirements, including:

- Provincial Policy Statement 2020  
Policy 2.6 - Cultural Heritage
- City of Port Colborne Official Plan (2017)  
Policy 7.3 - Archaeological Resources

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.2.5, 2.2.6) requires the completion of the said studies.

Stage 1 and 2 assessments were carried out across the entire subject lands and resulted in the identification of numerous archaeological sites throughout the site of varying sizes and complexity. Of the 38 sites identified, many are represented by a single archaeological find spot (i.e., Location 7, 27, 29), while others contain +100 find spots (i.e., Location 25). The majority of the Locations identified were deemed to have been cleared with no recommendation for further investigations. However, several sites, as noted below, have been recommended for Stage 3 assessment. At this time, many of the Stage 3 assessments have not been completed so each of these sites have included a 70.0 metre no-go buffer zone within which no disturbance shall occur until such time as the Stage 3 assessments is conducted in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) *Standards and Guidelines for Consultant Archaeologists* to define the extent of each site, gather a representative sample of artifacts, and aid in determining the need for Stage 4 mitigation of impacts.

In specific circumstances and through the completion of a cost-benefit analysis, several of the identified sites have been determined by the applicant to be too large and/or complex to complete the necessary Stage 3 site work and those sites have been excluded from the Limit of Extraction.



PLANNING JUSTIFICATION REPORT  
 PORT COLBORNE QUARRIES INC.  
 PIT 3 EXTENSION

Prepared for **Port Colborne Quarries Inc.**

LOCATION	MINISTRY IDENTIFICATION NUMBER	STATUS
1	AfGt-296	<b>Stage 3 Required</b>
2		Stage 2 completed, no further site work recommended
3		Stage 2 completed, no further site work recommended
4		Stage 2 completed, no further site work recommended
5		Stage 2 completed, no further site work recommended
6		Stage 2 completed, no further site work recommended
7		Stage 2 completed, no further site work recommended
8		Stage 2 completed, no further site work recommended
9		Stage 2 completed, no further site work recommended
10		Stage 2 completed, no further site work recommended
11		Stage 2 completed, no further site work recommended
12		Stage 2 completed, no further site work recommended
13		Stage 2 completed, no further site work recommended
14		Stage 2 completed, no further site work recommended
15		Stage 2 completed, no further site work recommended
16		Stage 2 completed, no further site work recommended
17	AfGt-305	<b>Stage 3 Required</b>
18		Stage 2 completed, no further site work recommended
19		Stage 2 completed, no further site work recommended
20		Stage 2 completed, no further site work recommended
21		Stage 2 completed, no further site work recommended
22		Stage 2 completed, no further site work recommended
23		Stage 2 completed, no further site work recommended
24		Stage 2 completed, no further site work recommended
25	AfGt-307	<b>Excluded from the Limit of Extraction</b>
26		Stage 2 completed, no further site work recommended
27		Stage 2 completed, no further site work recommended
28		Stage 2 completed, no further site work recommended
29		Stage 2 completed, no further site work recommended
30	AfGt-308	<b>Stage 3 Required</b>
31	AfGt-309	<b>Stage 3 Required</b>
32	AfGt-312	<b>Stage 3 Required</b>
33	AfGt-313	<b>Stage 3 Required</b>
34		Stage 2 completed, no further site work recommended
35	AfGt-314	<b>Stage 3 Required</b>
36	AfGt-315	<b>Stage 3 Required</b>
37		<b>Excluded from the Limit of Extraction</b>
38	AfGt-316	<b>Excluded from the Limit of Extraction</b>

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The First Nations which have been actively involved in the application and provided field monitors for Stage 3 on-site field work that was initiated and include the following:

a) Mississaugas of the Credit First Nation

Archaeological Operations Supervisor: Megan DeVries  
Department of Consultation and Accommodation (DOCA)

Monitors/Field Liaison Representatives (Stage 3)

Joy LaForme

Mariah Sault

Joe Guthro

Jodie Lovegrove

Steve Sault

b) Six Nations of the Grand First Nation

Archaeology Coordinator: Tanya Hill

Six Nations Lands & Resources

Lands and Resources Director: Lonny Bomberly

Monitors/Field Liaison Representatives (Stage 3)

Wayne Johnson

George Atkins

Marcus Doxtater

John Miller

c) Haudenosaunee Confederacy Chiefs Council (HCCC)/  
Haudenosaunee Development Institute (HDI)

Monitoring Program Coordinator: Todd Williams  
and Wayne Hill

Monitors/Field Liaison Representatives (Stage 3)

Guy Williams

Kevin Isaacs

Sharann Martin

At this time, the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) has been circulated with the Stage 1 and 2 reports for their review.

## 8.5 Blasting (Vibration) Study (Appendix F)

A Blasting (Vibration) Impact Study has been completed and is attached hereto as Appendix F. The report was prepared by Golder Associates Inc. by D. Corkery J. and is dated July 2020. CV for D. Corkery is attached to this report.

The Blasting Impact Study was prepared to satisfy numerous policy requirements, including:

- Provincial Policy Statement 2020  
Policy 2.5 Mineral Aggregate Resources and specifically 2.5.2.2
- Region of Niagara Official Plan (2014)  
Policy 6.C.5 Mineral Resources
- City of Port Colborne Official Plan (2017)  
Policy 10.2 Aggregate / Extractive Industrial Sites

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.2.98) require the completion of this study where sensitive receivers exist within 500.0 metres.

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Findings of the report include the identification of 63 receptor residences surrounding the site, principally located east and south of the site.

The report modeling used typical blast design information as documented in Table 1 of the Blast Impact Assessment. This blast design is based on the existing blast practices used by PCQ within their abutting Pit 3 quarry.

The Blasting Impact Assessment concluded that based on the current design of the Pit 3 Extension Site Plans, that there would be no impact to surrounding sensitive receivers subject to the implementation of numerous recommendations. The blasting is undertaken by a specialized third-party licensed contractor and based on current practices, the blasting is expected to occur two times per week in each cell at peak production periods with each blast duration being > 1 second.

The recommendations include:

1. The initial series of test blasts, occurring with approximately one month of the commencement of blasting shall be monitored at a minimum of five (5) locations at varying distances from each blast to refine the ground and air vibration attenuation characteristics and confirm that MECP – NPC 119 of the Model Municipal Noise Control By-Law is being met. This will entail establishing monitoring stations between the blast site and neighbouring receptors [residences], during the sinking cut and development of the initial bench face. The site-specific attenuation data developed during this monitoring period shall then be used to better define ground vibration and air concussion effects at the nearest receptors.
2. Routine monitoring of all blasting operations shall be carried out in the vicinity of the closest receptor to the proposed blasting operations. As extraction continues with the quarry and blasting operations move, the actual monitoring site shall be routinely and regularly reviewed so that the closest receptor is always being monitored for ground and air vibration effects.
3. Maintained a record of all blasting details including a seismic record of the ground and air vibration monitoring results. The blast details and monitoring results shall be made available to the Ministry of Natural Resources and Forestry (MNRF) and the Ministry of Environment, Conservation and Parks (MECP) upon request.
4. Prohibit blasting on Saturdays, Sundays and Statutory holidays.
5. When blasting within approximately 300.0 metres of adjacent residences, the quarry shall regularly review their blast procedures in conjunction with the blast monitoring results to assess when it is necessary to reduce the maximum explosive weight detonation per delay period with the blast. The termination point for the blasting operations will be governed by the results of the on-site monitoring program.
6. Detailed blast records shall be maintained and shall include the following:
  - a) Location, date and time of the blast;
  - b) Dimensioned sketch including photographs, if necessary, of the location of the blasting operation, and nearest point of reception;
  - c) Physical and topographical description of the ground between the source and the receptor location;
  - d) Type of material being blasted;
  - e) Sub-soil conditions, if known;
  - f) Prevailing meteorological conditions including wind speed in m/s, wind direction, air temperature in °C, relative humidity, degree of cloud cover and ground moisture content;
  - g) Number of drill holes;
  - h) Pattern and pitch of drill holes;
  - i) Size of holds;

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- j) Depth of drilling;
- k) Depth of collar (or stemming);
- l) Depth of toe-load;
- m) Weight of charge per delay;
- n) Number and times of delays;
- o) The results and calculated value of Peak Pressure Level in dBL and Peak Vibration in mm/s;
- p) Applicable limits; and
- q) The excess, if any over the prescribed limit.

Of note, and as highlighted in Recommendation 5, within approximately 300.0 metres of residences, the Licensee shall be required to undertake a regular review of their blasting monitoring results with an expectation that within this threshold, modifications to the blasting program will become necessary in order to remain compliant with current MECP guidelines. Modifications to the blasting program are common and anticipated. Furthermore, within this 300.0 metre threshold, the Noise Study has identified specific Noise Zones (1, 2, 3) where the noise consultant will require input from the blast monitoring program.

The recommendations are noted in both Appendix F (Blasting Report) and Appendix U (Site Plan Notes) attached hereto.

## 8.6 Cultural Heritage Screening Report (Appendix G)

A Cultural Heritage Screening Report has been completed and is attached hereto as Appendix G. The report was prepared by Golder Associates Inc. by H. Cary and is dated July 17, 2020. CV for H. Cary is attached to this report.

The Cultural Heritage Screening Report was prepared to satisfy numerous policy requirements, including:

- Provincial Policy Statement 2020  
Policy 2.6 - Cultural Heritage
- City of Port Colborne Official Plan (2017)  
Policy 7.3 - Archaeological Resources

The report concluded that there are no cultural heritage sites associated with the subject site.

## 8.7 Financial Impact Assessment / Economic Benefits (Appendix H)

A Financial Impact Assessment/Economic Benefits Report was completed and is attached hereto as Appendix H. The report was prepared by IBI Group, and is June 8, 2020. CV for A. Jacob is attached to this report.

The Financial Impact Assessment / Economic Benefits Report was prepared to satisfy the following policy requirements;

- Region of Niagara Official Plan  
Policy 14.D.5 viii - Implementation

Findings of the report concluded that:

- a) Land Value Assessment Analysis: The proposed quarry use is anticipated to increase the tax revenue generated from the Pit 3 Extension lands when compared to the existing uses. Over the lifespan of the quarry, it is estimated that the quarry could generate a total of +/- \$490,000 for the Region and \$745,000 for the City in property tax revenues.
- b) Economic Benefits: The Pit 3 Extension is anticipated to maintain the same number of jobs (20) currently working at the existing active PCQ quarries.

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- c) **Capital Impact:** The existing and proposed quarry uses are not anticipated to have any impact on the Region’s or City’s capital programs and if any construction or upgrades are required through further study, PCQ is committed to enter into an agreement with the Region and/or City to cover the necessary costs.
- d) **Financial Benefits:** Based on the full excavation potential of the quarry, the Pit 3 Extension is estimated to generate between \$1.2 million and \$1.4 million for the Region and \$5.0 million and \$5.6 million for the City in Aggregate Resources Act levy contributions.

The report provided no recommendations.

## 8.8 Hydrology (Water Resources) (Appendix I and J)

Hydrology assessment have been completed and include the following:

- Hydrological Assessment (Surface Water) prepared by Golder Associates Inc. (K. Mackenzie) dated August 2020 attached hereto as Appendix I. The CV for K. Mackenzie is attached to the report.
- Hydrogeology (Groundwater) prepared by Golder Associates Inc. (S. McFarland) dated July 2020 and attached hereto as Appendix J. The CV for S. McFarland is attached to the report.

These assessments were prepared to satisfy numerous policy requirements, including:

- Provincial Policy Statement 2020
  - Policy 2.1 Natural Heritage
  - Policy 2.2 Water
  - Policy 2.5 Mineral Aggregate Resources
  - Policy 3.0 Protection Public Health and Safety
  - Policy 3.2 Human-Made Hazards
- Growth Plan for the Greater Golden Horseshoe 2014
  - Policy 3.2.7 Stormwater Management
  - Policy 4.2.2 Natural Heritage System
  - Policy 4.2.3 Key Hydrologic Features, Key Hydrologic Areas and Key Natural Heritage Features
  - Policy 4.2.4 Lands Adjacent to Key Hydrologic Features and Key Natural Heritage Features
- Region of Niagara Official Plan (2014)
  - 7.A.2.6 Stormwater Management
  - 7.B.1.6 Natural Environment
- City of Port Colborne Official Plan (2017)
  - Policy 4.1 Natural Heritage Features
  - Policy 4.2 Environmental Protection Areas
  - Policy 4.3 Environmental Conservation Areas
  - Policy 8.2 Stormwater Management
- Niagara Peninsula Conservation Authority (NPCA) Policy Document: Policies For The Administration Of Ontario Regulation 155/06 And The Planning Act (2018)
  - Policy 7.1.1 Hazardous Sites and Hazardous Lands
  - Policy 8.0 Wetlands
  - Policy 8.1.5 Hydrological Study
  - Policy 8.2.2 Development and Interference within a Wetland
  - Policy 8.2.6 Stormwater
  - Policy 9.1.1 Watercourses
  - Policy 9.1.2 Need for an EIS/Hydrological Study
  - Policy 11.1 Municipal Drains

Policy 12.4.8.2 Supporting Studies: Hydrogeological Study  
Policy 12.4.9 Erosion and Sedimentation Control Plans

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.2.1 and 2.2.2) require the completion of these studies.

Findings of the reports are as follows.

### 8.8.1 Hydrological Assessment (Appendix I)

The assessment identified several surface water features within the subject lands including:

- an unnamed tributary that connects with the east branch of the Wignell drain (formerly Mitchner Drain) in the northern and eastern portion of the site,
- a pond in the northeast corner and
- three ponds adjacent to the Humberstone Speedway in the southeast corner of the site.

In addition, north of the Limit of Extraction there is a wooded wetland feature (deciduous swamp) which maintains standing water or wet conditions for portions of the year. This feature contributes drainage to the upstream end of the East Wignell Drain (formerly Mitchner Drain). It is anticipated that the wetland receives drainage from north of the Second Concession Road, but not from the agricultural lands to the south (proposed extraction area).

It should be noted that the Wignell Drain is a municipal drain under the Drainage Act and that the City of Port Colborne has initiated a process to realign its eastern branch and it is anticipated that site work will occur prior to the proposed quarry extension.

Because the abutting existing Pit 3 extraction operation is operated through dewatering, PCQ operates under an existing Permit to Take Water (PTTW) authorized by the Ministry of Environment, Conservation and Parks, (MECP) and that Permit requires ongoing annual groundwater monitoring. Similarly, since the pumped water must be discharged, PCQ also operates under an Environmental Compliance Approval, also authorized by MECP and it also necessitates monitoring, including quarterly discharge samples analyzed for hydrogen sulphide, total suspended solids and total oil and grease as well as field measurements of pH, temperature, conductivity and dissolved oxygen. In order to best obtain an increased level of site knowledge, additional surface monitoring stations were installed throughout the branches of the Wignell Drain.

As a result of the completion of detailed water balance calculations, the report makes the following conclusions;

- Compared to existing conditions, average annual surplus over the site footprint area is expected to increase under operational conditions by approx. 22% and decrease under rehabilitation conditions by approx. 6%.
- Compared to existing conditions, average annual infiltration is expected to decrease over the site footprint under operational and rehabilitation conditions.
- Compared to existing conditions, average annual off-site runoff is expected to increase under operational and rehabilitation conditions.

In summary, the report concludes that no adverse hydrological impacts will be associated with the application subject to the following recommendation;

1. All monitoring requirements with respect to the quarry discharges and the receiving system will be regulated by the Industrial Sewage Works Environment Compliance Approval, (MECP) to be amended prior to the dewatering of Pit 3 Extension.
2. The increased runoff under operational and rehabilitated conditions will be directed to the east and west branches of the Wignell drain, increasing the annual flows within these water features.

## 8.8.2 Hydrogeology Assessment (Appendix J)

The Hydrogeological Assessment confirmed that:

- a) The site bedrock is characterized by the Onondaga Formation which overlies the Bois Blanc formation and consists of variable cherty, fossiliferous limestone with some minor shale partings.
- b) 'Aquifer Vulnerability Index' (AVI) for the site is considered "high" for the Niagara Peninsula source zone protection area due to the coarse-textured glaciolacustrine deposits for relatively thin overburden areas to be present within the Haldimand Clay Plain. This AVI rating assesses the potential for vertical infiltration of contaminants through the shallow overburden into the underlying bedrock formations.
- c) Overburden thickness underlying site ranges from approximately 0.5 metres to 10.5 metres where the thickness increases from south to north across the site with the thickest depth underlying the wetland/woodlot.

Although there are substantial monitoring sites within the existing extraction operation (Pit 2 and 3), additional borehole and well installation occurred to augment the level of documentation and to provide in-depth knowledge of the subject site. This work involved ten new well locations and included both a shallow and deep well for a total of (20) twenty monitoring wells.

In summary, the report calculated that the estimated radius of groundwater level drawdown (zone of influence) associated with the dewatering of the proposed quarry extension to be 700 metres to 1,000 metres.

Hydrogeological recommendations include:

- The ongoing monitoring of on-site wells with groundwater levels taken monthly and water quality samples taken every five years. Groundwater quality parameters to be tested for include:

General Chemistry:	pH, EC, TDS, Hardness
Nutrients/Organic Indicators:	Total ammonia, Nitrate, Nitrite, DOC, Orthophosphate
Major and Minor Ions:	Alkalinity, calcium, chloride, magnesium, potassium, sodium, sulphate, anion sum, cation sum.
Dissolved Metals:	aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, phosphorous, selenium, silicon, silver, strontium, thallium, titanium, uranium, vanadium, zinc.

Wells to be monitored include:

MW17-1S,	MW17-1D,
MW17-2S,	MW17-2D
MW17-3S,	MW17-3D
MW17-4S,	MW17-4D
MW17-5S,	MW17-5D,
MW17-6S,	MW17-6D
MW17-7S,	MW17-7D
MW17-8S,	MW17-8D
MW17-9S,	MW17-9D,
MW17-10S,	MW17-10D.

- Three additional monitoring wells are to be installed prior to quarrying and are shown on the Site Plans to provide additional observation points. These wells will be monitored at the same frequency as the existing wells.
- Monitoring wells within the extraction area will progressively be mined out/removed as the quarry expands.

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- A monitoring and response program is in place for the existing quarry to detect groundwater level drawdown at the monitoring well locations. A response program will be initiated, if required, to evaluate potential impacts and implement operational measures, or contingency measures, to prevent an interruption of the water supply or to restore the supply. This monitoring and response program will include all residences within 1,000 metres of the licence.
- In order to implement appropriate response actions in a timely manner, the licensee will retain qualified personnel in the areas of hydrogeology and will have water well contractors and a plumbing contractor on retainer in the event that the need for these services arises.
- The monitoring program will be discontinued once the quarrying is completed and the quarry will be allowed to flood through natural surface water and groundwater inflows, and the groundwater will recover to static conditions.
- If private well complaints were to occur, a Private Well Complaints Response Program has been prepared that will be the decision process to be followed when a well interference complaint is received and a review of several mitigation strategies that could be implemented to affect the supply of surrounding water wells, to counteract the effect of quarry-related groundwater level drawdown, if required, based on the results of the monitoring and complaints response program.

## 8.9 Land Use Compatibility / Sensitive Land Use Study (Appendix K)

The Land Use Compatibility/Sensitive Land Use Study been completed as a summary of the following reports:

- A Noise (Acoustical) Impact Study is attached hereto as Appendix B. The report was prepared by Golder Associates Inc. by J. Tomaselli and is dated December 2020.
- The Air Quality (Dust) Impact Study is attached hereto as Appendix D. The report was prepared by Golder Associates Inc. by E. Lau and is dated December 2020.
- A Blasting (Vibration) Impact Study is attached hereto as Appendix F. The report was prepared by Golder Associates Inc. by D. Corkery J. and is dated July 2020. CV for D. Corkery is attached to this report.

The Land Use Compatibility/Sensitive Land Use Study was requested by the Region as part of the Pre-Submission Consultation. The report has been compiled by IBI Group and is attached hereto as Appendix K.

The report summarized and identified those residents defined interchangeably as Points of Receivers, Sensitive Receptors and Receptors, primarily those in closest proximity to the proposed quarry. The report also highlighted the individual recommendations from each of the reports and identified where there was critical cross-over between disciplines as it related to noise and blasting, perimeter berms and hours of operation.

The report concluded that based on the extensive and comprehensive recommendations from each individual report, and the Operational Notes where there were common elements between the disciplines, that no outstanding issues were identified. Based on that, the report provided no additional recommendations.

## 8.10 Natural Environment Level 1 and 2 (EIS) (Appendix L)

A Natural Environment Level 1 and 2 (EIS) has been completed and is attached hereto as Appendix L and was prepared by Golder Associates Inc. by H. Melcher and L. Owens dated October 2020. The CV for H. Melcher and L. Owens are attached to that report.



Prepared for **Port Colborne Quarries Inc.**

The Natural Environment Level 1 and 2 (EIS) was prepared to satisfy numerous policy requirements including:

- Provincial Policy Statement 2020
  - Policy 2.1 Natural Heritage
  - Policy 2.5 Mineral Aggregate Resources
- Growth Plan for the Greater Golden Horseshoe 2014
  - Policy 4.2.2 Natural Heritage System
  - Policy 4.2.3 Key Hydrologic Features, Key Hydrologic Areas and Key Natural Heritage Features
  - Policy 4.2.4 Lands Adjacent to Key Hydrologic Features and Key Natural Heritage Features
- Region of Niagara Official Plan (2014)
  - 7.B.1.6 Natural Environment
- City of Port Colborne Official Plan (2017)
  - Policy 4.1 Natural Heritage Features
  - Policy 4.2 Environmental Protection Areas
  - Policy 4.3 Environmental Conservation Areas
- Niagara Peninsula Conservation Authority (NPCA) Policy Document: Policies For The Administration Of Ontario Regulation 155/06 And The Planning Act (2018)
  - Policy 8.0 Wetlands
  - Policy 8.2.2 Development and Interference within a Wetland
  - Policy 9.1.1 Watercourses
  - Policy 9.1.2 Need for an EIS/Hydrological Study
  - Policy 11.1 Municipal Drains

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.2.3 and 2.2.4) require the completion of this study.

As a result of numerous in-field site visits by Golder staff, an extensive list of plants and animal species were identified, and each assessed as follows:

SPECIES	ASSESSMENT	IMPACT ANALYSIS	RECOMMENDED MITIGATION
<b>Habitat of Endangered or Threatened Species</b>			
a) Bank Swallow	Potential foraging and nesting habitat.	Identified foraging and nesting habitat will not be disturbed and foraging habitat not limited to the subject site.	Avoidance
b) Barn Swallow	No active nesting site nor suitable foraging.	n/a	
c) Bobolink	Breeding in hayfields	Normal agricultural crop rotation practices will result in the removal of existing hayfields.	Surveys will be conducted prior to vegetation removal to confirm that the nesting habitat is no longer present.
d) Chimney Swift	No natural or man-made nests or roosts but natural tree cavities may exist	Identified suitable nesting habitat will not be altered.	Avoidance
d) Eastern Meadowlark	Suitable habitat during breeding season.	Normal agricultural crop rotation practices will result in the	Surveys will be conducted prior to vegetation removal to confirm that the nesting

SPECIES	ASSESSMENT	IMPACT ANALYSIS	RECOMMENDED MITIGATION
		removal of existing hayfields.	habitat is no longer present.
e) Bats Little Brown Myotis Northern Myotis Tri-coloured bat Eastern small-footed Myotis	Moderate potential for suitable habitat off-site.	No maternity roost or hibernation habitat was identified on-site and any such potential habitat will not be altered. Avoidance	Avoidance
f) Fish	East Wignell Drain:  No fish observed in <u>on-site ponds</u> but colonized fish may be present. <u>Off-site ponds</u> are aggregate related and not connected to any fish-bearing waterbody.	The drain is expected to be realigned by the City of Port Colborne. Although development of the quarry will remove part of the drainage area, flow is anticipated to be maintained or increased through discharge from quarry dewatering	None
Significant Wetlands Beaver Dam Creek Wetland Complex PSW within drawdown ZOI	Upper Wignell Drain Wetland Complex requires completion of an EIS	<ul style="list-style-type: none"> <li>• Effect of drawdown not expected to –ve effect the ecological function of the wetland.</li> <li>• Section 7.4 of the report specifically address EIS issues.</li> <li>• No part of the PSW will be removed, although a part of the PSW is within the ZOI of groundwater discharge, no negative impacts are anticipated.</li> </ul>	Avoidance
Significant Woodlands Deciduous Swamp (WD1, SWD3-2)	The woodland meets criteria as a 'significant woodlot.	<ul style="list-style-type: none"> <li>▪ No parts of this feature will be removed.</li> <li>▪ Woodlot underlain by thick layer of clay so proposed quarry dewater will not impact swamp characteristics.</li> <li>▪ Drainage area contributing to the wetland will remain largely unchanged.</li> <li>▪ Animal movement corridors between</li> </ul>	There will be a setback of 10.0 metres established from the dripline of the significant woodland. Plantings, as part of the rehabilitation plan, are recommended to increase connectivity between this woodland and the woodland features located offsite, north of Second Concession Road.

SPECIES	ASSESSMENT	IMPACT ANALYSIS	RECOMMENDED MITIGATION
		the deciduous swamp and offsite features will remain unchanged.	
Significant Valleylands	Municipal drains do not meet the criteria to be considered significant valleylands.	n/a	
Significant Areas of Natural and Scientific Interest	n/a		
<b>Significant Wildlife Habitat</b>			
Candidate Landbird Migratory Stopover Habitat		All candidate land bird migratory stopover habitat SWH is located outside of the proposed limit of extraction, no negative impacts are anticipated.	Avoidance
Candidate Woodland Bat Maternity Roost Habitat		All candidate bat maternity roost SWH is located outside of the proposed limit of extraction and no negative impacts are anticipated.	Avoidance
Amphibian Wetland Breeding Habitat		Pond 3 provides breeding habitat for American bullfrog. This pond will be removed.	Mitigation includes replacement habitat as part of the rehabilitation plan to offset the negative impacts.
Species of Conservation Concern Necklace sedge		All confirmed habitat for necklace sedge is located outside of the proposed limit of extraction in the deciduous swamp (SWD3-2) on the site, no negative impacts are anticipated.	Avoidance
Species of Conservation Concern Eastern wood-pewee		All eastern pewee habitat is located outside of the proposed limit of extraction, and no negative impacts are anticipated.	Avoidance
Species of Conservation Concern Wood thrush		All wood thrush habitat is located outside of the proposed limit of extraction, and no negative impacts are anticipated.	Avoidance
Species of Conservation Concern Grasshopper sparrow		Nesting habitat on the site has been created by cyclical agricultural	Surveys will be conducted prior to vegetation removal to

SPECIES	ASSESSMENT	IMPACT ANALYSIS	RECOMMENDED MITIGATION
		crop rotation practices. It is anticipated that no nesting habitat will be present on the site at the onset of quarry operational activities.	confirm that the nesting habitat is no longer present.
Species of Conservation Concern Snapping turtles		The Humberstone Speedway ponds provide habitat for snapping turtles. These ponds will be removed.	Mitigation in the form of replacement habitat as part of the rehabilitation plan will offset the negative impacts.
Species of Conservation Concern monarch		Small areas of foraging habitat will be removed.	Mitigation in the form of planting milkweed during site rehabilitation will offset any negative impacts.
Species of Conservation Concern Common nighthawk		Habitat may be present in the study area outside of the limit of extraction, no negative impacts are anticipated.	Avoidance
Species of Conservation Concern Woodland vole		Habitat may be present in the study area outside of the limit of extraction, no negative impacts are anticipated.	Avoidance
Species of Conservation Concern Heart-leaved Tearthumb		Habitat may be present in the study area outside of the limit of extraction, no negative impacts are anticipated.	Avoidance

Recommendations of the report include that the Progressive and Final Rehabilitation Plan include:

1. Sediment/erosion controls will be implemented adjacent to natural features during site preparation and as needed during operations.
2. Prior to the removal of vegetation in the agricultural fields on the site, a biologist should confirm that no suitable habitat for bobolink and eastern meadowlark is present. If habitat is confirmed to be present and in use by bobolink or eastern meadowlark, permitting or registration under the ESA may be required to remove habitat.
3. Prepare a Tree Preservation Plan for the site in accordance with City guidelines.
4. Standard Best Management Practices to control noise and dust impacts on adjacent natural features will be implemented.
5. Implement standard best management practices, including sediment and erosion controls, spill prevention, etc. during the construction phase of the project.
6. A groundwater monitoring program will be implemented to monitor for drawdown as the quarry expands. The data could be used to assess unanticipated effects on natural environment features.

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7. The site will be rehabilitated in accordance with the requirements of the rehabilitation plan developed with ecological concepts from this report.
8. Prior to the removal of the Ponds 1, 2, 3, and 4. A survey should be conducted to determine if fish are present. If fish are present, a permit to collect fish for scientific purposes and direction from the MNRF will need to be obtained prior to relocation of the fish in order to avoid contravening the *Fisheries Act*.
9. Prior to the vegetation removal and stripping, a habitat survey will be conducted to confirm that standard agricultural practice (crop rotation) has resulted in the removal of the hay fields on the site and that no habitat for bobolink, eastern meadowlark and grasshopper sparrow is present.
10. A wetland vegetation monitoring program will be implemented in the deciduous swamp (SWD3-2) located at the north end of the site to monitor for impacts associated with quarry operations. Baseline monitoring will be conducted the summer prior to the start of extraction Phase 2.
11. Wetland and aquatic plants that may be planted in the nearshore or shoreline areas will include shrubs such as red-osier dogwood (*Cornus sericea*) and slender willow (*Salix petiolaris*), and herbaceous plants such as water plantain (*Alisma plantago-aquatica*), lake sedge (*Carex lacustris*), swamp milkweed (*Asclepias incarnata*), softstem bulrush (*Schoenoplectus tabernaemontani*), and common cattail (*Typha* spp.). Shallow wetland habitats will be created through construction of submerged benches, approximately 0.25 to 0.75 metres deep. Shallow emergent marsh vegetation (i.e., herbaceous species listed above) will be planted in water  $\pm 0.15$  metres deep and extend  $\pm 5$  metres from the shore and be interspersed with cover structures (e.g. boulders and root wads) in the shallow shoreline wetland areas. Organic material and topsoil will be added to the shoreline areas to promote shoreline vegetation. Basking logs, nesting platforms and boxes will be created for turtle, waterfowl and swallows respectively. This habitat will be designed to be suitable as snapping turtle aquatic habitat and bullfrog breeding habitat.
12. Upland areas will be seeded with a mix of grasses and legumes consisting of native, non-invasive species. It is recommended that common milkweed be planted in upland areas to provide host plants for monarch caterpillars. Where terrestrial nodal plantings are included on the side slopes, they will include a mixture of coniferous and deciduous tree species to promote species diversity and provide a variety of species to compensate for any substrate deficiencies. The species may include white pine, sugar maple, red oak, trembling aspen, and white birch, with a secondary focus on species such as choke cherry (*Prunus virginiana*), alternate-leaved dogwood (*Cornus alternifolia*), highbush cranberry (*Viburnum opulus*), nannyberry (*Viburnum lentago*) and serviceberry (*Amelanchier* spp.). It is recommended that ash (*Fraxinus* spp.) species in rehabilitation plantings be avoided due to the invasion of emerald ash borer.
13. The segment of Carl Road that bisects the deciduous swamp is to be rehabilitated following the decommissioning of the road. Excavations in three or four areas along the length of the road should be created to improve surface water drainage. Plantings along this segment of Carl Road should include the dominant tree and shrub species found in the deciduous swamp including silver maple, pin oak, swamp white oak, bur oak, red maple, and spicebush.  
  
 Invasive shrub species including multiflora rose, common buckthorn, and Tartarian honeysuckle have become established in this area and may prevent the successful establishment of the native plantings. These invasive shrubs should be removed prior to the planting of Carl Road.
14. The setback area at the north end of extraction area 3 and east of the deciduous swamp (Licence 4444) be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow

located east of the site woodland located northeast of the site across Second Concession Road. This area currently consists of a cultural meadow. The establishment of a wooded area will create a corridor linking the north end of the deciduous swamp with the forested areas offsite, including the significant woodland located between Carl Road and Babion Road. These additional plantings will also enhance ecological connectivity and facilitate wildlife movement between these features. Native tree and shrub species plantings should be selected based on their suitability for the soils and moisture regime in those areas and may include: red oak, trembling aspen, eastern white cedar, red maple, basswood, bur oak, white pine, serviceberry species, gray dogwood (*Cornus racemosa*) and staghorn sumac (*Rhus typhina*).

15. The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp is to be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of Second Concession Road between Carl Road and Babion Road. These two significant woodlands are separated by Second Concession Road and distance of approximately 70 metres. The area recommended for rehabilitation consists of a berm vegetated with terrestrial grasses and forbs and a sparsely vegetated area north of Pit 3.
16. All plantings (i.e., nodal plantings) included in the rehabilitation plan will be locally native, non-invasive species that create habitat in the short term and promote natural succession processes. The sourcing of plantings should consider the regionally adapted genetics of the species. Plantings from local sources are likely to be well adapted to the local climate and growing conditions and may have a higher likelihood of successful establishment. Therefore, plantings will be procured from local sources to the extent possible.
17. All rehabilitated side slopes are to be vegetated with a seed mixture capable of:
  - Rapid germination and growth.
  - Controlling erosion.
  - Maintaining or enhancing soil fertility.

The seeding is to be established in a timely manner and if necessary, facilitated by the application of fertilizer, water and/or additional seeding.
18. Monitoring of all vegetation within the setbacks and on berms will continue throughout the life of the quarry and if any vegetation dies, it will be replaced immediately (during the proper planting season).

## 8.11 Comprehensive Rehabilitation Strategy (Appendix M)

A Rehabilitation Strategy is attached hereto as Appendix M and was prepared by IBI Group by D. Sisco and dated September 2020. The CV for D. Sisco is attached to this report.

The Rehabilitation Strategy was prepared to satisfy numerous policy requirements including:

- Provincial Policy Statement 2020  
 Policy 2.5 Mineral Aggregate Resources
- Growth Plan for the Greater Golden Horseshoe 2014  
 Policy 4.2.7 Mineral Aggregate Resources
- Region of Niagara Official Plan (2014)  
 Policy 6.C Mineral Resources
- City of Port Colborne Official Plan (2017)  
 Policy 10.2 Aggregate / Extractive Industrial Sites

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (1.4 and 2.1.5) require the demonstration of progressive and final rehabilitation.

The report confirmed from other technical documents that there is a substantial volume of high quality aggregate resources located below the groundwater level and that the most practical method of extraction is through dewatering. This involves lowering the local groundwater levels so that extraction can occur in a dry environment. This same form of dry extraction is how the adjacent and active Pit 3 operates. Once full extraction is complete, the dewatering pumps are removed and over-time, the groundwater levels will rebound resulting in the creation of a large lake that will be on 8.0 to 16.0 metres deep.

As noted above, because the Pit 3 Extension will be a seamless transition of the Pit 3 operation as the quarry moves eastward and worked together to a similar final quarry floor elevation, the final rehabilitation will be undertaken in concert. The result will be the creation of a joint lake (Pit 3 and Pit 3 Extension) that is 177 hectares in size. The lake will be designed with variable slopes to provide a range of ecological habitat and the shoreline designed to create a range of aquatic habitats including wetlands and shallow ponds. The shoreline will also be planted with a variety of aquatic plants and upland species which are both native and non-invasive.

The creation of a large lake on the subject lands will be reflective of the proposed final land use of the currently exhausted Pit 2 lands to the west, (between Snyder Road and Babion Road). The timing of those lands becoming a lake is contingent upon the eventual removal of the haul route between Pit 3 (and initially/temporarily Pit 3 Extension) and the main processing plant located in Pit 1.

Upon the subject lands becoming a lake (including the Pit 3 lands), will not result in any land use conflicts with the existing neighbouring land uses which include: i) non-farm rural residential, ii) agricultural, iii) commercial and iv) natural environment lands. At this juncture, PCQ intends that the subject lands will be held in private ownership.

## 8.12 Social Impact Assessment (Appendix N)

A Social Impact Assessment is attached hereto as Appendix N and was prepared by IBI Group by D. Sisco and dated January 8, 2021. CV for D. Sisco is attached to this report.

The Social Impact Assessment was prepared to satisfy numerous policy requirements including:

- Provincial Policy Statement 2020  
Policy 2.5 Mineral Aggregate Resources
- Growth Plan for the Greater Golden Horseshoe 2014  
Policy 4.2.7 Mineral Aggregate Resources
- Region of Niagara Official Plan  
Policy 6.C – Mineral Resources  
Policy 14.D.5 - Implementation
- City of Port Colborne Official Plan (2017)  
Policy 10.2 Aggregate / Extractive Industrial Sites

The report highlights a duality of social impacts: i) those identified as being specifically to 'direct' social interactions with the proposed quarry and including:

- Noise (Acoustical)
- Air Quality (Dust)
- Blasting / Vibration
- Traffic
- Visual

and ii), all other land use impacts which may have 'associated' social interactions with the proposed quarry and which include:

- Archaeology
- Cultural Heritage
- Surface water
- Groundwater
- Natural Environment

Each of the above investigations identified potential impacts and provided recommendations to address such social impacts and include Site Plan operational design components such as: direction of extraction, phasing design, location of processing plant, location and height of perimeter berms, siting of quarry entrance/exit, hours of operation, annual tonnage restrictions, incorporation of and ultimate removal of Carl Road, use of vegetation on perimeter berms, entrance and elsewhere as applicable, safeguarding against erosion of perimeter berms, maintenance of entrance (sweeping), utilization of on-site water trucks, use of seismometers where applicable, etc.

It also includes off-site commitments including the requirement of off-site entrance/road upgrades onto Highway 3.

Although difficult with this site (as with all below water quarries), PCQ will undertake as much progressive rehabilitation as possible during the life of the quarry, but until the quarry extraction is completed and the dewatering pumps are turned off, the quarry will then be able to fill as a large lake.

Further, each of the recommendations have been included onto the Site Plans and worded to ensure they're action directives (i.e., shall, will, must), vs. passive (i.e., may, should). As well, all Site Plan Notes and the Site Plans themselves are fully enforceable by provincial staff at MNRF.

The report concluded that based on the extensive and comprehensive recommendations from each individual report, that no additional recommendations were necessary.

## 8.13 Traffic Impact Study (Appendix O)

A Traffic Impact Study (TIS) has been completed and is attached hereto as Appendix O and was prepared by IBI Group, D. Hook and dated October 2020. CV for both E. McLaren and D. Hook is attached to that report.

The TIS was prepared to satisfy numerous policy requirements including:

- Provincial Policy Statement 2020  
Policy 2.5 Mineral Aggregate Resources
- Region of Niagara Official Plan (2014)  
9.H.3 Major Goods Movement Facilities and Corridors
- City of Port Colborne Official Plan (2017)  
Policy 4.1 Natural Heritage Features  
Policy 4.2 Environmental Protection Areas  
Policy 4.3 Environmental Conservation Areas

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.2.4) require the completion of this study.

As noted above, the intent of PCQ is to operate Pit 3 Extension initially by hauling the rock westward using off-road quarry trucks along the existing haul road through Pit 3, crossing Babion Road at grade, through Pit 2, crossing Snyder Road at grade and to Pit 1. In Pit 1 the rock will be processed. The material will then be loaded into dump trucks and hauled to the market via Ramey Road and to Highway 140.



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During Phase 1 extraction, PCQ intends to construct a new processing plant in the northern portion of Pit 3 and which will then necessitate the construction of a new quarry entrance. Based on pre-submission discussions with the Region and City, it was agreed by that the preferred location for such an exit/entrance was directly onto Highway 3 and just prior to the submission, confirmation was received from MTO that they were receptive to such an access,, subject to it being aligned with Weaver Road to the south.

Based on that scenario, IBI completed their Traffic Impact Study. The report assumed the quarry will generate 154 trucks per day with 15.4 trucks during the a.m. peak hour. Intersection capacity analysis was conducted for both existing and future conditions and all were shown to operate at an acceptable Level of Service during all scenarios. No geometric modifications or traffic signalization will be required at any of the study intersections, except for the Highway 3 access point.

Recommendations from the report include:

- Highway 3: Construction of a minimum 35 metre long eastbound left-turning lane.
- Highway 140: Based on an existing condition deficiency, the length of the southbound right-turn taper should be increased to provide sufficient space for deceleration.

The Highway 3 recommendation is noted in Appendix U (Site Plan Notes) attached hereto.

## 8.14 Tree Preservation Plan (Appendix P)

A Tree Preservation Plan has been completed and is attached hereto as Appendix Q and was prepared by IBI Group, D. Giovanatto and dated October 16, 2020. CV for D. Giovanatto is attached to that report.

The Tree Preservation Plan was prepared to satisfy the following;

- Region of Niagara Official Plan  
Policy 7.B.1.19 - Core Natural Features
- City of Port Colborne Official Plan  
Policy 4.1.2.5 - Natural Heritage Features:

Within the defined Limit of Extraction as identified on the Site Plans, and specifically within the proposed Phase 2, the Natural Environment Report (Appendix L) observed and defined an area referenced as FOD7-2 (Fresh-Moist Ash Lowland Deciduous Forest). This woodlot is located immediately south of an existing municipal drain, East Wignell Drain, which follows the southern boundary of the SWD3-2 feature and continues in a south-east direction to the eastern site boundary through a mixed deciduous swamp/deciduous forest located adjacent the site. Further north of this feature is another deciduous forest located adjacent the eastern site boundary.

Since the trees within FOD7-2 are proposed to be removed, a Tree Preservation Plan was prepared to confirm the quality status of those trees and to ascertain impact of their potential removal.

The Tree Preservation Report separated the approximate 1.2 Ha. FOD7-2 woodlot into three separate Vegetation Units, (A, B, and C), with A and B corresponding to and paralleling the Wignell Drain and Vegetation Unit C reflecting the larger woodlot unit. Overall, the woodlot contains 454 trees and includes the following variety of species:

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Manitoba Maple	Pear
Silver Maple	White Spruce
White Birch	White Pine
Shagbark Hickory	White Oak
Hawthorn Sp.	Swamp White Oak
Green and Red Ash	Red Oak
Eastern Red Cedar	Pin Oak
Eastern Larch	Willow
Eastern Cottonwood	Eastern White Cedar
Trembling Aspen	White Elm

In summary, the Tree Preservation Report concluded that “Trees located within FOD7-2 community including Vegetation Units ‘A’, ‘B’, and ‘C’ are recommended for removal to permit the Phase 2 extraction work of the proposed quarry expansion. The presence of Emerald Ash Borer damage, high occurrence of Ash trees, pioneer species and possible restoration plantings, within the study area as well as the relatively young age of the trees present on site contribute to a low preservation priority for the FOD7-2 feature.

The Report also provide numerous recommendations for tree protection for the surrounding woodlot areas that are to be retained.

## 8.15 Visual Impact Study (Appendix Q)

A Visual Impact Study has been completed and is attached hereto as Appendix P and was prepared by IBI Group by D. Sisco and dated November 2020. CV for D. Sisco is attached to this report.

The Visual Impact Study was prepared to satisfy a request by Niagara Region as part of the Pre-Submission Consultation and as per policy:

- Provincial Policy Statement 2020  
Policy 2.5 Mineral Aggregate Resources
- Growth Plan for the Greater Golden Horseshoe (2014)  
Policy 4.2.7 Mineral Aggregate Resources
- Region of Niagara Official Plan (2014)  
Policy 6.C – Mineral Resources  
Policy 14.D.5 - Implementation
- City of Port Colborne Official Plan (2017)  
Policy 10.2 Aggregate / Extractive Industrial Sites

In addition to these Policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.2.4) require the completion of this study.

Findings of the report included identifying the relevant sensitive land uses in proximity to the purposed quarry and included 20 residences and 3 transitory views. The report also evaluated the significant quarry activities prior to, during and post-extraction that have the potential to result in visual impacts to these receivers.

The Visual Impact Analysis took into account the local topography, separation distances and existing vegetation and through the preparation of eight specific cross-sections (A-A’ to H-H’), that covered five view-sheds; visual gaps in the screening were highlighted and this resulted in numerous recommendations. These recommendations included:

1. *To visually screen the Pit 3 Extension, the following is recommended:*

*Berm A: A 4.0-metre-high berm along the Second Concession frontage built with a 4:1 slope on the external side and 3:1 on the internal side*

- and with vegetation plant between the berm and boundary fence as recommended in the NEL 1-2 report.*
- Berm B: A 2.0-metre-high berm along the northern portion of the eastern property boundary with a 3:1 slope. Existing hedgerow vegetation is to be retained where possible.*
- Berm C A 2.0-metre-high berm along the northern portion of the 'eastern-tab' built with a 3:1 slope.*
- Berm D A 4.0-metre-high berm along the Miller Road frontage and extending latterly for 100.0 metres along the northern and southern property limits of the 'eastern-tab' with a 4:1 slope on the external side.*  
*Where the 4.0 metre gap is retained at the mid-frontage location in the berm for farm equipment access, a temporary minimum 2.0-metre-high berm (minimum 50.0 metres long) will be constructed behind the 4.0 metre berm at the gap location.*
- Berm E A 2.0-metre-high berm along the eastern boundary of the property extending south to Main Street and built with a 3:1 slope.*
- Berm F A 4.0 metre high along the Main Street frontage built with a 4:1 slope on the external side.*
- Berm G A 3.0-metre-high berm along the western property boundary associated with 1326 Main Street.*
- 2. During the initial 8.0 metre deep excavation lift, all stockpiles within 200.0 metres of Highway 3, Miller Road and Second Concession Road shall not exceed 10.0 metres in height.*
  - 3. Both coniferous and deciduous trees are to be planted between the berm and the Highway 3 (Main Street) and Miller Road boundary fence.*
  - 4. That all berms be immediately vegetated with a grass type legume ground cover to avoid erosion, sedimentation and dust.*

Based on the identification of the numerous viewsheds and individual visual sensitive receivers, views of the proposed Pit 3 Extension quarry for the abutting sensitive receivers have been sufficiently visually screened subject to the implementation of the above noted recommendations.

Refer also to the Visual Impact Assessment attached as Appendix Q and the Site Plan Notes included as Appendix U.

## 9 Summary and Recommendations

Port Colborne Quarries Inc. is making submissions for the re-designation, rezoning and licensing to permit aggregate extraction on 106.3 hectares (262.7 acres) of land referenced as:

Part of Lots 17, 18 and 19, Concession 2,  
(formerly Township of Humberstone)  
and Plan 59R-16702  
City of Port Colborne,  
Regional Municipality of Niagara.

The subject lands are located east of the existing PCQ properties (Pit 2 and Pit 3) that are currently licensed under the Aggregate Resources Act (ARA) to operate a Category 2- Class A Quarry Below Water, identified as Licence 4444. PCQ is requesting approval to extend the existing Pit 3 licensed operation eastward on additional lands owned by PCQ.

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The specific planning approval applications are as follows:

- Amendment to the Region of Niagara Official Plan 2014, to designate the lands as *Licensed Pits and Quarries*.
- Amendment to the City of Port Colborne Official Plan 2017, to re-designate the lands from *Agricultural to Mineral Aggregate Operation*.
- Amendment to the City of Port Colborne Zoning By-Law 6575/30/18, to:
  - Rezone lands from Agriculture to Mineral Aggregate Operation
  - To reduce the minimum setback from a Provincial Highway from 90.0 metres to 30.0 metres
  - Additional permitted use to be applied to the existing houses at 1252 Main St., 1326 Main St., and 1645 Second Concession Road, including:
    - Dwelling, detached
    - Uses structures and buildings accessory thereto.
- Application to the Ministry of Natural Resources, under the Aggregate Resources Act for a Category 2 Licence (Class A Quarry Below Water).

The annual production volume being requested is 1,815,000 tonnes, and will be extracted in three phases proceeding generally west to east from the existing Pit 3 active quarry face to Miller Road, and south to north toward Second Concession Road. Extraction will occur to a varying depth below the existing surface grade by 14.0 to 20.0 metres and 8.0 to 16.0 metres below the groundwater level. In order to extract below dewatering will occur, which will be a continuation of the existing operational method.

Initially, material extracted will be hauled westward through Pit 3, Pit 2 and to the existing processing plant located in Pit 1 (adjacent to Highway 140) and once processed, (crushed, screened, washed, blended), it will be shipped to the market via Ramey Road and Highway 140. During the extraction of Phase 1, a new processing plant will be constructed within Pit 3 and at that time, a new quarry entrance will be constructed onto directly onto Highway 3 at the Weaver Road intersection. The life of the quarry is anticipated to be 35 years.

As each portion of the quarry is progressively extracted, the completed quarry faces will begin to be progressively backfilled with side slopes varying from 2:1 to 4:1 with wetland enhancement ponds constructed at the final lake elevation. Once the quarry naturally fills with water, it will become a 177 hectare lake as it will be joined with the Pit 3 lands with a final rehabilitation use of passive recreation and ownership held by PCQ.

As identified by the Pre-Submission Consultation (April 23, 2020) and as required by the numerous applicable planning documents, (PPS, Growth Plan, Region of Niagara Official Plan and City of Port Colborne Official Plan), Port Colborne Quarries Inc. retained experts to undertake the following technical studies. Each report identified the pertinent and potential impacts to the surrounding sensitive land uses and consequently provided Operational Site Plan recommendations to ensure that all impacts would be mitigated, attenuated and/or buffered. In some situation, on-going monitoring has also been recommended (e.g. hydrologic) to ensure that during the life of the quarry, that necessary trigger levels are not breached.

Studies completed include:

- Acoustical (Noise) Impact Study (Appendix B);
- Agricultural Impact Assessment [AIA] (Appendix C);
- Air Quality Impact Study (Appendix D);
- Archaeological Assessment Stage 1 and 2 [Background Study and Property Assessment] (Appendix E i);
- Archaeological Assessment - Supplementary Documentation (Appendix E ii);
- Blasting (Vibration) Impact Study (Appendix F);

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- Cultural Heritage Screening Report (Appendix G);
- Financial Impact Assessment/Economic Benefits Report (Appendix H);
- Hydrological Assessment [Surface Water] (Appendix I);
- Hydrogeology [Groundwater] (Appendix J);
- Land Use Compatibility / Sensitive Land Use Study being a summarization of the Acoustical (noise) Impact Study, Air Quality Impact Study, and the Blasting (Vibration) Impact Study. (Appendix K);
- Natural Environment Level 1 and 2 [EIS] (Appendix L);
- Comprehensive Rehabilitation Strategy (Appendix M);
- Social Impact Assessment being a focused summarization of the following reports, Acoustical (noise), Blasting / Vibration, Traffic, Visual, and an overview of Archaeology, Cultural Heritage, Surface water, Groundwater, and Natural Environment (Appendix N);
- Traffic Impact Study [TIS] (Appendix O);
- Tree Preservation Plan (Appendix P);
- Visual Impact Assessment (Appendix Q);

The Recommendations from each of these reports are highlighted in the Site Plan Notes which are attached hereto as Appendix U.

## 10 Conclusion

As a result of the design techniques used in the Site Plans, with the inclusion of the recommendations from all the technical studies, it is our opinion that all potential impacts have been identified and will be minimized to acceptable levels.

In conclusion, it is recommended that this Planning Summary Report in conjunction with the appendices, fulfills the requirements of the Regional and Township Official-Plan policies and that this be the basis for approving all the land-use planning applications and the ARA Class A – Category 2 Licence.

Yours truly

IBI GROUP



David R. Sisco, BA, MCIP, RPP  
Senior Planner

DRS/baw  
Encl.



I hereby certify that this Planning Justification Report was prepared by a Registered Professional Planner, within the meaning of the Ontario Professional Planner's Institute Act, 1994.

Feb. 17<sup>th</sup> 2021  
Date

  
David R. Sisco, BA, MCIP, RPP