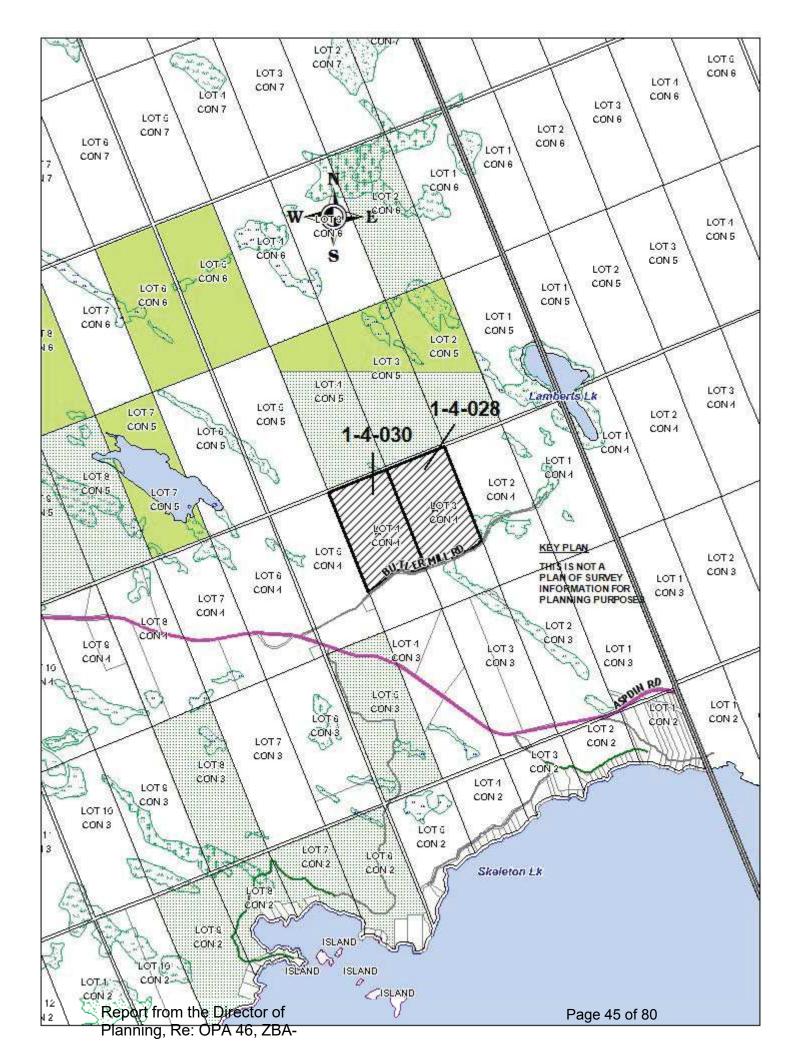
ZBA-13/12

**OPA 46** 

LIPPA





# AGENDA REPORT

TO: Chair Edwards and Members of Committee of the Whole

MEETING DATE: March 16, 2017

SUBJECT: OPA 46, ZBA-13/12, Amended, (LIPPA), Concession 4, Part Lots 3 & 4,

(Cardwell), Civic Address: 1089 Butler Mill Road, Roll #'s: 1-4-028, 1-4-030

RECOMMENDATION: That OPA 46, ZBA-13/12, (LIPPA) proceed to a Public Meeting.

APPROVALS: Date Signature

Submitted By: D. Pink, Director of Planning <u>08/03/17 Original signed by D. Pink</u>

Acknowledged: S. McDonald, CAO 08/03/17 Original signed by S. McDonald

**ORIGIN** 

Particulars of Property: Lot Frontage ~2,600 feet on Butler Mill Road

Lot Area 134.2 acres (assessment information)

Proposed Policy: To amend the "Areas of Resource Potential – Mineral Resources"

schedule to include the subject property, which will permit the

establishment of a new Pit and Quarry.

Proposed Rezoning:

Existing Zoning	Proposed Zoning	Permitted Uses	Accessory Uses	Proposal
Rural (Ru2)	Rural Industrial – Extractive (RuM3)	-Agriculture -Pit or Quarry -Wayside Pit or Quarry	-Contractor's Yard -Office -Residential Dwelling Unit -Retail Store	Rezone property from Ru2 to RuM3 to permit the establishment of a pit and a quarry

#### **BACKGROUND**

PLANNING DATA

Official Plan Designation: Rural (Area 2: Low Density)

By-Law 2014-14 Zoning: Rural (Ru2), Environmental Protection (EP1)

Report from the Director of

Planning, Re: OPA 46, ZBA-

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Schedule No.: 7, 8

Access: Butler Mill Road (Municipal, Year Round Maintained)

Neighbouring Uses: Rural, Open Space, Township Pit

Civic Address: 1089 Butler Mill Road

# **PLANNING CONSIDERATIONS**

#### 1. Background

These applications to permit the establishment of a Class A Category 1 Pit and a Category 2 Quarry on Butler Mill Road with an annual extraction limit of 200,000 tonnes were considered by Committee of the Whole on March 27, 2012 and were deferred for a number of technical studies to be completed. The applicant's agents have been in contact with staff since, providing updates on completion of the studies and on changes to the proposal. The finalized studies as outlined in Section 2 below have now been submitted to the Township.

The original March 27, 2012 staff report which provides further information is attached to the current agenda.

#### 2. Technical Studies

The following technical reports and studies have been submitted by the applicants;

- Archaeological Assessment, prepared by Archaeological Assessments Ltd.;
- Blast Impact Analysis, prepared by Explotech Engineering Ltd.;
- Hydrological Assessment Level 1 and 2, completed by Skelton Brumwell & Associates Inc.;
- Hydrogeological Assessment Level 1 and 2, completed by Wilson Associates;
- Natural Environment Report Level 1 and 2, prepared by Skelton Brumwell & Associates Inc.;
- Fisheries Impact Assessment, prepared by Riverstone Environmental Solutions Inc.;
- Acoustic Assessment, completed by Hugh Williamson Associates Inc.;
- Bedrock Quality Assessment, completed by Peto MacCallum Ltd.;
- Traffic Impact Study, completed by Skelton Brumwell & Associates Inc.; and,
- Planning Justification Report, completed by Skelton Brumwell & Associates Inc.

All of the reports conclude that any impacts from the proposal can be effectively mitigated or that the site is generally suitable for the proposed use, subject to recommendations. The recommendations can all be implemented through a combination of either zoning controls or conditions to the aggregate licence. The vast majority of recommendations are operational limitations, which are best implemented through the licence. A number of conditions are listed on the Operational Plan attached to the agenda.

Due to the number of studies and volume of material they have not been attached to the agenda but can be reviewed by visiting or contacting the Planning Department.

#### 3. Peer Reviews

Through discussions with the Ministry of Natural Resources and Forestry (MNRF), it has been determined that their in-house Biologists will review the Environmental Reports and the Fisheries Impact Assessment, while their Hydro-geologist and the Ministry of Environmental and Climate Change (MOECC) will review Hydrological Reports. Staff intends to forward the Traffic Impact Study to both the District of Muskoka and Township of Muskoka Lakes Public Works Department for review and

comment. It is not felt that the Archaeological Assessment, Blast Impact Analysis, or Acoustic Assessment warrant a peer review, although Committee can require they be completed if desired.

### 4. Amended Application

The application has been amended from its original submission, now including the lands to the east, consisting of Part of Lot 3, Concession 4, north of Butler Mill Road. This adds approximately 70 acres to the proposal.

Comprehensive Zoning By-law 2014-14 has also been passed since the original submission. The property was zoned Rural (Ru2), Open Space (OS2) and Environmental Protection (EP1) under Zoning By-law 87-87. The current Zoning By-law has removed the OS2 zoning at the north end of Lot 4, Concession 4.

#### 5. Public Notification

Although the Planning Act requires only a minimum 20 day notice period for the current applications, staff would recommend that an increased circulation period be considered given the complexity and significance of the proposal, and breadth of information. Dependent on the outcome of the Committee's deliberations, staff would be in a position to circulate a complete notice by early-mid April. The June 16, 2017 Council meeting would provide approximately 60 days' notice to the public. The notice will also be placed on the Township website.

Staff has also encouraged the applicants to separately consult with neighbouring landowners and other stakeholders, including the Skeleton Lake Cottagers Association. The applicant's agents have indicated this has occurred.

# 6. Ministry of Natural Resources and Forestry License Application

The applicants have also submitted an application to MNRF for a category 1 & 2 Class "A" licence. The Ministry is currently in the process of deeming the application complete. Upon doing so, the notification and consultation stage will commence, where a number of agencies including the Township of Muskoka Lakes will be circulated for comments. Once advertised, the municipality will have 45 days to submit comments, or they will not be considered. Presumably, it will be beneficial for Council to hear public comments on the Official Plan and Zoning By-law Amendment Applications prior to making comments to MNRF, although this may result in having to shorten the notice period described above.

#### 7. Official Plan and Zoning By-law Amendments

Official Plan policies state that new rock crushing operations will be limited to areas further than two kilometres from the Waterfront designation, amongst other criteria. The submitted Planning Justification Report states that as a result of setbacks imposed on the site, rock crushing operations will be further than 2 km from Skeleton Lake, while two smaller lakes (Lamberts Lake and unnamed) are not included in the Waterfront designation.

With respect to Skeleton Lake, staff would prefer the Zoning By-law Amendment include an exemption to limit rock crushing to the identified location. This setback also coincides with the Acoustic Assessment recommendations. With respect to the other two lakes, while neither are zoned Waterfront Residential in Zoning By-law 2014-14, they are included in the Waterfront designation on Schedule F to the Official Plan, and would appear to exceed the minimum 20 acre definition of the Waterfront designation described in the Official Plan.

In this case, the vast majority of the shoreline of the unnamed lake is Crown land; however assessment information does indicate a dwelling exists in the OS2 zone on the only privately owned portion of the

Report from the Director of Planning, Re: OPA 46, ZBA-

lake. Assessment information does not indicate any structures exist in the Township on Lamberts Lake; however, the majority of the lake is situated within the boundaries of the Town of Huntsville.

The Official Plan Amendment should therefore also include policy to address the proximity of the new rock crushing operation to both these small lakes.



# COMMITTEE OF THE WHOLE AGENDA REPORT

TO: Mayor Murphy and Members of the Committee of the Whole

MEETING DATE: March 27<sup>th</sup> 2012

SUBJECT: OPA 46, ZBA-13/12, Lippa, Part of Lot 4, Concession 4, (Cardwell), Roll # 1-

4-030

RECOMMENDATION: That OPA 46 and ZBA-13/12 (Lippa) be deferred for the satisfactory

completion of technical studies outlined in the following staff report.

APPROVALS: Date Signature

Submitted By: D. Pink, Senior Planner <u>20/03/12 Original signed by D. Pink</u>

Approved By: S. Fahner, Director of Planning 20/03/12 Original signed by S. Fahner

Acknowledged: W. Schmid, CAO 20/03/12 Original signed by W. Schmid

# **ORIGIN**

**BACKGROUND** 

Particulars of Property: Lot Frontage ~1320 ft. (Butler Mill Road)

Lot Area 65 acres

Proposed Policy: To amend the "Areas of Resource Potential – Mineral Resources"

schedule to include the subject property, which will permit the

establishment of a new Pit and Quarry

Proposed Rezoning: From Rural (Ru2) and Open Space (OS2) to Rural Industrial – Extractive

(RuM3)

**BACKGROUND** 

PLANNING DATA

Official Plan Designation: Rural (Area 2: Low Density)

By-law 87-87 Zoning: Rural (Ru2), Open Space (OS2)

Schedule No.: 7, 8

Access: Butler Mill Road

Neighbouring Uses: Rural Residential, Township Pit, Open Space

Original Shore Road Allowance: Not Applicable

Fisheries Resource: Not Applicable

Civic Address: 1089 Butler Mill Road

# **PLANNING CONSIDERATIONS**

#### 1. Official Plan

The subject property falls within the Rural Designation, more specifically the Area 2: Low Density character area. Rural character is described as a mix of natural landscape and low density, randomly located development in a predominantly natural setting, distinguished by forested areas, open countryside, and scenic vistas.

Goals and objectives of the Rural area include recognizing important natural resources that should be protected, protecting the limited aggregate resource base from incompatible uses, and encouraging the extraction of aggregate in a manner that will not adversely affect the environment.

The Official Plan characterizes the Low Density Development area as expanses of undeveloped land interspersed with low density scattered residential development, resource based activities and small-scale commercial and industrial uses. Permitted uses include primary and secondary aggregate extraction operations.

District of Muskoka aggregate resource potential mapping does not identify any deposits on the subject property. An Official Plan Amendment Application has been submitted concurrently with the rezoning application to amend mapping to include the subject property.

Although not identified, Official Plan policies for aggregates protect primary and secondary deposits. *Section E.14.7* states that the siting of an Aggregate Pit should be based on the following criteria, in addition to all requirements of the Aggregate Resources Act:

- Proximity of site to waterfront;
- Proximity of site to adjacent conflicting land uses:
- Site is of a suitable size to contain all components of the facility;
- Site is located on an arterial or major collector road capable of handling the increased traffic and haul loads:
- Site is in close proximity to a provincial highway;
- Topography of the site is conducive to an aggregate facility;
- Site can be adequately buffered on all sides from adjoining lands;
- Proximity of site to sensitive environmental features. If within 30 metres (100 feet) an Environmental Impact Study is required.

Policies also state that new rock crushing operations shall be limited to areas:

- Farther than two kilometres of a boundary of an Urban Centre; and
- Farther than two kilometres from the Waterfront designation.

Policies also further detail land use compatibility concerns and mitigative measures, which are outlined in more detail below.

# 2. Zoning By-law

The subject property is zoned Rural (Ru2) and Open Space (OS2). The application proposes to rezone the property to Rural Industrial – Extractive (RuM3), which would permit a Pit or Quarry. Once established, permitted accessory uses would include a Contractor's Yard, Dwelling Unit, and Retail Store.

#### 3. Site Characteristics

Staff inspected the subject property on March 15<sup>th</sup> 2012. There is a cleared opening along Butler Mill Road where the residence is located, while the remainder of the site appears heavily forested and contains generally undulating topography. The proposed location is in one of the more remote areas of the municipality.

#### 4. Operational Details

The applicants are looking to obtain a Class A, Category 3 and 4 license under the *Aggregate Resources Act* (ARA) for a Pit and Quarry with extraction restricted to 1.5 metres above the water table in the Pit and 2.0 metres above the water table in the Quarry.

Operations are to consist of site preparation, extraction, crushing and screening of sand and gravel, blasting, crushing and screening of bedrock, shipping and rehabilitation. The License Area is proposed to be over the whole property of 65 acres, while the extraction area and production amounts are to be determined. The hours of operation are to be in accordance with the Township Noise By-law.

#### 5. Land Use Compatibility

One of the major concerns with aggregate operations is the impact on adjoining property owners. Official Plan policies state that uses on land abutting aggregate resources shall be restricted to prevent conflicts and to prevent sterilization of the resource. Issues to be addressed for development proposed adjacent to a pit operation include:

- Off-site impacts such as truck traffic, noise, and dust;
- Visual impact;
- Surface drainage;
- Groundwater impacts:
- Location and size of any proposed stock piles.

Increased setbacks, screening and separations shall be used in areas in close proximity to aggregate operations and along major haul routes to prevent conflicts.

The site visit revealed two residences on Butler Mill Road, one at the intersection with Aspdin Road (District Road 3) and another at 1054 Butler Mill Road, directly across from the subject property. A large Township gravel pit is also located immediately to the west of the property while the property immediately to the east contains a former Lumber Mill, according to the applicant's agent. Although only two residences currently exist, there are a number of vacant parcels zoned to permit residential development. As stated above, the area is quite remote.

In staff's opinion, the issues listed above can be largely addressed through setbacks, screening and potentially improvements to the road. Technical studies will assist in noting any impacts

with respect to groundwater. A minimum setback of 15 m. (50 ft.) is proposed from all lot lines, with a 30 m. (100 ft.) setback proposed from two ponds on the property. Air photos reveal a perimeter that is well treed.

#### 6. Location

Criteria for the siting of a Pit and rock crushing operation are listed above. The property would appear to be suitable for the proposed uses in most respects with the exception of its distance from a provincial highway and the Waterfront designation.

The Official Plan aims to site new Pits in close proximity to a provincial highway. The location is approximately 15 km from Highway 141 in Rosseau and approximately 21 km from Highway 11 in Huntsville. The proposed haul route beyond the intersection of Butler Mill Road and Aspdin Road has not been identified. To staff's knowledge, many existing Pits in the municipality are located a greater distance to provincial highways.

Official Plan policies also aim to locate rock crushing operations a minimum distance of two km from the Waterfront designation. The property is located approximately 1.7 km from Skeleton Lake at the closest point, 1.2 km at the closest point from Lambert's Lake to the east, and approximately 0.7 km at the closest point from a small unnamed lake to the west. Schedule F of the Official Plan includes these two smaller lakes as part of the Waterfront designation, while the zoning by-law does not zone them waterfront residential. According to assessment information, there are no structures on Lambert's Lake, although air photos do reveal one building. The eastern half of the lake is located within Town of Huntsville boundaries. Assessment information indicates one residence on the unnamed lake, while the remainder is Crown Land. The Planning Justification Report should address the lack of separation distance from these water bodies.

#### 7. Previous Application

A rezoning application was submitted in 1995 to rezone the property to RuM3 for a gravel pit. Council deferred the application so that an Official Plan Amendment Application could be received. One was never submitted.

It should be noted that the District of Muskoka had concerns with the intersection of Butler Mill Road and Aspdin Road. The Ministry of Natural Resources was also circulated and had no concerns.

# 8. Access

As stated above, the District of Muskoka had concerns with the intersection of Butler Mill Road and Aspdin Road during the previous rezoning attempt. If approved for circulation, the District will again provide comments and upgrades to the road may still be necessary.

If approved for circulation staff intends on also circulating the Township Public Works Department for comments. It appears as though upgrades may be necessary to Butler Mill Road.

#### 9. Technical Reports

Official Plan policies indicate a field assessment conducted by a licensed professional is required to confirm that an aggregate resource exists. The applicant proposes to also complete a Stage 1 and possibly Stage 2 Archaeological Assessment, an Environmental Assessment, a determination of groundwater table elevation, a Blasting Report, and a Planning Justification

Report. A Road/Traffic Impact Report may also be prudent, however, both the local and upper tier Public Works Departments will be reviewing the application, if approved for circulation.

# 10. Pre-Existing Pit

According to the previous application and applicant's agent, the property was once the site of a gravel pit, now inactive. Air photos do reveal a rocky clearing well to the rear of the lot.

# 11. Completed Application

Bill 51 amended the Planning Act and requires planning approval authorities to determine if an application is complete. A number of technical studies should be completed prior to the application being considered complete. These are outlined above.

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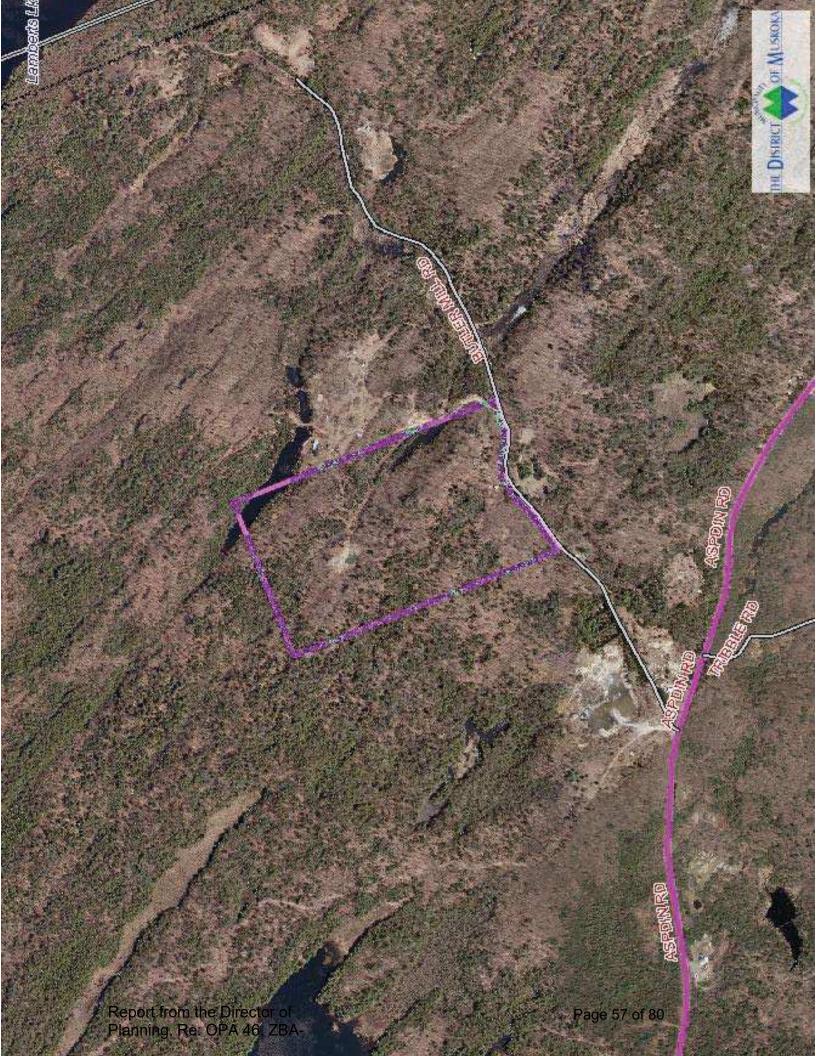
**MARCH 15**<sup>TH</sup> **2012** 

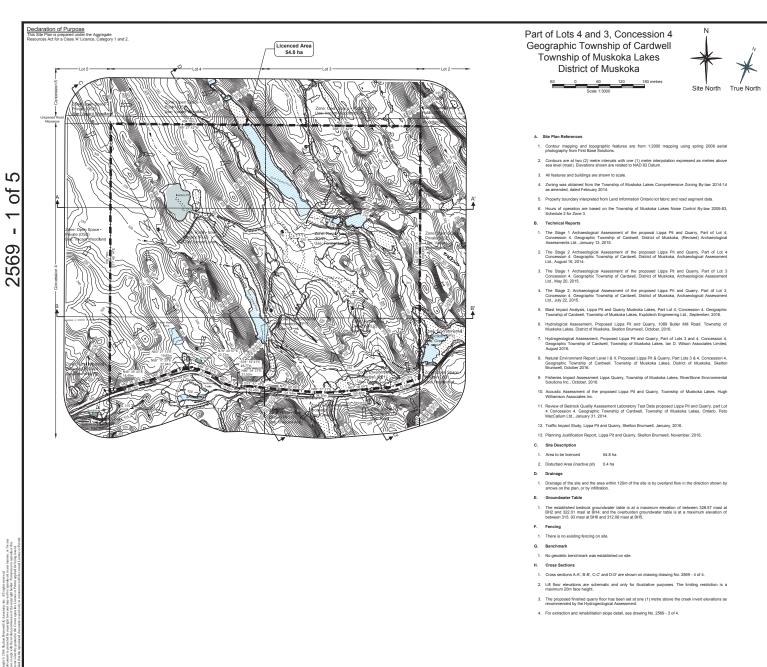
VIEW ALONG BUTLER MILL ROAD FROM SUBJECT PROPERTY





**DWELLING ON SUBJECT PROPERTY AS VIEWED FROM ROAD** 







# Proposed Leeneed Boundary Envisonmental Protection (minimum) of licenced boundary Line Indicating all porties within 120m (minimum) of licenced boundary Zone / Designation Line Properly Line Public Roads Internal Haul Roads Internal Haul Roads Water Course - Intermittent Buildings and Structures Confours (fin internal) Disturbed A read (including pit) General Direction of Drainage Existing Gable Wooded Areas Swamp Pond / Surface Water Boreholes A A Section Arrows

No.	Date	Description		Approved	
Schedule of Amendments					
No.	Date	Description		Approved	
Anne Terry Guiot					

Schedule of Revisions (Pre-Licencing)



Is approved by the Ministry of Natural Resources pursuant to section 8 (4) of the Aggregate Resources Act to prepare and certify Site Plans.

Lippa Pit & Quarry 1089 Butler Mill Road Township of Muskoka Lakes

Frank Lippa 17 Haas Road Etobicoke, Ontario M9W 3A1

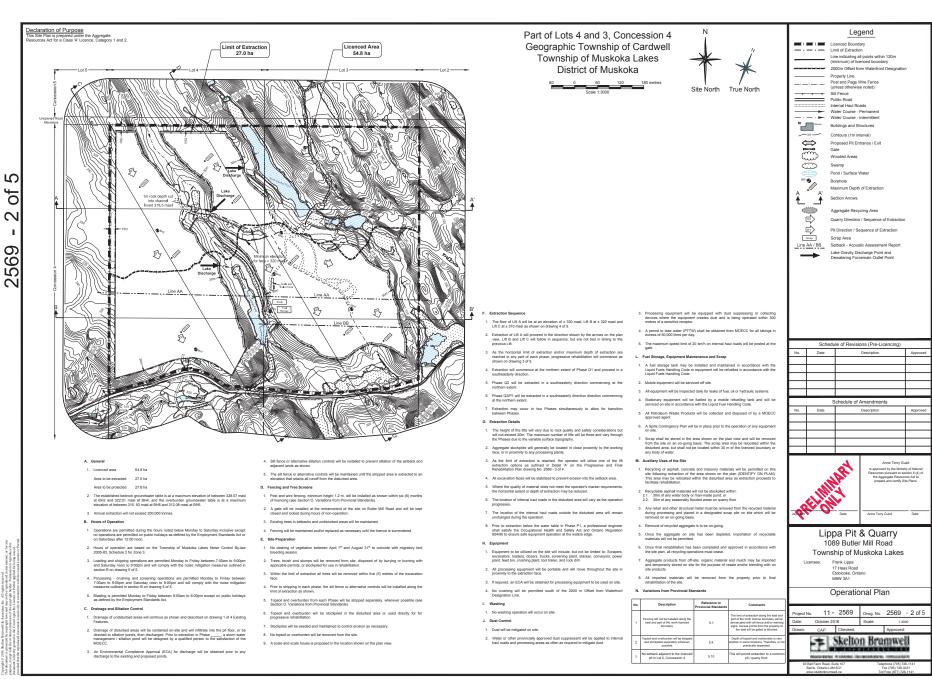
Existing Features

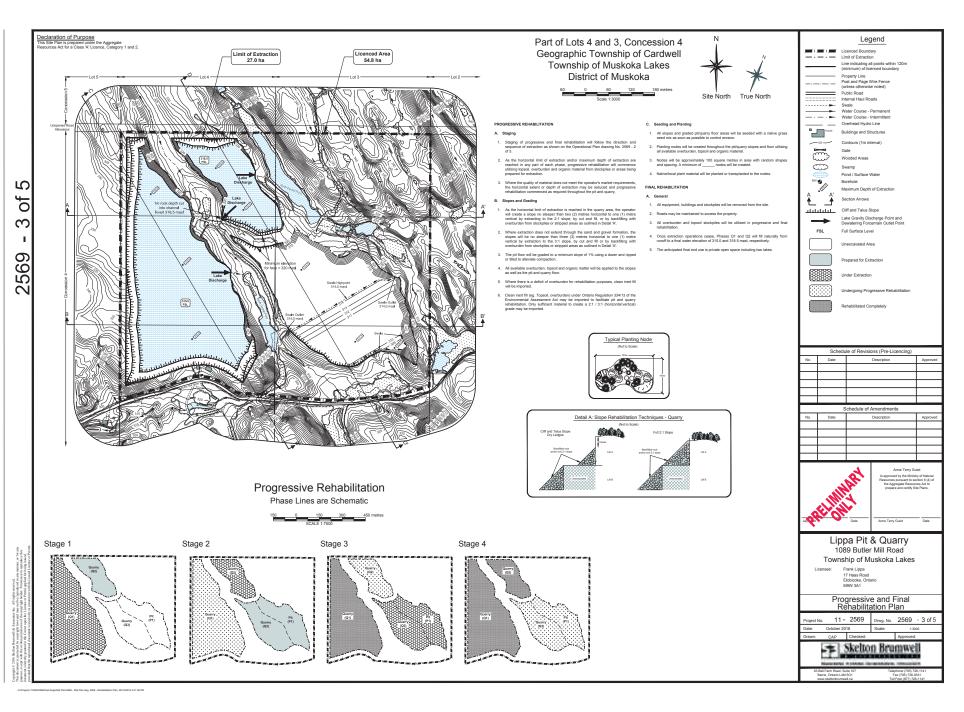
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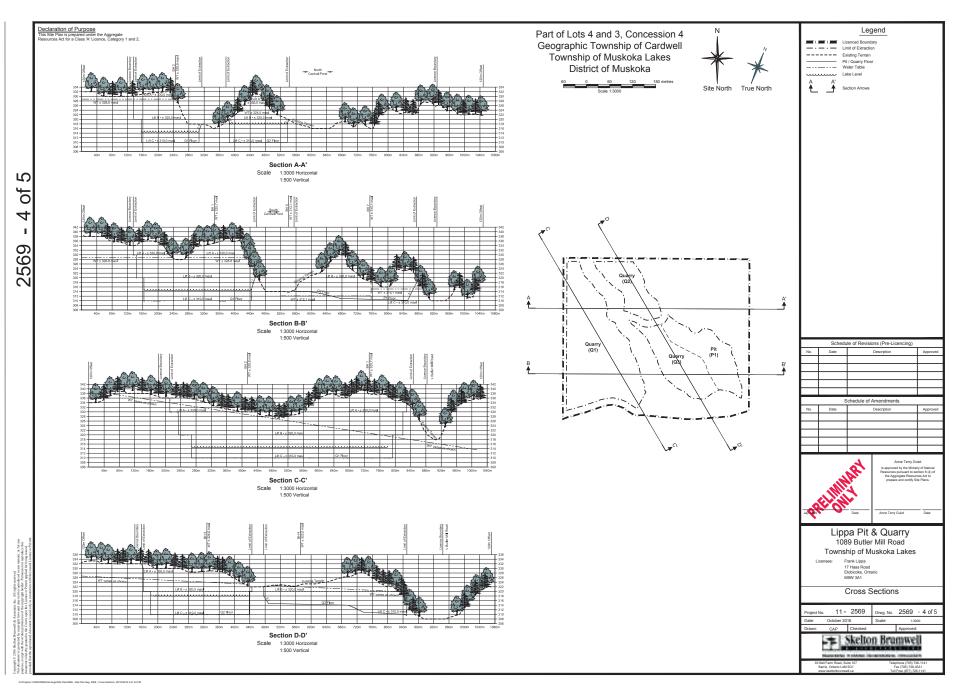
\* Skelton Bramwell

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# Declaration of Purpose This Site Plan is prepared under the Aggregate Resources Act for a Class 'A' Licence, Category 1 and 2.

#### Part of Lots 4 and 3, Concession 4 Geographic Township of Cardwell Township of Muskoka Lakes District of Muskoka





#### A Archaeology

- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Chatairo Herilage Act. The proponent or person discovering the archaeological resources must case alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fedition's in compliance will Section 61 (1) of the Chatairo Herilage Act.
- The Cemeleries Act, R.S.O. 1990 c. C.4 and the Funeral, Burist and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

- For the purpose of this section, daylime operations refer to 7:00am to 7:00pm. Evening operations refer to 7:00pm and 9:00pm.
- The operation of a Standard Hydraulic Rock Drill may take place only during the daytime period (07:00 19:00) and shall comply with the following:
- 2.1. When operating on the surface in Extraction Area Q1:
- North of Line AA the rock drill may operate with no portable barrier.
   South of Line AA a 5 m high portable barrier, Barrier 5, is to be provided at a maximum distance of 5 m from the drill shielding receptors POR 1 to 3, as shown on
- maximum assance or 5 m from the anii shreating receptors PUR 1 to 3, as shown on Figure 3.

  2.1.3. The Standard Hydraulic Rock Drill is not to operate in the exclusion area as shown on Figure 3.
- 2.2.1. The rock drill may operate with no portable barrier.
- 2.3. When operating on the surface in Extraction Area Q3 or P1:

- 2.3.1. North of Line AA the rock drill may operate with no portable barrier.
  2.3.2. South of Line AA a 4 m high portable barrier, Barrier 5, is to be provided at a maximum distance of 6 m from the drill shekding receptor PCPA. 4.
  2.3.3. South of Line BB a 5 m high portable barrier, Barrier 5, is to be provided at a maximum distance of 5 m from the drill shekding receptor PCPA.
- The operation of a Low Noise Rock Drill, such as the Atlas Copco SmartRig ROC D9C similar, may take place only during the daylime period (07:00 19:00), anywhere in the extraction area, above or below grade and shall comply with the following:
- 3.1. When operating on the surface in Extraction Area Q1:
- 3.1.1. Outside the Exclusion Area the low noise rock drill may operate with no portable
- barrier. Inside the Exclusion Area a 5 m high portable barrier, Barrier 6, is to be provided at a maximum distance of 5 m from the drill shielding receptor POR 2.
- 3.2. When operating on the surface in Extraction Area Q2:
- 3.2.1. the low noise rock drill may operate with no portable barrie
- 3.3 When operating on the surface in Extraction Area Q3 or P1:
- North of Line BB the low noise rock drill may operate with no portable barrier. South of Line BB a 3 m high portable barrier, Barrier 6, is to be provided at a maximum distance of 5 m from the drill shielding receptor POR 4.
- The operation of the Portable Crushing and Screening Plant (crusher) may take place only during the daytime period (07:00 19:00) and shall comptly with the following:
- 4.1. When operating in Extraction Area Q1:
- 4.1.1. The crusher is to be located on the quarry floor with a 7 m high barrier, Barrier 4, at a maximum distance of 25 m from the plant shielding receptors POR 1 to 3, as shown in Figure 3.

  4.1.2. The crusher is not to operate south of the Waterfront Setback Line (WSL), as shown
- on Figure 3.
- 4.2. When operating in Extraction Area Q2:
- The crusher is to be located on the quarry floor with a 8 m high barrier, Barrier 4, at a maximum distance of 25 m from the plant shielding receptor POR 4, as shown in Figure 5.
   The crusher is not to operate south of the Waterfront Setback Line (WSL), as shown

- The operation of the Screening Plant, may take place only during the daytime period (07:00 -19:00) and shall comply with the following:
- The screening plant shall be located on the quarry or pit floor, north of Line AA as shown on Figure 3 and 5.
- 5.2. When operating in Extraction Area Q1:
- 5.2.1. A 6 m high barrier, Barrier 3, located at a maximum distance of 25 m from the plant is to be provided shielding receptor POR 1, 2 and 3.
- 5.3.1. The screening plant may operate with no barrier
- 5.4.1. A 6 m high barrier, Barrier 3, located at a maximum distance of 25 m from the plant in the beautiful distribution recently POR 4.
- The operation of Loaders and Excavators may take place on a 24 hour basis (07:00 07:00) and shall comply with the following:
- During the evening period (19:00 to 21:00) a maximum of one (1) loader may be in operation to load material for shipping.

- The loading and shipping of product using Highway Trucks, may take place on a 24 hour basis (07:00 07:00) and shall comply with the following:
- 8. Noise barriers or berms are required as follows:
- A 6 m high berm, Barrier 1, is to be provided shielding noise impacts from equipment operations in Extraction Area Q1 to POR 2, as shown in Figure 3.
- 8.2. A 12 m high lift face and / or berm, Barrier 2, measured from the quarry floor, is to provided shielding noise impacts from equipment operations in Extraction Area Q3 or to POR 4. If required a berm may be established at the southern limit of extraction are achieve the total height required, as shown on Figure 5.

- a. Lift face or existing terrain;
- Earth, gravel or aggregate berms or stockpiles; Concrete or brick walls:

- Shipping containers; and A portable barrier such as a truck trailer equipped with movable flaps to block the space between the ground and the bottom of the trailer and increase height to 5 m if required.
- 11. Portable construction equipment used for site preparation (e.g. land clearing and construction of berms) and rehabilitation shall comply with MOECC Publication NPC-115S. Construction Equipment, August 1978. (This publication gives noise standards to be met by construction equipment in Ordario.) Site preparation and rehabilitation activities shall take place only during daytime hours (07:00 190.00) in addition construction equipment is not to purpose of the state of the sta
- 12. If a new process is introduced to the site, then this process shall be assessed by a qualified acoustical consultant as soon as possible after commissioning. Noise mitigation measures shall be reviewed, and altered if necessary, to ensure that MOECS council evel limits are met.

- An attenuation study shall be undertaken by an independent blasting consultant during the first 12 months of operation in order to obtain sufficient quarry data for the development of the site specific attenuation regulations. This study will be used to confirm the applicability of the initial guideline parameters and assist in developing future blast designs.
- All blasts shall be monitored for both ground vibration and overpressure at the closest privately owned sensitive receptors adjacent the site, or closer, with a minimum of two (2) digital seimographs one installed in fort of the blast and one installed behind the blast. Monitoring shall be performed by an independent third party engineering firm with specialization in blasting and monitoring.
- seismograph shall be installed at the shoreline location closest to the spawnic confirm compliance with the DFO guideline limits for ground vibrations of 13mm/s.
- having a minimum of five years of blast related experience.
- Orientation of the mineral extraction operation will be designed and maintained so that the direction of the overpressure propagation and flyrock from the face will be away from structures as much as possible. To this end, extraction has assumed a retreat towards the South.

- Dimensional sketch including photographs, if necessary, of the location of the blasting operation, and the nearest point of reception.

  Physical and topographical description of the ground between the source and the

- Type of material being blasted. Sub-soil conditions, if known. Prevailing meteorological conditions including wind speed in m/s, wind direction, air temperature in "C, relative humidity, degree of cloud cover.
- Number of drill holes.
  Pattern and pitch of drill holes.
- Size of holes. Pattern and pitch of drill holes.

- Implement Surface Water Quality Monitoring and Mitigation Plan through the ECA for Industrial Sewage Works.
- The application for an ECA for Industrial Sewage Works shall include a Quarry Sediment and Erosion Control Plan works consisting of internal dictining with sediment control check dams, sediment poor upstream of the sump and submersible pump with elevated platform, forcemain and end of pipe diffuser and sock with 30 m vegetative buffer to creek.
- Provide an engineering design for the sediment pond as part of the application for an ECA for Industrial Sewage Works.

#### Provide submersible pump capacities of 1,314 LPM (347 USGPM) for the west extraction area Q1 and 306 LPM (81 USGPM) for the north east extraction area Q2, as part of the application for an ECA for the PTTW

- 5. Sampling of the outlet creeks from the South Central Creek and North Central Creek shall be
- 6. Install an automated weather station on-site to monitor air temperature and precipitation
- Develope a Stage Discharge Curve and install a staff gauge to measure water depth for the creek immediately downstream of the 3 proposed dewatering outlet points by a qualified person.
- The 900 mm dia culvert at Butler Mill Road and 1,200 mm dia. culvert at Aspdin Road shall be inspected the quarry operator and maintained by the Township Public Works Department prior to pumping to ensure that no blockage of snow and ice exists during springtime dewatering operation miligating any potential roadway flooding.
- The 900 mm dia culvert at Buller Mill Road and 1,200 mm dia. culvert at Aspdin Road shall be inspected after a 25 year 3 hour and 50 year 4 hour rainfall events, respectively. All pumping operation will cases if the freeboard is less than 0.3 m and 1.0 m, respectively and HWiD is greater than 1.5 to mitigate roadway flooding.
- Dewatering after quarry Q1 extraction ceases until the lake fills shall require half of the water surplus to be pumped to the South Central Creek to minimize impacts.
- 11. April spring runoff dewatering flow addition to the creek flow monitored shall be calculated with the Stage - Discharge curve to ensure the bankfull capacity is not exceeded to mitigate potential creek erosion. No pumping shall occur untill monitored creek flow permits addition of devalening flow resulting in creek flow at or below back full conditions.
- 12. Summertime dewatering of a rainfall event after heatwave conditions of 2 days with Summerume devasering or a rainia event raier releasable consists of 2 days with maximum daily air temperature exceeding 24.5°C during which there has been no rainfall, shall require use of a mass belance equation to calculate the resultant creek temperature utilizing monitored creek and develoting temperature and flow values. Mitigation shall consist of no pumping if calculated resultant creek temperatures exceed 22°C.
- 13. Monthly visual inspection of from the forcemain end of pipe atong the overland flow path to the fish habitat creek shall be undertaken to ensure protection against erosion caused by dewatering. Mitigation of potential erosion shall consist of terminating pumping mitted diffuser and sock end treatment has been repaired or replaced and the addition of filter sock.
- Liquid fuel storage equipment will meet TSSA standards and staff shall be trained with liquid fuel handling including spill contingency.

- A groundwater level monitoring program is recommended as follows:
   The annual water level recording period shall match the annual quarry and pit operations typically from April 30<sup>th</sup> to November 30<sup>th</sup>.
- spically from April 30" to November 30".

  2. Water level measurements shall be intailed at the start of operations and continue every competitive and the continue of the cont
- basis, and an annual report prepared by the qualified person summarizing the water level data and interpretation of the data to support a prediction if quarry and pit extraction is not adversely impacting local surface water and groundwater resources.
- 3. A contingency plan to address water supply complaints is recommended as follows
- ation or compensation shall be offered by the operator as soon as

#### E Natural Environmen

- A 30 m undisturbed setback shall be established from all wellands, open water bodies and watercourses. Where setbacks have been disturbed, they shall be restored and/or enhanced in consultation with a qualified person.
- Reptile exclusion and silt fencing shall be installed and maintained along the 30 m setback from the wetland/waterbody during extraction activities.
- clearing of vegetation between April 1<sup>st</sup> and October 31<sup>st</sup> to coincide with the active bat sting season and breeding bird season.
- 5. Signage shall be installed on site to alert drivers to the potential presence of turtle species.

#### G. Fisheries

- TextMaintain water quantity and water quality to the reaches of the North and South Central stockey systems which provide fash habitat.
   When the provide fash habitat.
   (1, 4, 6, 10, 12, 2) during operational and post-relabilistical constitions.
   Maintain surface water quality by implementing best practices and the recommended proposed sedement and excision control plant Pytricing Report).
- 2. No instream work will be undertaken during the coldwater restricted window (October 1 to

- Where the existing internal access road is found in the setback to the southcentral watercourse, it shall be relocated outside that setback area with the exception of the entrance to the site from Butler Mill Road and the existing crossing location. That area shall be regraded and restored with native vegetation endemic to the area in consultation with a qualified never the contraction.

- Configure discharge channels from Q1 and Q2 quarry lakes to allow fish passage
- 9. A monitoring plan will be developed to confirm that average and low flows are maintained in
- 10. The North Central tributary flow regime will be maintained as permanent coldwater habitat
- Incorporate standard operational best management practices dealing with issues such as fuel handling, dust management, sediment removal, etc. into site plans. No potentially deleterious substances will be stored in areas where they could drain to a watercourse via surface or groundwater flow.

- 18. Appropriate spill response materials must be kept on site in the event of an accidental spill or

- It would be desirable to move the existing Butler Mill Road intersection further to the east to improve the sight distance to and from the west. The feasibility of this should be investigated
- Signage should be installed on Muskoka Road 3 west of the intersection to warn eastbound traffic of the possibility of trucks turning shead.
- Butler Mill Road should be surface treated to eliminate the impact of any dust from the trucks.

- receiving tributaries. South Central tributary flow regime will be maintained as permanent coldwater habitat from the upstream end of Reach 4 during operational and post-rehabitation phases, flow monitoring and contingency measures;

- DFO guidelines for ground vibration limits of 13 mm/s (Explotech 2016)
- 15. An emergency spill kit (absorption pads and surface boom) must be stored on-site in case of any fluid leaks or spills while in operation or storage. Any and all spills will be reported to the Ontario Spills Action Centre (1-800-268-6060) as soon as nossible
- 17. Equipment parts that will enter the water must be kept free from oil and grease. All maintenance and refuelling of equipment must be conducted at least 30 m from the water to prevent accidental soils of deleterious substances.

with the existing affected landowne



Property Line

Legend

Line indicating all points within 120m minimum) of licenced boundary

2000m Offset from Waterfront Designation

Maximum Depth of Extraction Section Arrows

Scrap Area

₫>

Date

Aggregate Recycling Area Direction / Sequence of Extraction



dule of Revisions (Pre-Licencino

# Date

Lippa Pit & Quarry 1089 Butler Mill Road Township of Muskoka Lakes Frank Lippa

17 Haas Road Etobicoke, Ontario M9W 3A1 Monitoring and Mitigation

roject No. 11 - 2569 Drwg. No. 2569 - 5 of 5

A Sketten Brumwell

6 Associates Inc.