

KITCHENER WOODBRIDGE LONDON KINGSTON BARRIE BURLINGTON

PLANNING JUSTIFICATION **REPORT** & AGGREGATE RESOURCES ACT **SUMMARY STATEMENT** CHILDS PIT/QUARRY EXTENSION

Date:

June 2020

Prepared for:

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TABLE OF CONTENTS

1.0 EX	ECUTIVE SUMMARY	3	
2.0 IN	2.0 INTRODUCTION		
2.1	The Existing Childs Pit/Quarry	7	
2.2	Proposed Childs Pit/Quarry Extension	8	
2.3	Pre-Consultation	10	
2.4	Required Applications	10	
2.4.1	Childs Pit/Quarry Extension Applications	10	
2.4.2	Existing Childs Pit/Quarry Applications	10	
2.5	List of Technical Reports	11	
3.0 SIT	E DESCRIPTION AND SURROUNDING LAND USES	12	
3.1	Description of the Subject Site	12	
3.1.1	On Site and Adjacent Mineral Aggregate Resource	13	
3.1.2	On Site and Adjacent Agricultural Uses	13	
3.1.3	On Site and Adjacent Cultural Heritage Resources	14	
3.1.4	On Site and Adjacent Natural Heritage Features	14	
3.1.5	On-Site and Adjacent Water Resources	21	
3.2	Surrounding Land Uses	22	
3.3	Mitigation Measures to Minimize Impacts on Surrounding Land Uses	23	
3.3.1	Wells	23	
3.3.2	Noise	25	
3.3.3	Blasting		
3.3.4	Dust	27	
3.3.5	Traffic	27	
4.0 PL	ANNING ANALYSIS		
4.1	Provincial Policy Statement (2020)		
4.2	District of Muskoka Official Plan (2019 Consolidation)		
4.3	Town of Bracebridge Official Plan (2013)	43	
4.4	Town of Bracebridge Zoning By-Law 2016-088		
5.0 AG	GREGATE RESOURCES ACT SUMMARY STATEMENT		
5.1	Site Plans	49	
5.2	Technical Reports	49	
5.3	Summary Statement: Required Information	50	
5.3.1	Planning and Land Use Considerations – Standard 2.1.1	50	
5.3.2	Agricultural Classification of the Proposed Site – Standard 2.1.2	52	
5.3.3	Quality and Quantity of Aggregate On site – Standard 2.1.3	52	
5.3.4	Main Haulage Routes and Proposed Truck Traffic – Standard 2.1.4	52	
5.3.5	Progressive and Final Rehabilitation – Standard 2.1.5	53	
6.0 CONCLUSIONS			

1

LIST OF FIGURES

Figure 1	Location Map
Figure 2	Fowler Land Holdings
Figure 3	Aerial Context
Figure 4	Surrounding Land Uses
Figure 5	Operational Phasing Plan
Figure 6	Rehabilitation Plan
Figure 7	District of Muskoka Land Use Plan
Figure 8	District of Muskoka Natural Heritage Features and Areas
Figure 9	District of Muskoka Aggregate Resource Areas
Figure 10	District of Muskoka Transportation System
Figure 11	District of Muskoka Archaeological Potential
Figure 12	Town of Bracebridge Land Use Plan
Figure 13	Town of Bracebridge Transportation System
Figure 14	Town of Bracebridge Environmental Features and Constraints
Figure 15	Provincial Aggregate Resource Inventory Paper #182
Figure 16	Town of Bracebridge Zoning By-law 2016-088

LIST OF APPENDICES

- Appendix A Pre-Consultation Record
- Appendix B Proposed Draft Zoning By-law Amendment
- Appendix C Ministry of Tourism, Culture and Sport Clearance Letter
- Appendix D Curriculum Vitae

June 2020

2

1.0 **EXECUTIVE SUMMARY**

Fowler Construction Company Ltd. (Fowler) owns and operates the existing Childs Pit/Quarry which is located on Bonnie Lake Road in the Town of Bracebridge in the District of Muskoka. The existing quarry has a licence area of 234.7 hectares and is permitted to extract an area of 202 hectares.

Fowler is applying for a Category 1 Class A licence and a Category 2, Class A licence under the Aggregate Resources Act (ARA), and a Town of Bracebridge Zoning By-law Amendment under the Planning Act to permit an extension to their existing Childs Pit/Quarry. The proposed license area is 163.1 hectares and the proposed extraction area is 143.2 hectares.

The subject site is already designated in the Town of Bracebridge Official Plan to permit Aggregate Extraction. The existing Childs Pit/Quarry is permitted to operate a pit and quarry concurrently, however based on the geology of the site the bedrock is located underneath the sand and gravel where on-site operations have commenced. The proposed extension lands are located directly to the south of the existing pit operation and contain bedrock that is accessible to commence quarry operations in this location.

The proposed Childs Pit/Quarry Extension has been designed with a phasing plan that is integrated with the existing Pit/Quarry to minimize site disturbance, allow concurrent extraction of the pit and quarry and utilize the existing processing plant for both the existing operation and extension.

Operating a pit and quarry concurrently is important to Fowler to conserve the available high quality sand and gravel resources on-site which is a limited commodity based on the geology of the area. In addition, sand and gravel and bedrock have different quality specifications and certain projects in the municipality require products that originate from either a sand and gravel pit or a bedrock quarry. Extracting both resources from a centralized location will assist Fowler in being able to supply the required aggregate products for construction activities, infrastructure projects and winter maintenance.

The final rehabilitated landform for the extension takes into consideration the approved rehabilitation plan for the existing quarry, surrounding land uses and natural heritage features. The proposed rehabilitation plan for the extension results in the creation of a 35.3 hectare lake with shoreline wetlands, 92.9 hectares of terrestrial habitat with areas of talus slopes and cliff faces, and 15 hectares of wetland. The application also results in the immediate creation of 4.2 hectares of wetland located to the west of the existing quarry.

The proposal is consistent with the Provincial Policy Statement, conforms to the District of Muskoka Official Plan and the Town of Bracebridge Official Plan and has regard to matters of provincial interest laid out in the Planning Act for the following reasons:

1. The site is designated Aggregate Extraction in the Town of Bracebridge Official Plan. This designation recognizes land holdings that contain mineral aggregate resources which have the potential to be licensed under the Aggregate Resources Act.

- 2. Making the proposed extension area available for aggregate extraction represents the wise use and management of resources, providing economic benefits, while minimizing potential social and environmental impacts;
- 3. The proposed extension contains approximately 78 million tonnes of a high quality aggregate resource that is used in DFC asphalt mixes for the skid-resistant surfacing of provincial highways and high quality concrete mixes. The aggregate is also suitable for road building and construction projects for the local market;
- 4. The Provincial Policy Statement and District of Muskoka Official Plan permit the extraction of mineral aggregate resources in the rural area;
- 5. The Town of Bracebridge Zoning By-law zones the majority of the site within the Extractive Industrial Quarry zone to be utilized for aggregate extraction. A Zoning By-law amendment is required to remove the special exception and permit extraction.
- 6. Aggregate extraction is an established use in the area and the application is located directly adjacent to the existing Childs Pit/Quarry;
- 7. The operation is appropriately designed, buffered and/or separated from sensitive land uses to minimize impacts;
- 8. A Water Resources Study has been completed and confirmed that the on-site extraction will not negatively impact surrounding groundwater and surface water quality and quantity. Water resources will be continuously monitored throughout the life of the operation and protected from potential impacts. The proposed extension will not adversely impact surrounding wells;
- 9. A Natural Environment Study has been completed and confirmed the on-site extraction will not negatively impact significant natural features, including the Muskoka River and Sage Creek. Avoidance and mitigation measures will be utilized to protect on site and adjacent natural heritage features;
- 10. A Noise Impact Assessment has been completed and the site has been appropriately designed to ensure provincial noise limits will be met at surrounding sensitive receptors;
- 11. A Blasting Impact Assessment has been completed and concludes blasting operations at the site can be carried out safely and within provincial guidelines to protect surrounding buildings and structures;
- 12. An Archaeological Report has been completed and confirms the site does not contain significant cultural heritage resources and is clear of archaeological potential;
- 13. The proposed extension area is not considered a prime agricultural area and does not contain prime agricultural land;
- 14. The proposed extension represents the efficient use of existing infrastructure. The aggregate from the proposed extension will be shipped via the existing entrance / exit and

Fowler Construction Company Ltd. – Childs Pit/Quarry Extension Planning Justification Report and Aggregate Resources Act Summary Statement haul route along Bonnie Lake Road. A Traffic Review has been completed to address transportation impacts, including the site access, site traffic volumes and to assess the potential impacts to the adjacent road network; and

15. The proposed extension area will be rehabilitated to a lake, wetland, and terrestrial habitat that has been designed to protect and enhance adjacent natural heritage features.

2.0 introduction

Fowler Construction Company Ltd., ("Fowler") owns and operates over 30 pits and quarries throughout Parry Sound, Muskoka and Haliburton including the Childs Pit/Quarry (licence #618881) located on Bonnie Lake Road in the Town of Bracebridge. The existing operation is approved under the Aggregate Resources Act (ARA) with a licence area of 234.7 hectares and an extraction area of 202 hectares. Please see **Figure 1** for a location map of the Childs Pit/Quarry.

Fowler is applying for a Category 1 Class A licence and a Category 2, Class A licence under the Aggregate Resources Act (ARA), and a Town of Bracebridge Zoning By-law Amendment under the Planning Act to permit an extension to their existing Childs Pit/Quarry.

The proposed extension is located directly south-east of the existing Childs Pit/Quarry. The area of the proposed extension to be licenced under the ARA is 163.1 hectares and the proposed extraction area is 143.2 hectares. The existing Childs Pit/Quarry and proposed extension are located on Part of Lots 13 to 17, Concession 9, Lots 13 to 16, Concession 10, Lots 14 to 16, Concession 11, Part of Lots 14 and 15, Concession 12, including the road allowances between Lots 15 & 16, Concession 9 to 11, and the road allowance between lots 14, 15 & 16, Concession 10 & 11, Macaulay Ward of the Town of Bracebridge, District of Muskoka. Please see **Figures 2 and 3** for Fowler's land holdings around the existing Childs Pit/Quarry.

Fowler owns 89.3 hectares of additional lands adjacent to the existing operation and the proposed extension. The majority of these lands are designated Aggregate Extraction in the Town of Bracebridge Official Plan. Fowler's vision for these lands include:

- On 65.8 hectares Fowler has submitted Severance and Zoning Bylaw Amendment applications to the Town of Bracebridge to rezone lands surrounding Sage Creek to environmental protection. If the applications are approved, Fowler proposes to convey the 65.8 hectares to the Muskoka Conservancy for long term environmental protection.
- The remaining 23.5 hectares of additional lands would remain as buffer lands to Sage Creek and the Muskoka River. These lands are vacant, forest covered lands. No new uses are proposed for these lands and they are not included in the Aggregate Resources Act or Planning Act applications.

This report provides a summary of the existing Pit/Quarry, the proposed extension, and the conclusions and recommendations of the associated technical reports. This report also provides a summary and analysis of planning policy applicable to the site, which includes the Provincial Policy Statement, District of Muskoka Official Plan, and Town of Bracebridge Official Plan. Regulations and legislative requirements in the Town of Bracebridge Zoning By-law have also been considered. The Aggregate Resources Act Summary Statement, as required for the Aggregate Resources Act application is also included in this report.

2.1 THE EXISTING CHILDS PIT/QUARRY

Fowler owns and operates the existing Childs Pit/Quarry (licence no. 618881) located at Part Lot 13, Concession 9, and Part Lot 13 and Lot 14, Concession 10, and Lots 14, 15 & 16, Concession 11, and Part Lots 14 & 15, Concession 12, including Road Allowance between Lots 15 & 16, Concession 11, and Road Allowance between Concessions 10 & 11 in front of lots 14, 15 & 16, in the Town of Bracebridge (Geographic Township of Macaulay), District of Muskoka.

The existing Pit/Quarry is located on Bonnie Lake Road, approximately 3 km north of Highway 117. The existing licence boundary is approximately 1 km east of Highway 11 and approximately 1.2 km west of Bonnie Lake Resort. The Muskoka River flows in a north-south direction to the west of the site and the Sage Creek flows in an east-west direction to the south of the site. See **Figure 4** for the surrounding land uses within 500 m of the existing Pit/Quarry and proposed extension.

The existing Childs Pit/Quarry has an approved licence area of 234.7 hectares and an extraction area of 202 hectares. The site is licenced as both a pit and a quarry because it contains both sand and gravel and bedrock resources. The bedrock resource is located beneath the sand and gravel resource. Extraction of bedrock has occurred on-site but the majority of current operations involve extracting the sand and gravel resource.

The site is accessed from an entrance/exit on Bonnie Lake Road via an internal haul route through the extension lands. The primary haul route for the Pit/Quarry is to have trucks travel south from the site along Bonnie Lake Road towards Highway 117. The truck traffic either travels west towards Highway 11, or east on Highway 117. The site is licenced to ship an unlimited amount of aggregate annually.

The site is permitted to operate Monday to Sunday, 24 hours per day, excluding statutory holidays. The existing licence allows for blasting and processing on site, and processing equipment is currently located on the pit floor in the central portion of the site. The approved site plans permit blasting between 8am and 6pm and not on holidays.

A north-south hydro corridor bisects the licenced area. The hydro corridor is subject to a 75 foot (22.9 m) wide easement in favour of the Hydro Electric Power Commission of Ontario (now Hydro One). Extraction is not permitted within 15 feet (4.6 m) of the base of each hydro tower but is permitted within the remainder of the easement area to occur at a 2:1 slope away from the base of each tower until a depth of 30 feet (10 m) is reached. The lands subject to this easement will remain above water to provide access to the hydro towers and lines.

The existing Pit/Quarry is to be extracted in four phases and is permitted to extract aggregate below the water table to depths of 190 masl on the west side of the hydro corridor and 195 masl on the east side of the hydro corridor. Sand and gravel are currently being extracted within Phase 1 and a portion of Phase 2.

The existing Pit/Quarry is approved for rehabilitation to two lakes that are divided by the hydro corridor. The lake east of the hydro corridor is the larger of the two lakes and will have a final lake elevation of +/- 295 masl. The second lake is west of the hydro corridor and will have a final lake elevation of +/- 290 masl. Both lakes will be approximately 100 m deep and clean inert fill is permitted to be imported to help facilitate the rehabilitation.

2.2 PROPOSED CHILDS PIT/QUARRY EXTENSION

The Childs Pit/Quarry Extension is proposed as an expansion to the existing Childs Pit/Quarry. The area proposed to be licenced under the Aggregate Resources Act is 163.1 hectares and the proposed extraction area is 143.2 hectares. The 19.9 hectares that are included within the licenced area but not proposed for extraction will be used for setbacks and buffers, retention of existing Sage Creek tributary lands, vegetated acoustic berms and monitoring wells.

The extraction area will be setback 30 metres from adjacent rural residential properties east of the site and 15 metres along most of the southern limits. A 0 metre setback is proposed along the common boundaries adjacent to the existing Childs Pit/Quarry. A site plan amendment to the existing Childs Pit/Quarry will be required to allow for extraction of the common setbacks and to integrate the proposed operations and rehabilitation plan.

The proposed extension will have the same hours of operation and utilize the existing entrance/exit and in the future, a relocated entrance/exit and the existing haul route as the Childs Pit/Quarry. Based on the recommendations of the noise report the existing entrance/exit is proposed to be relocated when the operation exceeds a certain amount of trucks per hour. The proposed location is suitable from a sight line and safety perspective and will require an entrance permit from the District of Muskoka. The main haul route for the Childs Pit/Quarry is trucks travel south on Bonnie Lake Road towards Highway 117 and then either travel west towards Highway 11, or east on Highway 117.

Within the District of Muskoka there are +/- 60 Class A mineral aggregate operations (permitted to ship more than 20,000 tonnes per year) and many of these operations are permitted to ship an unlimited amount of aggregate each year, including the existing Childs Pit/Quarry. In 2018, all of the aggregate operations (Class A and Class B) in the District of Muskoka combined for a total of 2.38 million tonnes of aggregate being shipped to market. Over the past 10 years the District of Muskoka produced on average 2.25 million tonnes per year.

For the extension, Fowler is applying for a maximum tonnage limit of 2,000,000 tonnes per year. Current shipping levels at the existing Childs Pit/Quarry are well below this. However, this tonnage limit was established to proactively assess any road improvements that would be required in the event that shipping levels significantly increased in the future, which is already permitted to occur at the existing site.

The existing Childs Pit/Quarry is permitted to operate a pit and quarry concurrently, however based on the geology of the site the bedrock is located underneath the sand and gravel where on-site operations have commenced. The proposed extension lands are located directly to the south of the existing pit operations and contain bedrock that is accessible to commence quarry operations in this location.

The proposed Childs Pit/Quarry Extension has been designed with a phasing plan that is integrated with the existing Pit/Quarry to minimize site disturbance, allow concurrent extraction of the pit and quarry and utilize the existing processing plant for both the existing operation and extension.

The extension has been designed to be extracted in two phases (Phase A and Phase B). Each phase contains two sub-phases (Phase A1 and A2, and Phase B1 and B2). Quarry operations will commence in Phase A of the extension lands and proceed in a southerly direction. Extraction of the bedrock within the extension lands will allow the existing pit operation in the existing site to continue. The operational plan of the proposed Pit/Quarry Extension is included as **Figure 5**.

Phase A1 occupies the north-western portion of the site and will be extracted in four lifts to a depth of +/- 270 masl. Phase A2 is located east of the initial phase and will be extracted in two lifts to a depth of +/- 300 masl. Phase B1 occupies the majority of Phase B in the south-east portion of the site and will be extracted in one lift to a depth of +/- 320 masl. Phase B2 occupies the south-western portion of the site, is bisected by the hydro corridor and will be extracted in one lift to a depth of +/- 310 masl. Phases B1 and B2 consist of shallow extraction to ensure the site is operated and rehabilitated to passively maintain surface water flow from the site to Sage Creek.

The existing Childs Pit/Quarry Aggregate Resources Act site plans permit extraction in Phases 1 – 4 to an elevation of 195 masl (except within the Hydro Corridor). Extraction within the proposed extension is proposed to be operated as an integrated site with the existing Childs Pit/Quarry and will remain above the permitted extraction depths in the existing Childs Pit/Quarry for several decades. For the purpose of the impact assessments, including water resources, an initial extraction depth has been designed for the existing operation. Phases 1 and 2 have been divided into subphases: 270 masl in Phase 1A; 255 masl in Phase 1B; 300 masl in Phase 2A; 255 masl in Phase 2B; 310 masl in Phase 2C; 255 masl in Phase 3; and 240 masl in Phase 4.

Fowler will stay above these extraction depths for several decades, and when extraction in the existing Childs Pit/Quarry proceeds below these depths, Fowler is required to obtain an updated Environmental Compliance Approval (ECA) and Permit to Take Water (PTTW) from the Ministry of Environment, Conservation and Parks (MECP) to ensure operations do not adversely impact surrounding water resources and wells.

Throughout the life of the operation, a portable primary crusher is permitted within all phases at the active quarry face, except for a portion of Phase B. Aggregate from the active quarry face will be transported to the main processing plant by a conveyor and/or haul trucks. The main processing area includes a processing plant, wash ponds and aggregate stockpiles.

Operational controls such as setbacks, restrictions on the type and location of equipment, and requirements for berms and localized shielding have been incorporated into the Aggregate Resources Act Site Plans based on recommendations of the various technical reports. These mitigation measures will ensure the proposed extension does not result in unacceptable impacts on surrounding sensitive residences, water resources and natural heritage features.

Rehabilitation of Phase A1 of the extension includes a lake to be integrated with the larger rehabilitated lake in the existing Pit/Quarry. Phase A2 will be progressively rehabilitated to terrestrial habitat and wetland and Phases B1 and B2 will be progressively rehabilitated to terrestrial habitat. Rehabilitation in Phase A2 will also include minor excavation below 300masl to allow for some deeper portions of the proposed wetland to maximize the diversity and ecological function of the feature.

The final rehabilitated landform for the extension takes into consideration the approved rehabilitation plan for the existing quarry, surrounding land uses and natural heritage features. The proposed rehabilitation plan for the extension results in the creation of a 35.3 hectare lake with shoreline wetlands, 92.9 hectares of terrestrial habitat with areas of talus slopes and cliff faces, and 15 hectares of wetland. The application also results in the immediate creation of 4.2 hectares of wetland located to the west of the existing quarry. The Rehabilitation Plan for the proposed Pit/Quarry Extension is included as Figure 6.

2.3 **PRE-CONSULTATION**

Fowler commenced pre-consultation with the Town of Bracebridge in 2016 and completed a preconsultation meeting with the District of Muskoka, Town of Bracebridge and Ministry of Natural Resources and Forestry (MNRF) on May 08, 2020 to confirm the required applications, technical studies and review process.

Please see **Appendix A** for a copy of the pre-consultation record.

2.4 **REQUIRED APPLICATIONS**

2.4.1 Childs Pit/Quarry Extension Applications

The following applications are required in order to permit extraction, as proposed, from the Childs Pit/Quarry Extension Site:

- Aggregate Resources Act licence application for a Category 2, Class A Licence (Quarry Below Water) and a Category 1, Class A Licence (Pit Below Water); and,
- An amendment to the Town of Bracebridge Zoning By-law 2016-88 to rezone the site Extractive Industrial Quarry Exception XX (MEQ-XX) to permit the extraction of aggregate resources from the site. A proposed draft Zoning By-law Amendment is attached as **Appendix B**;

The MNRF is the approval authority for the application under the Aggregate Resources Act and the Town of Bracebridge is the approval authority for the Zoning By-law Amendment application.

2.4.2 Existing Childs Pit/Quarry Applications

To integrate the proposed Childs Pit/Quarry Extension into the existing Childs Pit/Quarry, a future Ministry of Natural Resources and Forestry Aggregate Resources Act Site Plan Amendment will be required. The Site Plan Amendment application will:

• Include a reduced setback along the common boundary of the existing Childs Pit/Quarry and the proposed Childs Pit/Quarry Extension from 10m and 3m to 0m to facilitate an integrated operation and rehabilitation plan;

- Allow aggregate extracted from the proposed Childs Pit/Quarry Extension to be processed at the existing Childs Pit/Quarry;
- Allow aggregate from the existing Childs Pit/Quarry to be transported through the proposed Childs Pit/Quarry Extension for shipping to market;
- Allow for topsoil / overburden to be transferred between each site to facilitate timely rehabilitation; and
- Allow for processing and stockpiling of aggregate along the common boundary of the existing Childs Pit/Quarry and the proposed Childs Pit/Quarry Extension.

2.5 **LIST OF TECHNICAL REPORTS**

Fowler's Childs Pit/Quarry Extension has been designed based on the recommendations and mitigation measures provided in the completed technical reports. These reports provide the basis of the operational controls and design of the proposed extension and have been considered in preparing this report.

Based on the pre-consultation meeting with the agencies, the following reports and plans have been submitted to constitute a complete application:

- 1) Aggregate Resources Act Site Plans for the proposed Childs Pit/Quarry Extension, prepared by MHBC, dated June 2020;
- 2) Level 1 and Level 2 Hydrogeology and Hydrology Report, Golder Associates Ltd., dated June 2020;
- 3) Level 1 and Level 2 Natural Environment Report, Riverstone Environmental Solutions Inc. dated June 2020;
- 4) Stage 2 Archaeological Assessment, Kinickinick Heritage Consulting., dated December 07, 2012;
- 5) Noise Impact Assessment, prepared by HGC Engineering, dated June 2020;
- 6) Blasting Impact Assessment, Explotech Engineering Ltd., dated June 2020;
- 7) Traffic Review, Tatham Engineering Limited, dated June 2020;
- 8) Planning Justification Report, prepared by MHBC, dated June 2020;

11

3.0 SITE DESCRIPTION AND SURROUNDING LAND USES

3.1 **DESCRIPTION OF THE SUBJECT SITE**

The existing Pit/Quarry is located on Bonnie Lake Road, approximately 3 km north of Highway 117, in the Town of Bracebridge, District of Muskoka. The Pit/Quarry is situated east of the Muskoka River, north of the Sage Creek and west of Bonnie Lake Resort.

The proposed extension area is predominately vacant forested land and wetlands and is located adjacent to the south and east boundary of the existing Childs Pit/Quarry.

The topography of the site consists of hilly terrain with elevations ranging from a high of approximately 335 masl to a low of approximately 295 masl. The site has multiple peaks and valleys but generally drains north and west towards the Muskoka River, and south towards the Sage Creek. Adjacent lands surrounding Sage Creek and the Muskoka River contain steep slopes down to approximately 275 masl in certain spots.

No buildings or structures currently exist on the site. The existing Pit/Quarry utilizes an existing internal haul route through the extension lands to access the entrance/exit on Bonnie Lake Road. A hydro corridor bisects the western portion of the existing Pit/Quarry and proposed extension in a north-south direction. The land within this corridor is subject to an easement in favour of Hydro One.

The District of Muskoka Official Plan designates the extension lands as "Rural Area" (Schedule A). See **Figure 7**. The District of Muskoka Official Plan also identifies the extension lands as:

- Being outside of Regulated Habitat, Areas of Natural and Scientific Interest, and Provincially Significant Wetlands (Schedule C1) and Significant Wildlife Habitat (Schedule C2);
- Containing Natural Heritage Features including wetlands and a Muskoka Heritage Area locally known as the Sage Creek Subaquatic Fan (Schedule C2). See **Figure 8**;
- Outside of identified Source Water Protection areas and municipal intake, outfall and well infrastructure, and not containing any waterbody features (Schedule D);
- Partially containing and adjacent to a sand and gravel resource area of primary significance (Schedule E1). See **Figure 9**;
- Being located on a Class B District Road known as Muskoka Road 46 (Bonnie Lake Road) (Schedule F). See **Figure 10**; The existing haul route also utilizes Highway 117, which is identified as a Class A District Road and Highway 11 is a Provincial Highway;

• Being identified as an area of moderate to high archaeological potential (Schedule G). See **Figure 11**.

The Town of Bracebridge designates the extension lands as Aggregate Extraction (Schedule A). See **Figure 12**. The Town Official Plan also identifies the extension lands as:

- Being located on a District Road (Bonnie Lake Road/Muskoka Road 46) (Schedule C1). See **Figure 13**;
- As containing Environmental Features including wetlands and a Muskoka Heritage Area (Appendix A). See **Figure 14**.

3.1.1 On Site and Adjacent Mineral Aggregate Resource

The Childs Pit/Quarry contains a high quality aggregate product that has been approved by the Ministry of Transportation for use in DFC asphalt mixes and high quality concrete mixes. This high quality aggregate product is also used for skid-resistant surfacing of provincial highways. Fowler has completed on-site testing of the aggregate potential on the extension lands which have confirmed the extension lands contain the same high quality aggregate materials as the existing Pit/Quarry. The quarry is also able to produce aggregate products suitable for most road building and construction projects.

The District Official Plan and the Province's Aggregate Resources Inventory Paper #182 (ARIP #182) identify the existing Pit/Quarry as being located within a sand and gravel resource area of primary significance. See **Figures 9 and 15**. A small pocket in the northern portion of the extension lands is also located within this identified resource area. The District Official Plan and ARIP #182 do not identify or select bedrock resource areas because Muskoka is underlain by Precambrian gneissic rock that exhibits wide variations in lithology and aggregate quality. Instead, ARIP #182 provides a description of rock lithology and aggregate quality test data for selected bedrock samples.

Due to the proximity of the extension to the existing quarry, on site testing has been completed which confirmed that the quality of the aggregate located within the proposed extension area is the same high quality aggregate currently extracted in the existing pit/quarry. The proposed extension area contains approximately 78 million tonnes of high quality aggregate resources.

The ARIP #182 states the easily accessible sand and gravel deposits in the District are largely depleted and there are few remaining undeveloped resources that are capable of supplying large volumes of crushable granular material due to pervious extraction activity and cultural constraints. Establishing a quarry operation adjacent to the existing pit operation allows Fowler to manage the available on-site sand and gravel resource while also making available the necessary bedrock resource.

3.1.2 On Site and Adjacent Agricultural Uses

The proposed extension and surrounding area are located within the Canadian Shield, predominantly forested and are not used for agricultural purposes. The site contains a shallow layer

of overburden on top of the bedrock and in some areas of the site, the bedrock is exposed at the surface.

Due to this, the site is not considered prime agricultural soil and the proposed extension and surrounding areas are not considered a prime agricultural area. The District of Muskoka does not contain prime agricultural land, as identified in Section J3.4 of the District Official Plan. The extension lands and existing Pit/Quarry are designated "Rural Area". See **Figure 7**.

3.1.3 On Site and Adjacent Cultural Heritage Resources

Within Ontario, cultural heritage resources consist of archaeological resources, built heritage resources, and cultural heritage landscapes. Significant cultural heritage resources are identified as resources that are valued for the important contribution they make to our understanding of the history of a place, an event, or a person.

Provincial, District and Town policies require that significant built heritage resources and significant cultural heritage landscapes be conserved and that significant archaeological resources are identified, assessed and conserved by removal and documentation, or by preservation on site.

There are no significant built heritage resources and no identified significant cultural heritage landscapes identified within the existing Pit/Quarry and the proposed extension licenced boundary.

Kinickinick Heritage Consulting, conducted a Stage 2 Archaeological Assessment for the proposed extension lands owned by Fowler. Based on the study there was no evidence of significant archaeological resources within the proposed extension lands.

Kinickinick Heritage Consulting concluded that:

- No archaeological material was found during the investigation;
- The proposed extension area will not impact or affect any archaeological material or cultural heritage resources; and,
- Based on the negative results of the field assessment, the proposed extension area be clear of heritage concern.

The Ministry of Culture, Tourism and Sport, has reviewed the above noted report and issued a clearance letter dated November 23, 2015. See **Appendix C** for a copy of the letter.

3.1.4 On Site and Adjacent Natural Heritage Features

The existing Pit/Quarry and the proposed extension are designated "Rural Area" in the District of Muskoka Official Plan and "Aggregate Extraction" in the Town of Bracebridge Official Plan. See **Figure 7** for the District of Muskoka Land Use mapping and **Figure 12** for the Town of Bracebridge Land Use mapping.

The District and Town have identified that the site contains wetlands and a Muskoka Heritage Area locally known as the Sage Creek Subaquatic Fan. See **Figures 8 and 14**. The District mapping

identifies that the site does not contain Regulated Habitat, Areas of Natural and Scientific Interest, Provincially Significant Wetlands or Significant Wildlife Habitat.

Riverstone Environmental Solutions Inc. completed a detailed ecological impact assessment for the proposed extension lands and 120 metres surrounding the extension lands (known as the "study area"). This report was prepared in collaboration with Golder Associates Ltd., who completed a detailed groundwater and surface water assessment of the existing Pit/Quarry, proposed extension and surrounding area.

The proposed extension lands are typical of the rural landscape on the Canadian Shield. The site contains forested land, wetland areas and exposed granite. Based on collected background information and multiple site investigations, the Natural Environment Report has confirmed that the following natural features of conservation interest are present within the study area:

- Habitat of Endangered and Threatened Species;
- Significant Wildlife Habitat;
- Fish Habitat;
- Other wetlands; and
- Sage Creek Subaquatic Fan

The report has confirmed that the following natural features of conservation interest are not present within the study area:

- Significant Wetlands; and,
- Significant Areas of Natural and Scientific Interest.

The site is located within Ecoregion 5E as identified by the Provincial Policy Statement (2020) which does not require the consideration or identification of Significant Woodlands and Significant Valleylands in the preparation of the Natural Environment Report or in land use considerations.

The site specific ecological surveys identified three endangered or threatened species to be present within the study area that had the potential to be impacted by the proposed Pit/Quarry. These species include one threatened snake species (Eastern Hog-nose Snake) and two endangered bat species (Little Brown Bat and Northern Long-eared Bat).

The surveys identified three Significant Wildlife Habitat features or communities present within the study area that have the potential to be impacted by the proposed Pit/Quarry. These features or communities include:

- 1. Seasonal Concentration Areas of Animals
 - o Turtle Wintering Areas
- 2. Specialized Habitats for Wildlife
 - o Turtle and Lizard Nesting Areas
 - o Seeps and Springs
- 3. Habitat of Species of Conservation Concern
 - o Special Concern and Rare Wildlife Species
 - Snapping Turtle

- Eastern Ribbonsnake
- Canada Warbler
- Eastern Wood-pewee

The surveys identified direct fish habitat (spawning, rearing, feeding, and cover habitat) and indirect fish habitat, including intermittent and permanent watercourses that contribute food, water, and/or nutrients to downstream habitats within the study area that have the potential to be impacted by the proposed Pit/Quarry.

During on-site investigations it was concluded that the Sage Creek is a direct coldwater habitat for Brook Trout and other fish species. Five small tributaries are located within the proposed licenced area that drain to the Sage Creek. These tributaries were observed at various times of the year to determine their significance, and the ecological and water resources investigations recommended the protection of three of these tributaries. The proposed site plans have incorporated this recommendation and excluded the three tributaries and an associated wetland from the southern extraction boundary in Phase B.

There is also one tributary located within the proposed extension area that currently drains through the existing Childs Pit/Quarry to the Muskoka River. The portion of the tributary within the Childs Pit/Quarry is approved for extraction and the tributary on the extension lands will be intercepted by the existing operation and discharged off-site to the Muskoka River in accordance with Ministry of Environment, Conservation and Parks permits. This tributary is not considered direct fish habitat and removal of this feature will not result in direct impacts to fish in the Muskoka River.

The Sage Creek Subaquatic Fan is located along the north branch of the Muskoka River with a portion of the feature extending into the western portion of the existing Childs Pit/Quarry and a small portion of the proposed licenced boundary. Removal of the portion of the Fan within the proposed extraction limit is not anticipated to result in negative impacts to the natural environment as it is related to Muskoka Heritage Areas.

The on-site investigations identified that seven wetland communities totaling 14.9 hectares will be removed as a result of extraction. These communities are not considered significant and are representative of typical wetlands within Muskoka and across the Canadian Shield. Several of these wetland communities extend off the site to the east on adjacent lands. These wetlands are not fed by the shallow groundwater table present in the bedrock and removal of a portion of these communities will not result in negative impacts to the remaining off-site portions of the wetlands. To ensure no negative impacts to wetlands, the application includes 4.2 hectares of immediate wetland replacement along the Muskoka River Tributary and an additional 15 hectares of wetland communities to be developed as part of the rehabilitation plan.

To protect the ecological features and associated functions identified in the Natural Environment Report from negative impacts, the following avoidance and mitigation measures have been recommended:

Water Quality and Quantity

• The Environmental Compliance Approval be designed to protect the quality and quantity of water discharged to MR-North to protect fish and fish habitat.

- As illustrated on the Aggregate Resources Act Site Plans, the tributaries to Sage Creek, the associated wetland and a vegetated buffer should be excluded from the extraction area. The buffer/catchment area should be well-marked prior to the commencement of pit and quarry operations, and the buffer should remain in its natural state.
- Quarry discharge outlets, stormwater management ponds, and/or mitigation measures must be designed to maintain the chemical and thermal water quality properties supporting Brook Trout spawning and summer refugia habitat identified in Sage Creek and its tributaries through the Brook Trout Monitoring Program. The design and monitoring of these elements will be approved through a Permit to Take Water or Environmental Compliance for Industrial Sewage Works from the Ministry of Environment, Conservation and Parks.
- Appropriate sediment and erosion control measures should be used to prevent the erosion of unstable soils and the movement of sediment into watercourses; these measures should be in place prior to soil exposure and should be maintained whenever exposed soils are present.
- All stockpiled aggregates should be stored in a location that will prevent the movement of sediment laden runoff into the buffers, watercourses, and wetlands.
- All stockpiled topsoil/overburden should be stabilized as quickly as possible to minimize the potential for runoff.
- A qualified person should be retained to certify the adequacy of sedimentation and erosion controls for all Phases of pit and quarrying, and to inspect and ensure necessary repairs following winter thaws, spring freshets, and heavy rainfall events.
- The surface/ground water monitoring program be implemented as per the *Level 1 and 2 Hydrogeological and Hydrological Assessments (Golder 2020).*
- Vegetated catchment areas/buffers surrounding tributaries and Sage Creek should be protected from rock shatter and/or physical disruption through proper blast design, blast orientation, and monitoring.

Floodback and Post-Rehabilitation Conditions

- The final design of the quarry lakes must provide for overflow channels directed towards Sage Creek and the MR-North tributary. The final design of the channels should be developed with the assistance of a qualified professional and should provide end uses for fish and wildlife.
- Analysis of monitoring data must be undertaken prior to cessation of extraction to establish ecologically based flow requirements for the MR-North tributary between the limit of extraction and the North Branch of the Muskoka River to ensure adequate flow during the flood back period.

Fish and Fish Habitat

• Baseflow must be maintained to the downstream portions of the MR-North tributary located downstream of the existing licence.

- Fisheries and Oceans Canada (DFO) be notified immediately if a situation occurs or if there is imminent danger of an occurrence that could cause serious harm to fish. If there is an occurrence, corrective measures must be implemented.
- Prior to extraction commencing in Phase B, a Brook Trout monitoring plan be developed for Sage Creek. The plan should include electrofishing surveys with a standard effort to assess population stability as well as fall spawning surveys. Details of this plan should be prepared by a qualified professional once extraction has approached the Sage Creek and tributary catchment areas.
- Updated baseline monitoring in Sage Creek and its tributaries must commence three (3) years prior to site clearing in Phase B. The baseline monitoring program is to be comprised of three (3) years of fish population monitoring (i.e., spawning surveys, fish population surveys) and a minimum of three longitudinal temperature and (electrical) conductivity surveys along Sage Creek.
- Based on the results of the baseline monitoring program, an appropriate long-term ecological monitoring program is to be developed for the purpose of demonstrating that no significant negative effects on fish habitat take place during the operational period of the quarry.
- Blast designs should be in accordance with Fisheries and Oceans Canada (DFO) guidelines.
- A qualified professional should be retained to prepare a blasting plan that is compliant with DFO regulations.

Habitat of Endangered and Threatened Species

- Specialized barrier fencing for reptiles must be erected at the limit of extraction for each phase. This fencing is to be consistent with provincial guidance documents.
- The specialized barrier fencing for reptiles is to be installed to match the proposed phasing. Clearing and stripping should be completed for a given phase followed by the installation of the barrier fencing around the new perimeter. This fencing should be removed and re-installed as extraction progresses to match the proposed phasing.
- Removal of trees within the extraction limit should only occur between October 15th and April 15th to avoid the active season for Endangered Bat species.
- Removal of vegetation should occur in a phased manner that matches the phasing plan.

Significant Wildlife Habitat

- Wetland communities of no less than 14.9 ha must be provided in the Rehabilitation Plan.
- Water depths within a portion of the created wetland should be variable and include deep pockets of sufficient depth to prevent freezing completely to the bottom (these areas will have the potential to function as turtle hibernation habitat). Substrates within these deep pockets should be primarily comprised of muck and other fine sediments.

- Wetland removal within the proposed extraction area must not occur during the turtle hibernation season (Oct 1st to May 15th).
- Prior to commencing extraction activities in Phase A, removal of wetlands within the proposed extraction area should occur in two stages to minimize impacts on species using the features. Stage 1 is to occur in July and involves the draining of the wetland feature only (i.e., mechanical clearing of vegetation, grubbing, stripping etc. should not occur until Stage 2). Draining the wetland first will remove the function of this community for turtles at a time that allows for individuals within the wetland to move to alternative habitats prior to the fall hibernation season. The wetland must be maintained in a dry state for one hibernation season (one winter) prior to proceeding to Stage 2. Stage 2 should begin no earlier than June of the year following the completion of Stage 1.
- Following the Stage 1 drawdown described above, every effort should be made to collect and relocate any turtles found in the wetland feature, as some individuals may choose to remain.
- The specialized barrier fencing for reptiles is to be installed to match the proposed phasing. Clearing and stripping should be completed for a given phase followed by the installation of the barrier fencing around the new perimeter. This fencing should be removed and re-installed as extraction progresses to match the proposed phasing.
- Tree removal within the remaining portions of the licence should proceed in a phased manner to minimize the extent of vegetation removal to the extent possible.
- Removal of trees within the extraction limit should only occur between October 15 and April 15.

Other Natural Features and Functions

- As illustrated on the Aggregate Resources Act Site Plans, the tributaries to Sage Creek, the associated wetland and a vegetated buffer should be excluded from the extraction area. The buffer/catchment area should be well-marked prior to the commencement of pit and quarry operations, and the buffer should remain in its natural state. Generally, this buffer will be 30 m with the exception of the area adjacent to the existing road. Barriers delineating the features and buffer should be installed. Should extraction activities require the relocation of the existing road, the section of the road located within the buffer setback area shall be restored to a natural state.
- Buffers should be protected from rock shatter and/or physical disruption through proper blast design, blast orientation, and monitoring.

Rehabilitation

- Prior to removing any portion of the fen community, including alterations to the water balance in that community, a new 4.2 ha wetland should be created adjacent to the Muskoka River.
 - o Approximately 50% of the wetland should have maximum depth of 2.5 m (wet depth) during average water levels and contain a minimum sustained water depth of 1.0 m during annual low water conditions.

- Slopes surrounding the wetland should be variable but to permit access by a variety of species, slopes should not exceed 3:1.
- o Basking structures constructed from natural features (e.g., rock piles, logs, rootwads, etc.) are to be placed in the wetland and along its edges. The diameter of logs should vary to permit use by small and large turtles.
- o Where used, logs and rootballs are to be placed at a variety of angles and water depths. The majority of these features are to extend from the wetland edge into the open water areas. Only a small number of logs or rootballs should be placed parallel to the shoreline.
- o Where possible, logs features that are installed, should contain limbs. Where available, full trees (canopy and root ball) should be used as basking structures.
- o Substrates within the wetland should be dominated by 'muck' organics, especially in the deeper sections of the wetland.
- o The wetland is to be planted with a variety of aquatic and emergent vegetation. Where possible, species that will produce floating mats of vegetation should be prioritized.
- Wetland communities of no less than 14.9 habe provided in the Rehabilitation Plan in Phase A2.
 - o The edge of created wetlands should be variable.
 - Water depths within the wetland should be variable; however, a minimum of 25% of the area should be constructed to provide minimum water depths of 1 m during low water conditions.
 - o Slopes, substrates, and basking structures are to be included in the 14.9 rehabilitation wetland as per the above recommendations for the 4.2 ha wetland proposed for construction adjacent to the Muskoka River.
- Following the closure of the quarry/pit site, terrestrial rehabilitation will be required in some areas to allow for naturalization that blends with the adjacent natural features buffers.
 - Rehabilitation of the terrestrial portions of the quarry should include the creation of cliff and talus slope areas along the eastern edge of the extraction area.
 - o Where possible, terrestrial communities within the Phase A2 area should be rehabilitated using fines and other organic material available on site to provide variations in the topography and therefore encourage growth of new plant life.
 - o To permit wildlife to access both the restored terrestrial communities and wetlands located in Phase A, areas of no more than 3:1 slope should be included along the

eastern boundary of the extraction limit as well as along the boundary between Phase A and Phase B.

3.1.5 On-Site and Adjacent Water Resources

A Level 1 and 2 Hydrogeology and Hydrology report was prepared by Golder Associates for the proposed Extension. This report has been prepared to meet the policy requirements of the Aggregate Resources of Ontario Provincial Standards, the Provincial Policy Statement, and the District and Town Official Plans.

The main objectives of the hydrogeological and hydrological studies were to:

- 1) Characterize the existing hydrogeological and hydrological conditions in the vicinity of the existing Childs Pit/Quarry and Extension Lands.
- 2) Assess potential impacts on groundwater and surface water associated with operation and rehabilitation of the existing guarry and proposed extension based on the guarry development scenario.

The water resources report work program included eleven tasks: data review and compilation, receptor identification, bedrock drilling program, monitoring well installation program, hydraulic conductivity testing program, groundwater level monitoring program, private well surveys, surface water level and flow monitoring program, water balance analysis, groundwater flow modelling, and an impact assessment.

The lands are located within the Georgian Bay Fringe physiographic region which is described as having very shallow soil and bare rock knobs. The overburden that is present within the physiographic region is typically a sandy soil and is identified as bedrock drift deposits that are thin and discontinuous.

The proposed extension lands are located within the Muskoka River catchment area and the Sage Creek catchment area. Lands within the Muskoka River catchment area drain to the north and west of the site and are generally comprised of the area within proposed Phase A. The vast majority of areas currently draining to the Muskoka River will be controlled by a guarry sump and will remain draining to the Muskoka River. The lands within the Sage Creek catchment area drain to the south of the site and are generally comprised of the area within proposed Phase B. The vast majority of areas currently draining to the Sage Creek will remain sloped towards the Sage Creek. Additional controls will be put in place to ensure water quality is suitable prior to discharge to the environment. The development plan has been designed with consideration of these catchment areas and water will be managed to minimize potential changes to the water balance.

Overall the study identified low hydraulic conductivity bedrock in the vicinity of the site and limited connection between shallow groundwater and surface water features. The proposed extraction will protect sensitive surface water and sensitive groundwater receptors during the operational period and under rehabilitated conditions. During the operational and rehabilitation periods, a multidisciplinary monitoring program will be implemented for the purpose of verifying that the extraction will not adversely impact surface water or groundwater receptors. For information on private wells please see Section 3.3.1 of this report.

21

To ensure the protection of sensitive surface water and sensitive groundwater receptors the study recommends that prior to the start of water taking and / or discharge from the site, a Permit to Take Water and an Environmental Compliance Approval shall be obtained and the Licensee is required to operate in accordance with these permits, including the associated monitoring and reporting. The proposed groundwater and surface water monitoring program in Section 12.1 and 12.2 of the Level 1 and 2 Hydrogeology and Hydrology report prepared by Golder Associates report shall be considered for inclusion in these instruments.

3.2 SURROUNDING LAND USES

The proposed Childs Pit/Quarry Extension lands are located adjacent to the existing Childs Pit/Quarry on Bonnie Lake Road in the Town of Bracebridge. The general surrounding area is defined by vacant forested lands, rural residential uses along Bonnie Lake Road, and the Muskoka River and Sage Creek and Bonnie Lake Resort. **See Figure 4**. Downtown Bracebridge is located approximately 10 km south of the site.

Provincial, District and Township policies require new mineral aggregate operations to minimize social impacts on surrounding sensitive land uses. The provincial standards require a noise study and blasting study be completed if there are sensitive receptors located within 500 metres of the proposed extraction area of the existing quarry and proposed extension.

Lands within 500 metres of the proposed extension include:

- North: The Existing Childs Pit/Quarry is directly north. Further north of the Existing Pit/Quarry includes vacant forested land, rural residential lands, and the Muskoka River.
- **South:** Lands to the south include existing rural residential uses and additional lands currently owned by Fowler that include the Sage Creek lands that are subject to a separate application to sever and rezone the lands to environmental protection.
- **East:** Directly east of the proposed extension is Bonnie Lake Road. A cluster of rural residential dwellings are located along this portion of Bonnie Lake Road within proximity to the Existing Pit/Quarry and proposed extension. Further east is Bonnie Lake Resort which surrounds Bonnie Lake.
- **West:** Directly to the west is the Existing Childs Pit/Quarry and a hydro corridor (a portion of which bisects the extension lands). Further west is a crown land parcel, additional vacant forested lands owned by Fowler, and the Muskoka River. Two residential dwellings are located on the west side of the Muskoka River.

The lot fabric within the site and surrounding the site generally consists of large forested properties with the exception of the parcels along Bonnie Lake Road. These parcels are generally smaller forested parcels and the majority include a rural residential dwelling.

The surrounding rural residential dwellings are considered sensitive land uses and the proposed extension has been appropriately designed, buffered and/or separated to protect these uses from negative impacts.

Bonnie Lake Resort is a three season cottage and vacation resort located at 1047 Bonnie Lake Camp Road. The site is approximately 1 km east of the existing Childs Pit/Quarry licence boundary and is owned and operated by the company Great Blue Resorts. The resort is seasonal based and does not operate in the winter as sanitary sewage and potable water works are shut off at that time.

Bonnie Lake Resort is approximately 433 hectares (1,070 acres), comprised of multiple parcels and encompasses Bonnie Lake in its entirety. The site is used as a tourist commercial establishment that provides individual sites in which cottagers can own or rent a cottage. The site includes multiple accessory facilities to provide on-site amenities for the cottagers. As of 2018, 549 sites are approved and each subsequent phase for new development will require site plan approval by the Town. The overall master plan for the site would allow for approximately 900 individual sites. Correspondence with Town of Bracebridge staff has confirmed the resort draws water from Bonnie Lake for use as potable water and sanitary works.

The Bonnie Lake Resort community is already located in proximity to the existing Childs Pit/Quarry and the extension lands are designated Aggregate Extraction in the Town of Bracebridge Official Plan. The two uses will be in proximity to each other for years to come and both developments need to be designed to ensure compatibility between the two uses. The technical reports have taken the Bonnie Lake Resort community into consideration and have provided recommendations for the protection of residents that are located much closer to the extension lands than the Bonnie Lake Resort. As a result, impacts at the Bonnie Lake Resort community will be further reduced since air, noise and blasting limits are required to be met at the closest sensitive receptors to the site.

3.3 MITIGATION MEASURES TO MINIMIZE IMPACTS ON SURROUNDING LAND USES

Provincial, District and Town policies require mineral aggregate operations to be designed to minimize impacts on surrounding sensitive land uses. The following sections of this report outline the considerations related to water wells, noise, blasting, dust and traffic on how the proposed extension has been designed to minimize impacts on the surrounding land uses.

3.3.1 Wells

A Level 1 and 2 Hydrogeology and Hydrology report was prepared by Golder Associates for the proposed Extension. This report has been prepared to meet the policy requirements of the Aggregate Resources of Ontario Provincial Standards, the Provincial Policy Statement, and the District and Town Official Plans. One of the objectives of the hydrogeological and hydrological studies was to assess potential impacts on private wells.

The water resources report work program included eleven tasks: data review and compilation, receptor identification, bedrock drilling program, monitoring well installation program, hydraulic conductivity testing program, groundwater level monitoring program, private well surveys, surface water level and flow monitoring program, water balance analysis, groundwater flow modelling, and an impact assessment.

The wells within the study area are primarily located east of the extension lands and service the residential dwellings along Bonnie Lake Road. Private well surveys were completed in the late winter and spring of 2020 at 13 of 27 properties along Bonnie Lake Road. Included during the well surveys, five private wells were fitted with data loggers to provide additional information on water level fluctuations within the wells.

Impacts to water supply wells are not predicted as a result of extraction of the proposed extension. While is it unlikely that wells will be impacted, a detailed groundwater monitoring program will be implemented to monitor water levels between the quarry operations and private water wells and a complaints response program has been developed and will be included on the Aggregate Resources Act site plans. The complaints response programs is as follows:

- When a complaint is received by Fowler, a representative of Fowler or their agent will visit the site to make an initial assessment within three days of receiving the complaint. This will include a well/system inspection (where accessible) by a licensed pump maintenance contractor to determine the groundwater level, pump depth setting and condition of the well system. The available groundwater level data from the existing on-site monitoring well network will be reviewed by a licensed professional hydrogeologist/engineer to develop an estimate of the potential groundwater level drawdown at the potentially affected well that is the subject of the complaint response.
- The information obtained by the contractor from the well/well system inspection and the review of the available groundwater level data will be used by the professional hydrogeologist/engineer to prepare an opinion on the likelihood that the well interference complaint is attributable to quarry dewatering.
- If it is concluded that the well interference complaint is most likely attributable to quarry dewatering activities at the site and the water supply is at risk, then a temporary supply will immediately be arranged and a water supply restoration program will be based on a review of groundwater level information by the professional hydrogeologist/engineer and well construction and performance information from the licensed pump maintenance contractor as noted above.
- The water supply restoration program consists of the following measures which are applicable for local water supply wells where the operation of the water supply wells may have been compromised by quarry excavation or, based on the analysis of all monitoring data, are assessed to likely be compromised in the near future:
 - Water System Rehabilitation The well system could be rehabilitated by replacement or lowering of pumps, pump lines flushing, well deepening, etc. to improve performance. Where water is unavailable in the shallow bedrock and well, chemical, physical and bacteriological analyses will be carried out prior to deepening the well to provide a basis for comparison. If the groundwater in the deeper bedrock is found to be of acceptable quality by the homeowner, either directly from the well or with treatment, it will be developed as the domestic supply. Any modifications to a well would be conducted in accordance with the Ontario Regulation 903.
 - Well Replacement or Additional Well(s) The well could be replaced or augmented with a new well(s) that could be located further from the quarry excavation. The

feasibility of well replacement would be based on a test drilling program that could include more than one test well. Where water is unavailable in the shallow bedrock and a well in deeper bedrock (compared to the original water supply well) is being considered, a water sample(s) would be taken from the existing well for chemical, physical and bacteriological analyses to provide a basis for comparison. If the groundwater in the deeper bedrock is found to be of acceptable quality by the homeowner, either directly from the well or with treatment, it will be developed as the domestic supply. Construction of new well(s) would be conducted in accordance with the Ontario Regulation 903.

- o Trickle Wells and Storage Where feasible, the existing well(s) could be converted to a low yield pumping system, or installation of an additional well(s), along with non-pressurized water storage to augment water supplies, if required.
- Water Treatment Considerations Appropriate water treatment will be incorporated into any restored water supply as discussed above.
- Fowler would be responsible for all costs associated with the water supply restoration program. It is important to note that water supply restoration activities undertaken to address any adverse effects would be done so in consultation with the affected property owner in order to ensure a mutually agreeable solution is implemented.

Bonnie Lake Resort is also located within the area of predicted groundwater drawdown. The site is approximately 1 km east of the existing Childs Pit/Quarry licence boundary and is owned and operated by the company Great Blue Resorts. The resort is seasonal based and does not operate in the winter as sanitary sewage and potable water works are shut off at that time.

The Bonnie Lake Resort site is approximately 433 hectares (1,070 acres), comprised of multiple parcels and encompasses Bonnie Lake in its entirety. The site is used as a tourist commercial establishment that provides individual sites in which cottagers can own or rent a cottage. The site includes multiple accessory facilities to provide on-site amenities for the cottagers. As of 2018, 549 sites are approved and each subsequent phase for new development will require site plan approval by the Town. The overall master plan for the site would allow for approximately 900 individual sites. Correspondence with Town of Bracebridge staff has confirmed the resort draws water from Bonnie Lake for use as potable water and sanitary works. As a result, there will be no impact to the water supply that Bonnie Lake Resort relies upon.

3.3.2 Noise

An acoustical assessment was prepared by HGC Engineering to assess potential noise impacts from the proposed extension on surrounding sensitive residential receptors. HGC Engineering designed the site to meet Ministry of Environment, Conservation and Parks noise limits for a Class 3 area. A Class 3 area includes the most stringent noise limits since Class 3 noise limits are used for a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as:

- a small community;
- agricultural area;
- a rural recreational area such as a cottage or a resort area; or

• a wilderness area.

HGC Engineering concluded that the proposed extension has been appropriately designed and/or separated to ensure the Ministry of Environment, Conservation and Parks noise limits would be met at all surrounding residential receptors. HGC Engineering has recommended that the following mitigation measures be implemented:

- the Pit/Quarry is permitted to operate 24 hours, Monday to Sunday, with drilling restricted to only occur from 7:00 am to 7:00 pm;
- acoustical berms are to be constructed along the eastern boundary of the proposed extension, and a portion of the southern boundary near the entrance/exit;
- sound emission levels for all equipment used in site preparation and rehabilitation must comply with the limits outlined in Ministry of Environment, Conservation and Parks Guideline NPC-115;
- There are several limitations on the amount and location of equipment that are permitted to operate based on phase and lift in the operation. See site plans for details;
- When more than 35 trucks visit the site per hour during daytime hours and more than 12 trucks visit the site per hour during night-time hours, the site entrance will be relocated and a 5-metre high noise berm be constructed along the eastern boundary of the proposed extension as shown on the site plans.
- It is recognized that advancements of equipment or different configurations may allow additional equipment or equipment to be substituted for certain activities while still meeting Ministry of Environment, Conservation and Parks guidelines. Variations may be permitted to these noise controls, provided that the revision still meets Ministry of Environment, Conservation and Parks guidelines as confirmed through documentation by a professional engineer. Prior to modification, notification shall be given to the Ministry of Environment, Conservation and Parks.

3.3.3 Blasting

A Blast Impact Analysis was prepared by Explotech Engineering to ensure vibration and overpressure levels from on-site blasting can be carried out safely and designed to meet the Ministry of Environment, Conservation and Parks Model Municipal Noise Control By-law and guidelines.

The analysis concluded that the blasting operations for the proposed extension can be carried out safely and within guidelines set by the Ministry of Environment, Conservation and Parks to protect surrounding buildings and structures.

Explotech Engineering has recommended the following mitigation measures:

• An attenuation study shall be undertaken during the first 12 months of operation in order to obtain sufficient data to confirm the applicability of the initial guideline parameters and assist in developing future blast designs;

- All blasts shall be monitored for ground vibrations and overpressure at the closest privately owned residences to ensure compliance with current provincial guidelines for vibration and overpressure;
- Blasts will be designed to maintain vibrations at the closest spawning bed below 13 mm/s. When blasting during spawning season, an additional monitor shall be installed at the shoreline closest to the spawning bed;
- Blasts will be designed to maintain vibrations at the Hydro One transmission towers below 50 mm/s. When vibration calculations may exceed 35 mm/s at the towers, an additional monitor shall be installed at the closest tower;
- The extraction face shall be orientated so the direction of overpressure propagation and flyrock is away from structures as much as possible;
- Blast designs shall be continually reviewed and modified as required to ensure compliance with current provincial guidelines; and,
- Blasting is only permitted from 8:00 am to 6:00 pm during daylight hours (Monday to Friday).

3.3.4 Dust

The Province has the following prescribed conditions that apply to Category 1 and 2 Licences to minimize impacts related to dust and these conditions will apply to the proposed extension:

- Dust will be mitigated on site;
- Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust;
- Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 300 metres of a sensitive receptor; and
- If required, an Environmental Compliance Approval will be obtained for processing equipment to be used on-site.

3.3.5 Traffic

A Traffic Review was completed by Tatham Engineering Limited to address transportation impacts, including the site access, site traffic volumes and to assess the potential impacts to the adjacent road network for the proposed Pit/Quarry Extension.

The existing Pit/Quarry is permitted to ship an unlimited amount of tonnage annually from the site. The existing entrance/exit is located on Bonnie Lake Road (Muskoka Road 46) and the majority of aggregate related truck traffic travels south on Bonnie Lake Road towards Highway 117. The District of Muskoka identifies Bonnie Lake Road as a "Class B District Road" and Highway 117 as a "Class A District Road" and the Town of Bracebridge identifies both roads as District Roads. See **Figures 10**

and **13**. These roads have a planned function to accommodate truck traffic and larger volumes of traffic.

Within the District of Muskoka there are +/- 60 Class A mineral aggregate operations (permitted to ship more than 20,000 tonnes per year) and many of these operations are permitted to ship an unlimited amount of aggregate each year, including the existing Childs Pit/Quarry. In 2018, all of the aggregate operations (Class A and Class B) in the District of Muskoka combined for a total of 2.38 million tonnes of aggregate being shipped to market. Over the past 10 years the District of Muskoka produced on average 2.25 million tonnes per year.

For the extension, Fowler is applying for a maximum tonnage limit of 2,000,000 tonnes per year. While historical extraction volumes at the existing Childs Pit/Quarry have not exceeded 210,000 tonnes annually, this tonnage limit was established to proactively assess any road improvements that would be required in the event that shipping levels significantly increased in the future which is already permitted to occur at the existing site.

The traffic review assessed the road capacity, intersection operations and sight lines under existing conditions and future conditions. The review concluded that:

- The adjacent road network is operating with excess reserve capacity and can readily accommodate the additional traffic volumes associated with an increase in the operations at Childs Pit/Quarry. No improvements are required to address the available road capacity;
- The intersection of Muskoka Road 46 with Muskoka Road 117 will provide excellent operations. The site access on Muskoka Road 46 will operate without issue given the low volumes on the road network and limited volumes generated by the site. No intersection/access improvements are considered necessary; and,
- The stopping sight distances exceed the requirement for an 80 km/h design speed (20 km/h over the posted speed) along Muskoka Road 46 at the existing site entrance/exit, and future relocated entrance/exit. As such, no road improvements are required to address sight lines.

The traffic review also assessed the need for exclusive left turn lanes on Muskoka Road 46 (Bonnie Lake Road) at the existing site entrance/exit, and future relocated entrance/exit and on Muskoka Road 117 at Muskoka Road 46 based on MTO left turn land warrants and noted traffic volumes. The following conclusions were made based on this assessment:

- An exclusive left turn lane on Muskoka Road 46 (Bonnie Lake Road) at the existing site entrance/exit, and future relocated entrance/exit is not warranted; and,
- An exclusive east bound left turn lane on Muskoka Road 117 is warranted if shipping levels exceed1,000,000 tonnes per year.

The traffic review provides the following recommendations:

• An exclusive east bound left turn lane on Muskoka Road 117 with 30 metres of storage is recommended once on-site operations exceed an annual extraction of 1,000,000 tonnes per year. A total road length of 260 metres west and 190 metres east of Muskoka Road 46

would be required along Muskoka Road 117 to design the left turn lane based on MTO standards.

• Traffic volumes be monitored prior to implementing a left turn lane, thus providing an opportunity to observe actual pit operations moving forward and to confirm the need for and timing of implementation of such improvements.

4.0 planning analysis

The proposed Pit/Quarry Extension is located within the Town of Bracebridge in the District of Muskoka. Based on the location of the site, the proposed Pit/Quarry Extension is subject to the:

- Provincial Policy Statement;
- District of Muskoka Official Plan;
- Town of Bracebridge Official Plan; and,
- Town of Bracebridge Zoning By-law.

The following is an assessment of the proposed quarry extension relative to the policies and provisions of these documents.

4.1 **PROVINCIAL POLICY STATEMENT (2020)**

The Provincial Policy Statement, 2020 (PPS) was issued under Section 3 of the Planning Act and came into effect on May 1, 2020. It replaces the PPS issued April 30, 2014.

The PPS provides policy direction on matters of provincial interest related to land use planning and development, as laid out in Section 2 of the Planning Act. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural environment. (Part 1, Preamble).

Section 3 of the Planning Act requires that decisions affecting planning matters "shall be consistent with" policy statements issued under the Act. (Part II, Legislative Authority).

The PPS is a policy-led planning approach that recognizes the complex inter-relationship among environmental, economic and social factors in land use planning. The PPS supports a comprehensive, integrated and long-term approach to planning and recognizes linkages among policy areas (Part III, How to Read the Provincial Policy Statement).

The PPS recognizes that the wise management of land use change may involve directing, promoting or sustaining development. Land use must be carefully managed to accommodate appropriate development to meet the full range of current and future needs, while achieving efficient development patterns and avoiding significant or sensitive resources and areas which may pose a risk to public health and safety. The PPS further recognizes that the Province's natural heritage resources, water, agricultural lands, mineral aggregate resources, cultural heritage and archaeological resources provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key provincial interest. The province must ensure that its resources are managed in a sustainable way to protect essential ecological processes and public health and safety, minimize environmental and social impacts, provide for recreational opportunities and meet its long-term economic needs (Part IV, Vision for Ontario's Land Use Planning System).

The following are policy excerpts from the PPS that are relevant to the proposed Childs Pit/Quarry Extension. A response follows each excerpt to demonstrate how the proposal is consistent with the PPS.

1.1.4.1 *"Healthy integrated and viable rural areas should be supported by:*

...f) promoting the diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources;"

The proposed extension to the Childs Pit/Quarry is located in a rural area and within an area designated for extraction within the Town of Bracebridge Official Plan. The existing Childs Pit/Quarry and the proposed extension will provide employment opportunities and supports the diversified economic base for the Town and District. The management or use of mineral aggregate resources is considered to contribute to healthy, integrated and viable rural areas.

1.1.5.2 "On rural lands located in municipalities, permitted uses are:

a) the management or use of resources"

The proposed Childs Pit/Quarry Extension is located on rural lands within the Town of Bracebridge and is proposed to be utilized for the management or use of mineral resources, which is a permitted use.

1.1.5.4 *"Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted."*

The proposed Childs Pit/Quarry Extension has been designed to be compatible with the rural landscape through a number of means including:

- The creation of berms to mitigate acoustical impacts on the surrounding residential properties;
- The dust suppression notes listed on the site plans ensure dust will be mitigated on site to reduce impacts on air quality;
- On-going water monitoring will ensure surrounding wells will not be negatively impacted;
- The Sage Creek and Muskoka River watershed will not be negatively impacted; and,
- The proposed rehabilitation ensures the end use for the site will provide aquatic and terrestrial habitat and maintains the rural landscape.
- 1.1.5.5 "Development shall be appropriate to the infrastructure which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this infrastructure."

The proposed Childs Pit/Quarry Extension will utilize the existing infrastructure available in the area including existing rural service levels and road infrastructure. The extension will utilize the existing Childs Pit/Quarry approved haul route on Bonnie Lake Road.

1.1.5.7 "opportunities to support a diversified rural economy should be promoted by protecting agricultural and other resources-related uses and directing non-related development to areas where it will minimize constraints on other uses."

The Town of Bracebridge Official Plan protects the extension lands for future aggregate extractive uses through the existing Aggregate Extractive designation on the site.

1.2.6.1 "Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures."

The proposed Extension lands have been planned and developed to minimize and mitigate adverse effects on surrounding sensitive land uses.

1.6.7.2 *"Efficient use should be made of existing and planned infrastructure, including through the use of transportation demand strategies, where feasible"*

The proposed Childs Pit/Quarry Extension represents an efficient use of existing on-site infrastructure by integrating operations with the existing quarry in the short term and by utilizing the existing entrance/exit and in the future, a relocated entrance/exit and existing approved haul route.

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

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

The proposed extension optimizes the long term economic prosperity of the Town, District and Province through a land use that makes available additional high quality mineral aggregate resources and utilizes existing transportation infrastructure.

Section 2 of the PPS is entitled "Wise Use and Management of Resources". The introduction to this section reads:

"Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits." (2.0)

Making this site available for aggregate extraction represents the wise use and management of resources, providing economic and social benefits while minimizing potential impacts.

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

A Natural Environment Report has been completed for the site which confirms that natural features and areas will be protected for the long term.

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."

The proposed extension will ensure the natural heritage system is maintained throughout the life of the operation and following rehabilitation.

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

a) significant wetlands in Ecoregions 5E, 6E and 7E; and b) significant coastal wetlands."

No significant wetlands or coastal wetlands are located on or adjacent to the proposed extension.

(2.1.5) "Development and site alteration shall not be permitted in:

a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;

b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);

c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)

d) significant wildlife habitat;

e) significant areas of natural and scientific interest; and

f) coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 2.1.4(b)

Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions"

As shown on PPS Figure 1, *Natural Heritage Protection Line*, the extension lands are not located within Ecoregions 6E and 7E. Therefore policies 2.1.5 b) and c) do not apply to the application.

No significant wetlands, coastal wetlands or significant areas of natural and scientific interest are located on or adjacent to the proposed extension.

The Natural Environment Report has confirmed significant wildlife habitat exists on-site and concludes negative impacts are not anticipated to the significant wildlife habitat within the study area provided that the recommended mitigation measures are implemented.

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

The Natural Environment Report has confirmed fish habitats exist on-site, but outside of the proposed extraction area and concludes negative impacts are not anticipated to the fish habitat provided that the recommended mitigation measures are implemented.

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."

The Natural Environment Report identified that the proposed extension lands contain habitat of endangered or threatened species. Removal of the habitat will occur in compliance with the Endangered Species Act and will follow the recommended mitigation measures provided in the Natural Environment Report.

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."

The ecological function of lands adjacent to the proposed extension has been evaluated in the Natural Environment Report. The report recommends mitigation measures to demonstrate there will be no negative impacts on the adjacent natural features or their ecological function as a result of the proposed extraction.

- 2.2.1 "Planning authorities shall protect, improve or restore the quality and quantity of water by:
 - a. using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;

A water resources report was completed and concluded the proposed extraction area will protect sensitive surface water features and sensitive ground water features.

b) minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;

The proposed extension area is located partially within the Muskoka River catchment area and partially within the Sage Creek catchment area. The phasing plan has been designed based on the catchment areas and the water resources report concluded that water will be managed to minimize potential changes to the water balance. No negative impacts are expected and ongoing monitoring will ensure extraction does not negatively impact Sage Creek and the Muskoka River.

c) evaluating and preparing for the impacts of a changing climate to water resource systems at the watershed level;

The proposed operation and rehabilitated landform has the ability to operate similar to a reservoir, which are routinely used by Conservation Authorities to manage water based on changing climates. Quarries have the ability to store water during major storm events and release water during periods of low flow.

d) identifying water resource systems consisting of groundwater features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas, which are necessary for the ecological and hydrological integrity of the watershed;

The water resources report identified water resource systems on-site and in the surrounding lands. No negative impacts to the water resource systems are expected and ongoing monitoring will ensure extraction does not negatively impact the systems.

e) maintaining linkages and related functions among ground water features, hydrologic functions and natural heritage features and areas, and surface water features including shoreline areas;

Water resources and natural heritage features surrounding the proposed extension lands have been assessed for potential impacts resulting from extraction of aggregate in the proposed extension. The Water Resources report and Natural Environment report conclude the proposed extension will not negatively impact the linkages and related functions of surrounding water resources and natural heritage features.

- f) implementing necessary restrictions on development and site alteration to:
 - 1. protect all municipal drinking water supplies and designated vulnerable areas; and

No municipal drinking water supplies or designated vulnerable areas are located in the vicinity of the proposed extension.

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

A water resources report was completed and concluded the proposed extraction area will protect sensitive surface water features and sensitive ground water features.

g) planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality;

The proposed extension will be required to monitor and protect water resources, including private residential wells in accordance with Ministry of Environment, Conservation and Parks permit requirements.

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."

A water resources report was completed and concluded the proposed extraction area has been designed to protect sensitive surface water features and sensitive ground water features.

2.5.1 *"Mineral aggregate resources shall be protected for long-term use and, where provincial information is available, deposits of mineral aggregate resources shall be identified"*

The District of Muskoka and the Provincial ARIP #182 identifies the existing Pit/Quarry as a sand and gravel resource area of primary significance which has been protected and managed through the land use designation, zoning, and Aggregate Resources Act licencing of the site. The extension lands have been identified by the Town of Bracebridge to be protected for future aggregate extraction uses through the existing approved Aggregate Extraction designation on the site. The proposed Childs Pit/Quarry Extension will ensure that approximately 78 million tonnes of aggregate is protected for the long-term and used in a wise manner to support growth and infrastructure requirements.

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

Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere."

The existing Pit/Quarry contains a high quality aggregate product that has been approved by the Ministry of Transportation for use in DFC asphalt mixes and high quality concrete mixes. This high quality aggregate product is used for skid-resistant surfacing of provincial highways.

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

The proposed extension has been designed in a manner which minimizes social and environmental impacts.

- 2.5.3.1 "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."
- 2.5.3.2 "Comprehensive rehabilitation planning is encouraged where there is a concentration of mineral aggregate operations."

Rehabilitation of the proposed extension includes terrestrial habitat and aquatic habitat that will be incorporated in with the rehabilitation of the existing Pit/Quarry. The proposed lake is located within the northwest portion of the extension lands and will connect to the future rehabilitated lake in the existing quarry.

Wetlands will be created along the lake shorelines and upland habitat to provide additional aquatic habitat and wildlife diversity for the site.

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

No significant built heritage or significant cultural heritage landscapes are identified on or surrounding the proposed quarry extension.

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

A Stage 2 archaeological assessment was completed for the extension lands and found no archaeological material on the lands. The proposed extension will not impact or affect any archaeological martial or cultural heritage resources.

2.6.3 "Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved."

No protected heritage properties are identified on adjacent lands.

- 3.1.1 "Development shall generally be directed, in accordance with guidance developed by the Province (as amended from time to time), to areas outside of:
 - a) hazardous lands adjacent to the shorelines of the Great Lakes St. Lawrence River System and large inland lakes which are impacted by flooding hazards, erosion hazards and/or dynamic beach hazards;
 - b) hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards; and
 - c) hazardous sites."

No hazardous lands or sites are located on or adjacent to the proposed extension lands.

- 3.1.2 *"Development and site alteration shall not be permitted within:*
 - a) the dynamic beach hazard;
 - b) defined portions of the flooding hazard along connecting channels (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);
 - c) areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard; and
 - *d)* a floodway regardless of whether the area of inundation contains high points of land not subject to flooding."

The proposed extension is not within any of the areas identified in policy 3.1.2

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."

The proposed Pit/Quarry Extension represents the wise use and management of an aggregate resource in an area directly adjacent to an existing Pit/Quarry. There are no known or suspected hazards.

In summary, the proposed extension to the Childs Pit/Quarry is consistent with the policies of the Provincial Policy Statement.

4.2 DISTRICT OF MUSKOKA OFFICIAL PLAN (2019 CONSOLIDATION)

The proposed Pit/Quarry Extension is located within the District of Muskoka and the application must conform to the District of Muskoka Official Plan (2019 consolidation). An Official Plan amendment to the District Official Plan is not required.

The existing Childs Pit/Quarry and the proposed extension are designated "Rural Area" on Schedule A: Land Use Designations of the Muskoka Official Plan. See **Figure 7**. Aggregate operations are recognized as the management or use of resources and are a permitted use within the Rural Area designation as per section J3.3a.

The District Official Plan also identifies the extension lands licence boundary as being:

- Being outside of Regulated Habitat, Areas of Natural and Scientific Interest, and Provincially Significant Wetlands (Schedule C1) and Significant Wildlife Habitat (Schedule C2);
- Containing Natural Heritage Features including wetlands and a Muskoka Heritage Area locally known as the Sage Creek Subaquatic Fan (Schedule C2). See **Figure 8**; The Sage Creek Subaquatic Fan is further defined in the Town of Bracebridge Official Plan and only a small portion is located within the southwest boundary of the proposed extension. See **Figure 14**;
- Outside of identified Source Water Protection areas and municipal intake, outfall and well infrastructure, and not containing any waterbody features (Schedule D);
- Partially containing and adjacent to a sand and gravel resource area of primary significance (Schedule E1). See **Figure 11**;
- Being located on a Class B District Road with an Active Transportation Cycling Connection Route known as Muskoka Road 46 (Bonnie Lake Road) (Schedule F). See **Figure 10**; The existing haul route also utilizes Highway 117, which is identified as a Class A District Road and Highway 11 is a Provincial Highway;
- Being identified as an area of moderate to high archaeological potential (Schedule G). See **Figure 11**.

The following are policy excerpts from the Muskoka Official Plan that are relevant to the proposed Childs Pit/Quarry Extension. A response follows each excerpt to demonstrate how the proposal conforms to the Muskoka Official Plan.

Section H1.2 of the Muskoka Official Plan provides a policy framework for Mineral Aggregate Resources within the District. The framework includes policies on location, protection of long term resource supply, operations, development in resource areas, and application requirements.

- H1.2.2.b) There is potential for deposits of mineral aggregate resources to exist outside of the areas mapped on Schedule E1.
- H1.2.2.c) This Plan does not identify the location of bedrock resource areas on Schedule E1 because Muskoka is underlain by Precambrian gneissic rock that exhibits wide variations in lithology and aggregate quality. However, local knowledge and the location of existing quarries may be considered by the Area Municipalities if there is a desire to protect bedrock resources of local significance

The extension lands are adjacent to an existing Pit/Quarry and on-site testing has confirmed that high quality bedrock resources are located within the proposed extension area. The Town of Bracebridge has designated the lands as Aggregate Extractive to protect the on-site mineral aggregate resources for future extraction.

H1.2.2.d) Licensed active and inactive mineral aggregate operations are shown on Appendix C of this Plan. These licensed mineral aggregate operations have been identified for information purposes. The development of a new mineral aggregate operation or the expansion of an existing mineral aggregate operation shall be subject to the policies of the Area Municipal Official Plans and shall not require an Amendment to this Plan.

The proposed extension is adjacent to an existing licenced active mineral aggregate operation and an amendment to the Muskoka Official Plan is not required.

- H1.2.3.1.a) Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.
- H1.2.3.1.b) The nature of the resource that is proposed to be extracted, such as dimensional stone that is a non-essential decorative and/or architectural stone, or for another purpose that is not infrastructure-related should be a consideration in determining the appropriateness of the location proposed.

The existing Pit/Quarry contains a high quality aggregate product that has been approved by the Ministry of Transportation for use in DFC asphalt mixes and high quality concrete mixes. This high quality aggregate product is used for skid-resistant surfacing of provincial highways. The proposed extension contains the same aggregate quality and is also capable of producing a variety of products used in construction and infrastructure projects.

H1.2.3.3.d) When considering a new mineral aggregate operation, the co-location or grouping of such facilities and recycling of materials and progressive rehabilitation should be considered by the Provincial approval authority.

The proposed extension is located directly adjacent to the existing Childs Pit/Quarry and would be operated and rehabilitated as an integrated operation. The existing operation already permits aggregate recycling and the use is also proposed to be permitted within the extension.

- H1.2.3.4 Any application for an amendment to the Area Municipal Official Plan, and/or the zoning bylaw/community planning permit by-law to establish or expand a mineral aggregate operation shall be supported by studies that are based on predictable, measurable, objective effects on people and the environment, with these studies and their scope being identified in advance and with regard to the scale of the proposed new operation or expansion. Such studies shall be based on Provincial standards, regulations and guidelines, where they exist and will consider and identify methods of addressing the anticipated impacts in the area affected by the mineral aggregate operation. Each Area Municipal Official Plan shall contain application requirements for this use that require that all applications be supported by information that address:
 - *a)* The impact of the operation of the mineral aggregate operation on:
 - *i.* The natural heritage features and areas and related ecological functions on the site and in the area;

A Natural Environment Report has been prepared. The study determined that several significant natural heritage features and functions occur within the study area and evaluated the potential impacts on those features. The report provides recommendations to mitigate negative ecological impacts on the features and their associated ecological functions resulting from extraction within the proposed extension.

ii. Adjacent and nearby existing or planned land uses;

A Noise Impact Assessment, Traffic Review and Blasting Impact Assessment have been prepared. The studies have provided recommendations to minimize social impacts on adjacent land uses. The recommendations have been included in the Aggregate Resources Act Site Plans to ensure mitigation measures are followed throughout the operation of the site.

iii. Agricultural resources and activities;

Agricultural resources and activities do not exist on-site or on surrounding lands to the extension. An Agricultural Impact Study is not required as part of the application.

iv. The quality and quantity of groundwater and surface water;

A Water Resources Study has been prepared. The study concludes that on-site and surrounding water resources, including surrounding residential wells will be protected and maintained and that there will be no unacceptable impacts.

v. The significant built heritage resources, protected heritage properties, significant cultural heritage landscapes and significant archaeological resources on the site and in the area;

A Stage 2 Archaeological Assessment has been prepared. The study concludes that no archaeological resources are located within the proposed extension licenced boundary resulting in no impacts.

- vi. The groundwater recharge and discharge functions on the site and in the immediate area;
- vii. Surface water features in the area; and,

viii. Nearby wells used for drinking water purposes.

A Water Resources Study has been prepared. The study concludes that on-site and surrounding water resources, including surrounding residential wells will be protected and maintained and that there will be no unacceptable impacts.

b) The effect of the additional truck traffic on the ability of an existing haul route to function as a safe and efficient haul route;

A Traffic Review has been prepared. The study considers the effect of the additional truck traffic on the ability of the existing Childs Pit/Quarry haul route to function as a safe and efficient haul route for the existing Pit/Quarry and the proposed Extension. The study concludes the existing haul route has the capacity to accommodate the additional truck traffic associated with the proposed Extension. Recommendations for intersection upgrades at Bonnie Lake Road and Highway 117 have been provided if shipping levels exceed one million tonnes per year.

c) The suitability of any new haul routes proposed;

The proposed extension will utilize the existing Childs Pit/Quarry haul route. A new haul route is not proposed. The existing Childs Pit/Quarry haul route proceeds south on Bonnie Lake Road towards Highway 117 and this haul route is proposed to also be utilized by the extension.

d) The impact of the noise, odour, dust and vibration generated by the proposed operation or expansion on adjacent land uses;

A Noise Impact Assessment, Traffic Review and Blasting Impact Assessment have been prepared. The studies have provided recommendations to minimize social impacts on adjacent land uses. The recommendations have been included in the Aggregate Resources Act Site Plans to ensure mitigation measures are followed throughout the operation of the site. The mitigation of dust is a prescribed condition on the Aggregate Resources Act licence. The Licence will require dust to be mitigated on-site. This is typically accomplished through the application of water or another provincially approved dust suppressant to internal haul roads and processing areas as often as required to mitigate dust and through the installation of dust suppression and collection devices on dust creating equipment that operates within 300m of a sensitive receptor.

e) How the impacts from the proposed mineral aggregate operation or expansion on adjacent uses will be mitigated in order to lessen those impacts; and,

Each technical report provides recommendations to minimize impacts from the proposed extension on adjacent land uses. These recommendations have been incorporated into the Site Plans to ensure the proposed extension has been appropriately designed, buffered and/or separated from adjacent land uses to ensure impacts are mitigated throughout the operational lifespan of the extension.

f) How the site will be progressively rehabilitated to accommodate subsequent land uses after the extraction is completed, to promote land use compatibility, to recognize the interim nature of extraction and to mitigate impacts to the extent possible as required under the Aggregate Resources Act. Final rehabilitation shall take surrounding land uses and approved land use designations into consideration.

The final rehabilitated landform for the extension takes into consideration the approved rehabilitation plan for the existing quarry, surrounding land uses and natural heritage features. The proposed rehabilitation plan for the extension results in the creation of a 35.3 hectare lake with shoreline wetlands, 92.9 hectares of terrestrial habitat with areas of talus slopes and cliff faces, and 15 hectares of wetland. The application also results in the immediate creation of 4.2 hectares of wetland located to the west of the existing quarry.

Section C1 of the Muskoka Official Plan provides a policy framework for development permissions in and around Natural Heritage Features and Areas.

C1.3.1.a) Development and site alteration shall not be permitted in Provincially significant wetlands and Provincially significant coastal wetlands.

The site does not contain any provincially significant wetlands or provincially significant coastal wetlands.

- C1.3.1.b) Development and site alteration shall not be permitted in the following features unless it has been demonstrated through an EIS that there will be no negative impacts on the natural features or their ecological functions:
 - *i)* Coastal wetlands and all other wetlands that are not subject to Section C1.3.1 a);
 - *ii)* Significant wildlife habitat; and,
 - *iii)* Provincially significant Areas of Natural and Scientific interest.

The site does not contain any provincially significant Areas of Natural and Scientific interest. The Natural Environment Report confirmed the site contains wetland communities, significant wildlife habitat and the Sage Creek Subaquatic Fan. The report confirmed there would not be any negative impacts on these features subject to implementation of the recommendations to mitigate the potential impacts on the features.

C1.3.1.c) Development and site alteration shall not be permitted in fish habitat except in accordance with Provincial and Federal requirements.

The Natural Environment Report has confirmed fish habitat exists on-site but has been excluded from the proposed extraction area. The report concludes negative impacts are not anticipated to the fish habitat within the study area provided that the recommended mitigation measures are implemented.

C1.3.1.d) Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with Provincial and Federal requirements.

The Natural Environment Report identified that the proposed extension lands contain habitat of endangered or threatened species. Removal of the habitat will occur in compliance with the Endangered Species Act and will follow the recommended mitigation measures provided in the Natural Environment Report.

C1.3.1.e) Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in Sections C1.3.1 (a), (b) and (c) of this Plan, unless the

Fowler Construction Company Ltd. – Childs Pit/Quarry Extension Planning Justification Report and Aggregate Resources Act Summary Statement 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. Additional polices on adjacent lands are contained in Section C1.3.2 of this Plan.

The ecological function of lands adjacent to the proposed extension have been evaluated in the Natural Environment Report. The report recommends mitigation measures to demonstrate there will be no negative impacts on the adjacent natural features or their ecological function as a result of the proposed extraction.

Section K.4 of the Muskoka Official Plan provides a policy framework for transportation road networks within the District.

K4.3.1.a) The function of all District Roads is to connect Urban Centres and Community Areas and Provincial highways to provide access within and outside of Muskoka, service heavy industry and/or resort/high concentrations of seasonal residences, have higher speed limits, and/or provide alternative routes.

The existing Pit/Quarry and proposed extension are located on Bonnie Lake Road which is classified as a Class B District Road. See **Figure 10**. Bonnie Lake Road is the existing haul route for the existing operation and has a planned function to serve truck traffic and higher volumes of traffic.

In summary, the proposed extension to the Childs Pit/Quarry conforms to the policies of the District of Muskoka Official Plan.

4.3 TOWN OF BRACEBRIDGE OFFICIAL PLAN (2013)

The application for the proposed Pit/Quarry Extension is required to conform to the Town of Bracebridge Official Plan (2013). The existing Pit/Quarry and the proposed extension licenced areas are designated Aggregate Extraction in the Town Official Plan. See **Figure 12**. An amendment to the Town of Bracebridge Official Plan is not required.

The Town of Bracebridge Official Plan identifies Bonnie Lake Road and Highway 117 as Arterial Roads. See **Figure 13**.

Some wetlands are identified within the extension lands licence boundary and an identified Muskoka Heritage Area is located in the southwest corner of the extension lands. See **Figure 14**.

The following are policy excerpts from the Town of Bracebridge Official Plan that are relevant to the proposed Childs Pit/Quarry Extension. A response follows each excerpt to demonstrate how the proposal conforms to the policies.

H1.1.1 The Aggregate Extraction designation recognizes land holdings that contain mineral aggregate resources which may be licensed or have the potential to be licensed under the Aggregate Resources Act.

The extension lands are designated Aggregate Extraction and on-site testing has confirmed the site contains large quantities of high quality aggregate. In addition to an application to rezone the site, an application under the Aggregate Resources Act has been made to the Ministry of Natural Resources and Forestry to licence the site for extraction.

H1.4.1 Permitted uses in the Aggregate Extraction designation shall include all forms of aggregate extraction and associated operations such as crushing, screening, washing and storage. Uses that are not related to extraction such as forestry, agriculture and resource management uses may be permitted provided they do not interfere with the use of or potential future use of the land for aggregate extraction. Uses such as concrete batching plants or asphalt plants are permitted subject to approval of an implementing Zoning By-law.

Aggregate extraction and associated operations are permitted uses on the site. A concrete batching plant or asphalt plant is not proposed for this site.

- H1.5.3 A proposal for a new quarry or Class A Pit or expansions of an existing quarry or Class A Pit on lands that are not designated Aggregate Extraction shall require an Amendment to this Plan and the Zoning Bylaw. In order to be declared complete, such applications shall be supported by a site plan and such professionally prepared technical studies as required under the Aggregate Resources Act. The required reports may include:
 - *i. a land use planning report;*
 - *ii.* a natural environmental report;
 - iii. a cultural heritage resource report;
 - iv. a hydrogeological report;
 - v. a haul route study and traffic report;
 - vi. a blast design report; and
 - vii. a noise assessment report

The site is designated Aggregate Extraction but does require a Zoning Bylaw Amendment. Through pre-consultation with Town, District and Ministry of Natural Resources and Forestry staff, the following plans and reports are required and have been prepared to fulfill the application requirements:

- Aggregate Resources Act Site Plans;
- Land Use Planning Report;
- Natural Environment Report;
- Archaeological Assessment;
- Hydrogeological and Hydrological Report;
- Traffic Review;
- Blast Impact Report; and
- Noise Impact Report.
- H1.5.5 No new aggregate operation, wayside pit and quarries or earth extraction uses shall be permitted within a Provincially Significant Wetland or significant habitat of endangered or threatened species.

The Natural Environment Report confirms there are no Provincially Significant Wetlands on-site. The Natural Environment Report identified that the proposed extension lands contain habitat of

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endangered or threatened species. Removal of the habitat will occur in compliance with the Endangered Species Act and will follow the recommended mitigation measures provided in the Natural Environment Report.

- H1.5.6 An application for the approval of an Official Plan Amendment or a Zoning By-law Amendment made in order to permit the licensing of a mineral aggregate operation shall not be approved unless the applicant demonstrates that:
 - i. the proposed aggregate operation will conform to the policies of this Plan and that from a land use planning perspective, the use is reasonable and appropriate for its context;

The Town of Bracebridge has designated the extension lands Aggregate Extraction which permits the extraction of aggregate as the long term use for the site. On-site testing has confirmed the site contains high quality aggregate and licencing this resource is the best way to protect and manage the resource for future long term use. Extraction on the site is an extension of an existing extractive use in the area and has been designed to minimize and mitigate any potential impacts on surrounding land uses. This report provides justification that the proposed use is reasonable and appropriate from a land use planning perspective. All of the required studies have been completed and the Aggregate Resources Act site plans will ensure:

- sensitive land uses are protected;
- required buffer and setbacks are implemented; and,
- water resources will be protected and monitored in accordance with Ministry of Environment, Conservation and Parks permit conditions.
 - *ii.* all reasonable and proper mitigative or remedial measures will be taken to protect significant natural environmental features;

A Natural Environment Report has been completed to assess potential impacts on natural heritage features and with the recommended avoidance and mitigation measures, there will be no negative impacts on significant natural features or their ecological functions.

iii. where there is the potential or likelihood of archaeological resources, that the archaeological resources have been identified, assessed for their significance and protected (i.e. preserved or collected);

A Stage 2 Archaeological Assessment has been prepared. The study concludes that no archaeological resources are located within the proposed extension licenced boundary resulting in no impacts.

iv. the proposed aggregate operation will not adversely affect the water table or ground water regime, including wetlands, ANSIs or nearby wells;

The Natural Environment Report and Water Resources Report have been prepared. The studies conclude that the proposed aggregate operation will not adversely affect the water table or ground water regime, including wetlands, ANSIs or nearby wells.

v. that proposed aggregate will not result in road or traffic impacts that are unacceptable and which cannot be satisfactorily mitigated; and

A Traffic Review has been prepared. The study considers the effect of the additional truck traffic on the ability of the existing Childs Pit/Quarry haul route to function as a safe and efficient haul route for the existing Pit/Quarry and the proposed Extension. The study concludes the existing haul route has the capacity to accommodate the additional truck traffic associated with the proposed Extension. Recommendations for intersection upgrades at Bonnie Lake Road and Highway 117 have been provided.

vi. any noise, odour, dust and vibration that may be generated by the proposed aggregate operation are not expected to result in any loss of normal enjoyment of property by persons residing in close proximity to the operation or along the haul route.

A Noise Impact Study and Blasting Impact Assessment have been prepared. The studies have provided recommendations to minimize social impacts on adjacent land uses. The recommendations have been included in the Aggregate Resources Act Site Plans to ensure mitigation measures are followed throughout the operation of the site. The mitigation of dust is a prescribed condition on the Aggregate Resources Act licence. The Licence will require dust to be mitigated on-site. This is typically accomplished through the application of water or another provincially approved dust suppressant to internal haul roads and processing areas as often as required to mitigate dust, and through the installation of dust suppression and collection devices on dust creating equipment that operates within 300m of a sensitive receptor.

H1.5.7 The progressive rehabilitation of aggregate pits and quarries shall be encouraged and in every event the property owner shall be required to implement the site rehabilitation plans approved by the Ministry of Natural Resources before an alternate use of the property is approved by the Town.

Progressive rehabilitation will occur upon completion of extraction within each phase.

H 1.5.8 The implementing Zoning By-law shall establish separate zones to differentiate between approved quarry operations only, sand and gravel operations only, or both types of operations. The zone may be further differentiated by the class of license approved or proposed. The implementing Zoning By-law will contain setbacks for extraction operations from adjoining properties designated for residential purposes, municipal right-of-ways and property boundaries.

Section 4.4 of this report provides details on the proposed zoning for the extension lands. A 30 metre extraction setback is proposed for the boundaries of the site which abut properties designed for residential purposes. A 15 metre extraction setback is proposed for the southern lot boundary outside of the three identified tributaries to be protected that abut the lands proposed to be severed for environmental conservation around Sage Creek. A 0 metre extraction setback is proposed for the common boundaries with the existing Pit/Quarry.

- 12.3.1 All Muskoka Roads serve a regional role by carrying traffic through and to the Town. All development abutting Muskoka Roads shall be subject to the jurisdiction of the District Municipality of Muskoka.
- 13.7.3 Heavy truck traffic may be restricted to designate truck routes to minimize the negative impact that this traffic will have on residential areas and other sensitive land uses.

The Town of Bracebridge classifies Bonnie Lake Road as a District Road. See **Figure 13**. Bonnie Lake Road is utilized as the existing haul route for the existing Childs Pit/Quarry operation and will continue to be utilized as the haul route for the proposed extension. Aggregate truck traffic are required to follow the existing haul route to minimize traffic impacts on residential areas and other sensitive land uses.

16.1.1 Utilities infrastructure is important to the lifestyle, economy and social well being of the community. New development shall not affect the integrity or safety of utilities.

A hydro corridor bisects the site and is subject to an easement. The site has been developed to ensure the integrity and safety of the utilities is not compromised. The majority of the corridor within the extension lands licence boundary is not included within the extraction limit as it is located within a tributary catchment area that flows towards Sage Creek. The portion that is within the extraction limit is proposed to be extracted to 310 masl which is consistent to the approved extraction depths of the corridor within the extraction limits. Rehabilitation of the corridor lands will remain above the water table to provide Hydro One continued access to the easement lands for maintenance purposes.

Section B10.6 of the Town Official Plan provides policy direction for the identified Muskoka Heritage Areas.

B10.6.1 There are nine Muskoka Heritage Areas found in the Town that have been identified by the District Municipality of Muskoka. These Heritage Areas are identified on Appendix "A" to this Plan. The majority of these Heritage Areas/Sites have been identified in conjunction with other natural environmental features such as wetlands or Conservation Reserves. Development proposed within 50 metres of a Muskoka Heritage Area, identified in conjunction with other natural environmental features, shall generally be subject to the preparation of an Environmental Impact Statement, prepared in accordance with Section B.25.1, and completed to the satisfaction of the Town and District Municipality of Muskoka.

A Natural Environmental Report was completed for the site and surrounding lands to investigate any potential impacts the proposed extension might have on adjacent natural features or their ecological functions. The Sage Creek Subaquatic Fan is located along the north branch of the Muskoka River with portions of the feature extending into the western portion of the existing license. A small portion extends into the proposed extension boundary. See **Figure 14**. The report concludes that removal of the portion of the Fan within the proposed extraction limit is not anticipated to result in negative impacts to the Muskoka Heritage Area.

In summary, the proposed Childs Pit/Quarry Extension conforms to the policies of the Town of Bracebridge Official Plan.

4.4 TOWN OF BRACEBRIDGE ZONING BY-LAW 2016-088

The proposed Childs Pit/Quarry Extension is currently zoned 'Extractive Industrial Quarry Exception One' (M3Q-1), and a small portion is zoned 'Environmental Protection One – Wetland' (EPW1) in the Town of Bracebridge Zoning By-law 2016-088. See **Figure 16**. The 'Extractive Industrial Quarry Zone Exception One' zone only permits existing uses on the site at the date of the passing of the Zoning By-law.

A Zoning By-law Amendment is required to remove the current special exception from the Extractive Industrial Quarry Zone and to rezone the 'Environmental Protection One – Wetland' (EPW1) to the Extractive Industrial Quarry Exception XX (MEQ-XX) zone to permit the extraction of mineral aggregate resources from the entire site.

The rezoning includes a special exception to permit buildings, plants and product stockpiling within 30 metres of the lot lines that share a common boundary with the existing Childs Pit/Quarry.

A copy of the draft Zoning By-law Amendment is enclosed in **Appendix B**.

5.0 AGGREGATE RESOURCES ACT SUMMARY STATEMENT

Fowler owns and operates the existing Childs Pit/Quarry which is located on Bonnie Lake Road in the Town of Bracebridge, District of Muskoka. The existing quarry has a licence area of 234.7 hectares and is permitted to extract an area of 202 hectares.

Fowler is proposing to licence additional lands for extraction that are located directly south-east of the existing Pit/Quarry. The area of the proposed extension to be licenced under the Aggregate Resources Act (ARA) is 163.1 hectares and the proposed extraction area is 143.2 hectares. The site predominately contains a large quantity of bedrock resources, however some areas of the site contain some sand and gravel resources and overburden over the bedrock. Fowler is applying for a Category 1, Class A (Pit Below Water) and a Category 2 Class A (Quarry Below Water) licence. Please see **Figures 2 and 3** for Fowler's land holdings around the existing Childs Pit/Quarry.

The complete Aggregate Resources Act application for the proposed Pit/Quarry Extension consists of the following:

5.1 SITE PLANS

The site plans provide details of existing features, the operational plan, final rehabilitation, and crosssections of existing conditions and final rehabilitation of the proposed extension area. The site plans are included in the application package.

5.2 **TECHNICAL REPORTS**

The following study requirements from the Provincial Standards Version 1.0 for a Category 1 and 2 Class A licence are fulfilled by this application:

- 2.2.1 & 2.2.2 Hydrogeological Level 1 & 2 Technical Report, Golder Associates Ltd., dated June 2020;
 2.2.3 & 2.2.4 Natural Environment Level 1 & 2 Technical Report, Riverstone Environmental Solutions Inc., dated June 2020;
- 2.2.5 & 2.2.6 Stage 2 Archaeological Assessment, Kinickinick Heritage Consulting., dated December 07, 2012;
- 2.2.7 Stage 3 & 4 Cultural Heritage Resource Report not required;
- 2.2.8 Noise Impact Analysis, prepared by HGC Engineering, dated June 2020;

- 2.2.9 Blasting Impact Assessment, by Explotech Engineering Ltd., dated June 2020;
- 2.2.10 Each report includes the qualifications and experience of the individual(s) that have prepared the report.

Although not required by the Aggregate Resources Act, a Traffic Review completed by Tatham Engineering Limited, dated June 2020 has also been submitted.

5.3 SUMMARY STATEMENT: REQUIRED INFORMATION

Sections 5.3.1 – 5.3.5 below are structured to provide information required under the Provincial Standards Version 1.0 for a Category 1 & 2 Class A licence.

5.3.1 Planning and Land Use Considerations – Standard 2.1.1

Fowler Construction Company Ltd. (Fowler) owns and operates the existing Childs Pit/Quarry which is located on Bonnie Lake Road in the Town of Bracebridge in the District of Muskoka. The existing quarry has a licence area of 234.7 hectares and is permitted to extract an area of 202 hectares.

Fowler is applying for a Category 1 & 2 Class A licence under the Aggregate Resources Act, and a Town of Bracebridge Zoning By-law Amendment under the Planning Act to permit an extension to their existing Childs Pit/Quarry. The proposed license area is 163.1 hectares and the proposed extraction area is 143.2 hectares.

The subject site is already designated in the Town of Bracebridge Official Plan to permit Aggregate Extraction.

The existing Childs Pit/Quarry is permitted to operate a pit and quarry concurrently, however based on the geology of the site the bedrock is located underneath the sand and gravel where operations have commenced on-site. The proposed extension lands are located directly to the south of the existing pit operations and contain bedrock that is accessible to commence quarry operations in this location.

The proposed Childs Pit/Quarry Extension has been designed with a phasing plan that is integrated with the existing Pit/Quarry to minimize site disturbance, allow concurrent extraction of the pit and quarry and utilize the existing processing plant for both the existing operation and extension.

Operating a pit and quarry concurrently is important to Fowler to conserve the available high quality sand and gravel resources on-site which is a limited commodity based on the geology of the area. In addition, sand and gravel and bedrock have different quality specifications and certain projects in the municipality require products that originate from either a sand and gravel pit or a bedrock quarry. Extracting both resources from a centralized location will assist Fowler in being able to supply the required aggregate products for construction activities, infrastructure projects and winter maintenance.

The final rehabilitated landform for the extension takes into consideration the approved rehabilitation plan for the existing quarry, surrounding land uses and natural heritage features. The proposed rehabilitation plan for the extension results in the creation of a 35.3 hectare lake with shoreline wetlands, 92.9 hectares of terrestrial habitat with areas of talus slopes and cliff faces, and 15 hectares of wetland. The application also results in the immediate creation of 4.2 hectares of wetland located to the west of the existing quarry.

The proposal is consistent with the Provincial Policy Statement, conforms District of Muskoka Official Plan and the Town of Bracebridge Official Plan and has regard to matters of provincial interest laid out in the Planning Act for the following reasons:

- The site is designated Aggregate Extraction in the Town of Bracebridge Official Plan. This designation recognizes land holdings that contain mineral aggregate resources which have the potential to be licensed under the Aggregate Resources Act.
- Making the proposed extension area available for aggregate extraction represents the wise use and management of resources, providing economic benefits, while minimizing potential social and environmental impacts;
- The proposed extension contains approximately 78 million tonnes of a high quality aggregate resource that is used in DFC asphalt mixes for the skid-resistant surfacing of provincial highways and high quality concrete mixes. The aggregate is also suitable for road building and construction projects for the local market;
- The Provincial Policy Statement and District of Muskoka Official Plan permit the extraction of mineral aggregate resources in the rural area;
- The Town of Bracebridge Zoning By-law zones the majority of the site within the Extractive Industrial Quarry zone to be utilized for aggregate extraction. A Zoning By-law amendment is required to remove the special exception and permit extraction.
- Aggregate extraction is an established use in the area and the application is located directly adjacent to the existing Childs Pit/Quarry;
- The operation is appropriately designed, buffered and/or separated from sensitive land uses to minimize impacts;
- A Water Resources Study has been completed and confirmed that the on-site extraction will not negatively impact surrounding groundwater and surface water quality and quantity. Water resources will be continuously monitored throughout the life of the operation and protected from potential impacts. The proposed extension will not adversely impact surrounding wells;
- A Natural Environment Study has been completed and confirmed the on-site extraction will not negatively impact significant natural features, including the Muskoka River and Sage Creek. Avoidance and mitigation measures will be utilized to protect on site and adjacent natural heritage features;

51

- A Noise Impact Assessment has been completed and the site has been appropriately designed to ensure provincial noise limits will be met at surrounding sensitive receptors;
- A Blasting Impact Assessment has been completed and concludes blasting operations at the site can be carried out safely and within provincial guidelines to protect surrounding buildings and structures;
- An Archaeological Report has been completed and confirms the site does not contain significant cultural heritage resources and is clear of archaeological potential;
- The proposed extension area is not considered a prime agricultural area and does not contain prime agricultural land;
- The proposed extension represents the efficient use of existing infrastructure. The aggregate from the proposed extension will be shipped via the existing entrance / exit and haul route along Bonnie Lake Road. A Traffic Review has been completed to address transportation impacts, including the site access, site traffic volumes and to assess the potential impacts to the adjacent road network; and
- The proposed extension area will be rehabilitated to a lake, wetland, and terrestrial habitat that has been designed to protect and enhance adjacent natural heritage features.

5.3.2 Agricultural Classification of the Proposed Site – Standard 2.1.2

The proposed extension and surrounding area are predominantly forested and located within the Canadian Shield. The site contains a shallow layer of overburden on top of the bedrock, and in some areas of the site the bedrock is exposed at the surface. For these reasons the site is not used for agricultural purposes and rehabilitation to an agricultural condition is not proposed.

5.3.3 Quality and Quantity of Aggregate On site – Standard 2.1.3

The Childs Pit/Quarry contains a high quality aggregate product that has been approved by the Ministry of Transportation for use in DFC asphalt mixes and high quality concrete mixes. This high quality aggregate product is used for skid-resistant surfacing of provincial highways. The Pit/Quarry is also able to produce aggregate products suitable for most road building and construction projects.

Due to the proximity of the proposed extension to the existing Pit/Quarry, on site testing has been completed which confirmed that the quality of the aggregate located within the proposed extension area is the same high quality aggregate that exists in the existing Pit/Quarry. The proposed extension area contains approximately 78 million tonnes of high quality aggregate.

5.3.4 Main Haulage Routes and Proposed Truck Traffic – Standard 2.1.4

The proposed extension would utilize the existing entrance/exit and in the future, a relocated entrance/exit from the existing Pit/Quarry and travel on the existing haul route. The existing haul

route includes trucks travelling south on Bonnie Lake Road towards Highway 117. The truck traffic either travels west towards Highway 11, or east on Highway 117.

The Traffic Review has calculated if the site were to extract the permitted 2,000,000 tonnes:

- 100 trucks trips per hour (50 in / 50 out) are expected to be generated on an average day during peak season. This is an increase of 90 peak hour trips when compared to the existing operational levels.
- 254 trucks trips per hour are expected to be generated on peak days during peak season. This is an increase of 226 peak day, peak hour trips when compared to the existing operational levels.

Historic and existing operational levels have not exceeded 210,000 tonnes of aggregate to be extracted annually. Production levels are not expected to significantly increase in the near future or as a result of the proposed extension.

5.3.5 Progressive and Final Rehabilitation – Standard 2.1.5

Upon completion of extraction, the proposed Pit/Quarry Extension will be rehabilitated to a lake, wetland, and terrestrial habitat and will be integrated with the rehabilitation plan for the existing Pit/Quarry.

Rehabilitation of Phase A1 of the extension includes a lake to be integrated with the larger rehabilitated lake in the existing Pit/Quarry. The lake within Phase A1 will be +/- 25 metres deep.

As extraction reaches final depth and final limits Phase A2 of the extension will be progressively rehabilitated to terrestrial and wetland habitat, and Phases B1 and B2 will be progressively rehabilitated to terrestrial habitat. The rehabilitation plan has been developed for these phases to complement the adjacent ecological area associated with Sage Creek. In addition, Phases B1 and B2 will consist of shallow extraction to ensure the site is rehabilitated to maintain surface water flow from the site to Sage Creek.

Rehabilitation in Phase A2 will also include minor excavation below 300masl to allow for a shallow wetland ranging in depth of up to 2 metres. These wetland areas will complement the proposed lake and terrestrial habitat through the addition of diversified ecological value to the site.

The final rehabilitated landform for the extension takes into consideration the approved rehabilitation plan for the existing quarry, surrounding land uses and natural heritage features. The proposed rehabilitation plan for the extension results in the creation of a 35.3 hectare lake with shoreline wetlands, 92.9 hectares of terrestrial habitat with areas of talus slopes and cliff faces, and 15 hectares of wetland. The application also results in the immediate creation of 4.2 hectares of wetland located to the west of the existing quarry.

6.0 conclusions

The proposed Childs Pit/Quarry Extension is a logical extension to the existing Childs Pit/Quarry and represents wise resource management. For reasons outlined in this report the application represents good planning and:

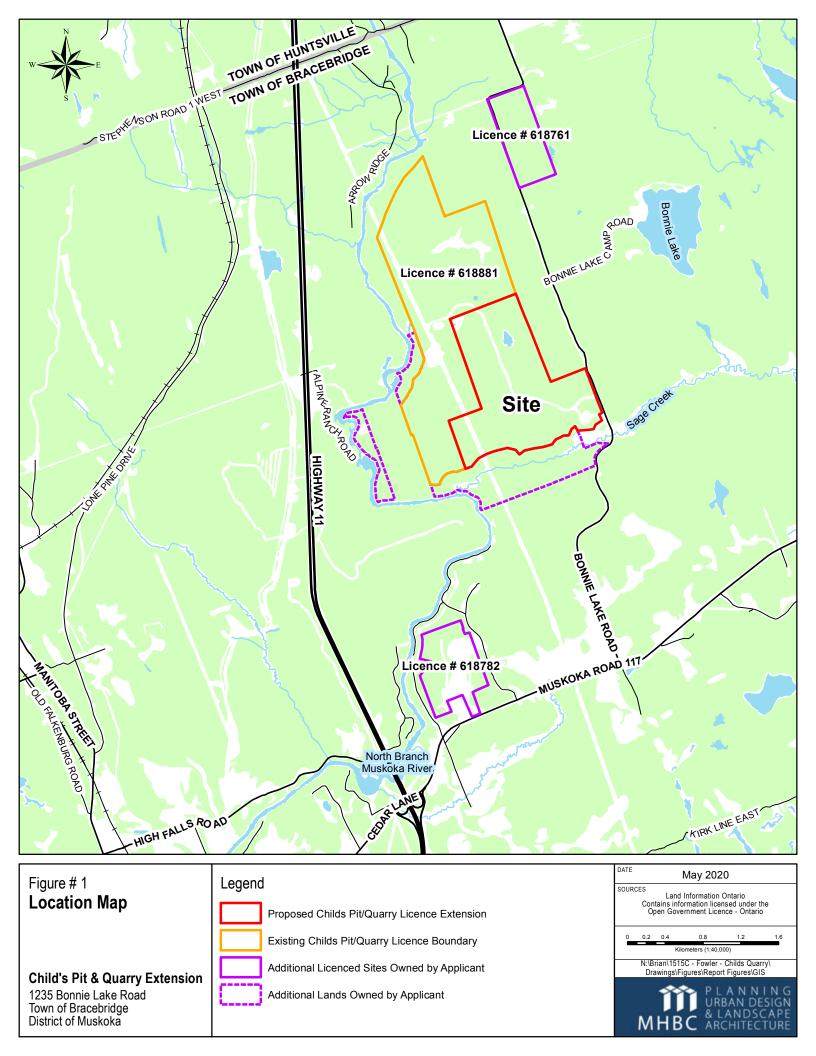
- is consistent with the Provincial Policy Statement;
- conforms to the District of Muskoka Official Plan;
- conforms to the Town of Bracebridge Official Plan; and
- complies with the Town of Bracebridge Zoning By-law, as proposed to be amended.

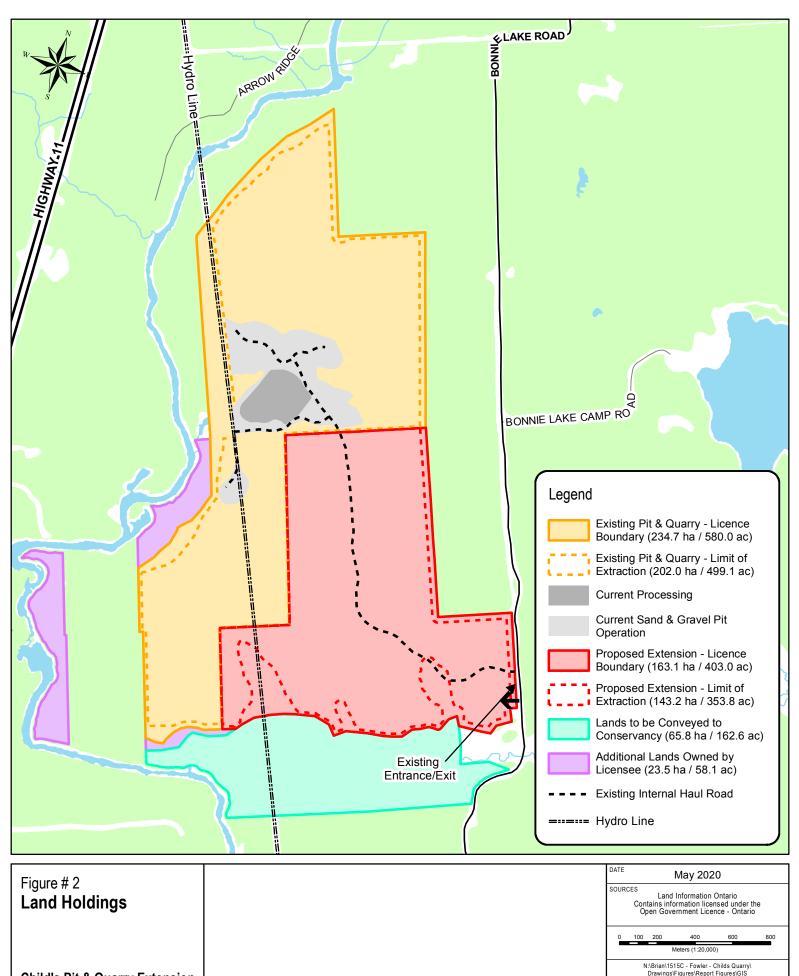
Respectfully submitted, MacNaughton Hermsen Britton Clarkson Planning Limited

Brian Zeman, BES, MCIP, RPP President

James Newlands, HBComm., MSc. Planner

Figures





Child's Pit & Quarry Extension 1235 Bonnie Lake Road Town of Bracebridge District of Muskoka P L A N N I N G URBAN DESIGN WHBC ARCHITECTURE

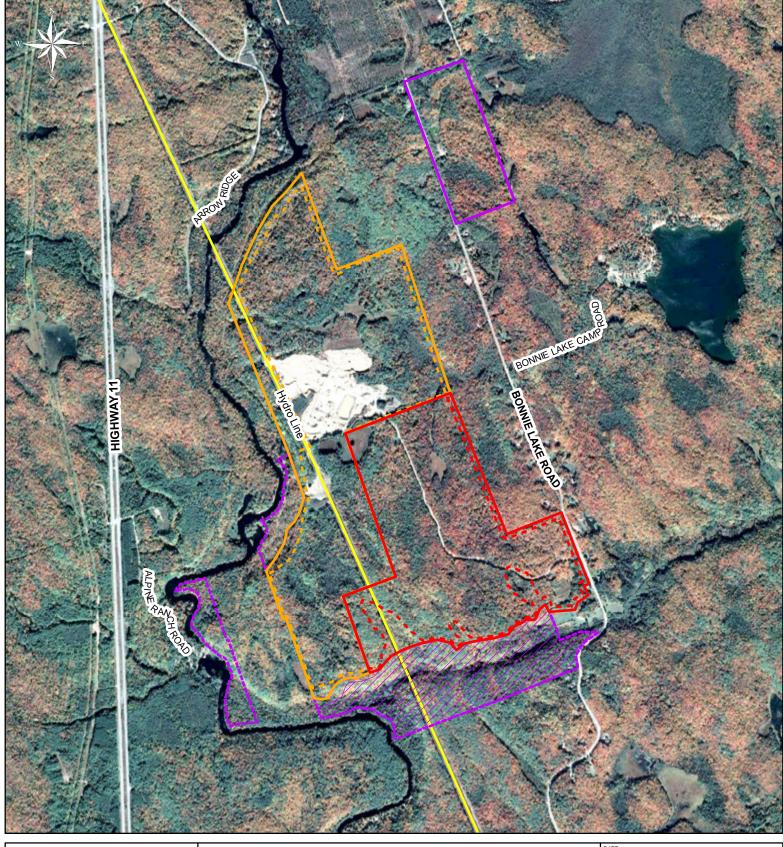
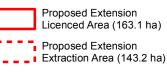


Figure # 3 Land Holdings: Aerial Context

Child's Pit & Quarry Extension 1235 Bonnie Lake Road Town of Bracebridge District of Muskoka

Legend



Existing Child's Pit/Quarry Licenced Area (234.7 ha)

Existing Child's Pit/Quarry Extraction Area (202.0 ha) Additional Licenced Site Owned by Applicant Additional Lands Owned by Applicant (23.5 ha)

Land to be Conveyed to Conservancy (65.8 ha)



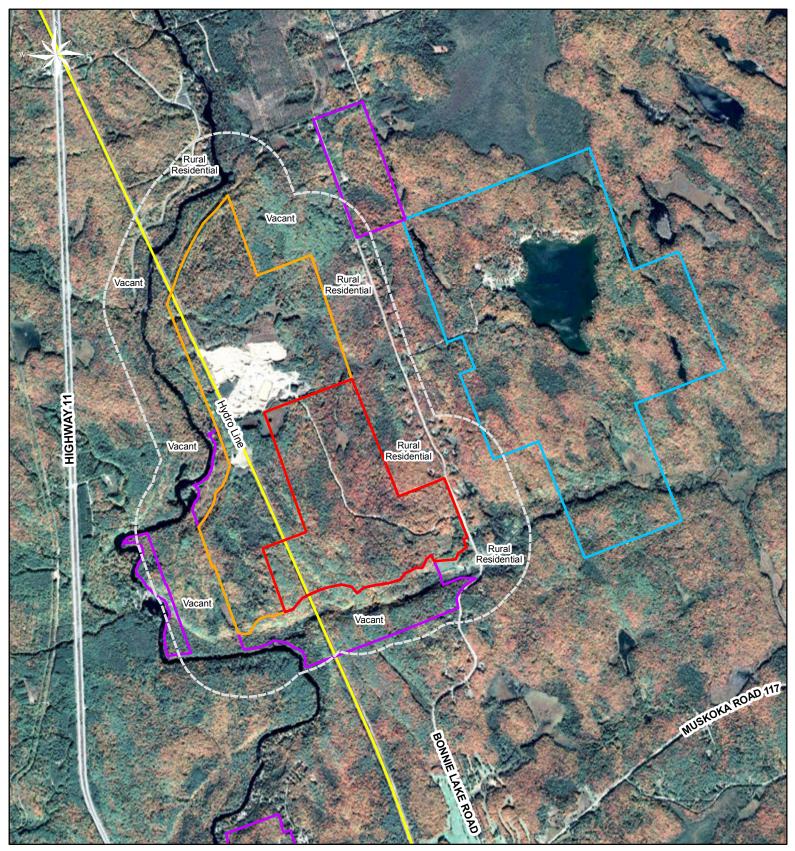


Figure # 4 Surrounding Land Uses	Legend	DATE May 2020
	egend	SOURCES
	Proposed Licence Extension	Contains information licensed under the Open Government Licence - Ontario Google Earth Air Photo Captured October 8, 2019
	Existing Licence Boundary	0 145 290 580 870 1,160 Meters (1:30,000)
Child's Pit & Quarry Extension 1235 Bonnie Lake Road Town of Bracebridge District of Muskoka	500m Offset from Licence Boundaries	N:\Brian\1515C - Fowler - Childs Quarry\ Drawings\Figures\Report Figures\GIS
	Additional Lands Owned by Applicant	P L A N N I N G URBAN DESIGN
	Bonnie Lake Resort Lands	MHBC & LANDSCAPE ARCHITECTURE

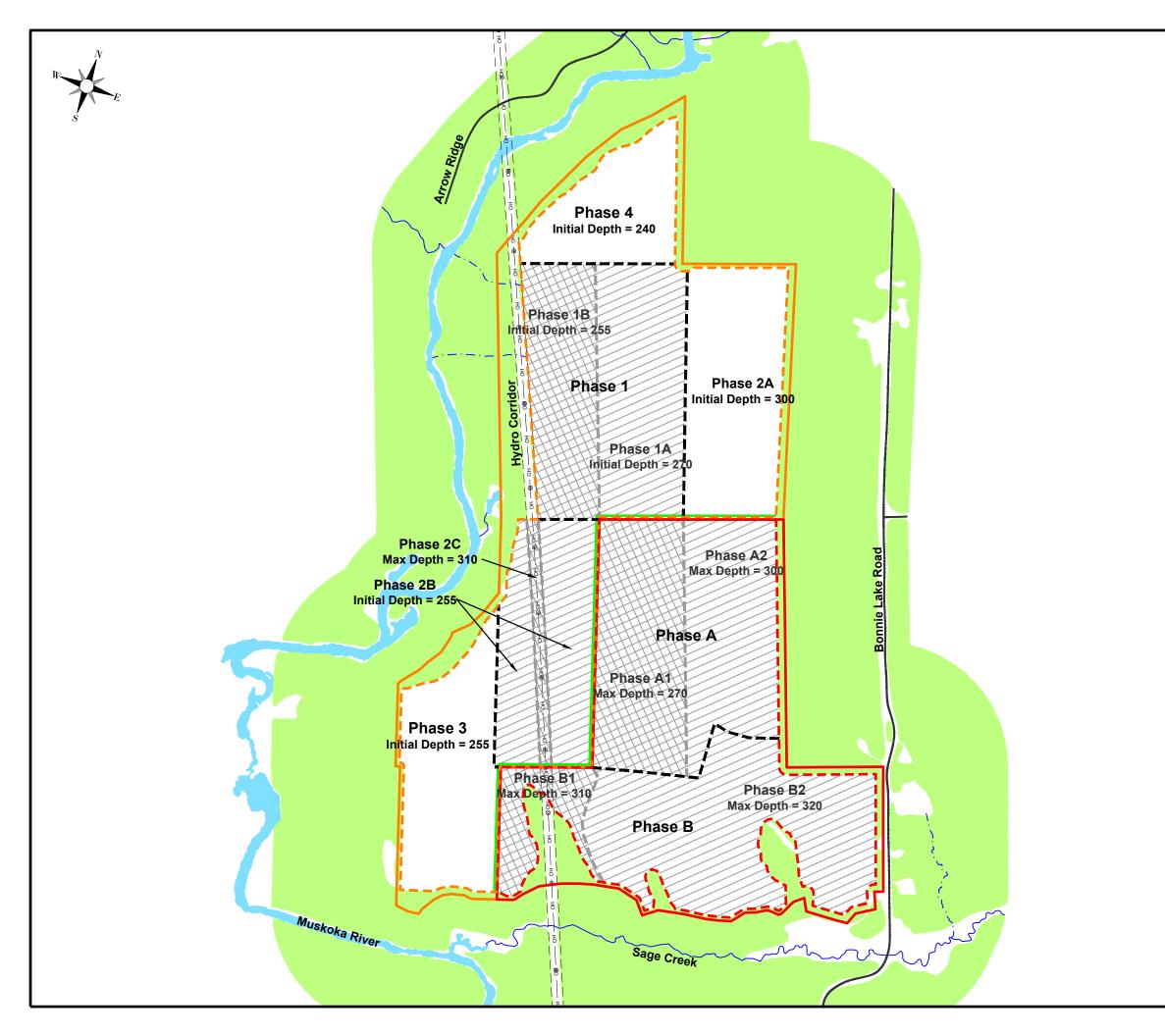


Figure # 5 Proposed Phasing and Extraction Depths

Child's Pit & Quarry Extension 1235 Bonnie Lake Road Town of Bracebridge District of Muskoka

Legend

Existing Pit & Quarry

0	,			
	Licence Boundary	234.7 ha / 580.0 ac		
122	Limit of Extraction	202.0 ha / 499.1 ac		
	Extent of Setback Reduction	1.3 ha / 3.2 ac		
	Phase 1A	36.7 ha / 90.7 ac		
ŦĦŦ	Phase 1B	28.5 ha / 70.4 ac		
	Phase 2A	39.8 ha / 98.3 ac		
	Phase 2B	33.7 ha / 83.3 ac		
	Phase 2C	4.6 ha / 11.4 ac		
	Phase 3	35.8 ha / 88.5 ac		
	Phase 4	24.2 ha / 59.8 ac		
Proposed Extension				
	Licence Boundary	163.1 ha / 403.0 ac		
1222	Limit of Extraction	143.2 ha / 353.8 ac		
	Phase A1	36.9 ha / 91.2 ac		
	Phase A2	33.9 ha / 83.7 ac		
AH P	Phase B1	11.3 ha / 27.9 ac		
	Phase B2	61.1 ha / 151.0 ac		
General				
	Phase Boundary			
	Sub Phase Boundary			
Date	May 2020			
Sources Child's Pit and Quarry Extension Site Plan, Completed by MHBC, May 2020				
	······································			
Scale 0 200 400 (1:15,000)				
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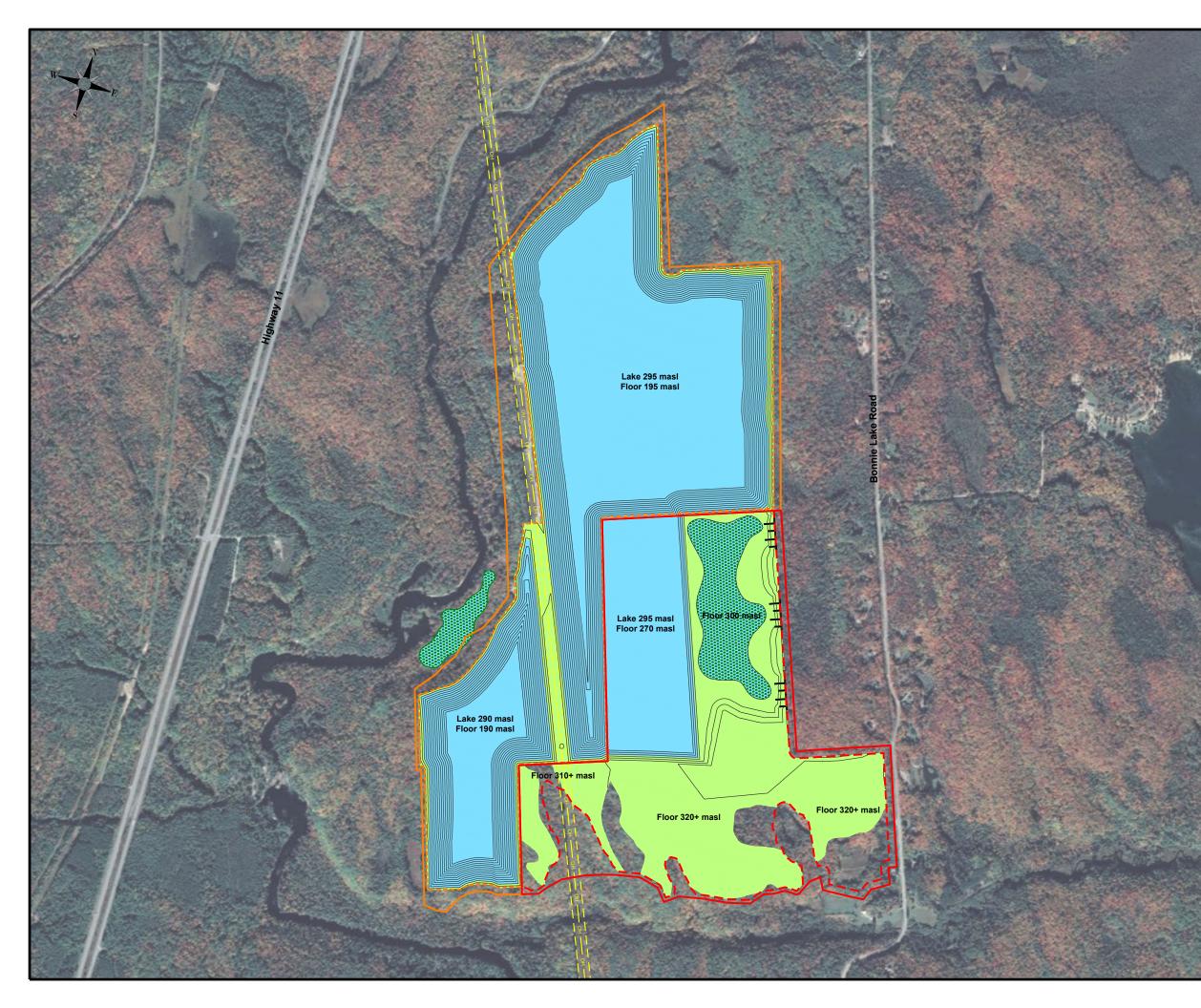


Figure # 6 Proposed Rehabilitation Landform

Child's Pit & Quarry Extension 1235 Bonnie Lake Road Town of Bracebridge District of Muskoka

Legend

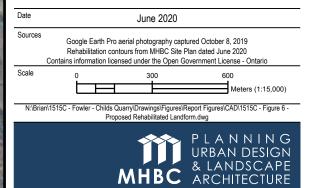
	Existing Pit & Quarry - Licence Boundary (234.7 ha)
	Existing Pit & Quarry - Limit of Extraction (202.0 ha)
	Proposed Extension - Licence Boundary (163.1 ha)
[]]]	Proposed Extension - Limit of Extraction (143.2 ha)
	Potential Lake Post Rehabilitation
199	Potential Wetland
	Potential Above Water Rehabilitation Land Formation
	Vertical Face
он —	Existing Hydro Corridor

Existing Childs Pit and Quarry Rehabilitation

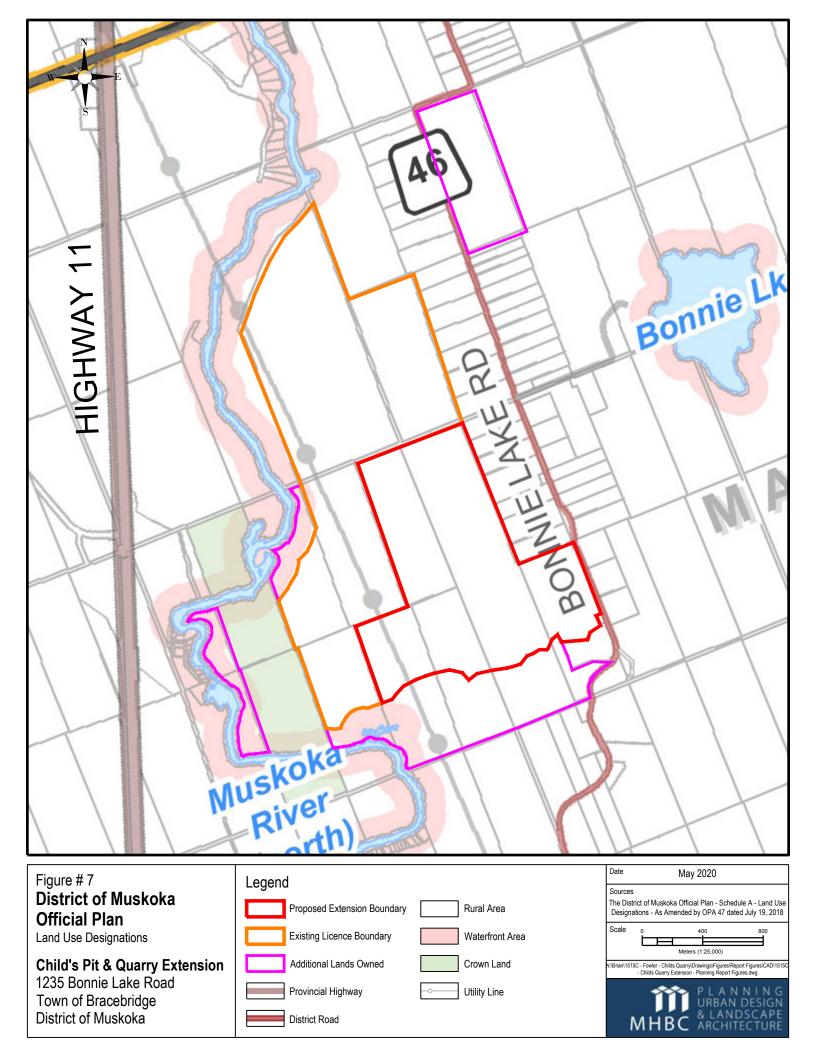
- Approved to be rehabilitated to two lakes
- Depth of lake is dependent upon obtaining an updated Environmental Compliance Approval and Permit to Take Water from the Ministry of Environment, Conservation and Parks to extract below initial elevations notes on the Proposed Phasing and Extraction Depth figure
- If Extraction does not occur below the initial elevations noted on the Proposed Phasing and Extraction Depth figure, the existing quarry Phase 2A will be rehabilitated to terrestrial habitat

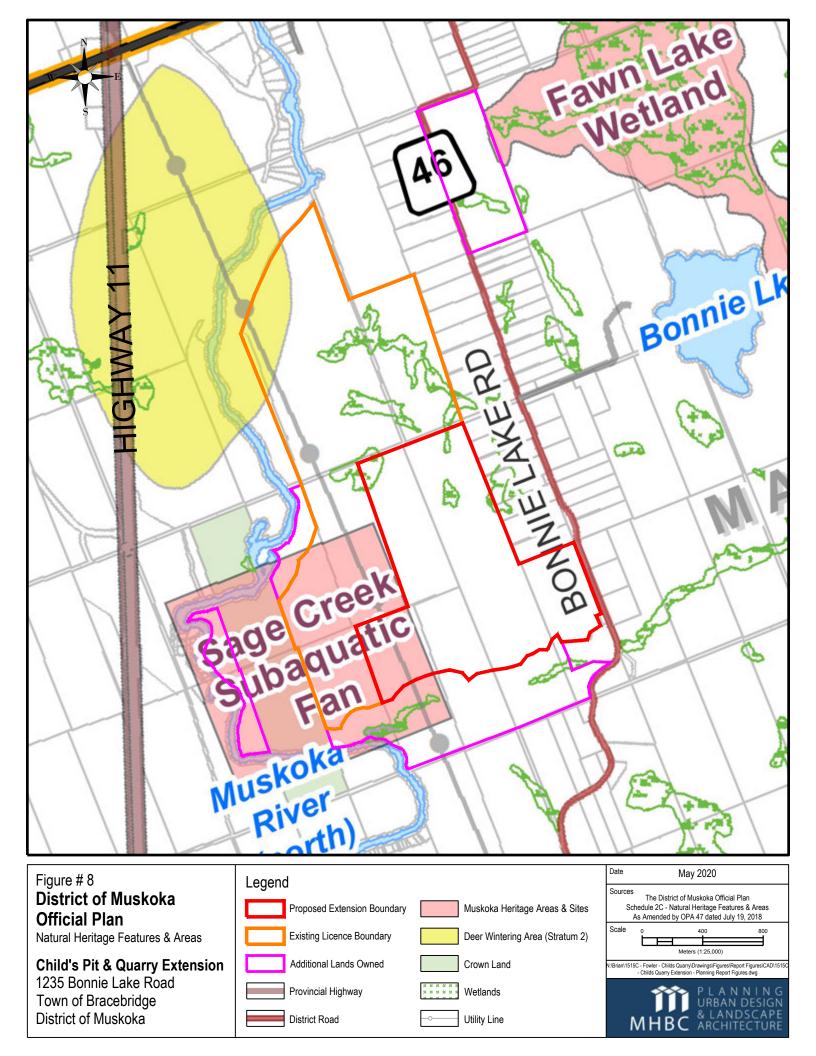
Childs Pit and Quarry Extension Rehabilitation

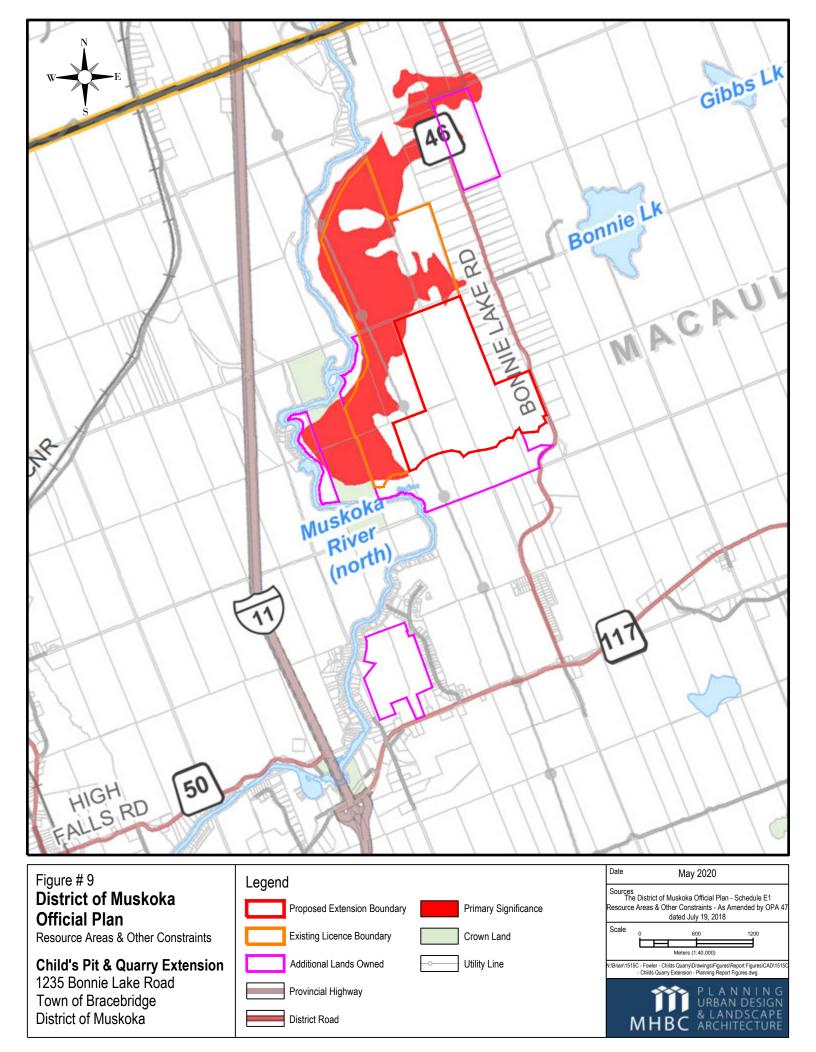
- Phase A1 will be an extension to the lake approved in the existing pit/quarry
- Phase A2 will be rehabilitated to wetland and terrestrial habitat (with cliff faces and cliff with talus slopes).
- Phase B will be rehabilitated to terrestrial habitat

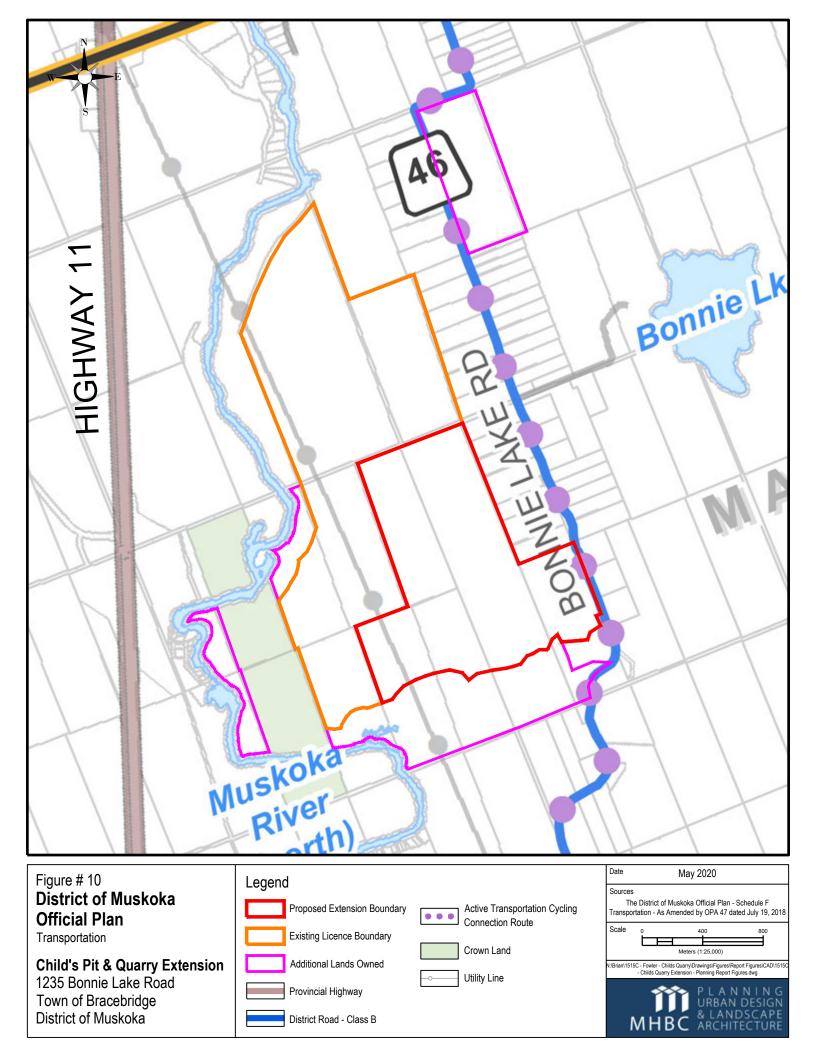


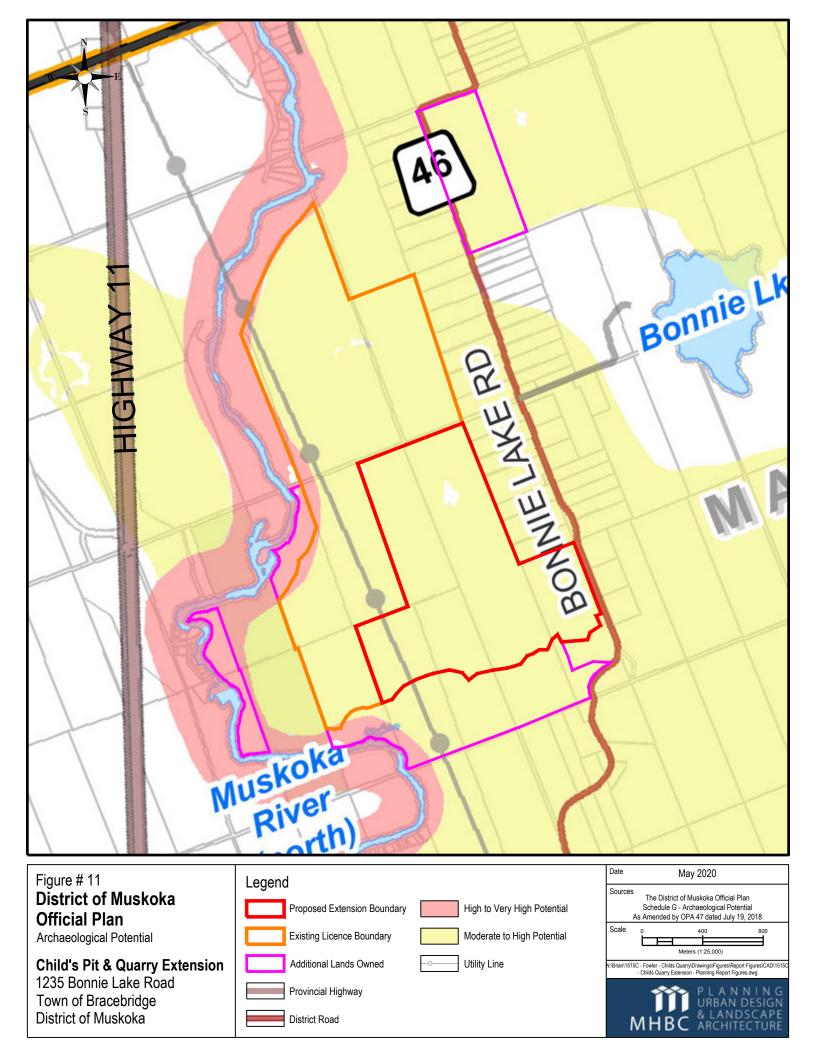
113 COLLIER STREET, BARRIE, ON, L4M 1H2 P: 705.728.0045 F: 705.728.2010 | WWW.MHBCPLAN.COM

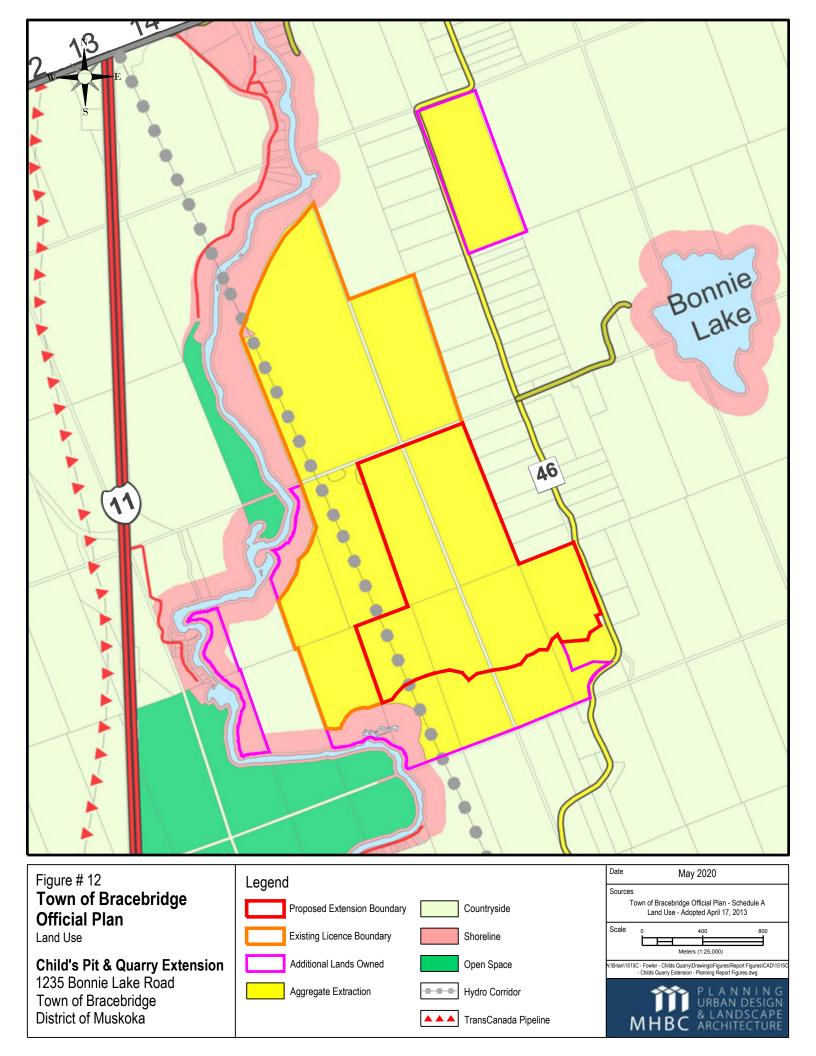


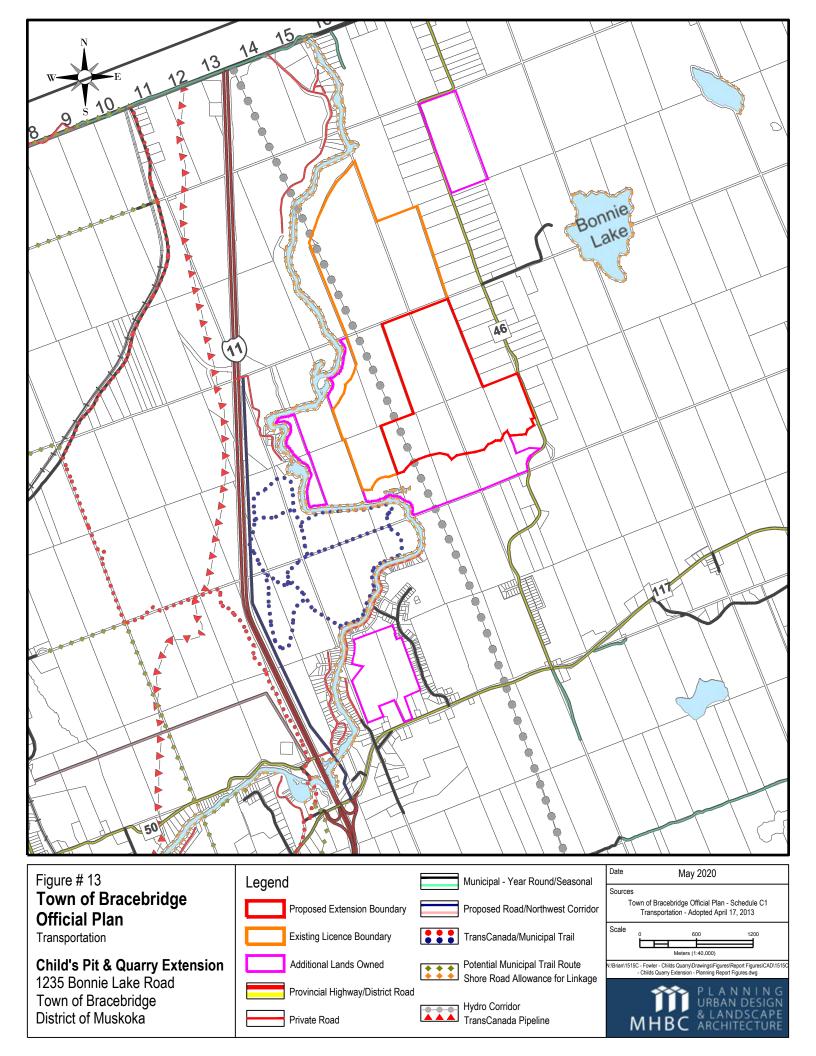


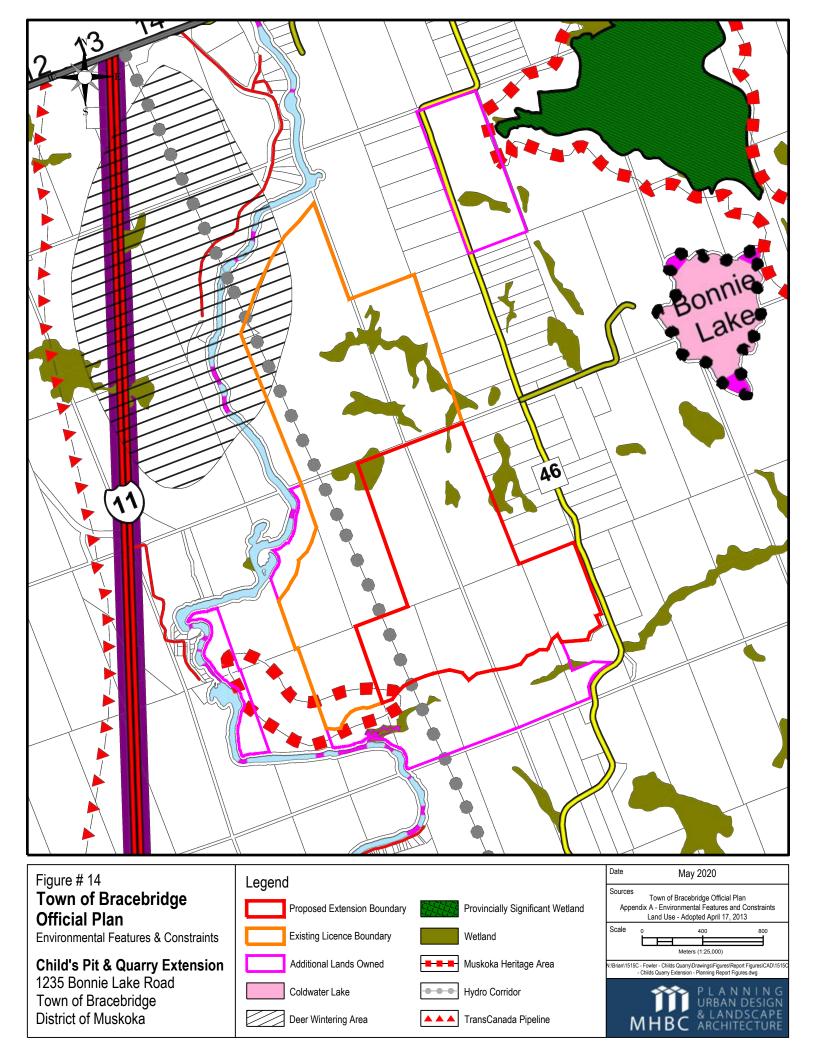












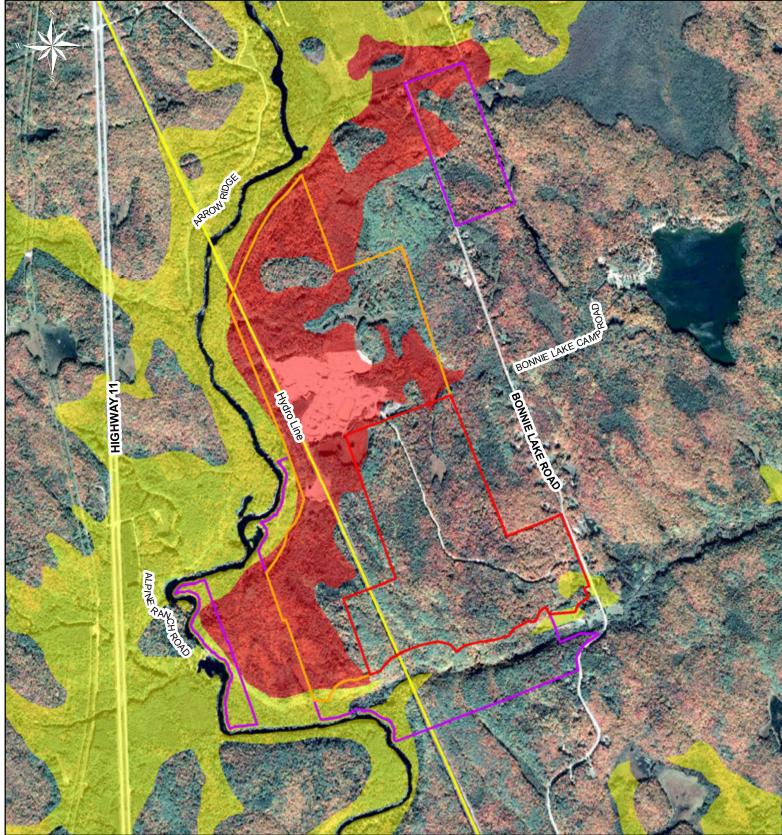
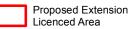
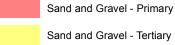


Figure # 15 Aggregate Resource Inventory Mapping

Legend



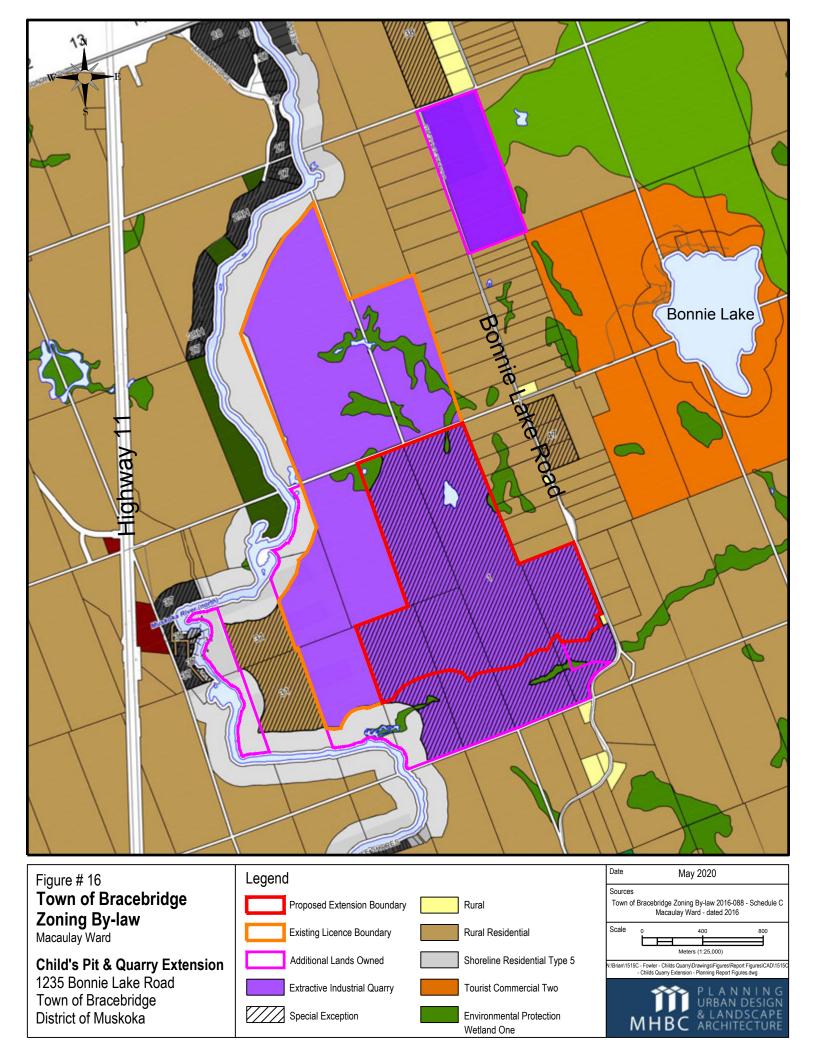






Child's Pit & Quarry Extension 1235 Bonnie Lake Road Town of Bracebridge District of Muskoka

Other Lands Owned by Applicant



Appendix A

James Newlands

From:	Matt Holmes <mholmes@bracebridge.ca></mholmes@bracebridge.ca>
Sent:	May 12, 2020 9:48 AM
То:	James Newlands
Cc:	Brian Zeman; James Gordon; Jeremy Rand
Subject:	RE: Childs Pit/Quarry Pre-Consultation Request

Good morning James,

Thank you for the email and I would agree with the list of studies and peer review requirements you have set out.

I have copied Jeremy Rand, Senior Planner for the Town on this email, as once you submitted the application Jeremy will be your point person on the file.

Although Jeremy and I work closely together I would appreciate being copied on any correspondence on the file to keep me in the loop, as this is an important application for the Town.

Thanks,

Matt Holmes Manager of Planning Services

MHolmes@bracebridge.ca Direct Phone: (705) 645-6319 Ext. 258 Main Phone: (705) 645-5264 Ext. 258 Fax: (705) 645-4209 www.bracebridge.ca

From: James Newlands [mailto:jnewlands@mhbcplan.com]
Sent: May 12, 2020 9:36 AM
To: Matt Holmes <MHolmes@bracebridge.ca>
Cc: Brian Zeman <bzeman@mhbcplan.com>; James Gordon <jgordon@fowler.ca>
Subject: Childs Pit/Quarry Pre-Consultation Request

Good morning Matt,

I am sending this email as a follow up from Friday's pre-consultation call for Fowler's Childs Pit/Quarry Extension.

First off, we would like to thank you and the Town for coordinating and hosting the call. We are glad all parties were able to join and discuss the future application.

Based on the call, we are confirming the required studies include the six studies listed in the Town's November 2, 2016 letter (Appendix A of the MHBC pre-consultation request letter), being:

- Planning Justification Report;
- Water Resources Assessment;
- Environmental Impact Assessment;
- Archaeological Assessment;
- Traffic Impact Study;
- Noise Impact Study.

In addition, a Blasting Impact Study will also be included in the submission.

It is also our understanding from the call that a peer review of the Traffic Impact Study may be required following review and confirmation from the District of Muskoka Engineering Department. It is understood the Town will rely on the Provincial review of the remaining studies.

We are always happy to discuss the application. Please do not hesitate to contact us at any time if you have questions or comments.

Thanks,

Special Note: Due to the Covid-19 outbreak, all our staff are working remotely and our offices are physically closed. We will make this transition as seamless as possible and we remain available during business hours.

JAMES NEWLANDS HBComm., MSc. | Planner

MHBC Planning, Urban Design & Landscape Architecture 113 Collier Street | Barrie | ON | L4M 1H2 | T 705 728 0045 x 234 | F 705 728 2010 | jnewlands@mhbcplan.com

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James Newlands

From:	Matt Holmes <mholmes@bracebridge.ca></mholmes@bracebridge.ca>
Sent:	April 23, 2020 4:23 PM
То:	James Newlands
Cc:	John Sisson; Graydon Smith; Brian Zeman; John McBride (jmcbride@fowler.ca);
	James Gordon; ARAapprovals@ontario.ca
Subject:	RE: Fowler Construction - Childs Pit/Quarry Extension Pre-Consultation Request

Thanks James for the clarification. I will verify schedules with the Mayor, CAO and staff for next Thursday or Friday and let you know availability.

Matt Holmes Manager of Planning Services

MHolmes@bracebridge.ca Direct Phone: (705) 645-6319 Ext. 258 Main Phone: (705) 645-5264 Ext. 258 Fax: (705) 645-4209 www.bracebridge.ca

From: James Newlands [mailto:jnewlands@mhbcplan.com]
Sent: April 23, 2020 3:10 PM
To: Matt Holmes <MHolmes@bracebridge.ca>
Cc: John Sisson <JSisson@bracebridge.ca>; Graydon Smith <GSmith@bracebridge.ca>; Brian Zeman
<bzeman@mhbcplan.com>; John McBride (jmcbride@fowler.ca) <jmcbride@fowler.ca>; James Gordon
<jgordon@fowler.ca>; ARAapprovals@ontario.ca
Subject: RE: Fowler Construction - Childs Pit/Quarry Extension Pre-Consultation Request

Hi Matt,

Thank you for the quick response.

Would the Town be available at anytime on April 30th or May 1st for the pre-consultation conference call?

Fowler has already spoken to the Mayor about the project and it is our understanding that the Mayor and CAO would like to join the initial part of the discussion so they are familiar with Fowler's upcoming application.

If you are able to coordinate with the Town and District staff, I would be happy to reach out to MNRF to invite them to the call.

Thanks,

Special Note: Due to the Covid-19 outbreak, all our staff are working remotely and our offices are physically closed. We will make this transition as seamless as possible and we remain available during business hours.

JAMES NEWLANDS HBComm., MSc. | Planner

MHBC Planning, Urban Design & Landscape Architecture 113 Collier Street | Barrie | ON | L4M 1H2 | T 705 728 0045 x 234 | F 705 728 2010 | jnewlands@mhbcplan.com

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From: Matt Holmes [mailto:MHolmes@bracebridge.ca] Sent: April 22, 2020 4:31 PM

To: James Newlands < jnewlands@mhbcplan.com>

Cc: John Sisson <JSisson@bracebridge.ca>; Graydon Smith <GSmith@bracebridge.ca>; Brian Zeman <bzeman@mhbcplan.com>; John McBride (jmcbride@fowler.ca) <jmcbride@fowler.ca>; James Gordon <jgordon@fowler.ca>; ARAapprovals@ontario.ca

Subject: RE: Fowler Construction - Childs Pit/Quarry Extension Pre-Consultation Request

Good afternoon James,

I would be happy to set up a pre-consultation meeting for the expansion of the Fowler's Child Pit and Quarry.

This meeting will include staff from both the District and the Town, so if you could provide me times that you and your team would be available next week I can coordinate staff on my end.

I note that you had copied Mayor Smith and CAO Sisson on your pre-consultation request. Typically the Mayor and CAO would not attend pre-consultation meetings as we are discussing the technical requirements for an application. Would you please verify if it was your team's intention to also meet with the Mayor and CAO?

Thank you,

Matt Holmes **Manager of Planning Services**

MHolmes@bracebridge.ca Direct Phone: (705) 645-6319 Ext. 258 Main Phone: (705) 645-5264 Ext. 258 Fax: (705) 645-4209 www.bracebridge.ca

From: James Newlands [mailto:jnewlands@mhbcplan.com] Sent: April 22, 2020 3:24 PM To: Matt Holmes <MHolmes@bracebridge.ca> Cc: John Sisson <JSisson@bracebridge.ca>; Graydon Smith <GSmith@bracebridge.ca>; Brian Zeman <bzeman@mhbcplan.com>; John McBride (jmcbride@fowler.ca) <jmcbride@fowler.ca>; James Gordon <jgordon@fowler.ca>; ARAapprovals@ontario.ca

Subject: Fowler Construction - Childs Pit/Quarry Extension Pre-Consultation Request

Good afternoon Matt,

On behalf of Fowler, attached is a letter requesting a pre-consultation conference call regarding the proposed extension to Fowler's Childs Pit/Quarry.

We look forward to hearing from you at your earliest convenience.

Thank you,

Special Note: Due to the Covid-19 outbreak, all our staff are working remotely and our offices are physically closed. We will make this transition as seamless as possible and we remain available during business hours.

JAMES NEWLANDS HBComm., MSc. | Planner

MHBC Planning, Urban Design & Landscape Architecture

113 Collier Street | Barrie | ON | L4M 1H2 | T 705 728 0045 x 234 | F 705 728 2010 | jnewlands@mhbcplan.com

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KITCHENER WOODBRIDGE LONDON KINGSTON BARRIE BURLINGTON

April 22, 2020

Matt Holmes Manager of Planning Services Town of Bracebridge 1000 Taylor Court, Bracebridge, ON P1L 1R6

Dear Mr. Holmes:

RE: Pre-Consultation Meeting Request – Childs Pit/Quarry Potential Extension Parts of Lots 14 - 16, Concession 9 and 10, Geographic Township of Macaulay, Town of Bracebridge, District of Muskoka OUR FILE 1515C

On behalf of Fowler Construction Company Ltd., (Fowler) we would like to arrange a pre-consultation conference call with the Town of Bracebridge to discuss the proposed extension of Fowler's existing Childs Pit/Quarry (Licence No. 618881).

The existing Childs Pit/Quarry is a below water pit/quarry located at part of lot 13 Concession 9, part of lots 13 -14 Concession 10, lots 14 – 16 Concession 11, and part of lots 14 – 15 Concession 12, Geographic Township of Macaulay, Town of Bracebridge, District of Muskoka. The licence area of the existing pit/quarry is 234.7 hectares and the extraction area is 202 hectares.

The proposed extension area is located directly south-east of the existing pit/quarry on part lots 14 – 16, Concession 9 and 10, Geographic Township of Macaulay, Town of Bracebridge, District of Muskoka. The subject site is 163.1 hectares and the proposed extraction area is 143.2 hectares. Please refer to **Figure 1**.

The Town of Bracebridge Official Plan designates Fowler's existing pit/quarry and the proposed extension lands as "Aggregate Extraction" as shown on **Figure 2** and it is our understanding that a District and Town Official Plan Amendment are not required.

The Town's Comprehensive Zoning By-law zones the proposed extension lands as "Extractive Industrial Quarry Zone Exception One" (M3Q-1), and "Environmental Protection One – Wetland" (EPW1) as shown on **Figure 3**. The exception zone requires a rezoning before a pit / quarry operation is permitted on-site.

Over the past 4 years, Fowler has had preliminary discussions with the Town and attached is a letter from the Town dated November 2, 2016 (**Appendix A**). This letter provided the following information:

1) That a rezoning application will be required for the extension lands to permit aggregate extraction.

- 2) That the following technical studies will be required as part of the complete rezoning application:
 - Land Use Planning Report;
 - Hydrogeological Evaluation;
 - Environmental Assessment;
 - Cultural Heritage Assessment to identify archaeological resources;
 - Haul Route and Traffic Study; and,
 - Feasibility Study to address Noise and Vibration.

In addition to the Zoning By-law amendment, Fowler will be also be submitting an Aggregate Resources Act licence application to the Ministry of Natural Resources and Forestry (MNRF) for the extension lands. While these two applications will be processed concurrently, Fowler is aware that MNRF cannot issue a license for the subject site until the lands are appropriately zoned by the Town to permit a pit/quarry on the subject site.

Based on the Town's letter and the requirements of the Aggregate Resources Act, Fowler has retained the following project team to assist with the application:

- MHBC Planning, Aggregate Resources Act Summary Statement and Aggregate Resources Act Site Plans;
- Golder Associates Water Resources Assessment and Archaeological Investigation;
- Riverstone Environmental Environmental Impact Assessment
- Tatham Engineering Traffic Study
- Explotech Blasting Study
- HGC Engineering Noise Impact Assessment

The Childs Pit/Quarry is an important and strategic site for Fowler since it contains both sand and gravel and bedrock, a high quality resource that is capable of producing aggregate suitable for skid-resistant surfacing on the 400 series highways and high quality concrete. Due to its specialty, the aggregate in Childs can be used in local projects in Muskoka and in projects throughout Southern Ontario. The Childs Pit/Quarry provides a number of important economic opportunities within the Town of Bracebridge including employment of local residents and subcontractors, and supply for local construction and infrastructure projects. Expansion of the existing Pit/ Quarry will ensure long term sustainability is met through continued employment and growth in the local economy.

Rezoning and licencing this site now would allow Fowler to operate a pit and quarry at the same time, in a centralized location of the site that would minimize site disturbance and allow one processing plant to process aggregate from both the pit and quarry. Operating a pit and quarry concurrently at this site is important to Fowler:

• to conserve the available high quality sand and gravel resources on-site which is a limited commodity based on the geology of the area; and

• sand and gravel and bedrock resources have different quality specifications and certain projects in the municipality require products that originate from either a sand and gravel pit or a bedrock quarry.

Licencing this site now also conforms to the Bracebridge Official Plan since this site is already designated to permit extraction and licencing the resource is the best mechanism to ensure long term protection of the aggregate.

For additional information please find enclosed, **Appendix B** which includes a summary regarding Fowler's existing Childs Pit/Quarry, the proposed extension, and additional land owned by Fowler.

We understand that the Town would also like to include the Town's Public Works staff and District of Muskoka Planning on the pre-consultation call.

Please let us know your availability for a call and who from Public Works and the District that should be invited. We will also invite MNRF to attend the call. We would be happy to coordinate this call at a time that is convenient for Town staff.

Yours truly,

MHBC

Brian Zeman, BES, MCIP, RPP President

cc. Graydon Smith, Mayor of Bracebridge John Sisson, CAO of Bracebridge Integrated Aggregate Operations Section, MNRF John McBride, Fowler James Gordon, Fowler James Newlands, MHBC

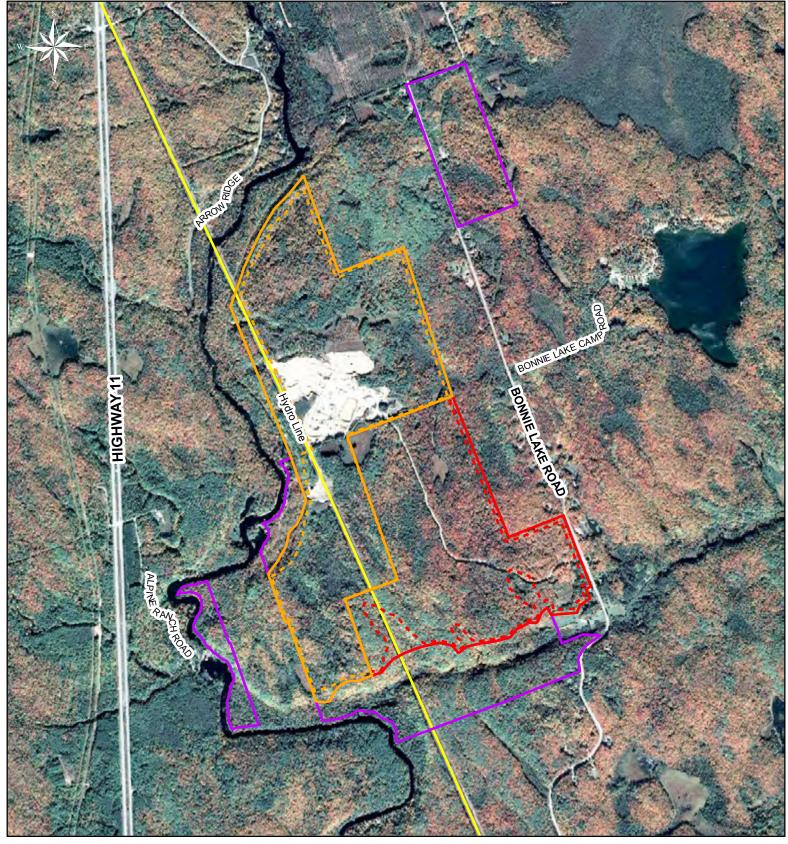


Figure #1 **Aerial Context**

Legend

Child's Pit & Quarry Extension

1235 Bonnie Lake Road Town of Bracebridge District of Muskoka

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Existing Child's Pit & Quarry Extraction Area (202.0 ha / 499.1 ac)

Existing Child's Pit & Quarry Licenced Area (234.7 ha / 580.0 ac)

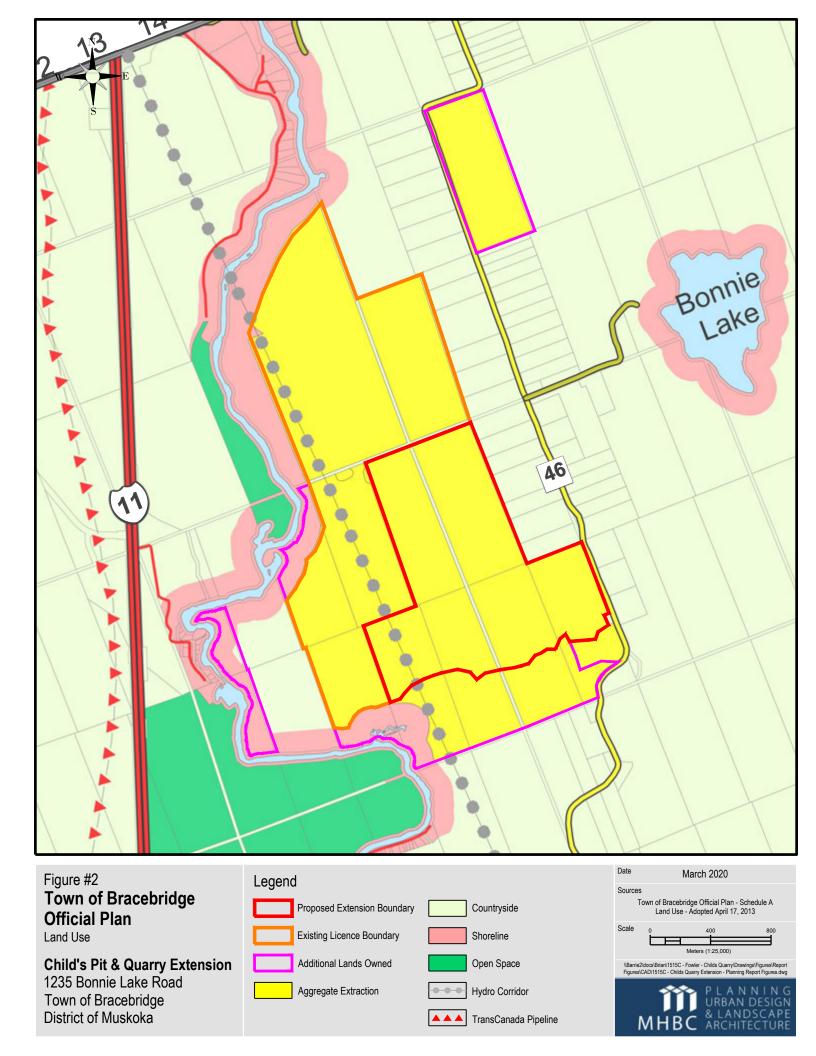


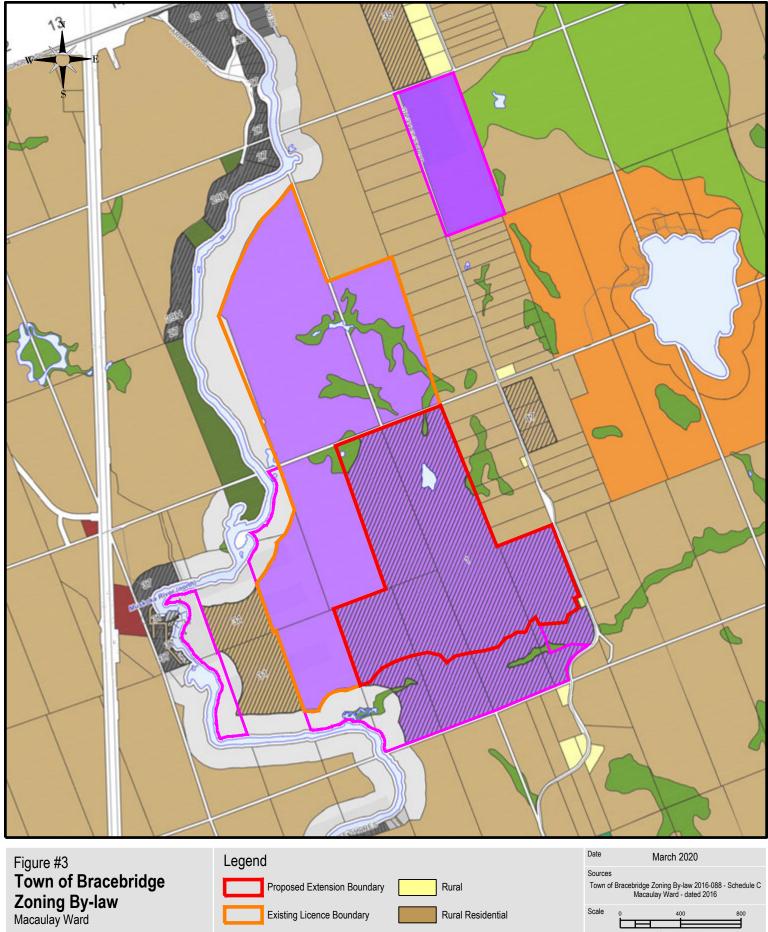
Proposed Extension Licenced Area (163.1 ha / 403.0 ac)

Proposed Extension Extraction Area (143.2 ha / 353.8 ac)

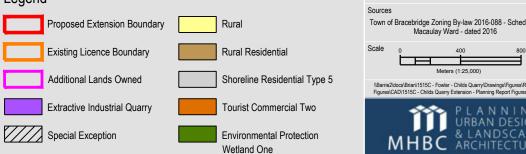
Additional Lands Owned by Applicant







Child's Pit & Quarry Extension 1235 Bonnie Lake Road Town of Bracebridge District of Muskoka



Appendix A



November 2, 2016

Ms. M. Miller, President Fowler Construction Company, Ltd. P.O. Box 630 1206 Rosewarne Drive Bracebridge, Ontario P1L 1T9

Dear Ms. Miller:

Re: Childs Pit & Quarry Lots 13 to 17, Concession 9, Lots 13 to 16, Concession 10, Lots 14 to 16,Concession 11, and Part of Lots 14 and 15, Concession 12, Macaulay Ward of the Town of Bracebridge

Thank you for the opportunity to meet on October 28, 2016. I appreciate receiving an update on Fowler plans for the Childs Pit and Quarry. This letter is provided as a follow-up to our discussion and:

- the discussion paper that was submitted to the Town by Wayne Simpson in 2012;
- the subsequent discussions with Mr. Simpson, John McBride, District staff and Town staff; and
- the Town's May 23, 2012 letter to Mr. Simpson regarding the proposal to expand Childs Pit and Quarry.

As indicated in the May 23, 2012 correspondence from the Town, staff identified that two (2) rezoning applications will be required, one for the pit and quarry expansion and one for the rezoning of certain lands to Environmental Protection One (EP1).

As noted in 2012, after reviewing the proposal to expand the Childs Pit and Quarry with District officials and the Ministry of Natural Resources, Town staff confirmed that they would not recommend the use of a Holding Symbol for the proposed rezoning. In 2012, the Ministry of Natural Resources confirmed that they could not issue a license under the Aggregate Resources Act (ARA) with a Holding Symbol on a property.

As set out in 2012, Town staff would not recommend the use of a Holding Symbol that could only be lifted once all technical supporting studies have been completed. In accordance with Section J3.3 of the Town of Bracebridge Official Plan, Council may only utilize a Holding Symbol to ensure adequate provision is made for urban services, facilitate good site plan design, ensure proper phasing of development, to reduce processing times of development applications in areas where land assembly is a requirement of development or to ensure that agreements respecting the proposed land use or development are entered into.

1000 Taylor Court Bracebridge, ON P1L 1R6 Canada

telephone: (705) 645-5264 administration fax: (705) 645-1262 public works fax: (705) 645-7525 development services fax: (705) 645-4209

www.bracebridge.ca

As Town staff would not recommend the use a Holding Symbol, all supporting technical studies must be received with the application to deem the application complete. Based on policies in the Town Official Plan on expansion of an existing quarry, the following studies will be required to support the application:

- Land Use Planning Report
- Hydrogeological Evaluation
- Environmental Assessment
- Cultural Heritage Assessment to identify archaeological resources
- Haul Route and Traffic Study
- Feasibility Study to address Noise and Vibration

If a rezoning application was processed separately from the licensing process for the ARA, these studies would be required to be peer reviewed at the expense of the applicant. If the rezoning application and ARA license application ran concurrently, there may not be a need to peer review these studies.

Based on the Town's review of the proposal in 2012 and based on our current understanding of Fowler's plans, staff feel it would be in the best interest of your client to run the rezoning process and the ARA licensing process concurrently. Firstly, as mentioned above, it would eliminate the need for supporting studies to be peer reviewed. Secondly, it may avoid the matter possibly going before the Ontario Municipal Board twice, saving your client legal costs. In fact, if the rezoning was appealed, the Ontario Municipal Board would likely defer the matter until the ARA license was dealt with and possibly appealed to deal with both matters under one Board Hearing.

Based on the time that has elapsed since the submission of Mr. Simpson's discussion paper and the dialogue with Fowler staff, it may be appropriate for Town staff to meet with appropriate officials from Fowler and Mr. Zerman, your new planning representative. Staff from the Town's Planning and Development Department are available to meet at your convenience. We would also endeavor to bring in required Public Works and District staff as needed for a meeting regarding Fowler's future development plans.

Thank you once again for the opportunity to meet on October 28, 2016. The opportunity to discuss the Childs Pit and other topics of mutual interest is greatly appreciated.

If Mr. Zerman wishes to set up a meeting, he can contact Matt Holmes, Manager of Planning, at 705-645-5264 Ext. 258 or <u>mholmes@bracebridge.ca</u>.

Yours truly,

John Sisson, CMO Chief Administrative Officer

c Planning and Development Department

Page 2.

Appendix **B**



CHILDS PIT/QUARRY EXTENSION

FOWLER CONSTRUCTION

Fowler Construction was incorporated in 1949 and has been the trusted name for over 70 years. Fowler operates over 30 pits and quarries throughout Parry Sound, Muskoka and Haliburton and is a proud partner of communities in which we operate. During the peak construction season, Fowler employs over 400 workers and provides a variety of services including driveways and landscaping, highways and road construction & maintenance, marine works, underground utilities, cottage projects, and trucking.

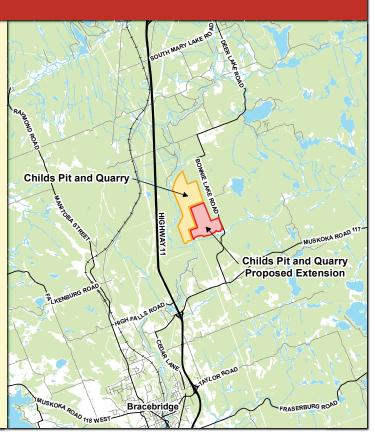


OUR CHILDS PIT/QUARRY

Our Childs Pit/Quarry is a licenced mineral aggregate operation under the Aggregate Resources Act. The licenced area is 234.7 hectares and the extraction area is 202 hectares. The pit/quarry is permitted to operate 24 hours a day, 7 days a week and is permitted to ship an unlimited amount of tonnes per year. The entrance/exit for the operation is on Bonnie Lake Road and the majority of trucks travel south to Muskoka Road117.

The existing Pit/Quarry is divided into four phases and currently operations are within Phase 1 of the site.

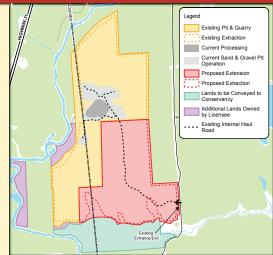
Within the Town of Bracebridge, the Childs Pit/Quarry is an important and strategic site for Fowler since it contains both sand and gravel and bedrock, a high quality resource that is capable of producing aggregate suitable for skid-resistant surfacing on the 400 series highways and high quality concrete. Due to its specialty, the aggregate in Childs can be used in projects in the Muskokas and throughout Southern Ontario. The Childs Pit/Quarry provides a number of important economic opportunities within the Town of Bracebridge including employment of local residents and subcontractors and supply for local construction projects. Expansion of the existing Pit/Quarry will ensure long term sustainability is met through continued employment and growth in the local economy.



CHILDS PIT/QUARRY LAND HOLDINGS

Adjacent to our Childs Pit/Quarry, Fowler currently owns another 252.4 hectares and the majority of this land is designated Aggregate Extraction in the Town of Bracebridge Official Plan. Fowler's vision for this land includes:

- 65.8 hectares to be conveyed to the Muskoka Conservancy. To facilitate this, Fowler has submitted a rezoning and consent application to the Town of Bracebridge to ensure the long term environmental protection of Sage Creek;
- 163.1 hectare expansion to the existing Childs Pit/Quarry. This application is expected to be submitted to the Town of Bracebridge and Ministry of Natural Resources and Forestry in the summer of 2020; and
- 23.5 hectares of land will be retained by Fowler and remain as buffer lands to the Muskoka River and Sage Creek.



CHILDS PIT/QUARRY EXTENSION

At the existing Childs Pit/Quarry, operations are currently in Phase 1 and include a sand and gravel operation. Within Phase 1 the bedrock required for the quarry is located underneath the sand and gravel resource.

Directly south of Fowler's existing Childs Pit/Quarry are additional lands owned by Fowler and the bedrock resource is located closer to surface. These lands are designated Aggregate Extraction in the Town of Bracebridge Official Plan.

In summer of 2020, Fowler is planning on submitting a rezoning application to the Town of Bracebridge and an Aggregate Resources Act License application to the Ministry of Natural Resources and Forestry to expand the existing pit/quarry by 163.1 hectares, of which 143.2 hectares is proposed for extraction.

Rezoning and licencing this site now would allow Fowler to operate a pit and quarry at the same time, in a centralized location of the site that would minimize site disturbance and allow one processing plant to process aggregate from both the pit and quarry. Operating a pit and quarry concurrently at this site is important to Fowler:

- to conserve the available high quality sand and gravel resources on-site which is a limited commodity based on the geology of the area; and
- sand and gravel and bedrock resources have different quality specifications and certain projects in the municipality require products that originate from either a sand and gravel pit or a bedrock quarry.

Prior to submitting an application, Fowler has retained technical experts related to land use planning, site design, water resources, natural environment, blasting, noise, traffic and archaeology. These experts are completing extensive field investigations and will provide recommendations that Fowler will incorporate into the design of the proposed extension to ensure:

- impacts on the surrounding community are minimized and wells are protected;
- · there will be no negative impact on significant natural heritage resources;
- the site will be operated to meet Provincial guidelines for noise and blasting;
- the existing haul route has capacity and is appropriately designed to accommodate truck traffic;
- archaeological resources are conserved; and
- the application addresses Provincial, District and Town policies.



CHILDS PIT/QUARRY EXTENSION

Within the District of Muskoka there are +/- 60 Class A mineral aggregate operations (permitted to ship more than 20,000 tonnes per year) and many of these operations have an unlimited tonnage limit similar to the existing Childs Pit/Quarry. In 2018, all of the mineral aggregate operations (Class A and Class B) in the District of Muskoka combined for a total of 2.38 million tonnes of aggregate being shipped to market.

For the extension site, Fowler is applying for a maximum tonnage limit of two million tonnes per year. We are analysing two million tonnes of extraction per year to ensure the site is proactively designed to minimize impacts to surrounding residents and confirm that Bonnie Lake Road has capacity to accommodate this amount of traffic in the event that production significantly increases in the future, compared to existing production levels at the existing pit/quarry. As part of the extension there will be no new entrance/exit and the existing approved entrance/exit on Bonnie Lake Road will be used.

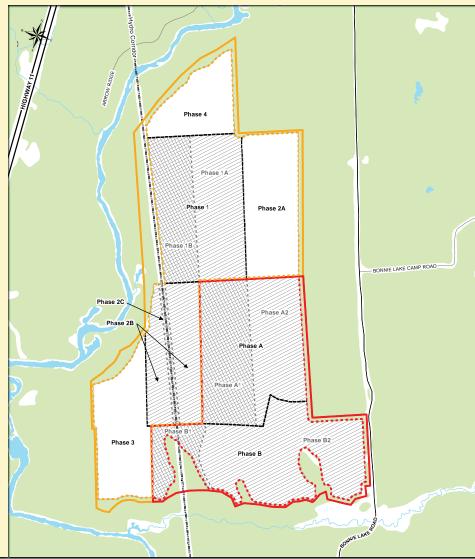
The proposed extension has been designed to be extracted in two phases. These phases have been developed to integrate operations with the existing Childs Pit/Quarry. The extension lands will allow the existing pit operation in Phase 1 of the existing Childs Pit/Quarry to continue while quarry operations begin in Phase A of the extension. At the commencement of the extension, aggregate will be transported to the existing processing plant in the existing site. Utilizing the existing Childs Pit/Quarry to process aggregate for the existing site and proposed extension will minimize the amount of disturbed area and allow for one processing plant to be located on-site for the foreseeable future. In the long term, as extraction advances, the processing plant would be relocated to a more centralized location in either the existing quarry or extension.

The existing Childs Pit/Quarry Aggregate Resources Act Site Plans permit extraction in Phases 1 - 4 to an elevation of 195 masl (except within the Hydro Corridor). For the extension, Fowler is proposing to extract to an elevation of 270 masl in Phase A1; 300 masl in Phase A2; 310 masl in Phase B1; and 320 masl in Phase B2.

For the purpose of evaluating potential impacts to water resources, Fowler in conjunction with a water resources expert have designed an initial depth for the existing operation which Fowler will stay above for the foreseeable future based on the amount of reserves and market demand in the area. The initial extraction depths for the existing site are: 270 masl in Phase 1A; 255 masl in Phase 1B; 300 masl in Phase 2A; 255 masl in Phase 2B; 310 masl in Phase 2C; 255 masl in Phase 3; and 240 masl in Phase 4.

Since the site will be initially designed to ensure there are no adverse impacts to water resources and wells based on the above noted extraction depths Fowler proposes to add a condition to the existing Childs Pit/Quarry which, requires Fowler to obtain an updated Environmental Compliance Approval and Permit to Take Water from the Ministry of Environment, Conservation and Parks prior to extraction in the existing site proceeding below the elevations noted above to ensure surrounding water resources and wells are protected.

Phase B of the extension has been designed at a higher elevation to stay above the water table to ensure the extension will not impact Sage Creek.



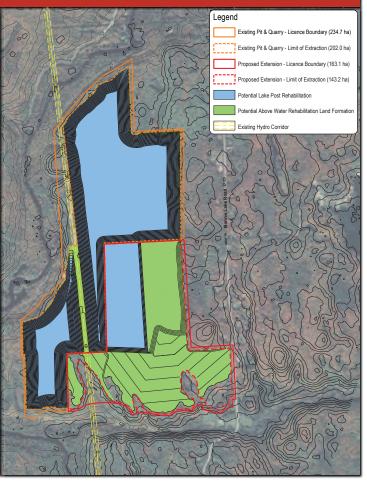
CHILDS PIT/QUARRY EXTENSION REHABILITATION

The existing Child Pit/Quarry Aggregate Resources Act Site Plans require the site to be progressively rehabilitated throughout the life of the operation and once extraction is complete, the existing Pit/Quarry will fill with water to create two lakes with rehabilitated sideslopes. The lands subject to the hydro easement will remain above the water table to provide on-going access to the existing hydro towers and lines.

Rehabilitation of Phase A1 of the extension includes a lake to be integrated with the larger rehabilitated lake in the existing Pit/Quarry.

Phases A2, B1 and B2 of the extension will be rehabilitated to terrestrial habitat. Riverstone Environmental, a local firm with extensive ecological knowledge in the area is assisting Fowler to develop a rehabilitation plan for these phases to enhance the ecological diversity of the site and complement the adjacent ecological area associated with Sage Creek. In addition, Phases B1 and B2 will consist of shallow extraction to ensure the site is rehabilitated to maintain surface water flow from the site to Sage Creek.

The combined rehabilitation plan for the existing Pit/Quarry and the extension will create a 220.2 hectare lake and 125 hectares of terrestrial habitat.



NEXT STEPS

Fowler is committed to an open and transparent public and agency review of the application. To facilitate this Fowler commits to setting up a website dedicated to the Childs Pit/Quarry Extension to ensure all of the technical reports are available to the public when they are completed. In addition, once the application is submitted, and public gatherings can occur Fowler will host an open house for the community to provide the details of the application. Representatives from Fowler and the technical experts that assisted with the design of the operation will be available to speak one on one with our neighbours and answer any questions. During the process there will also be other opportunities for public input at the Planning Act public meeting and Committee and Council meetings.

During the process the application will be thoroughly reviewed by the District of Muskoka; Town of Bracebridge; Ministry of Natural Resources and Forestry and Ministry of Environment, Conservation and Parks, amongst other agencies and independent technical experts. Fowler commits to providing the agency review comments and Fowler's response on its website to ensure the public has access to all information related to the application.

At Fowler, we always have an open door policy and are willing to meet with our neighbours to discuss existing and future operations. At the Childs Pit/Quarry we are going to be part of the community for a long time and we want to be good neighbours and work with the community.



YOUR PROJECT. OUR PASSION.

Appendix **B**

BY-LAW NO. 2020-XXX

A BY-LAW OF THE CORPORATION OF THE TOWN OF BRACEBRIDGE TO AMEND BY-LAW 2016-088, A LAND USE CONTROL BY-LAW TO REGULATE THE USE OF LAND IN THE TOWN OF BRACEBRIDGE

WHEREAS By-law No. 2016-088 was enacted to regulate land use to Bracebridge Ward, of the Town of Bracebridge, in the District Municipality of Muskoka.

AND WHEREAS it is deemed necessary to amend the said by-law by rezoning certain lands;

AND WHEREAS by motion 20-PD-025 the Council of The Corporation of the Town of Bracebridge deems it expedient to pass such a by-law;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWN OF BRACEBRIDGE ENACTS AS FOLLOWS:

- That Schedule "A" to By-law No. 2016-088 is hereby amended by rezoning the properties described as Lots 15 & 16, Concession 10, Part lots 14-17, Concession 9, Road Allowance between Lots 15 & 16, Concession 10 and Road Allowance between Lots 15 & 16, Concession 9 in the Town of Bracebridge (Geographic Township of Macaulay), District of Muskoka from the present zones of 'Extractive Industrial Quarry Exception One' (M3Q-1), and 'Environmental Protection One – Wetland' (EPW1) to 'Extractive Industrial Quarry Exception XX' (M3Q-XX)
- 2. That Section 7.1.5 Industrial Zone Exceptions is hereby amended by the addition of the following:
 - Zone Zone Provisions
 - M3Q-XX In the Extractive Industrial Quarry Exception XX (M3Q-XX) zone, the minimum setback for buildings, plants and product stockpiles shall be 0 metres along the common lot line boundaries of the adjacent licenced Pit/Quarry.

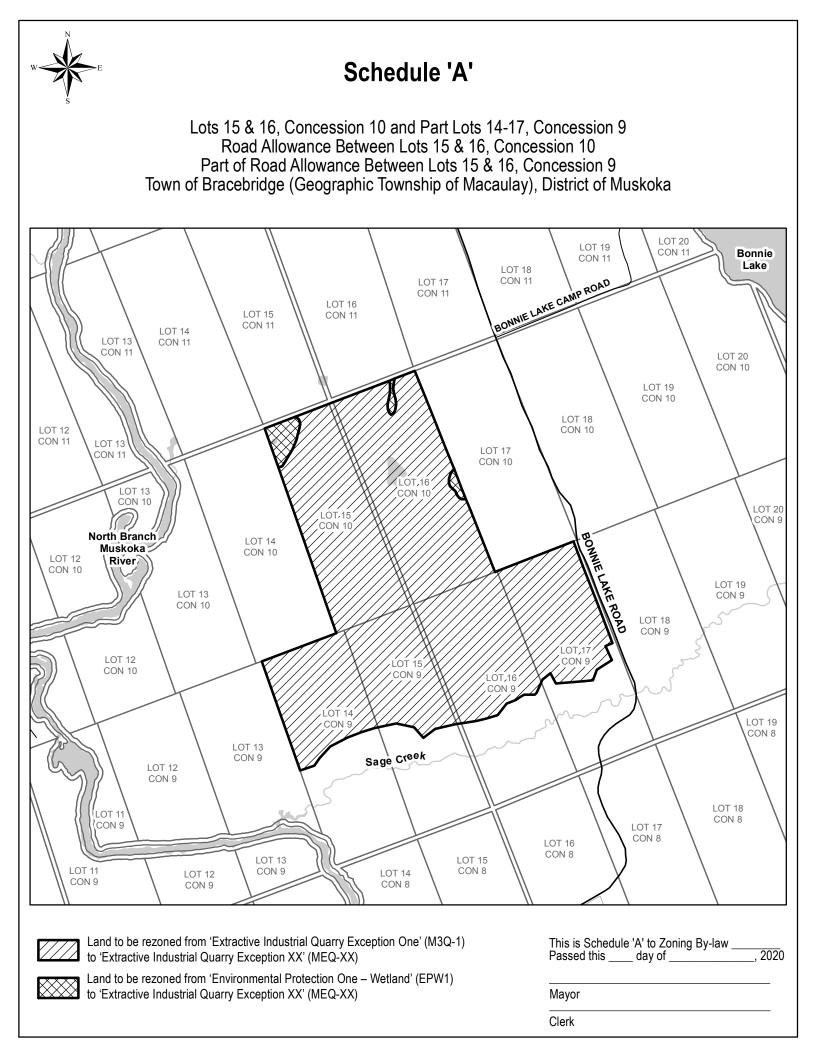
All other applicable provisions of the Extractive Industrial Quarry Zone (M3Q) shall continue to apply in respect to the lands located within the Extractive Industrial Quarry Exception XX (M3Q-XX) zone.

- 3. That Schedule "A" attached hereto forms part of this by-law.
- 4. That this By-law shall take effect on the date of passage by Council and shall come into force in accordance with Section 34 of the Planning Act, R.S.O., 1990.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS XX DAY OF XXXX 2020.

Mayor, Graydon Smith

Director of Corporate Services/Clerk, Lori McDonald



Appendix C

Ministry of Tourism, Culture and Sport

Archaeology Programs Unit Programs and Services Branch Culture Division 401 Bay Street, Suite 1700 Toronto ON M7A 0A7 Tel.: (807) 475-1628 Email: Paige.Campbell@ontario.ca

Ministère du Tourisme, de la Culture et du Sport

Unité des programmes d'archéologie Direction des programmes et des services Division de culture 401, rue Bay, bureau 1700 Toronto ON M7A 0A7 Tél. : (807) 475-1628 Email: Paige.Campbell@ontario.ca



Nov 23, 2015

Ken Swayze (P039) Kinickinick Heritage Consultants 5Cobden ON K0J 1K0

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 2 Archaeological Assessment of Childs Pit/Quarry Expansion, Concession 9 Part Lots 14-16 & concession 10 Lots 15-16, Macaulay Twp. (Geo), Muskoka District, Town of Bracebridge", Dated Sep 15, 2015, Filed with MTCS Toronto Office on Sep 30, 2015, MTCS Project Information Form Number P039-188-2012, MTCS File Number 0003260

Dear Mr. Swayze:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18.¹ This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 Standards and Guidelines for Consultant Archaeologists set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Figure 8 of the above titled report and recommends the following:

Based on the negative results of the field assessment, the consultant recommends clearance of heritage concern in regards to the expansion of the Childs Pit/Quarry.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Paige Campbell Archaeology Review Officer

cc. Archaeology Licensing Officer James Gordon, Fowler Construction Co. Ltd John Sisson, Town of Bracebridge

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent; misleading or fraudulent.

Appendix **D**



EDUCATION

1998

Bachelor of Environmental Studies, Honours, Urban and Regional Planning, University of Waterloo

CURRICULUMVITAE

Brian A. Zeman, BES, MCIP, RPP

Brian Zeman, President of MHBC, joined MHBC as a Planner in 1998 after graduating from the University of Waterloo with a Bachelors Degree in Urban and Regional Planning.

Mr. Zeman provides planning services for all aspects of the firm's activities including residential, commercial and industrial uses while specializing in aggregate resource planning. He has experience in aggregate site planning and licensing and processes relating to aggregate applications.

Mr. Zeman is a member of the Canadian Institute of Planners and Ontario Professional Planners Institute.

PROFESSIONAL ACCREDITATIONS / ASSOCIATIONS

- Full Member, Canadian Institute of Planners
- Full Member, Ontario Professional Planners Institute
- Member, Ontario Expropriation Association
- Certified by the Province of Ontario to prepare Aggregate Resources Act Site Plans

PROFESSIONAL HISTORY

2014 - Present	President , MacNaughton Hermsen Britton Clarkson Planning Limited
2010 - 2014	Vice President and Partner, MacNaughton Hermsen Britton Clarkson Planning Limited
2005 - 2009	Partner , MacNaughton Hermsen Britton Clarkson Planning Limited
2004 - 2005	Associate , MacNaughton Hermsen Britton Clarkson Planning Limited
2001 – 2004	Senior Planner , MacNaughton Hermsen Britton Clarkson Planning Limited
1998 - 2001	Planner , MacNaughton Hermsen Britton Clarkson Planning Limited

CONTACT



Brian A. Zeman, BES, MCIP, RPP

PUBLICATIONS

 Co Author of the "State of the Aggregate Resource in Ontario Study Paper 2 – Future Aggregate Availability & Alternatives Analysis, Prepared for the Ministry of Natural Resources dated December 2009.

SELECTED PROJECT EXPERIENCE

- Research, preparation and co-ordination of reports / applications under the Planning Act, Niagara Escarpment Planning and Development Act, Oak Ridges Moraine Conservation Act, and the Aggregate Resources Act.
- Facilitate public meeting on major development applications.
- Project management for major development applications.
- Undertake aggregate Compliance Assessment Report inspections and preparation of reports.
- Planning evaluations and analysis for mineral aggregate development and resource management.
- Conduct notification and consultation procedures under the Aggregate Resources Act.
- Aggregate Resources Act site plan amendments.
- Planning evaluations for residential developments.
- Registration and planning of residential developments.
- Planning assessment for commercial, retail, office and industrial developments.
- Restoration planning for pits and quarries and preparation of recreational afteruse plans.
- Research and preparation of reports /evidence for hearings before the Ontario Municipal Board, Environmental Review Tribunal, Joint Board.
- Provide expert planning evidence before the Ontario Municipal Board, Environmental Review Tribunal and the Joint Board.

CONTACT



Brian A. Zeman, BES, MCIP, RPP

SAMPLE PROJECT LIST

- Activa Group Laurentian Subdivision, Kitchener
- Adventure Farm Kirkwall Subdivision, Hamilton
- Aecon Oliver Pit Site Plan Amendment/Compliance Assessment Report
- Aggregate Producers Association of Ontario Caledon Official Plan
- Aggregate Producers Association of Ontario PPS Review
- Aggregate Producers Association of Ontario Region of Halton Official Plan
- Blue Mountain Aggregates-Pit Deepening and Expansion
- Brampton Brick Cheltenham Quarry Site Plan Amendment
- Brampton Brick Niagara Escarpment Development Permit
- Cayuga Material & Construction Property Investigation
- Cliff's Natural Resources Chromite Aggregate Project
- Crisdawn Construction Inc. Barrie Annexation Lands
- Dufferin Aggregates Acton Quarry Afteruse Plan
- Dufferin Aggregates Acton Quarry Expansion
- Dufferin Aggregates City of Hamilton Official Plan
- Dufferin Aggregates Milton Comprehensive Zoning By-law
- Dufferin Aggregates Milton Quarry Afteruse Plan
- Dufferin Aggregates Milton Quarry Extension
- Dufferin Aggregates Property Investigations
- Dufferin Aggregates Region of Halton Official Plan
- Dufferin Aggregates Town of Halton Hills Official Plan
- Dufferin Aggregates Town of Halton Hills Zoning By-law
- E.C. King Contracting Sydenham Quarry Expansion Erie Sand & Gravel Pelee Quarries
- Gies Construction Old Chicopee Drive, Waterloo
- Hazad Construction Conestoga Golf Course Subdivision Hallman Construction Limited - Consent for Church Site
- Home Depot Barrie, Kitchener, Markham, Mississauga, Richmond Hill and Whitby
- J.C. Duff Property Investigations
- Kulmatycky Rezoning/Plan of Subdivision/Area Study Town of Paris
- Lafarge Canada Brechin Quarry Site Plan Amendment
- Lafarge Canada City of Hamilton Official Plan
- Lafarge Canada Dundas Quarry Expansion
- Lafarge Canada Lawford Pit
- Lafarge Canada Limbeer Pit
- Lafarge Canada Mosport Pit Site Plan Amendments
- Lafarge Canada Oster Pit

CONTACT



Brian A. Zeman, BES, MCIP, RPP

- Lafarge Canada Property Investigations
- Lafarge Canada Warren Merger Due Diligence
- Lafarge Canada-Wawa Site Plans
- Lincoln Village Subdivision Phase 2 and 3, Waterloo
- Livingston Excavating Simcoe Pit
- Nelson Aggregates Co., Burlington Quarry Extension
- Ontario Stone, Sand & Gravel Association Region of Halton Aggregate Strategy
- Ontario Stone, Sand & Gravel Association Region of Halton Official Plan
- Paris Land Development Limited Subdivision
- Pitway Holdings Brillinger Pit
- Pitway Holdings Naylor/Forman Pit
- Pine Valley Homes Ainsley Estates, Town of Wasaga Beach
- Pioneer Construction-Aggregate Resources Act Licensing-Thunder Bay
- Region of Durham Homefounders Subdivision Riverbank Estates Inc. -Subdivision, Kitchener
- St. Marys Cement Alternative Fuels
- St. Marys Cement Bowmanville Quarry Deepening
- St. Marys Cement Bowmanville Quarry Site Plan Amendment
- St. Marys Cement Clarington Comprehensive Zoning By-law
- St. Marys Cement Westside Marsh Project
- Steed & Evans Contractor's Yard/Site Plan Amendment
- Tanem Developments Bridge Street Subdivision University of Guelph -Canadian Tire
- University of Guelph Commercial Centre University of Guelph -Office/Research Park
- YMCA Redevelopment of Site, Barrie
- Zavarella Construction Ltd. Consent/Rezoning/Plan of Subdivision/Area Study, Town of Paris

CONTACT



EDUCATION

2017

Master of Science, Rural Planning and Development University of Guelph

2015 Bachelor of Commerce (Honours) Business Administration, Lakehead University

CONTACT

113 Collier Street Barrie, ON L4M 1H2 T 705 728 0045 x234 F 705 728 2010 jnewlands@mhbcplan.com www.mhbcplan.com

CURRICULUMVITAE

James Newlands, HBComm., MSc.

James Newlands has been a Planner with MHBC since 2017. James provides planning research, evaluation and analysis for all aspects of the firm's activities and has experience in the preparation, coordination and project management of *Planning Act* applications and *Aggregate Resource Act* applications.

James received his Bachelor of Commerce (Honours) in Business Administration from Lakehead University in 2015 and his Masters of Science in Rural Planning and Development from the University of Guelph in 2017.

Prior to joining the firm, James worked at the Township of Ramara as a Planning Student where he was involved in a variety of tasks. Such tasks included coordinating various development application reviews, assisting with Committee of Adjustment applications, participating in Planning Act public meetings and open houses, supporting planning and building staff members in their day-to-day duties, providing quality customer service to members of the public, and assisting with Planning and Building related inquiries. This prior work experience along with his graduate research experience at the University of Guelph has provided him with a solid foundation focusing in rural land use planning.

James is a candidate member of the Canadian Institute of Planners and Ontario Professional Planners Institute.

PROFESSIONAL ASSOCIATIONS / ACCREDITATIONS

- Candidate Member, Canadian Institute of Planners (CIP) and Ontario Professional Planners Institute (OPPI)
- Member, Ontario Expropriation Association
- Committee Member, Ontario Stone, Sand & Gravel Association (OSSGA) Ecology Committee

PROFESSIONAL HISTORY

2017 – Present	Planner, MacNaughton Hermsen Britton Clarkson Planning
	Limited (MHBC), Barrie

2016 – 2017 Planning Student, Township of Ramara



James Newlands, HBComm., MSc.

SELECTED PROJECT EXPERIENCE

James' experience includes land use planning due diligence investigations, project management and coordination of development and aggregate projects, preparation of applications and reports for Official Plan Amendments, Zoning Bylaw Amendments, Plans of Subdivision, Site Plan Approvals, Consents, Minor Variances, Aggregate Resources Act new and expanding licence applications, and Aggregate Site Plan Amendments. James also provides advice to clients on a variety of land use planning issues.

- J.C. Rock Crookston Quarry Licence Amendment
- CRH Canada Group Inc. Flamboro Quarry Licence and Site Plan Amendment
- Nelson Aggregates Co. Burlington Quarry Site Plan Amendment
- St. Marys CBM Aggregates Flamborough property Severances and Minor Variance
- Fowler Construction Fleming Quarry Extension
- Fowler Construction Fleming Quarry Site Plan Amendment
- Lafarge Canada New Lowell property Severances and Zoning By-law Amendment
- Ramara Landscaping Quarry Zoning By-law Amendment and ARA Licence
- Yonge GO Village Subdivision, Barrie Draft Plan of Subdivision
- DiPoce Subdivision, Barrie Zoning By-law Amendment and Draft Plan of Subdivision
- McNabb Subdivision, Collingwood Draft Plan of Subdivision
- Northern Shield Developments Affordable Housing Development, Orillia Consent, Minor Variance and Site Plan Control
- 2924 Concession 7, Township of Adjala-Tosorontio Zoning By-law Amendment and Consent
- 1109 Meadowview Road, City of Kawartha Lakes Zoning By-law Amendment and Consent