



PLANNING JUSTIFICATION REPORT

ZONING BY-LAW AMENDMENT

CATEGORY 3 & 4 'CLASS-A' QUARRY AND
PIT ABOVE WATER

PIN 73382-0494

MARCH 2021

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1. INTRODUCTION

1.1 Purpose

TULLOCH Engineering (TULLOCH) has been retained by Bradley Rintala (the 'Owner') to prepare a planning justification report and assist in facilitating a Zoning By-Law Amendment Application to amend the *City of Greater Sudbury Zoning By-Law 2010-100Z*.

This report provides both planning analysis and justification to rezone the lands from 'RU-Rural' to 'M5-Extractive Industrial'. The overall purpose of the application is to facilitate the development of a Category 3 & 4 Class A Pit and Quarry licence under the Aggregate Resources Act (ARA).

This report reviews the application in the context of applicable policies found within the documents noted below, to determine policy consistency/conformity of the application with:

- *2020 Provincial Policy Statement*
- *Aggregate Resources Act, 1990*
- *Growth Plan for Northern Ontario, 2011*
- *City of Greater Sudbury Official Plan*
- *City of Greater Sudbury Zoning By-law 2010-100Z*

This report concludes that the proposed zoning by-law amendment conforms to and is consistent with the City of Greater Sudbury Official Plan, 2020 Provincial Policy Statement and represents good planning.

1.2 Subject Site

The subject property is located at 787 Municipal Road 4 (Fairbank Lake Road) (PIN 73382-0494). The subject lands have an area of approximately 124.0 hectares. The site lies approximately 2.0 km north of the Highway 17 corridor. *Figure 1* illustrates the approximate location of the subject lands.

The legal description of the property is as follows:

PCL 439 SEC SWS; LT 9 CON 2 DENISON EXCEPT SM6503, SRO AS IN SM9293, MRO AS IN SM9293, SRO AS IN LT381, MRO AS IN LT381; GREATER SUDBURY

Property access is facilitated by an existing unpaved driveway that extends south from Fairbank Lake Road. The northern portion of the property is transected by road and railway right-of-ways of Fairbank Lake Road and the Genesee & Wyoming Canada Inc. railway line.

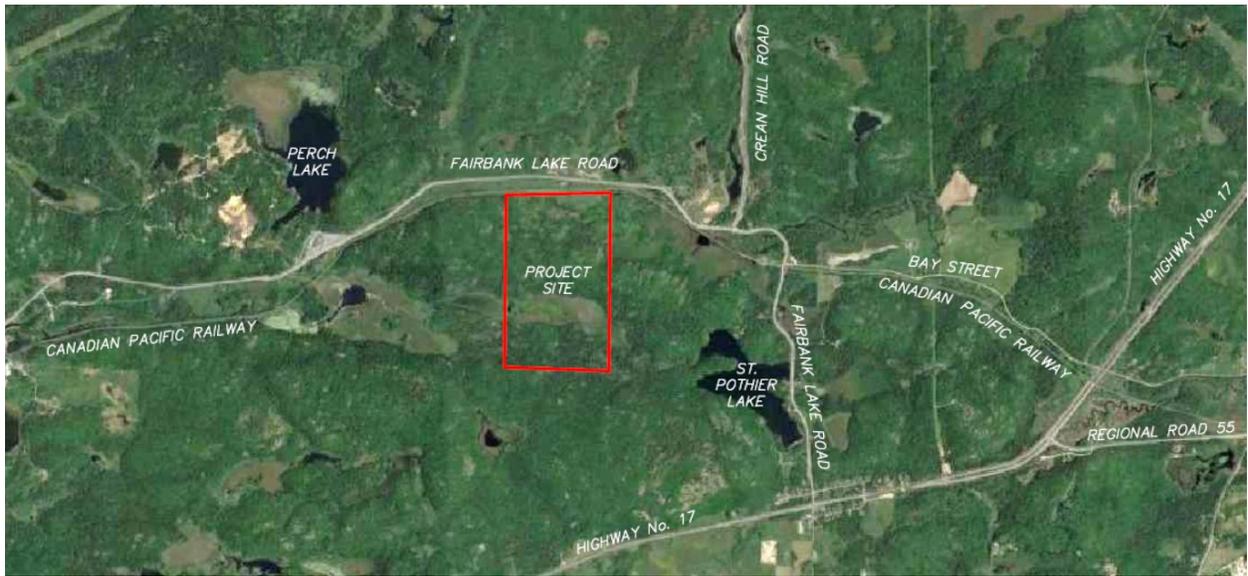


Figure 1: Approximate Location of Subject Lands

1.3 Proposed Development

This application proposes a zoning by-law amendment to rezone the lands from 'Rural' to 'M5-Extractive Industrial' to permit the establishment of a Category 3 & 4 Class A Pit and Quarry licence under the Aggregate Resources Act (ARA).

The proposed licensed area is approximately 124-hectares and the proposed extraction area will be 21.6 hectares. The annual tonnage per the Class A Licence will permit the removal of over 20,000 tonnes of aggregate material per year. The development will include the construction of new internal gravel surfaced roadways with a single connection to Fairbank Lake Road.

As the regulation and approval of aggregate operations is the jurisdiction of the Ministry of Natural Resources and Forestry (MNRF) through the *Aggregate Resources Act*, a formal application for a Category 3 Class A Pit and Category 4 Class A Quarry Licence will be submitted to the MNRF. See *Appendix A* for preliminary Site Plan drawings required under the ARA.

1.4 Surrounding Context

The surrounding area is characterized by rural lands, with significant vacant open space to the north, east, west, and south. The subject property is bounded by the following:

- **North:** Huron Central Railway, Rural, Rural Residential
- **East:** Vacant, Open Spaces, Rural
- **South:** Vacant, Open Spaces, Rural

- **West:** Vacant, Open Spaces, Rural, Mine/Mining Related Uses

There are two single-detached residences located within 1.0 kilometres of the subject lands. The nearest residence is located approximately 100.0 metres from the licensed boundary to the north. The nearest community is Denlou which is approximately 1.5-kilometres from the subject lands. There are 6 licenced pits/quarries within a 10.0-kilometre radius of the subject lands.

2. TECHNICAL REPORTS

Supporting studies and reports have been prepared to assess the proposed aggregate extraction operation against a variety of environmental, ecological, geological, and heritage-related features on and surrounding the subject property, and to comply with required provincial and municipal policy guidance. In this regard, the following studies, reports and plans were completed:

2.1 Natural Environmental Level 1 & 2 Study

Tulloch Environmental was retained by the Owner to perform Natural Environment Levels 1 and 2 (NEL1 & NEL2) studies for inclusion in an application for a Category 3 Class A Pit and Category 4 Class A Quarry licences under the Aggregate Resources Act (ARA).

The report findings resulted in the proponent committing to the following avoidances in advance of the project design:

- No extraction will occur in the large wetland complexes to the north or south of the extraction boundary.
- All extraction will set back 120.0 metres from the southern and easterly wetland complexes.
- All extraction will set back 100.0 metres from the northern wetland complex.
- The Extraction Area has excluded Eastern Whip-poor-will defended territories (Categories 1 and 2 habitats).

The NEL1 and NEL2 studies fully address **Section 2.1** of the Provincial Policy Statement and policy number **A.R.4.01.06** of the Aggregate Resources Program Policies and Procedures Manual as they relate to Natural Heritage at this Site. The report concluded that:

- Implementation of the identified avoidances and mitigations demonstrate that this project can proceed in a manner that is compliant with such provincial policies;
- The NEL2 report demonstrates that the Project can proceed in a manner that is compliant with the Endangered Species Act, Fisheries Act and Migratory Birds Convention Act.

2.2 Groundwater Summary Statement

TULLOCH Engineering was retained to prepare a groundwater summary statement for the subject lands. Based on the findings the following recommendations were provided:

- Future development of the proposed operation should avoid excavations that would be deeper than 250.0 metres (at the northern edge of the site), 265.0 metres along the crest of the central bedrock ridge, 242.0 metres along the edges of the surface water features (between the two

ridges) and 253.0 metres (along the southern edge of the site) (all measurements being *metres above sea level*).

- These recommendations have been made to maintain a minimum 2.0 metres freeboard in the bedrock formation, above any static water level, which is required under Policy No. A.R.4.01.04.

2.3 Traffic Impact Study

JD Northcote Engineering Inc was retained to conduct a Traffic Impact Study prepared for the proposed aggregate extraction operation. The report assessed the impact of traffic related to the development on the adjacent roadway and provided recommendations to accommodate this traffic in a safe and efficient manner.

The report identified that the lands would have a new internal gravel surfaced roadway with a single site access connection to Fairbank Lake Road. The scope of this analysis included a review of this site access and Fairbank Lake Road.

The report provided the following conclusion/ recommendations:

1. A road section analysis was completed for Fairbank Lake Road, using the existing and background (2025 and 2030) traffic volumes without the proposed development traffic. This enabled a review of existing and future traffic deficiencies that would be present without the influence of the proposed development. No improvements are recommended within the study area.
2. An intersection operation analysis was completed under total (2025 and 2030) traffic volumes with the proposed development operational at the study area intersections. No external infrastructure improvements are recommended within the study area.
3. The proposed Site Accesses will operate efficiently with one-way stop control for egress movements. A single lane for ingress and egress movements will provide the necessary capacity to convey the traffic volume generated by the proposed development.
4. The location of the proposed site access is appropriate with respect to minimum corner clearance and spacing requirements as identified in the Transportation Association of Canada Design Guide for Canadian Roads (2017).
5. It is recommended that the asphalt apron incorporate asphalt shoulder tapers (2.0-metrewide paved shoulder taper over a 20.0-metre length, on both sides of the entrance) and 21.0 metre driveway radius.
6. In summary, the proposed development will not cause any operational issues and will not add significant delay or congestion to the local roadway network.

2.4 Stage 1 Archaeological Assessment

Horizon Archaeology was retained to conduct a Stage 1 Archaeological Assessment of the subject lands. This study was triggered by the Aggregate Resource Act and conducted under the Professional Archaeological Consulting License P-335 issued to Dayle A. Elder by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).

The investigation revealed that:

- A midden of Euro-Canadian artefacts was observed south of the project's northern boundary and the edge of a low-lying and wet area. This included ceramic sherds, glass vessels, bricks, cast iron stove pieces, and a small plough.

Based upon the background research and the results of the property inspection it was recommended that:

1. This potential feature is a Euro-Canadian midden which is located on a narrow ridge at the south edge of the northern Low-Lying and Wet Area, and is constrained by the landform.
2. The 100.0 by 35.0 metre area should be test-pitted at 5.0 metre intervals, all soil screened through 6-millimetre mesh, if extraction is proposed in proximity of such.

Provincial Standards for built and cultural heritage related to aggregate applications allow for avoidance/mitigation in responding/dealing with areas of archaeological potential. Based on such standards and the desire to avoid/mitigate any impact to potential resources, a 300.0-metre buffer was applied around the entirety of the identified "Midden" to ensure the protection of the resource. If extraction is proposed within this 300.0m area in-future, further archaeological study would be required.

3. PLANNING ANALYSIS

The following section sets out the relevant planning policy framework to assess the appropriateness of the proposed application in the context of Provincial and Municipal policies and regulations. Each subsection will outline relevant policies and provide a planning analysis with respect to how the zoning by-law amendment is consistent with or conforms to such policy.

3.1 Provincial Policy Statement (2020)

The *2020 Provincial Policy Statement* (PPS) provides high-level provincial policy direction for planning approval authorities in preparing municipal planning documents, and in making decisions on *Planning Act* applications. Municipal official plans must be consistent with the provincial policy statement.

There are several main Provincial policy interests that must be considered as part of this application: protection of mineral aggregate operations; protection of significant natural heritage features and ecological functions; designing the operation to ensure no adverse impacts on sensitive land uses and protecting potential cultural heritage and archaeological resources.

Policies applicable to the proposed zoning by-law amendment are outlined and discussed below.

PPS **Section 1.0** speaks to managing and directing land use to achieve efficient and resilient development and land use patterns. PPS **Section 1.1.1** states, in part:

1.1.1 *Healthy, liveable and safe communities are sustained by:*

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns

Per **1.1.1(a)** the application proposes the establishment of an extractive industrial use required to meet long-term needs of Ontario's growing infrastructure demands. Further, approval of aggregate extraction in conformity with the proposed site plans/extraction limits represent the wise use and management of resources and provides economic benefits. The application has been cognizant of potential unfavourable development and land use patterns that may cause environment, public health, or safety concerns through the use of generous setbacks, mitigative screening measures, optimizing the use of the large property area and compliance with requirements of the ARA. Further the NEL 1&2 determined that through the implementation of the recommended avoidances and mitigations (i.e, operational setbacks from wetlands and avoidance of Eastern Whip-poor-will defended territories) that the project can proceed in a manner that is compliant with such provincial policies and that there will be no environmental impacts per **1.1.1(c)**

Section 1.1.4 regulates rural areas in municipalities and states that *'healthy, integrated and viable rural areas should be supported by:*

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

a) building upon rural character, and leveraging rural amenities and assets;

...

e) using rural infrastructure and public service facilities efficiently;

f) promoting 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 application supports viable rural areas by leveraging rural amenities and assets such as resource-based developments like aggregate operations per **1.1.4.1**. The application supports opportunities to diversify the economic base and provides employment opportunities through the management/use of aggregate resources and the value-added products they provide to the wider market. The development efficiently uses the existing rural infrastructure and public service network by using a municipally maintained road (Fairbank Lake Road) capable of supporting the aggregate extraction operation's truck traffic which was identified as being appropriate through the Traffic Impact Study. The level of service on the subject lands is appropriate for the proposed use given aggregate extraction does

not requiring full municipal servicing such as water and sewer. Furthermore, no infrastructure upgrades are required to the lands.

Section 1.1.5 of the PPS outlines policies related to rural lands in municipalities. The following policies are relevant to the application:

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

a) the management or use of resources

g) other rural land uses

1.1.5.3 *Recreational, tourism and other economic opportunities should be promoted.*

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

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*

Section 1.1.5.2 of the PPS permits a range of uses on rural lands including the management or use of resources, limited residential development, home occupations and home industries, and other rural land uses. The proposed development is for that of a mineral aggregate operation which per the PPS is a use that facilitates the management and use of resources and is appropriate on rural lands. The City of Greater Sudbury's Official Plan permits and directs mineral aggregate operations towards rural designated lands.

The proposal represents the wise management of a non-renewable resource (mineral aggregate) that is near major northern markets and will support long-term economic prosperity and diversity of the rural economy by optimizing the use of land and resources per **1.1.5.3**. The proposed aggregate operation represents an efficient use of existing infrastructure by utilizing the existing Fairbank Lake Road and does not require upgrades to the existing transportation network as identified in the Traffic Impact Study and as supported in **1.1.5.4** and **1.1.5.5**.

Section 1.2.6 outlines policies related to Land Use Compatibility. It requires that:

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 aggregate extraction operation has been designed and buffered to mitigate potential adverse effects on nearby sensitive uses (such as the two residential dwellings). Under the ARA a noise assessment is required when a new aggregate operation's extraction area is proposed within 500.0 metres

of a sensitive receptor such as residential dwelling. The site plans have incorporated a 500.0 metre setback area to such receptors, within which further studies (i.e., noise etc.) may be required if new extraction is proposed. A Holding Symbol may be applied to the Stage 2 extraction area through the rezoning approval, such that these studies would be required if the site plan is ever revised to permit extraction within the 500 metres.

Section 1.6 of the PPS speaks to infrastructure and public service facilities with **Section 1.6.7** dealing with Transportation Systems. The following policies are relevant to the proposal:

1.6.7.1 *Transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.*

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

Per **1.6.7.1** and **1.6.7.2** the proposed aggregate operation represents an efficient use of existing infrastructure by utilizing the municipally maintained Fairbank Lake Road as a haul route to access the Trans-Canada Highway (Highway 17). The Traffic Impact Study determined the proposed site access will operate efficiently with one-way stop control for egress movements and that the proposed development will not cause any operational issues and will not add significant delay or congestion to the local roadway network. The study concluded that no additional upgrades to the transportation network would be required to support the development. As such the application is consistent with policies **1.6.7.1** and **1.6.7.2**.

Section 1.7 provides policy direction for municipalities to achieve long-term economic prosperity. The following policies are relevant:

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

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

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

Section 1.7.1 of the PPS speaks to supporting opportunities for long-term economic prosperity, which the Author is of the opinion that such includes the development of pits and quarries. The aggregate resources extracted from the subject property will be used to produce a variety of aggregate and cement products for different purposes to the local, regional, and wider North American markets and thus promotes and supports economic development opportunities, infrastructure, and job creation.

The proposed quarry/pit optimizes the long-term availability of mineral aggregate resources and utilizes existing infrastructure efficiently, as previously outlined and identified in the Traffic Impact Study.

Section 2.1 of the PPS speaks to natural heritage. Specifically, it states that:

- 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 7E1;*
 - b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;*
 - c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;*
 - d) significant wildlife habitat;*
 - e) significant areas of natural and scientific interest; and*
 - f) coastal wetlands in Ecoregions 5E, 6E and 7E1 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.*
- 2.1.6** *Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.*
- 2.1.7** *Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.*
- 2.1.8** *Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

The extraction area has been designed to be cognizant of natural heritage features. To ensure appropriate buffering from protected wetland areas and wildlife habitat, a 100.00-120.0-metre buffer has been applied to such features from the proposed extraction limits, as recommended in the Natural Environment Level 1 & 2 Study. Provincial guidelines suggest that appropriate upland riparian setbacks around wetlands vary depending on the ecological functions associated with each wetland. A 120.00 metre setback is proposed for the eastern and southern wetland complexes as this is the recommended setback from Provincially Significant Wetlands and the common definition 'adjacent lands' adopted by the Natural Heritage Reference Manual. A slightly smaller setback of 100.0 metre was selected for the northern wetland complex. This setback was selected for the following reasons:

- **Site Topography:** The site has ridge of land approximately 100.0 metre wide that runs parallel the southern edge of the northern wetland complex. The Site then swales to lower elevation south of that ridge raising again to highpoints located in the southern half of the Extraction Area. A 100.0

metre setback best conforms to this topography and retains a ridge of bedrock between Site operations and the northern wetland complex.

- **Ecological Functions:** OWES evaluations were not performed on any wetland complex within or adjacent the study area, but ecological functions are best understood for this northern complex owing to site reconnaissance throughout, ELC studies, aquatic habitat assessment and incidental observations. Confirmed ecological functions and candidate habitat are associated with areas of shallow drains between the rail and road right-of-ways and in pockets of standing water to the east and west sides. Conversely, the hardwood swamp and non-wetted portions of the thicket swamp and meadow marsh along the south side of the wetland complex are considered less sensitive to Site operations.

The report finds these setback buffers fully address **Section 2.1** of the PPS and **policy A.R.4.01.06** of the Aggregate Resources Program Policies and Procedures Manual as they relate to Natural Heritage and that through these significant setbacks the project can proceed in a manner that is compliant with the Endangered Species Act, Fisheries Act, and Migratory Birds Convention Act.

Additionally, per the PPS there is no fish habitat, significant wetlands, significant coastal wetlands, significant woodlands, significant valleylands, significant areas of natural and scientific interest located within the area proposed for extraction, and thus site development will not occur within them per **2.1.4** and **2.1.5**.

Section 2.2 of the PPS outlines policies related to the protection of water. It states in part that:

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

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

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*

Section 2.2 of the PPS requires that planning authorities must protect, improve, and restore the quality and quantity of water. New development can only be permitted where it has been demonstrated that surface water features, groundwater features, hydrological functions and the natural heritage features will not be adversely impacted. The operations of the proposed quarry/pit will remain a minimum 2m above the established water table. Further, there are no municipal drinking water sources or designated vulnerable areas in the vicinity of the proposed aggregate extraction operation. Therefore, the subject development is consistent with **Section 2.2** of the PPS.

Section 2.5 of the PPS speaks to Ontario's mineral aggregate resources. PPS **Section 2.5** states, in part:

- 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*
- 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*
- 2.5.2.2** *Extraction shall be undertaken in a manner which minimizes social, economic 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.*

Section 2.0 of the PPS requires the wise use and management of resources and the protection of such resources for long-term use. This is critical given that the aggregate industry generates economic effects for both primary industries (i.e., initial extraction, processing, and transportation sectors) and secondary industries (i.e., industries that use aggregates to produce goods such as concrete). This application will make available a mineral aggregate resource that is located close to northern markets.

Per **2.5.2.2** the operation has been designed in a manner which minimizes social, economic, and environmental impacts. This is accomplished, in part, through efficiencies gained by using existing infrastructure (i.e., existing roads, etc.), providing appropriate setbacks from features identified in the Natural Environment Level 1 & 2 Studies, and the implementation of the recommendations of the technical reports and studies which will mitigate potential off-site impacts (such as setbacks to sensitive receptors).

Per ARA requirements a complete rehabilitation plan will be submitted as part of the ARA licence application. At this time, the rehabilitation plan proposes restoring the lands to a forested and grassland terrestrial habitat, which is compatible with adjacent lands and will increase long term biodiversity in the area.

Section 2.6 of the PPS outlines policies related to Cultural Heritage and Archaeology. **Section 2.6** requires that:

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

The Stage 1 Archaeological Assessment revealed the presence of a Euro-Canadian midden on the subject lands. Recent Provincial standards (ARA 2.2.4 and 2.2.5) for built and cultural heritage resources allow for avoidance/mitigation in responding to areas of archaeological potential. Given this standard a 300.0-metre buffer around the entity of the 'midden' area is proposed, which also falls within the 500.0 metre setback to sensitive receptors (previously discussed). Based on these new standards, it is understood that the 300.00-metre buffer around the archaeological resource will ensure that the resource is conserved, which satisfies **Policy 2.6.2** of the PPS.

Given the above, it is the Authors opinion that the subject Zoning By-law amendment is consistent with the 2020 Provincial Policy Statement.

3.2 Growth Plan for Northern Ontario (2011)

The Growth Plan for Northern Ontario (GPNO) is a 25-year plan that provides guidance in aligning provincial decisions and investment in Northern Ontario. There are no policies applicable to this proposal in the Growth Plan, and as such this proposal does not conflict with the GPNO.

3.3 City of Greater Sudbury Official Plan

The subject lands are currently designated '*Mining/Mineral Reserve*' and '*Rural*' per schedule 1C of the Official Plan. An Official Plan Amendment is not required as uses such as natural resource management activities, mineral exploration, and rural industrial/commercial uses are a permitted use within the Rural designation.

The OP states that '*some limited rural industrial/commercial uses are permitted in Rural Areas, particularly those activities that provide rural economic benefits that are balanced with protection of the natural environment and the agricultural resource base which includes pits and quarries that are permitted in appropriately zoned areas*'.

Further the OP states that lands '*designated Mining/Mineral Reserve may be used for a variety of uses related to the extraction of minerals. Permitted uses may include mining and mining-related uses, mineral aggregate uses, smelting and refining uses, pits and quarries and related uses, and accessory uses and structures associated with mining*'.

The OP recognizes the importance of aggregate operations and need to protect deposits and states that '*aggregates and other industrial minerals extracted through pit or quarry methods are valuable, non-renewable raw materials that are utilized extensively for construction, industrial and manufacturing purposes*'.

Relevant policies applicable to this application are outlined and discussed below.

Section 4.6 of the City of Greater Sudbury Official Plan relates to aggregate and mining reserve designations. It states that:

4.6.2.6

In considering an amendment to the Zoning By-law to permit new mineral aggregate operations or expansions of existing operations, the following information will be reviewed:

- a. the location, nature, extent and economic potential of the mineral deposit;*
- b. the nature and location of adjacent land uses and the effect the pit and quarry operation could have on:
 - i. natural heritage features, including significant geologic formations on the site and in the area;*
 - ii. agricultural resources and activities;*
 - iii. the character of the area;*
 - iv. the groundwater recharge functions on the site and in the immediate area;*
 - v. cultural heritage resources in the area through an archaeological assessment and/or a cultural heritage impact assessment;*
 - vi. surface water features in the area; and,*
 - vii. nearby wells used for drinking water purposes.**
- c. the capability of the existing road network to service the proposed location;*
- d. the effect of the noise, odour, dust and vibration generated by the use and the use of haul routes on adjacent land uses; and,*
- e. how the impacts of the proposed pit or quarry will be mitigated in order to lessen the impacts.*

4.6.2.8.

Landscaping and buffering will be used to enhance the physical appearance of lands and structures.

4.6.2.9.

On lands not designated as Aggregate Reserve but where deposits of aggregate exist, pits and quarries may be permitted by rezoning subject to the criteria under Policy 4 in this Section

This application conforms to the intent of the policies found in **4.6.1.3**, **4.6.2.6** and **4.6.2.8**, as outlined below:

PLANNING CONSIDERATIONS	RATIONALE
<i>Location and Site Characteristics</i>	<ul style="list-style-type: none">● The overall property is ±124 hectares and therefore provides adequate area for the intended quarry/pit related uses whilst allowing for appropriate setbacks/buffering.● The lands contain a high-quality aggregate resource suitable for large scale infrastructure projects, road building and construction projects for the local market.● It is the intent of the City and the Province to manage mineral and aggregate resources by protecting them for long-term use given that the aggregate industry generates economic effects on both primary industries and secondary industries.

<p><i>Land Use Compatibility</i></p>	<ul style="list-style-type: none"> ● The impact on the surrounding land uses will be negligible given that the area is rural with little development, the application proposes significant setbacks, and requirements of the ARA seek to limit and control any potential land conflicts through the provision of setbacks to sensitive receptors. ● Uses surrounding the proposed lands include vast vacant lands and open spaces, rural and rural residential uses, and mine/mining related uses which are compatible with quarrying operations (subject to setbacks and other mitigative measures). ● Mine/Mineral and aggregate extraction uses are an established use in the area. ● The property will be appropriately buffered and separated from sensitive land uses per <i>Aggregate Resources Act</i> standards and OP policy. ● The operations of the proposed extraction operation will remain above the established water table and no sensitive ground water features or surface water features are within the proposed extraction area. ● A 120.0-metre buffer has been applied around the eastern and southern wetland complexes as recommended in the Natural Environmental Level 1 & 2 Study. ● A 100.0-metre buffer was applied around the northern wetland complex given the NEL analysis of site topography, ecological functions and project impacts being appropriate to support the 100.0 metre setback. ● No agricultural resources and activities are on or abutting the subject lands. ● To conserve and protect the identified archaeological resource identified in the Stage 1 Archaeological Assessment, no development is proposed within a 300.00-metre radius of the potential archaeological feature. ● Only two sensitive receptors exist within proximity to the subject lands and that the use of setbacks, buffering and mitigate measurements related to noise, odour, dust and vibration will be addressed through the ARA licensing process.
<p><i>Access and Infrastructure</i></p>	<ul style="list-style-type: none"> ● No upgrades to the existing transportation network or impacts on the utilities and services provided by the City were identified in the Traffic Impact Study and through pre-consultation with the City. ● There is an existing entrance on to Falconbridge Lake Road which will operate as the Site access/exit. ● Given the high cost of transporting aggregate materials, locating aggregate operations near where the material will be used (close to population centres such as Sudbury) is vital.

Section 10.7 of the OP pertains to Noise, Vibration and Odour. It states that:

‘There are several areas in the city where sensitive land uses such as residential are in proximity to major facilities such as industrial uses or transportation corridors. The intent of this plan is to ensure that major facilities and sensitive land uses are compatible to protect human health and safety and ensure the long-term viability of major facilities.

1. *Major facilities and sensitive land uses will be appropriately designed, separated or buffered from each other in order to prevent or mitigate adverse effects from noise, vibration, odour and other contaminants.’*

There are limited residential receptors and sensitive land uses in the area surrounding the proposed operation. The operation has been designed to ensure that there will be no adverse impacts to the adjacent land uses. These measures include enhanced setbacks resulting from the completed technical reports, which have been incorporated into the Aggregate Resources Act Site Plans. If extraction is proposed closer to such sensitive receptors in-future, appropriate technical studies to determine required mitigation measures will be undertaken.

3.4 City of Sudbury Zoning By-Law

The current subject lands are currently zoned ‘Rural-RU’ per the *City of Greater Sudbury Zoning By-Law 2010-100Z*. To permit the aggregate extraction operation, an application to rezone lands from ‘RU-Rural’ to ‘M5-Extractive Industry’ is required. Permitted uses in the M5 zone include:

- Accessory Outdoor Storage Display and Sales
- Accessory Outdoor Storage
- Aggregate Transfer Site
- Agricultural Uses
- Forestry Use
- Pit
- Quarry

Requirements of the M5 zone are found in *Table 2*.

Table 2: M5 Requirements

Min Lot Area	Min Lot Frontage	Min Lot Depth	Min Required Front Yard	Min Required Rear Yard	Min Required Interior Side Yard	Min Required Corner Side Yard	Max Lot Coverage	Max Height	Min Landscaped Open Space
No Min	No Min	No Min	15.0m	15.0m	15.0m	15.0m	No Min	30.0m	No Min

The proposed aggregate extraction operation will be developed in accordance with the requirements and provisions of the ‘M5-Extractive Industrial’ zone and given the overall large size of the property no site-specific reliefs are required to enable the development.

4. SUMMARY AND CONCLUSION

In summary the proposed area to be extracted contains a viable aggregate deposit which avoids and mitigates impacts to any natural heritage features and water resources, archaeological, or incompatible land uses. The application represents the optimization of the long-term availability of mineral aggregate resources, utilizes existing infrastructure and has been appropriately designed, buffered and/or separated to prevent or mitigate adverse effects.

From a land use perspective, the proposed aggregate operation:

- Represents an efficient use of existing infrastructure by not requiring the expansion of municipal infrastructure, and by utilizing the existing sewer/ water and road infrastructure (1.1.5.5, 1.6.7.1, 1.6.7.2, 1.7.1a);
- Enhances long-term economic prosperity by providing opportunities for employment and economic development in an area appropriate for aggregate extraction (1.7.1a,c).
- Optimizes the long-term availability of aggregate resources, utilizes existing infrastructure and has been appropriately designed, buffered, and separated to prevent adverse effects (1.2.6.1);
- Represents the wise use and management of resources and provides for economic benefits including supporting jobs and future infrastructure needs (2.0);
- Will have no negative impacts on SAR and no further on-site studies are necessary. No development and site alteration will occur within Whip-poor-will habitat (2.1.5, 2.1.6);
- No fish habitats, significant wetlands, significant coastal wetlands, significant woodlands, significant valleylands, significant areas of natural and scientific interest are located within the extraction area (2.1.5) and adjacent features will have no negative impacts (2.1.8);
- Mitigates compatibility concerns and minimizes social impacts given that extraction is currently not proposed where sensitive receptors are within 500.0 metres (2.5.2.2);
- Is not located within a prime agricultural area and is not suitable for such (2.4.4.1);

Given the analysis contained herein, it is the authors opinion that the subject zoning by-law amendment is consistent with the 2020 PPS, conforms with and/or does not conflict with the intent of both the GPNO and City of Greater Sudbury's Official Plan, and represent Good Planning.

Respectfully submitted,



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