

Planning Report & Aggregate Resources Act Summary Statement

West Carleton Quarry Extension
Thomas Cavanagh Construction Ltd.

Lot 15, Concession 11, Geographic Township of Huntley, City of Ottawa

December 2021 (REVISED)

Prepared by:

MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC)

540 Bingemans Centre Drive, Suite 200

Kitchener, ON N2B 3X9

Our File 0851'B'

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EXECUTIVE SUMMARY

Thomas Cavanagh Construction Limited (Cavanagh) is proposing an extension to their existing West Carleton Quarry at 4048 March Road in the City of Ottawa (Part Lot 15, Concession 11, Geographic Township of Huntley). The proposed quarry would operate below the water table. The proposed licensed area for the quarry is approximately 18.2 hectares (45 acres).

The site is located on the south side of March Road, west of Upper Dwyer Hill Road, abutting the West Carleton Quarry immediately to the east, in the City of Ottawa. The site consists of coniferous and mixed forests, unevaluated wetlands, small meadows, roads and disturbed areas, as well as a gravel strip running along the western boundary of the site that provides access to an OPP shooting range just south of the site. There is a large berm on either side of the access road leading to the shooting range.

There are no dwellings or structures located on the site.

Land uses in the area of the site are comprised of aggregate extraction, Burnt Lands Provincial Park, natural features and rural residential dwellings. The Town of Mississippi Mills and Almonte are approximately 1.2 km and 4 km west of the site, respectively.

In addition to Cavanagh's West Carleton Quarry (ARA Licence # 4085), there is another licensed quarry in the general vicinity of the site. The West Carleton Sand & Gravel Burntlands Quarry (ARA Licence #4226) is located approximately 1.3 km west of the site.

Under the Aggregate Resource Act (ARA), Cavanagh is applying for a Class 'A' Licence to operate a quarry below the water table. The maximum annual tonnage is proposed to be 2 million tonnes in combination with the existing quarry. Current truck traffic levels are expected to remain the same. While the overall life of the quarry operation would be extended as a result of this site, the magnitude of extraction would remain the same.

The site contains aggregate resources of quality similar to that of the existing quarry, and that economically serve known market areas from a quarry that has been in operation for several decades. The quarry and site contain some of the highest quality bedrock resources in the City capable of producing concrete/asphalt stone (Bobcaygeon Formation). There are approximately 19 million tonnes of high quality bedrock resources. The site is identified within "Selected Bedrock Resource #4" in the Aggregate Resources Inventory Paper for the City of Ottawa (ARIP 191).

To permit the proposed quarry extension, applications are required to amend the City of Ottawa Official Plan and Zoning By-law. The site is proposed to be designated and zoned consistent with the existing quarry lands (Bedrock Resource Area designation and Mineral Extraction zone).

The proposed quarry will be operated in conjunction with the existing quarry and will ultimately be operated as one combined extraction area. The site would be extracted in a series of five lifts to a final base elevation of 107 metres above sea level (masl) consistent with the approved site plan for the existing quarry. The various lifts may be operated simultaneously depending on rock quality and market demand.

There will be no new entrances proposed as a result of the quarry extension. The existing truck accesses on March Road and Upper Dwyer Hill Road will continue to be used.

Extraction will commence at the south end of the extension lands and proceed in a northerly direction towards March Road for the first two lifts. For the remaining three lifts, extraction will occur from north to south away from March Road. Extraction will occur to a final elevation of 107 masl.

Processing of aggregate will occur on-site through use of a crushing and screening plant, to be operated on the quarry floor and in accordance with recommendations of the Acoustic Assessment. Visual berms will be located along March Road and along the western licence boundary. The site is proposed to operate during the hours of 7 am to 11 pm for shipping and 7 am to 7 pm for extraction and processing with specific restrictions for certain operating equipment.

Following the completion of site operations, the proposed rehabilitation involves backfilling to existing ground surface. As per the ARA site plans, the existing quarry will be rehabilitated as a lake. Along these boundaries, 2:1 slopes down to the lake will be constructed and shallow littoral zones will be created along the lake edge to enhance aquatic habitats.

The following technical reports and plans have been prepared in support of the proposed applications:

- Maximum Predicted Water Table Report (Golder, July 7, 2021)
- Natural Environment Report (Golder, July 2021)
- Stage 1 Archaeological Assessment (Golder, November 2018)
- Stage 2 Archaeological Assessment (Golder, August 2019)
- Cultural Heritage Screening Review (MHBC, September 2021)
- Water Report Level 1 and 2 (Golder, July 2021)
- Acoustic Assessment Report (Freefield, June 2021)
- Blast Impact Analysis (Explotech, August 2021)
- Stormwater Management Brief and Sediment and Erosion Control Plan (Golder, December 2021)
- Planning Justification & Aggregate Resources Act Summary Statement (MHBC, August 2021)
- Site Plan (Cavanagh, August 2021)

Please note that this report was revised in December 2021 to include the following information as requested by the City of Ottawa:

- Proposed public consultation strategy
- Images to and from the site
- Draft Integrated Environmental Review
- Feedback from pre-consultation

Based on available groundwater elevation data, the maximum predicted water table on the extension lands is 151.8 masl. The horizontal groundwater flow direction is from west to east across the site.

It is expected that there will be no negative impacts to the significant natural features and functions in the study area as confirmed by the Natural Environment Report. Proposed mitigation measures include minimum setbacks, planting setback areas, restrictions on timing for vegetation clearing, maintaining surface water flows, preparing 'Awareness Package' for potential species at risk, and utilizing best management practices to reduce dust and noise.

A Stage 1 & 2 Archaeological Assessment was prepared for the applications. An archaeological clearance letter has been obtained from the Ministry of Heritage, Sport, Tourism and Culture Industries (August 27, 2020). A Cultural Heritage Screening Review has been completed confirming no potential for built heritage resources and cultural heritage landscapes.

Based on the results of the hydrogeological and hydrological investigation, the proposed quarry extension will protect sensitive surface water and sensitive groundwater receptors during the operational period and under rehabilitated conditions. The proposed groundwater level monitoring program will permit the collection of long-term groundwater level data as the quarry develops.

Based on the acoustic assessment, it has been found that noise levels from the operations are in compliance with MECP sound level limits at nearby noise sensitive receptors, provided that the required noise mitigation measures are implemented.

The proposed quarry extension can be carried out safely and within MECP guidelines. Recommendations are included in the Blast Impact Analysis to ensure blasts are undertaken in a safe and productive manner and to suitably manage and mitigate the possibility of damage to any buildings, wells, structures or residences surrounding the site.

The Aggregate Resources Act Licence application has been prepared to meet requirements of the Aggregate Resources of Ontario Standards (August 2020) and provide information relative to Section 12 of the ARA on how the proposed aggregate operation will be undertaken to ensure that any potential adverse impacts are minimized.

The Planning Act applications have been prepared in accordance with City requirements.

The proposed quarry extension is consistent with the 2020 Provincial Policy Statement, conforms to the City of Ottawa Official Plan, and represents the wise use and management of provincially significant aggregate resources while minimizing impacts on surrounding lands and natural features in accordance with provincial standards and guidelines.

1.0 BACKGROUND

1.1 Subject Lands & Project Description

Thomas Cavanagh Construction Limited (Cavanagh) operates the existing West Carleton Quarry (ARA Licence No. 4085) and is proposing a small extension of the quarry onto adjacent lands in order to replace depleted reserves and continue to supply essential construction materials from this close to market location (**Figure 1**). The majority of aggregate resource available on the extension lands are suitable for production of the higher quality concrete/asphalt stone. The quarry has been in operation since the 1960's.

The current MNR license for the West Carleton Quarry covers 141.6 hectares (ha) with an extraction area of 90.2 ha. The proposed quarry extension is located to the northwest of the existing quarry. The proposed additional licensed area is 18.2 ha and the proposed area to be extracted is 16.5 ha. The site is located at Part Lot 15, Concession 11, Former Geographic Township of Huntley, City of Ottawa.

The site is located on the south side of March Road, west of Upper Dwyer Hill Road, abutting the West Carleton Quarry immediately to the east, in the City of Ottawa. The site consists of coniferous and mixed forests, unevaluated wetlands, small meadows, roads and disturbed areas, as well as a gravel strip running along the western boundary of the site that provides access to an OPP shooting range just south of the site. There is a large berm on either side of the access road leading to the shooting range (**Figure 2**).

There are no dwellings or structures located on the site. The site slightly increases in elevation from east to west with the majority of site between 152-153 masl.

Photos of the subject lands are included in **Appendix C**.

The operation of the proposed quarry extension area would be integrated with the existing quarry operation. The development of the site is anticipated to occur simultaneously with the operation of the existing quarry and will ultimately be operated as one combined extraction area. The mining would proceed from the existing quarry into the extension lands. Common setbacks would be removed. The depth of extraction would be consistent with what is approved in the existing quarry. Blasting and extraction procedures will be the same as presently occurs and the processing setup will include a portable plant close to the quarry face. Processed material will be shipped to market or transported into the existing quarry for additional processing (such as washing). All material extracted from the extension quarry will be shipped through the existing quarry using established internal haul roads, scale facilities and entrance/exits. There will be no change in the total maximum tonnage limit (remains at maximum 2 million tonnes per annum). There will be no change to external haul routes or shipping patterns.

Extraction setbacks include a 30 m setback on the north side of the site adjacent to March Road and a 15 m setback on the western side of the site. Existing natural vegetation will be retained within these setbacks where feasible.

Following the completion of site operations, the proposed rehabilitation of the site involves backfilling to existing ground surface. The adjacent quarry is being rehabilitated as a lake. As outlined on the ARA site plans, the side slopes and some shallow littoral zones will be created along the lake edge. The above water slopes will be seeded with a mix of grasses, forbs and nodal plantings. The shore line will include planted shallow emergent marsh vegetation with basking logs, woody debris and nesting platforms for wildlife habitat, such as turtles, waterfowl and fish.

Clean, inert fill may be imported for use in the establishment of the final landform. All fill materials imported for rehabilitation purposes will be in accordance with MECP Excess Soil Standards as outlined on the ARA Rehabilitation Plan.

1.2 Surrounding Land Uses

Land uses in the area of the site are comprised of aggregate extraction, Burnt Lands Provincial Park, natural features and rural residential dwellings. The Town of Mississippi Mills and Almonte are approximately 1.2 km and 4 km west of the site, respectively.

There is one off-site dwelling located within 120 m of the proposed licensed boundary (1616 Burnt Lands Road). There are approximately six residential properties within 500 m of the site.

Burnt Lands Provincial Park is located immediately west of the site (**Figure 1**). This Provincial Park is over 500 ha in size and was established in 2003 as a "Nature Reserve". The Park contains an extensive alvar ecosystem supporting a diversity of plant and animal species, many of which are provincially or regionally rare. Surrounding and interspersed among the open habitats are areas of cedar, white spruce, balsam fir and poplar forest. The site is not located within Burnt Lands Provincial Park.

The Burnt Lands Alvar Life Science Area of Natural and Scientific Interest (ANSI) includes most of the site, and extends over much of the landscape surrounding the site excluding the existing Cavanagh quarry and rural residential properties extending northward along Burnt Lands Road (**Figure 3**). The Burnt Lands Alvar includes a mosaic of ecosystems including bare rock, alvar meadow and mature bedrock forests.

The Burnt Lands Alvar ANSI is considered unique and has specific characteristics for which it was designated as an ANSI. There are a variety of alvar related plant community types across the Burnt Lands Alvar including herbaceous alvar-specific vegetation and mixed and coniferous forest. The mixed and coniferous forests that grow in between the bare areas are dominated by cedar, white spruce, balsam fir and poplar and support a distinct understory community.

The Burnt Lands Alvar ANSI is approximately 2,239 ha in size. Approximately 18 ha of the site is included which equates to approximately 0.8% of the total ANSI.

The site fronts onto March Road which is considered an arterial road that is part of the City of Ottawa's Rural Truck Route system.

1.3 Applications

The following applications are being submitted in order to permit the proposed quarry extension:

1. The property is designated Natural Environment Area in the City's Official Plan. Cavanagh is applying for an Official Plan Amendment to change the designation to Bedrock Resource Area.
2. The current zoning on the subject site is Environmental Protection (EP3). A zoning by-law amendment application proposes that the site be rezoned as Mineral Extraction (ME) Zone.
3. A Class 'A' quarry licence under the Aggregate Resources Act is also required and an application to the Ministry of Natural Resources and Forestry has been prepared. The application will proceed under the Aggregate Resources Ontario: Technical Reports and Information Standards dated August 2020.

Proposed amendments to the City's Official Plan and Zoning By-law are enclosed with this report and are further described in Sections 3 and 4.

Each of these applications must address a number of policy requirements and standards in order to evaluate their appropriateness and determine whether or not they should be approved. The application is supported by the following technical reports that have been prepared to address the applicable policies and standards:

- Maximum Predicted Water Table Report (Golder, July 7, 2021)
- Natural Environment Report (Golder, July 2021)
- Stage 1 Archaeological Assessment (Golder, November 2018)
- Stage 2 Archaeological Assessment (Golder, August 2019)
- Cultural Heritage Screening Review (MHBC, September 2021)
- Water Report Level 1 and 2 (Golder, July 2021)
- Acoustic Assessment Report (Freefield, June 2021)
- Blast Impact Analysis (Explotech, August 2021)
- Stormwater Management Brief and Sediment and Erosion Control Plan (Golder, December 2021)
- Planning Justification & Aggregate Resources Act Summary Statement (MHBC, August 2021)
- Site Plan (Cavanagh, August 2021)

The remainder of this Planning Report reviews the applicable policies and standards in order to provide the necessary information and professional planning opinions for consideration of the respective approval authorities. Section 5 of this report outlines the Summary Statement requirements pursuant to the type of Aggregate Resources Act application being filed.

As noted, this report was revised in November 2021 to include the following information as requested by the City:

- Proposed public consultation strategy
- Images to and from the site
- Draft Integrated Environmental Review
- Feedback from pre-consultation

1.4 Proposed Public Consultation Strategy

The proposed applications are subject to public consultation requirements under both the Planning Act and Aggregate Resources Act. Consultation activities will be administered by the City through the Planning Act and Cavanagh through the Aggregate Resources Act.

Under the Planning Act process, the proposed applications will be circulated to the Ward Councillor, prescribed public bodies, internal and external technical reviewers, local community associations and property owners within 120 m of the site. The applications including the technical studies will be posted online on the City's Development Application Search Tool.

Cavanagh directly notified the Ward Councillor in advance of submitting the applications.

A statutory public meeting will be held at the City's Agriculture and Rural Affairs Committee. Notice of the meeting will be provided by the City electronically or by mail.

The proposed licence application under the Aggregate Resources Act will be subject to the new consultation requirements that came into effect on April 1, 2021. Cavanagh will be responsible for administering and carrying out public consultation in accordance with subsections 0.4 to 0.5 of Ontario Regulation 244/97.

In summary, the following consultation activities will be undertaken under the Aggregate Resources Act:

1. Serve a copy of the "Public Notice of Application Form" by registered mail, courier or personal service on landowners within 120 metres of the boundary of the proposed quarry.
2. Publishing an English notice in the Carleton Place/Almonte Canadian-Gazette or Ottawa Citizen, and a French notice in LeDroit.
3. Posting the notice on a sign at the boundary of the proposed quarry.
4. The notice must contain the following information:
 - a. The applicant's name (Cavanagh) and contact information.
 - b. The location of the proposed quarry.
 - c. The type of approval being applied for (Class A Licence).
 - d. The nature of the proposed operation (Below Water Quarry).
 - e. The size of the proposed area to which the licence would apply (18.2 ha).
 - f. The proposed maximum number of tonnes of aggregate to be removed from the site annually (2 million tonnes in conjunction with existing quarry).
 - g. The time and method for the public to review the application and the details of the public information session.
5. Provide the application including the site plan and all technical reports to NDMNRF, MECP (Hydrogeology and Species at Risk), City of Ottawa and Mississippi Valley Conservation Authority.
6. The 60-day consultation period begins once the preceding notification requirements are completed.
7. The application including the site plan and all technical reports must be made available to the public during the consultation period. A project website will be established where the public can obtain additional information and access application materials.
8. A notice of the proposed quarry application along with a separate 30-day comment period will be provided on the Environmental Registry of Ontario.
9. A public information session will be held in person, by phone or electronically during the 60-day consultation period.
10. Cavanagh must attempt to address any comment received during the 60-day consultation period.
11. The public has an opportunity to submit "objections" if Cavanagh has not resolved their concerns.

12. If there any outstanding objections to the application, NDMNRF may refer the application to Ontario Lands Tribunal.

1.5 Feedback from Pre-Consultation

On December 14, 2020, Cavanagh met with the City, NDMNRF and Mississippi Valley Conservation Authority (including RVCA hydrogeologist) to discuss the proposed quarry extension and application requirements. The City's Pre-Application Consultation meeting notes are enclosed in **Appendix D**.

Between 2016 and 2018, Cavanagh met with NDMNRF to discuss the Burnt Lands Alvar ANSI on the subject lands and other lands owned by Cavanagh adjacent to the existing quarry. In 2018, NDMNRF advised Cavanagh that the ANSI boundary would not be changed at that time for this area of the ANSI. NDMNRF noted that the policy test for ANSIs is not 'no development' but 'no negative impact'. Development may be permitted in or adjacent to a provincially significant ANSI if it has been demonstrated that there will be no negative impacts on the ANSI's features or their ecological functions. NDMNRF further stated that the consideration of no negative impacts test would include a site specific understanding of the function and nature of the development, its scope, scale, and final site condition.

As noted, Cavanagh notified the Ward Councillor regarding the proposed application and provided the Planning Report and ARA Summary Statement for review prior to submitting the applications to the City and NDMNRF.

2.0 PROVINCIAL POLICY STATEMENT

The 2020 Provincial Policy Statement (PPS) came into effect on May 1, 2020. The PPS provides policy direction on matters of provincial interest related to land use planning and development, and sets the policy foundation for regulating the development and use of land. The PPS provides for the appropriate development of land, while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment.

The PPS supports a comprehensive, integrated and long-term approach to planning, and recognizes linkages among policy areas. The PPS is to be read in its entirety and the relevant policies are to be applied to each situation. The policies in the PPS are outcome-oriented, and some policies provide flexibility in their implementation provided that provincial interests are upheld.

The Province's natural heritage resources, water resources, agricultural resources, mineral resources, and 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 conserve biodiversity, protect essential ecological processes and public health and safety, provide for the production of food and fibre, minimize environmental and social impacts, provide for recreational opportunities (e.g. fishing, hunting and hiking) and meet its long-term needs.

The Planning Act applications for the proposed quarry extension must be consistent with the 2020 PPS. The following are the main sections and provincial interests that are affected by these applications along with comments about the applications and their consistency with the PPS.

2.1 Mineral Aggregate Resources (PPS 2.5)

The PPS states that mineral aggregate resources shall be protected for long-term use. As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible. The applications are consistent with these provisions of the PPS. The West Carleton Quarry is an established close to market source of high quality aggregate deposits. The applications will support continued supply from this close to market location.

The site is identified within "Selected Bedrock Resource #4" in the Aggregate Resources Inventory Paper for the City of Ottawa (ARIP 191) (**Figure 4**). The drift thickness (overburden) is identified as less than 1 m on the site. There are approximately 19 million tonnes of high quality bedrock resources.

According to ARIP 191, Selected Resource Areas represent areas in which a major resource is known to exist. Such areas may be reserved wholly or partially for extractive development and/or resource protection within the context of the official plan.

As discussed in the Golder Water Report, the layers of rock across this area are not all continuous. The bedrock closest to the surface on the extension lands is part of the Bobcaygeon Formation which is the higher quality bedrock and suitable for production of concrete/asphalt stone products. This resource is not present or nearly depleted in the existing quarry and the extension of the quarry at this site would make this significant resource available.

The PPS states that extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts. The proposed quarry extension has been designed in a manner which minimizes such impacts. It will utilize the presence of Cavanagh's existing quarry operation and other nearby infrastructure and facilities to provide for a continued supply of high quality aggregate material from a known and Provincially and locally identified aggregate resource.

Further, through the implementation of the technical studies and ARA Site Plan, the proposed operation will ensure that social, economic and environmental impacts are minimized.

Mineral aggregate resource conservation will be undertaken on the site through the use of accessory aggregate recycling facilities. Recycling of concrete and asphalt is proposed to be permitted as an accessory use to aggregate extraction.

The PPS states that progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, and to recognize the interim nature of extraction. Further, final rehabilitation shall take surrounding land use and approved land use designations into consideration.

The ARA site plans outline the required progressive and final rehabilitation for the proposed quarry extension which includes backfilling the site to original grade and creating side slope and shallow shoreline habitat areas. The proposed final land use is compatible with surrounding land use and takes into account approved land use designations in the City's Official Plan.

2.2 Natural Heritage (PPS 2.1)

The PPS requires that natural features and areas shall be protected for the long term. The diversity and connectivity of natural features in an area, and ecological function and biodiversity of natural heritage systems should be maintained, restored or, where possible, improved.

The PPS establishes that development and site alteration shall not be permitted in significant wetlands (in this ecoregion). There are no significant wetlands located on or within 120 m of the site.

Further, development and site alteration shall not be permitted in specified natural heritage features unless it has been demonstrated that there will be no negative impacts on those natural features or their ecological functions. The Golder Natural Environment Report presents comprehensive field investigations and reviews that have been completed in order to determine the presence of the PPS natural heritage features and potential for negative impact.

Overall, the Site consists of mixed and coniferous forest, small unevaluated wetlands, small meadows, and disturbed (unvegetated) areas. Some areas are in various stages of regeneration from recent disturbance. For the purposes of the natural environment studies, the Study Area was identified based on the potential area of incremental drawdown for the proposed extraction. The Study Area consists of forest, active aggregate extraction, alvar communities in the Burnt Lands Provincial Park, and small wetland pockets.

Four endangered or threatened species and/or their habitat were identified on the Site and/or in the Study Area: eastern whip-poor-will, little brown myotis, eastern small-footed myotis, and Blanding's turtle. Of these species, only eastern whip-poor-will was determined to have habitat that overlaps the Site (2.2 ha of disturbed area at the Site is considered Category 3 habitat for this species). No ESA

approvals are required. The proposed extraction is not anticipated to have a negative impact on the species in the Study Area.

The Site contains woodlands that are considered significant based on the City's criteria for determination of significance (Woodland 1). Woodlands within the Study Area are also considered significant. The proposed removal of the on-site portion of the woodland will not have any negative effect on the larger natural feature or its ecological functions.

The Site and Study Area are located within the mapped boundaries of the Burnt Lands Alvar provincially significant area of natural and scientific interest (ANSI), which includes a mosaic of ecosystems including bare rock, alvar meadow and mature bedrock forests. The natural areas (i.e., vegetated areas) on the Site cover 10.8 ha, or 0.5% of the total ANSI. There are no alvar communities present on the site. Golder concludes that the proposed vegetation removal will not affect the forms or functions for which the ANSI was identified. The site does not warrant inclusion in the ANSI and the quarry development can proceed without any negative impact to the ANSI.

There are no significant wetlands, fish habitat, significant valleylands and significant wildlife habitat on the site. There are provincially significant natural heritage features in the areas surrounding the site (e.g. woodlands, wetlands and ANSI). Based on the analysis provided by Golder and the incorporation of recommended mitigation measures, the indirect impacts of the quarry development on these adjacent features are mitigated and there will be no negative impact.

2.3 Water (PPS 2.2)

The PPS includes policies that ensure protection, improvement or restoration of the quality and quantity of water.

The potential impacts of the operation relative to the quality and quantity of groundwater and surface water have been assessed through the Golder Water Report. Overall, the proposed additional quarry development will protect sensitive surface water and sensitive groundwater receptors during the operational period and under rehabilitated conditions.

Water taking (dewatering) at the site will continue to be regulated through the Ontario Water Resources Act Permit to Take Water requirement. It is anticipated that the existing Permit to Take Water will be amended to include water taking associated with the proposed quarry extension. The detailed monitoring program recommended by Golder would be reviewed by the Ministry of Environment, Conservation and Parks (MECP) and incorporated as conditions in the updated Permit to Take Water. This ground water level monitoring program will document actual changes in groundwater levels within the monitoring wells in order to verify that continued dewatering at the site does not interfere with water supply wells or environmental receptors in the area.

The Golder recommendations also incorporate a Complaints Response Program to ensure that appropriate protocols are in place in the unlikely event that complaints are received. The licensee is responsible for investigating all complaints and maintenance of local water supplies if they are affected by the quarry dewatering.

2.4 Agriculture (PPS 2.3)

The PPS states that prime agricultural areas shall be protected for long-term use for agriculture, and that prime agricultural areas are areas where prime agricultural lands predominate.

The City of Ottawa designates prime agricultural areas as Agricultural Resource Areas. The site and adjacent lands are not designated Agricultural Resource Area. The site is therefore not considered to be a prime agricultural area as defined in the PPS.

The PPS defines “prime agricultural lands” as specialty crop areas and/or Canada Land Inventory Class 1, 2 and 3 lands. The Canada Land Inventory maps the site as Class 6 soils (**Figure 5**). The site is therefore not prime agricultural land.

As such, the agricultural rehabilitation policies of the PPS do not apply to the site and the proposed applications.

2.5 Cultural Heritage and Archaeology (PPS 2.6)

The PPS states that significant built heritage resources and significant cultural heritage landscapes shall be conserved. There are no existing structures or dwellings on the site and there are no significant built heritage resources and cultural heritage landscapes on the site. A Cultural Heritage Screening Review has been completed confirming no potential for built heritage resources and cultural heritage landscapes per the requirements of the ARA for the Cultural Heritage Report.

The PPS states that 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.

A Stage 1 & 2 Archaeological Assessment was prepared for the applications. No archaeological resources were identified during the Stage 2 assessment therefore no further archaeological investigation was required. An archaeological clearance letter has been obtained from the Ministry of Heritage, Sport, Tourism and Culture Industries (August 27, 2020).

2.6 Land Use Compatibility (PPS 1.2.6)

The PPS addresses land use compatibility by directing that 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.

The proposed quarry extension would be considered a “major facility” under the PPS which has been appropriately designed and buffered to prevent and mitigate potential adverse effects on sensitive land uses including off-site residences. This is being accomplished through the incorporation of mitigation recommendations from the technical studies that have been completed in order to address noise and vibration, and through incorporation of best management practices that will mitigate and control dust emissions affecting air quality.

The potential for noise impacts is the subject of an acoustic assessment (Freefield). The assessment considers the impacts on nearby noise sensitive lands including existing residences and land zoned for potential residential uses. The assessment considers the noise generated by all on-site equipment

operations and the predictions are compared to MECP sound level limits. Where applicable, noise mitigation measures have been recommended and incorporated on the site plans in order to ensure all operations comply with applicable sound level limits. Mitigation measures include requirements for berms and sound barriers, source level limits for equipment operating on the site, restricted zones for specific processing activities and restrictions on hours of operation.

The Blast Impact Analysis (Explotech) concludes that the planned mineral extraction extension can be carried out safely and within MECP guidelines that regulate noise and vibration from the blasting activities that will occur on the site. This will ensure that operations can proceed in a safe and productive manner and protect buildings, wells, structures and residences surrounding the property from adverse effects. All blasts at the site will be monitored to ensure that the MECP guideline limits are met. Blast designs are continually reviewed based on the monitoring data to ensure continual compliance.

In addition, the ARA licence would be subject to the following standard conditions for blasting:

- No blasting shall occur on a holiday, or between 6 p.m. and 8 a.m.
- The licensee shall monitor all blasts for ground vibration and blast overpressure and prepare blast monitoring reports in accordance with provincial guidelines on limits on blast overpressure and ground vibration for blasting operations.
- The licensee shall retain the blast monitoring reports for a period of seven years after each blast.

The regulations under the Aggregate Resources Act incorporate standard requirements to control and mitigate potential for impacts on air quality from fugitive dust emissions:

- The licensee shall mitigate the amount of dust generated at the site to minimize any off-site impact.
- Adequate vegetation must be maintained on all berms and stockpiles of soil.
- Water or another provincially approved dust suppressant shall be applied to internal haul roads and processing areas as necessary to mitigate dust.
- Processing equipment shall be equipment with dust suppressing or collection devices (if located within 300 metres of a sensitive receptor).
- Environmental compliance approval under the Environmental Protection Act is required.

There is only one off-site residence located within 120 m of the site and there are approximately six residential properties within 500 m (**Figure 2**). The closest residence is approximately 150 m from the proposed extraction area and is located on the opposite (north) side of March Road. In addition to the mitigation recommendations from the technical studies outlined above, the site is located such that potential impacts on sensitive land uses are minimized due to separation distances. A major arterial road separates the closest sensitive uses from the existing and proposed quarry.

The proposed quarry extension would be considered a “major facility” under the PPS which has been appropriately designed and buffered to prevent and mitigate potential adverse effects on sensitive land uses including off-site residences. This is being accomplished through the incorporation of mitigation recommendations from the technical studies that have been completed in order to address noise and vibration, and through incorporation of best management practices that will mitigate and control dust emissions affecting air quality.

2.7 PPS Conclusion

In conclusion, the proposed applications to permit the quarry extension would be consistent with the PPS 2020. The high quality aggregate resources found on the site would be made available in a close to market location where existing infrastructure is in place to accommodate the extraction, processing and shipping of high quality aggregate. The PPS requirements for protection of natural heritage, cultural heritage and water resources are being satisfied and the operational design of the proposed quarry will prevent or minimize adverse effects on surrounding land uses.

3.0 CITY OF OTTAWA OFFICIAL PLAN

3.1 Introduction

The City of Ottawa Official Plan was adopted in 2003 and has been updated by amendments in order to address matters of Provincial interest including the Provincial Policy Statement. The Official Plan provides a vision for the future growth of the City and a policy framework to guide development to the year 2036. The policies address preservation of natural systems and wise use of resources.

3.2 Natural Environment Areas

The City of Ottawa Official Plan addresses both natural features as well as natural functions. Natural features are physically tangible elements of the environment which support significant ecological functions. The natural heritage system comprises a number of significant natural feature and the functions they perform such as provincially significant wetlands, significant habitat for endangered and threatened species, significant woodlands, significant valleylands, significant wildlife habitat and Areas of Natural and Scientific Interest (ANSI) as identified by MNRF.

The most significant components of the natural heritage system are designated on Official Plan schedules including Significant Wetlands, Natural Environment Areas, Urban Natural Features and Rural Natural Features.

The Official Plan polices require that an Environmental Impact Statement be completed for development proposed within or adjacent to the significant features that make up the natural heritage system. Development and site alteration within or adjacent to these features will not be permitted unless it is demonstrated through the EIS that there will be no negative impact on the feature or its ecological functions. In the case of mineral aggregate operations, the demonstration of no negative impact may take into consideration final rehabilitation and compensation.

The site is currently designated Natural Environment Area in the City's Official Plan (**Figure 6**). The Natural Environment Area designation applies to lands having high environmental value. They are considered to be among the most significant in Ottawa in terms of maintaining biodiversity and ecological functions. Development and site alternation is generally prohibited and the intent of the policies is to ensure that the inherent natural features and functions are protected and preserved.

The Natural Environment Area includes areas identified by the Province as significant Areas of Natural and Scientific Interest. The site is primarily designated Natural Environment Area due to the presence of the Burnt Lands Alvar ANSI. The Official Plan recognizes that the Burnt Lands are primarily owned and managed by MNRF and Nature Conservancy of Canada.

The Official Plan policies contemplate adjustments to the boundaries of the Natural Environment Area when more up-to-date information becomes available through such means as detailed environmental studies. Minor changes to the boundary do not require amendments to the Official Plan. Where boundary interpretation impacts ANSIs, the agreement of MNRF will be required.

Even though the Official Plan policies contemplate minor boundary adjustments without the need for official plan amendments, Cavanagh has elected to apply for an Official Plan Amendment to ensure that the proposed quarry extension would be permitted through the establishment of a Bedrock Resource Area designation.

The primary justification for the proposed boundary change and requested designation is based on:

- The site does not reflect the high environmental values that are assigned to the Natural Environment Area designation. Detailed up-to-date environmental studies conducted by Golder conclude that the alvar features intended to be represented by the ANSI (and Natural Environment Area designation) are not present on the subject site. Based on the Golder analysis, it is concluded that the site does not warrant inclusion in the ANSI.
- The significant high quality and close to market bedrock resource available on the site warrants designation and consideration for extraction.
- The proposed quarry development can proceed without impact on the form or function of the ANSI. This meets the City's Official Plan requirement to demonstrate no negative impact where development within a natural heritage system feature is contemplated.

3.3 Mineral Aggregate Resources

The City's Official Plan recognizes, protects and makes available mineral aggregate resources that are used to build City infrastructure. Mineral aggregates are a non-renewable resource that the City stewards for future generations. Lands are designated Bedrock Resource Area based on resource quality, quantity, proximity to local markets and location relative to residential development so that extraction can occur with minimal impacts on residential uses.

Care must be taken to ensure that the environmental and social impact of mineral extraction is minimized. The City's Official Plan also recognize that keeping haul distances short through the use of close to market resources minimizes the environmental and community impacts of aggregate related traffic.

The Official Plan notes that existing licensed extraction sites make up much of the supply of aggregate in Ottawa. The City will protect their continued operation and expansion by preventing any new development in their vicinity that would preclude or hinder extraction.

Designation of the subject site as a Bedrock Resource Area would be consistent with the City's policies in order to make this resource available. The Official Plan states that lands designated as Bedrock Resource Area have deposits of aggregate that may be viably extracted because they are:

Of a good quality and quantity;

Similar to the existing quarry which is designated Bedrock Resource Area, the site contains some of the highest quality bedrock resources in the City capable of producing concrete/asphalt stone (Bobcaygeon Formation). There are approximately 19 million tonnes of high quality bedrock resources including approximately 11 million tonnes which is capable of producing concrete/asphalt stone. The site is identified within "Selected Bedrock Resource #4" in ARIP 191.

Located sufficiently close to markets;

The site is located close to markets along existing aggregate haul routes. The site and existing quarry are located within 25 km of Kanata and Stittsville, and within 5 km of Almonte within the Town of Mississippi Mills.

Situated in relation to existing residential development such that they can be extracted with minimal impacts on most residential uses.

Due to the existing quarry and Burnt Lands Provincial Park, there are relatively limited residential uses in the area of the site. Potential impacts on sensitive uses would be minimized in accordance with Provincial standards.

The City's Official Plan includes policies related to the establishment or expansion of pits and quarries. The studies and site plans required under the Aggregate Resources Act are also required by the City in order to provide a complete application. The Cavanagh project team has completed pre-submission consultation with the City and other review agencies to ensure that the City's requirements have also been satisfied. The following table presents the official plan studies that may be required and provides comment on the information that has been provided in relation to the subject applications.

Establishing or Expanding Pits or Quarries (Section 3.7.4.9)

OP Policy	Response
<p>As part of a complete application, studies and the site plans required under the <i>Aggregate Resources Act</i> will also be required by the City. The areas of influence generally are 500 metres around quarries, 150 metres for pits above the water table and 300 metres for pits below the water table and the proposed haul route. The required studies, as are determined to be appropriate considering the type of extraction proposed, may include those identified in the <i>Aggregate Resources Act</i> and will be defined in a pre-consultation process. Studies may include those described elsewhere in this Plan as well as, but are not necessarily limited to additional information on:</p>	<p>The required ARA studies are being provided and have been prepared taking into account pre-submission consultation with the City and review agencies.</p>
<p>a. Anticipated noise, dust and vibration levels that illustrate that the Ministry of Environment guidelines and criteria will be satisfied;</p>	<p>With the implementation of the recommended mitigation measures and ARA licence conditions, anticipated noise, dust and vibration levels will satisfy Provincial guidelines and criteria.</p>
<p>b. Rationale for proposed haul routes, expected traffic volumes and entrance/exit design to show that the road system can safely and efficiently accommodate the proposed truck traffic. This may include provision for upgrading of local City</p>	<p>The proposed truck traffic will continue to be efficiently accommodated along arterial roads. There are no changes to the volume or pattern of traffic as a result of the continued operation of the quarry at this location. Existing haul</p>

<p>roadways leading to an arterial road and on-going maintenance requirements along such route so long as the pit or quarry is in operation;</p>	<p>routes along March Road and Upper Dwyer Hill Road will continue to be used (Figure 7).</p>
<p>c. Impact on neighbours from noise, dust, vibration, truck traffic, etc., due to the duration of the extraction operation in hours per day and number of days per week;</p>	<p>Impacts on neighbors have been assessed and adverse impacts will be avoided or minimized through operational design, mitigation, conditions of approval, and standard regulations.</p>
<p>d. The elevation of the groundwater table on and surrounding the site;</p>	<p>Based on the groundwater elevation data collected from monitoring wells on the site and existing quarry, the maximum predicted water table within the site is 151.8 masl on the west side. The water talbe slopes down moving from west to east, and the maximum predicted water table on the east side of the site is approximately 143 masl.</p>
<p>e. Any proposed water diversion, water taking, storage and drainage facilities on the site and points of discharge to surface waters. An impact assessment will address the potential effects on the following features on or adjacent to the site, where applicable:</p> <ul style="list-style-type: none"> i. Water wells, ii. Springs, iii. Groundwater, iv. Surface watercourses and bodies; v. Wetlands, woodlands, and fish and wildlife habitat; vi. Water balance; vii. The cumulative effects of two or more bedrock quarries with 1 km of each other. 	<p>The Golder Water Report has assessed the potential for impact on these features. Overall, the proposed additional quarry development will protect water supplies for sensitive receptors.</p> <p>The Burnt Lands Quarry is approximately 1.6 km west of the existing quarry. Interference with private supply wells and the Almonte supply wells as a result of potential cumulative drawdown is not predicted.</p>
<p>f. Adjacent and nearby land uses and an assessment of the compatibility of the proposed development with existing land uses. This includes possible completion of an Environmental Impact Statement as referenced in Section 4.7.8;</p>	<p>Land use compatibility has been assessed. This is a continuation of an established use that will be designed and mitigated to minimize adverse impact.</p>
<p>g. If within an Agricultural Resource Area on Schedule A, the agricultural classification of the proposed site and the proposed agricultural rehabilitation techniques if the</p>	<p>The site is not within an Agricultural Resource Area.</p>

site is Class 1, 2 or 3 soils and extraction is not below the water table;	
h. The proposed after-use and rehabilitation plan;	The proposed after-use and rehabilitation has been presented and assessed. The proposed rehabilitation involves backfilling to existing ground surface. As per the ARA site plans, the existing quarry will be rehabilitated as a lake. Along these boundaries, 2:1 slopes down to the lake will be constructed and shallow littoral zones will be created along the lake edge to enhance aquatic habitats.
i. Mitigation measures that may be necessary to address the potential impacts of the operation.	The necessary mitigation measures as recommended through the required impact assessments have been incorporated in the site plans as conditions of approval.

The proposed Official Plan Amendment seeks to redesignate the site from Natural Environment Area to Bedrock Resource Area. The draft amendment is a mapping change only and does not require any policy changes (**Appendix A**).

3.4 Draft Integrated Environmental Review Statement

Section 4.7.1.1 of the Official Plan states that rezoning applications requiring an Environmental Impact Statement will be accompanied by an integrated environmental review statement demonstrating how all the studies in support of the application influence the design of the development with respect to effects on the environment and compliance with appropriate policies of Section 4 of the Official Plan.

Specifically the City has requested that the Draft Integrated Environmental Review Statement summarize supporting studies’ considerations of the environmental features and the potential implications of the recommendations on each other and the proposal.

The complete list of required mitigation measures from the technical reports are included on the Operational Plan and Rehabilitation Plan of the ARA Site Plans. If a licence is issued for this site, Cavanagh will be required to operate the quarry in compliance with the ARA Site Plans including the required mitigation measures.

The Natural Environment Report, Water Report (Hydrology and Hydrogeology) and Maximum Predicted Water Table Report were integrated given the relationship between surface water, groundwater and environmental features.

The Natural Environment Report assessed potential impacts to natural heritage features as a result of the proposed quarry on the subject and adjacent lands with respect to the following:

- The environmental features and functions on the subject lands and adjacent lands.
- The influence of extraction on the surrounding natural environment.
- The rehabilitation potential of subject lands post-extraction.

An assessment was conducted to determine the significance and sensitivity of natural features as well as significant species observed or determined to have the potential to exist on the subject and adjacent lands. An assessment was then conducted to determine whether the project would negatively impact surrounding natural features including species at risk. Preventative, mitigative and remedial measures were considered in assessing the net effects of the proposed project on the surrounding ecosystem.

The Natural Environment Report identified four endangered or threatened species and/or their habitat on the subject and/or adjacent lands: eastern whip-poor-will, little brown myotis, eastern small-footed myotis, and Blanding's turtle. Of these species, only eastern whip-poor-will was determined to have habitat that overlaps a portion of the subject lands.

The subject and adjacent lands also contain significant woodlands and a provincially significant area of natural and scientific interest (Burnt Lands Alvar).

The Natural Environment Report recommended the following mitigation measures to ensure there are no negative impacts to significant natural features and functions on the subject and adjacent lands:

- Establish a 30 m setback to March Road and 15 m along the western boundary of the subject lands. Existing vegetation adjacent to the proposed berm should be retained where feasible, and unvegetated areas or areas where vegetation was removed for berm creation should be replanted, where feasible.
- No clearing of vegetation within the core breeding bird season unless a nesting survey has been completed by a qualified biologist within 24 hours of the clearing, and no active nests were observed.
- Surface water that currently flows from the west through the existing quarry should be maintained.
- Prepare an Awareness Package highlighting species at risk that may be present at or near the subject lands, including information on identification, legal protection, and encounter procedures to be followed in the event that species at risk or other wildlife is encountered.
- Standard best management practices to reduce dust and noise mitigation at the quarry as are currently implemented in the adjacent operation will be continued during operation of the project.

The main objectives of the Water Report were to characterize the existing hydrogeological and hydrological conditions in vicinity of the existing quarry and subject lands, and assess potential impacts on groundwater and surface water associated with operation and rehabilitation activities on the subject lands.

Based on the results of the hydrogeological and hydrological assessments for the subject lands, the following mitigation measures are required:

- Prior to the start of water taking for the subject lands, the Permit to Take Water for the existing quarry shall be amended to include the water taking associated with the quarry extension and to increase the frequency of the groundwater and surface water level measurements for locations included in the monitoring program to monthly.
- The monitoring program for the subject lands shall be completed in accordance with the Permit to Take Water and Environmental Compliance Approval.

- In the event of a well interference complaint, Cavanagh shall implement the Complaints Response Program outlined in the Water Report.

The Water Report concluded that the proposed additional quarry development will protect sensitive surface water features and sensitive groundwater receptors during the operational period and under rehabilitated conditions. However, if the results of the monitoring program indicate the potential for adverse impact to groundwater uses or surface water features, then appropriate enhanced monitoring and/or mitigative actions would be developed as required through the ARA Site Plan, Permit to Take Water and/or Environmental Compliance Approval.

As noted, the required mitigation measures have been incorporated on the Operational Plan of the ARA Site Plans. The mitigation measures do not conflict with one another and work in conjunction regarding the operational and rehabilitation parameters for the quarry to ensure the protection of the natural environment. Further, the ARA Site Plans also include the following related conditions to ensure the protection of environmental features:

- Note 37: No scrap will be stored on the site. Aggregate stockpiles will be located no closer than 30 m to the licensed boundary except where there is a common boundary with the existing quarry. Water or another provincially approved dust suppressant will be applied to internal haul roads as often as required to mitigate dust.
- Note 38: Dust will be mitigated on site. Water or another provincially approved dust suppressant will be applied to processing areas as often as necessary to mitigate dust. Processing equipment will be equipped with dust suppression or collection devices where the equipment creates dust and is being operated within 300 m of a sensitive receptor. Processing equipment will not be located within 30 m of the licensed boundary.
- Note 39: Recycled aggregate stockpiles will be located no closer than 30 m to the licensed boundary except where there is a common boundary with the existing quarry. Asphalt materials will be stored at least 30 m horizontally and 2 m vertically from any water source.
- Note 41: During construction and earth-moving operations, sediment control measures will be put in place to prevent runoff of suspended solids from leaving the site.
- Note 43: Based on topography, water from the site currently flows into the existing West Carleton Quarry. During operations, the water from the site will continue to discharge to the existing quarry and will be handled as part of the ongoing water management for the existing quarry. The existing quarry has a Permit to Take Water and Environmental Compliance Approval under the Ontario Water Resources Act authorizing the taking and discharge of water associated with quarry operations.
- Note 45: No permanent or temporary fuel storage will occur at the site.
- Note 46: Excavation setbacks include a 30 m setback on the north side of the site adjacent to March Road and a 15 m setback on the western side of the site.
- Note 49: Existing and proposed berms will be kept back at least 3 m from the license boundary and will have an approximate slope of 2:1. The slopes will be seeded with native vegetation to ensure that adequate vegetation is established and maintained to control erosion.

- Note 53: Within the area of be extracted, all trees within 5 m of the excavation face will be removed. Any trees present within the extraction area are to be harvested and utilized in the most appropriate manner. Small trees and stumps remaining onsite will be ground up or broken down using an excavator and mixed with topsoil to be utilized during rehabilitation of the site. Large pieces of wood material may be left in the rehabilitated areas as habitat structure and cover for small mammals as well as basking areas for reptiles and perching areas for waterfowl.
- Note 59: The proposed final rehabilitation of the site involves backfilling to existing ground surface. To the east and south of the site, the existing quarry will be rehabilitated as a lake. Along these sides, typical 2:1 slopes will be constructed along the majority of the boundaries with selected areas having shallower slopes at the lake level to create shallow littoral zones for increased habitat diversity.
- Note 60: Progressive rehabilitation will be completed in direct correlation to the development of the quarry as the extraction limits are reached and enough area is available to ensure that the production, stockpiling and processing of aggregate material will not interfere with rehabilitation activities.
- Note 63: During progressive and final rehabilitation, above water slopes will be seeded with a mix of grasses and forbs consisting of non-invasive species to prevent erosion. Examples of suitable species of grass and forbs include, but are not limited to, Kentucky bluegrass, creeping red fescue, perennial ryegrass and white clover. Native species will also be included in the seed mix, such as black-eyed susan, new England aster, Canada wild rye and little bluestem (as available from suppliers). Final rehabilitation will also include the creation of shallow littoral zones at select locations where the slopes from site meet the rehabilitated lake level in the existing quarry to create more diverse aquatic habitat. Shallow emergent marsh vegetation will be planted in water +/-0.15 m deep and extend +/-5 m from the shore and will be interspersed with cover structures (e.g., boulders and root wads). In addition, basking logs, woody debris and nesting platforms will be installed for wildlife habitat, such as turtles, waterfowl and fish. Nodal plantings will also be completed within selected areas around the lake and will include edge, submergent and emergent species such as red-osier dogwood, slender willow and herbaceous plants such as water plantain, lake sedge, swamp milkweed, soft stem bulrush and common cattail.

4.0 ZONING BY-LAW

The site is zoned Environmental Protection (EP3) in the City's Zoning By-law (**Figure 8**). The existing quarry is zoned Mineral Extraction (ME). The submitted applications include a zoning by-law amendment application so that the site can be rezoned from EP3 to ME. The draft amendment is a mapping change only and does not propose any site-specific provisions (**Appendix A**).

The site is zoned EP3 due to the Natural Environment Area designation. As previously discussed, the site does not reflect the high environmental values that are assigned to the Natural Environment Area designation. Detailed up-to-date environmental studies conducted by Golder conclude that the alvar features intended to be represented by the Burnt Lands ANSI (and Natural Environment Area designation) are not present on the subject site. Based on the Golder analysis, it is concluded that the site does not warrant inclusion in the ANSI and Natural Environment Area designation.

The Mineral Extraction (ME) Zone would permit a mineral aggregate operation (such as the proposed quarry) along with the normal accessory uses such as processing.

The proposed rezoning is consistent with the PPS and would conform to the Official Plan subject to the designation being changed to Bedrock Resource Area.

5.0 ARA SUMMARY STATEMENT

Cavanagh has applied under the Aggregate Resources Act for a Class 'A' licence for a below water quarry. The ARA application has been prepared in accordance with the Aggregate Resources of Ontario: Technical Reports and Information Standards dated August 2020. The following information is provided to address the requirements under Part 1.0: Summary Statement.

5.1 Agricultural Classification

The agricultural classification of the site is Class 6 soils (**Figure 5**). Based on the PPS, the site does not contain prime agricultural lands. Further, the site is not designated Agricultural Resource Area in the City's Official Plan and is therefore not considered a prime agricultural area.

5.2 Planning and Land Use Considerations

The site is designated Natural Environment Area in the City of Ottawa Official Plan and zoned Environmental Protection (EP3) in the City's Zoning By-law. Amendments are required to both the Official Plan and Zoning By-law to permit the proposed quarry extension (Designation: Bedrock Resource Area; Zoning: Mineral Extraction).

Lands surrounding the site are designated Bedrock Resource Area and Natural Environment Area in the City's Official Plan. In the Zoning By-law, surrounding zones include Mineral Extraction (ME) and Environmental Protection (EP3).

For a detailed review of planning and land use considerations, please refer to Sections 1-3 of this Report.

There are no provincial plans applicable to the site.

5.3 Source Water Protection

A small portion of the site is identified within a Wellhead Protection Area associated with municipal wells for the Almonte water supply (**Figure 9**).

According to the Golder Water Report, the Nepean Formation is the primary source of water for the Almonte wells and the Wellhead Protection Areas are mapped within the Nepean Formation. The proposed extraction will occur within the Bobcaygeon and Gull River Formations. Beneath, and immediately to the west of the site there is a significant separation between the Bobcaygeon and Gull River Formations and the deeper Nepean Formation (i.e., the Nepean Formation is at a depth of greater than 80 m beneath the base of the proposed quarry). In addition, there are no proposed activities on the site that would be considered drinking water threats including no fuel storage.

5.4 Aggregate Quality and Quantity

The site contains aggregate resources of quality similar to that of the existing quarry, and that economically serve known market areas from a quarry that has been in operation for several decades. The quarry and site contain some of the highest quality bedrock resources in the City capable of

producing concrete/asphalt stone (Bobcaygeon Formation). There are approximately 19 million tonnes of high quality bedrock resources including approximately 11 million tonnes which is capable of producing concrete/asphalt stone. The site is identified within "Selected Bedrock Resource #4" in the Aggregate Resources Inventory Paper for the City of Ottawa (ARIP 191).

5.5 Haul Routes and Proposed Truck Traffic

There are no changes to the volume or pattern of traffic as a result of the continued operation of the quarry at this location. The existing haul routes are March Road and Upper Dwyer Hill Road both of which are identified as arterial roads and rural truck routes in the City of Ottawa. There will be no new road entrances created as a result of this application as the existing entrances on March Road and Upper Dwyer Hill Road will continue to be utilized.

5.6 Progressive and Final Rehabilitation

Following the completion of site operations, the proposed rehabilitation of the site involves backfilling to existing ground surface. The adjacent quarry is being rehabilitated as a lake. As outlined on the ARA site plans, the side slopes and some shallow littoral zones will be created along the lake edge. The above water slopes will be seeded with a mix of grasses, forbs and nodal plantings. The shore line will include planted shallow emergent marsh vegetation with basking logs, woody debris and nesting platforms for wildlife habitat, such as turtles, waterfowl and fish.

Progressive rehabilitation will be completed in direct correlation to the development of the quarry as the extraction limits are reached and enough area is available to ensure that the production, stockpiling and processing of aggregate materials will not interfere with rehabilitation activities.

6.0 CONCLUSIONS

The proposed West Carleton Quarry Extension contains approximately 19 million tonnes of high quality aggregate resources including approximately 11 million tonnes capable of producing concrete/asphalt stone.

The maximum annual tonnage is proposed to be 2 million tonnes in combination with the existing quarry. Current truck traffic levels are expected to remain the same. While the overall life of the quarry operation would be extended as a result of this site, the magnitude of extraction would remain the same.

The proposed quarry extension has been designed in a manner which minimizes environmental, social and economic impacts. It will utilize the presence of Cavanagh's existing quarry operation and other nearby infrastructure and facilities to provide for a continued supply of high quality aggregate material from a known and Provincially and locally identified aggregate resource.

The proposed quarry extension has been appropriately designed and buffered to prevent and mitigate potential adverse effects on sensitive land uses including off-site residences. This is being accomplished through the incorporation of mitigation recommendations from the technical studies that have been completed in order to address noise and vibration, and through incorporation of best management practices that will mitigate and control dust emissions affecting air quality.

The proposed quarry extension has been design to ensure there are no negative impacts on surrounding natural heritage features, and no adverse impacts on surface and groundwater resources.

The proposed West Carleton Quarry Extension represents good planning and:

- Is consistent with the Provincial Policy Statement;
- Conforms to the City of Ottawa Official Plan; and
- Includes information required by the Aggregate Resources Act.

Respectfully submitted by,

MacNaughton Hermsen Britton Clarkson Planning Limited



Neal DeRuyter, BES, MCIP, RPP

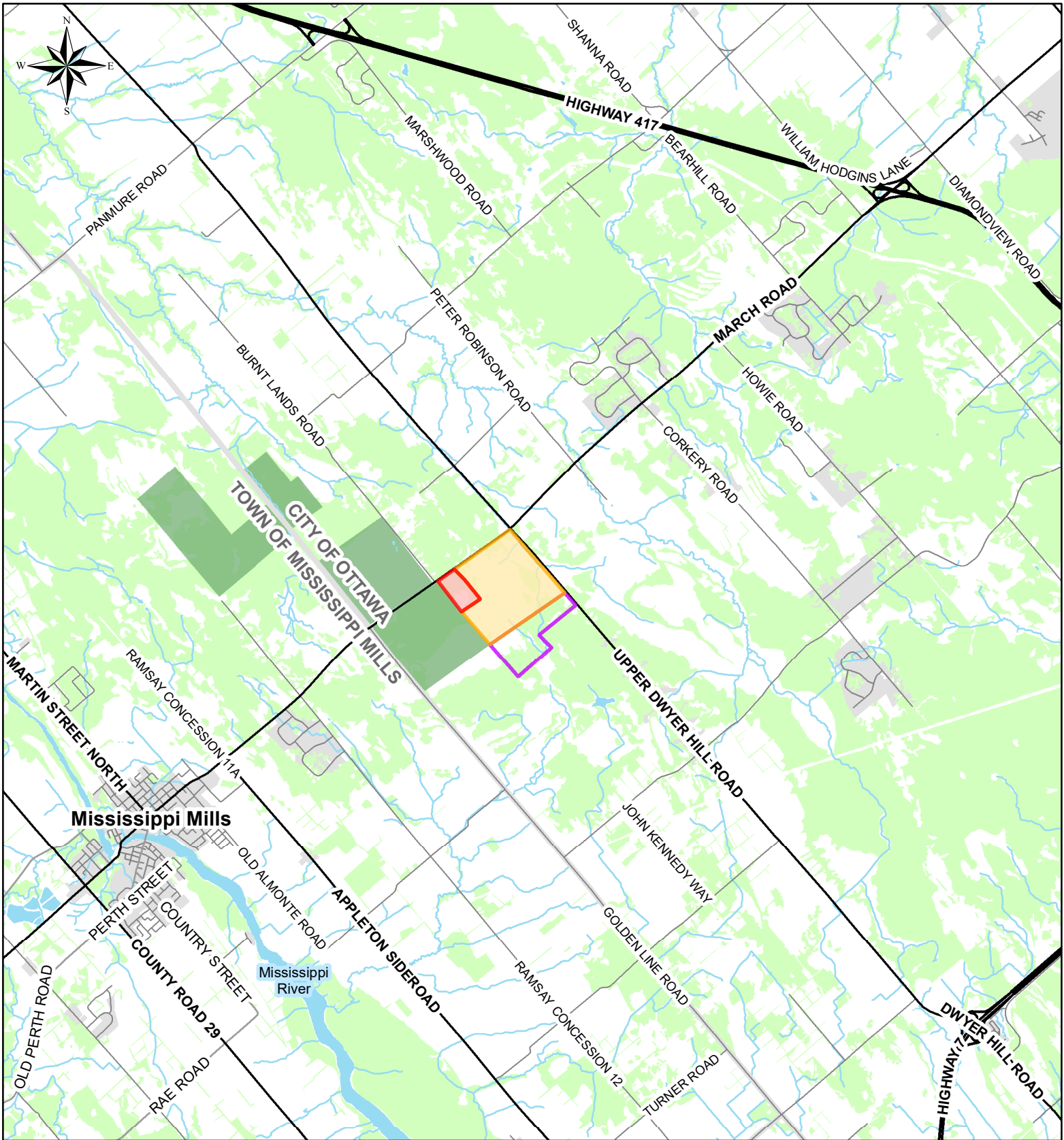


Figure # 1
Location Map

**West Carleton Quarry Extension
 Summary Statement**

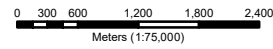
Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry - Licence # 4085
- Additional Lands Owned by Applicant
- Burnt Lands Provincial Park

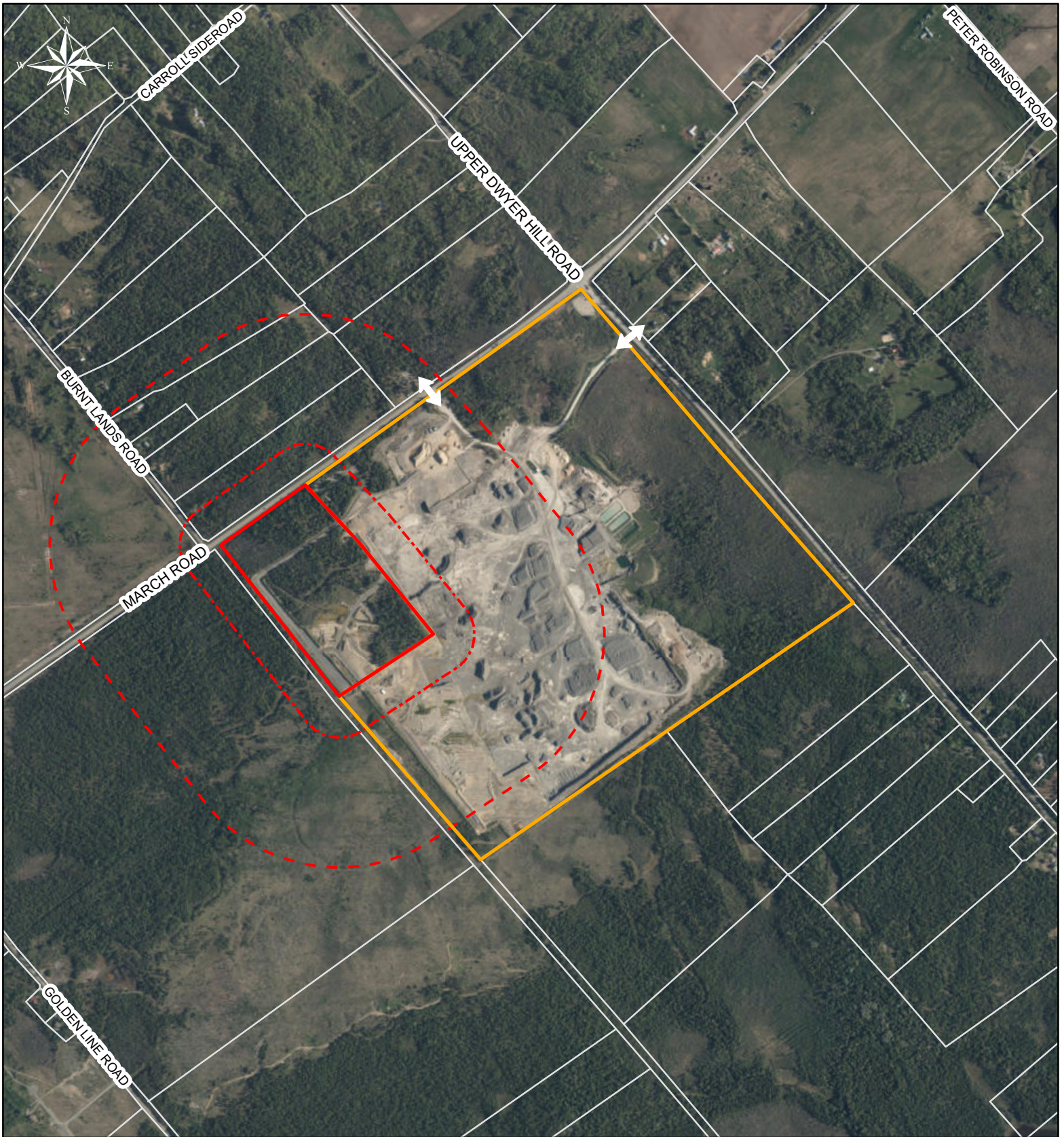
Date August 2021

Sources Contains information licensed under the Open Government Licence - Ontario
 Property Boundaries Based on Municipal Property Assessment Corporation (MPAC) Data



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**Figure # 2
Aerial Context**

**West Carleton Quarry Extension
Summary Statement**

Part of Lot 15, Concession 11
Geographic Township of Huntley
City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry
- 120m Offset from West Carleton Quarry Extension
- 500m Offset from West Carleton Quarry Extension

- Existing Truck Access (white)
- Existing Parcel Fabric

Date	August 2021
Sources	Contains information licensed under the Open Government Licence - Ontario Property Boundaries Based on Municipal Property Assessment Corporation (MPAC) Data 2017 aerial photography from City of Ottawa
<p>Meters (1:15,000)</p>	

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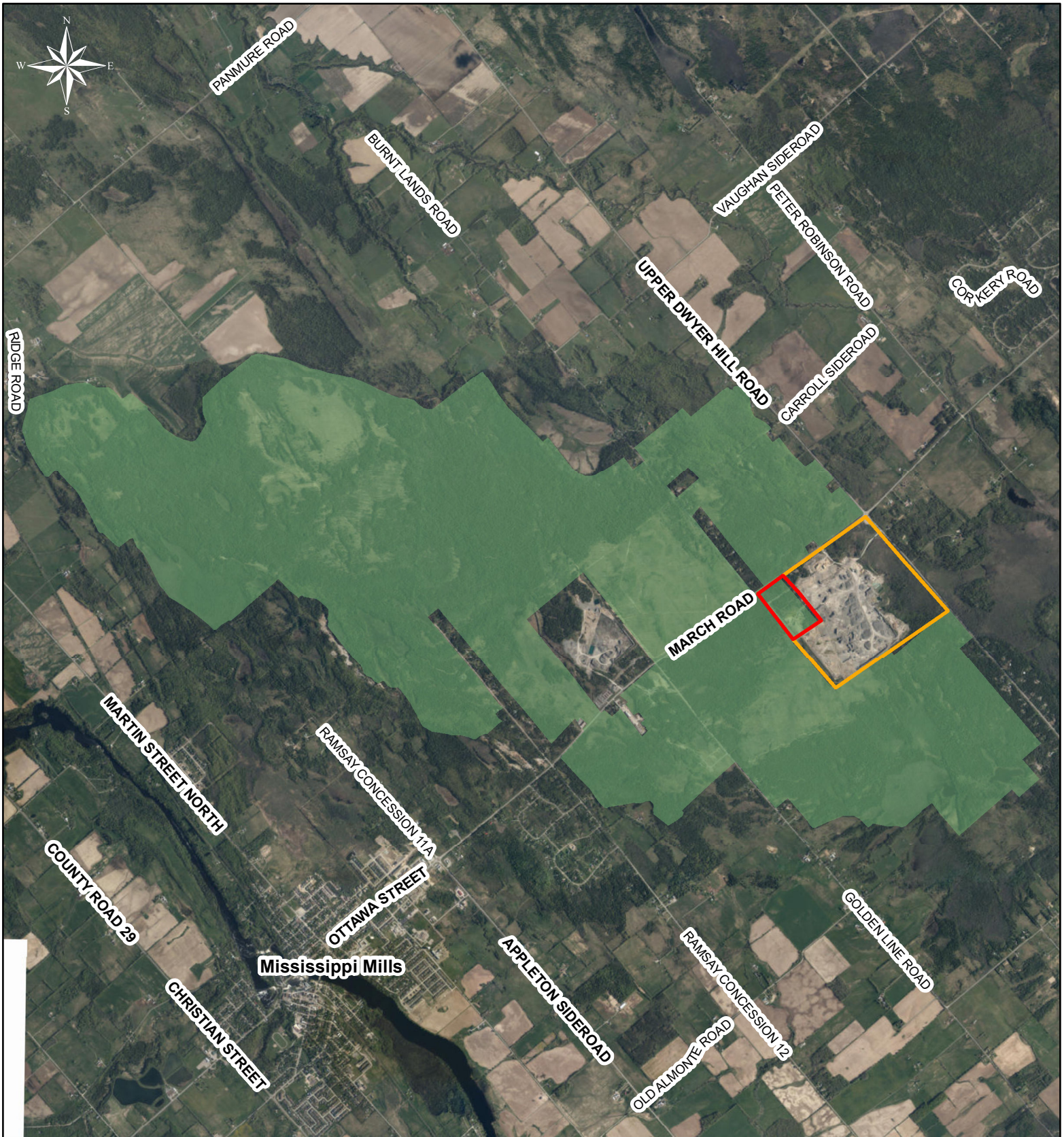


Figure # 3
Burnt Lands Alvar ANSI

West Carleton Quarry Extension Summary Statement

Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

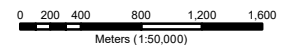
- West Carleton Quarry Extension
- West Carleton Quarry
- Burnt Lands Alvar ANSI

Area Calculations

Burnt Lands Alvar ANSI 2239 ha
 Land to be removed for Extension 18 ha (0.8%)

Date August 2021

Sources Contains information licensed under the Open Government Licence - Ontario
 Property Boundaries Based on Municipal Property Assessment Corporation (MPAC) Data
 2017 aerial photography from City of Ottawa



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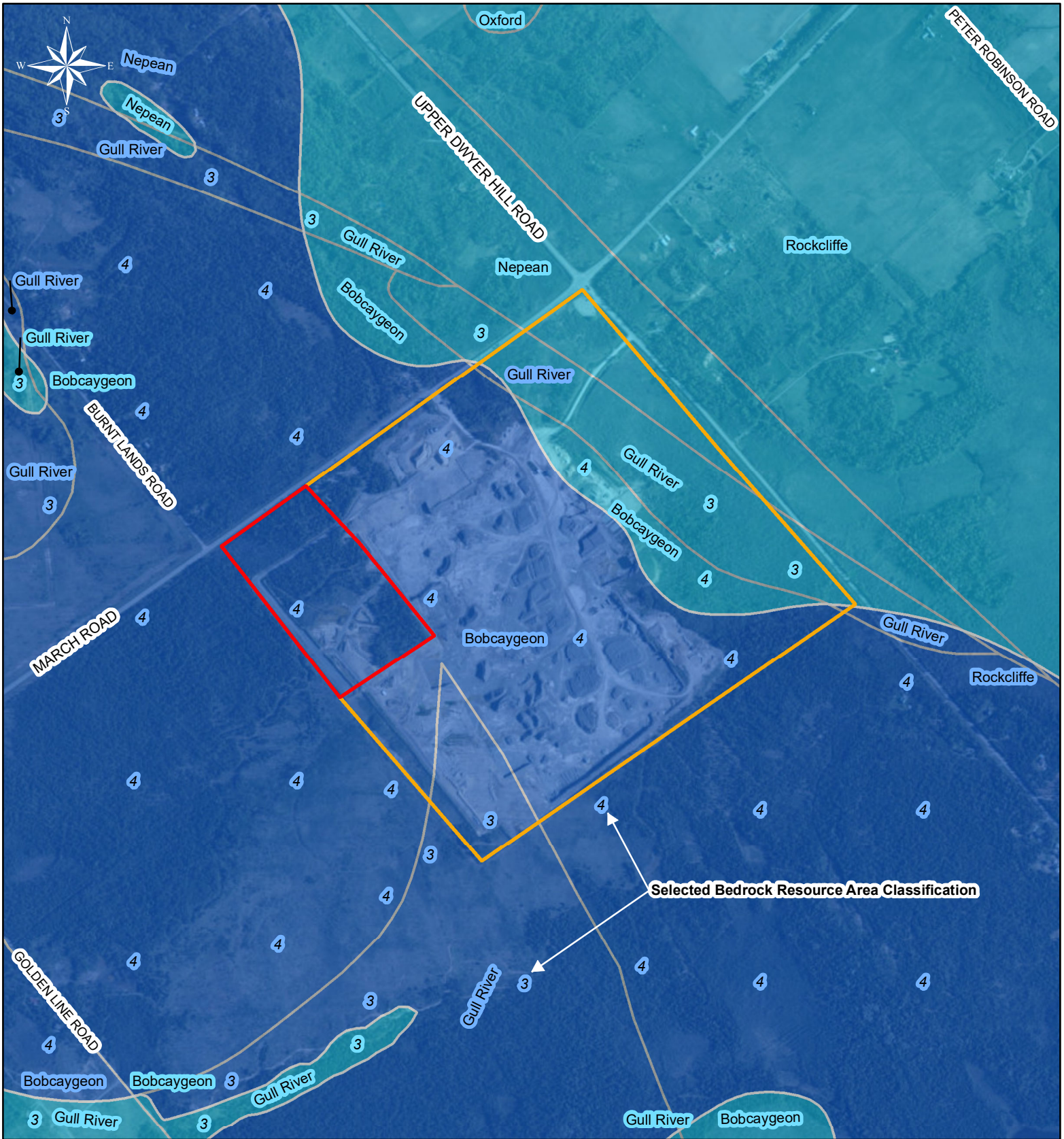


Figure # 4
Ottawa ARIP 191
Mapping

West Carleton Quarry Extension
Summary Statement

Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry
- Drift Thickness Less Than 1m
- Drift Thickness 1m to 8m

Date	August 2021
Sources	Contains information licensed under the Open Government Licence - Ontario Property Boundaries Based on Municipal Property Assessment Corporation (MPAC) Data 2017 aerial photography from City of Ottawa
	<p>Meters (1:15,000)</p>
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PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

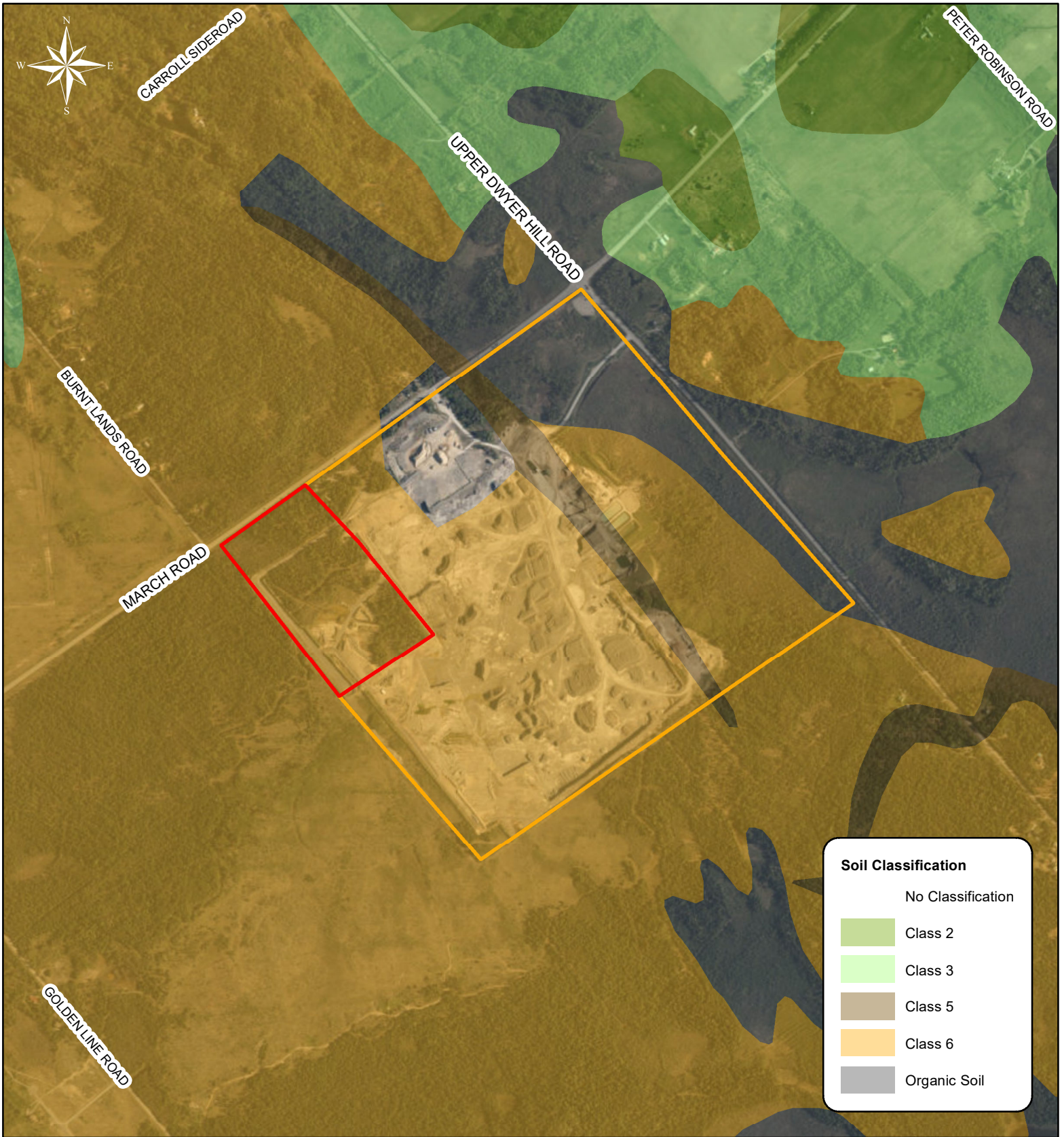


Figure # 5
Soil Capability
for Agriculture

West Carleton Quarry Extension
Summary Statement

Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry

Date	August 2021
Sources	Contains information licensed under the Open Government Licence - Ontario Property Boundaries Based on Municipal Property Assessment Corporation (MPAC) Data 2017 aerial photography from City of Ottawa
<p>Meters (1:15,000)</p>	

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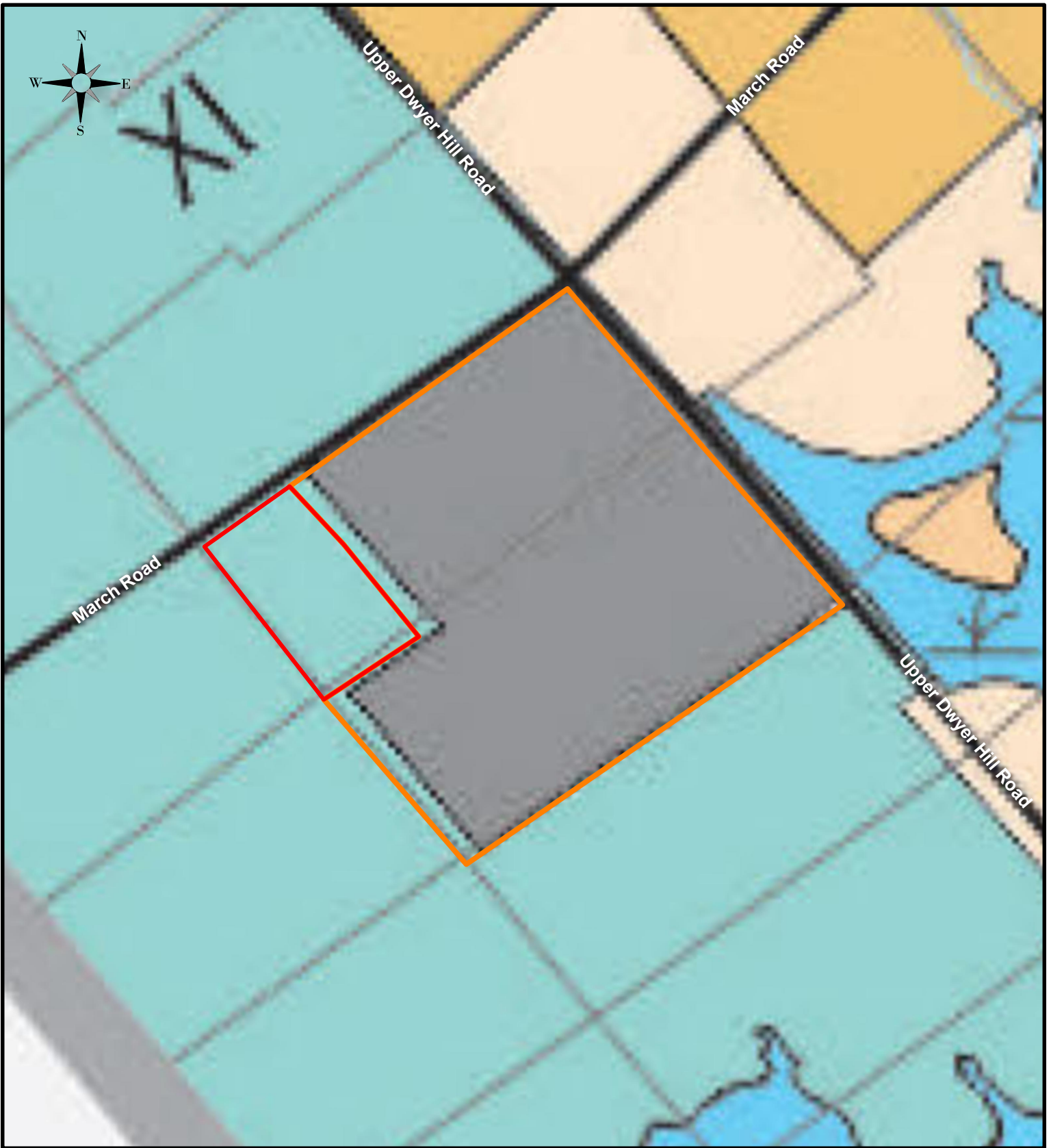


Figure # 6
Rural Policy Area
 Official Plan - Schedule A

West Carleton Quarry Extension
Summary Statement
 Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry
- General Rural Area
- Agricultural Resource Area
- Bedrock Resource Area
- Natural Environment Area
- Significant Wetlands

Date	August 2021
Sources	City of Ottawa Official Plan Schedule A - Rural Policy Area Updated June 2020
Scale - 1:15,000	
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PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

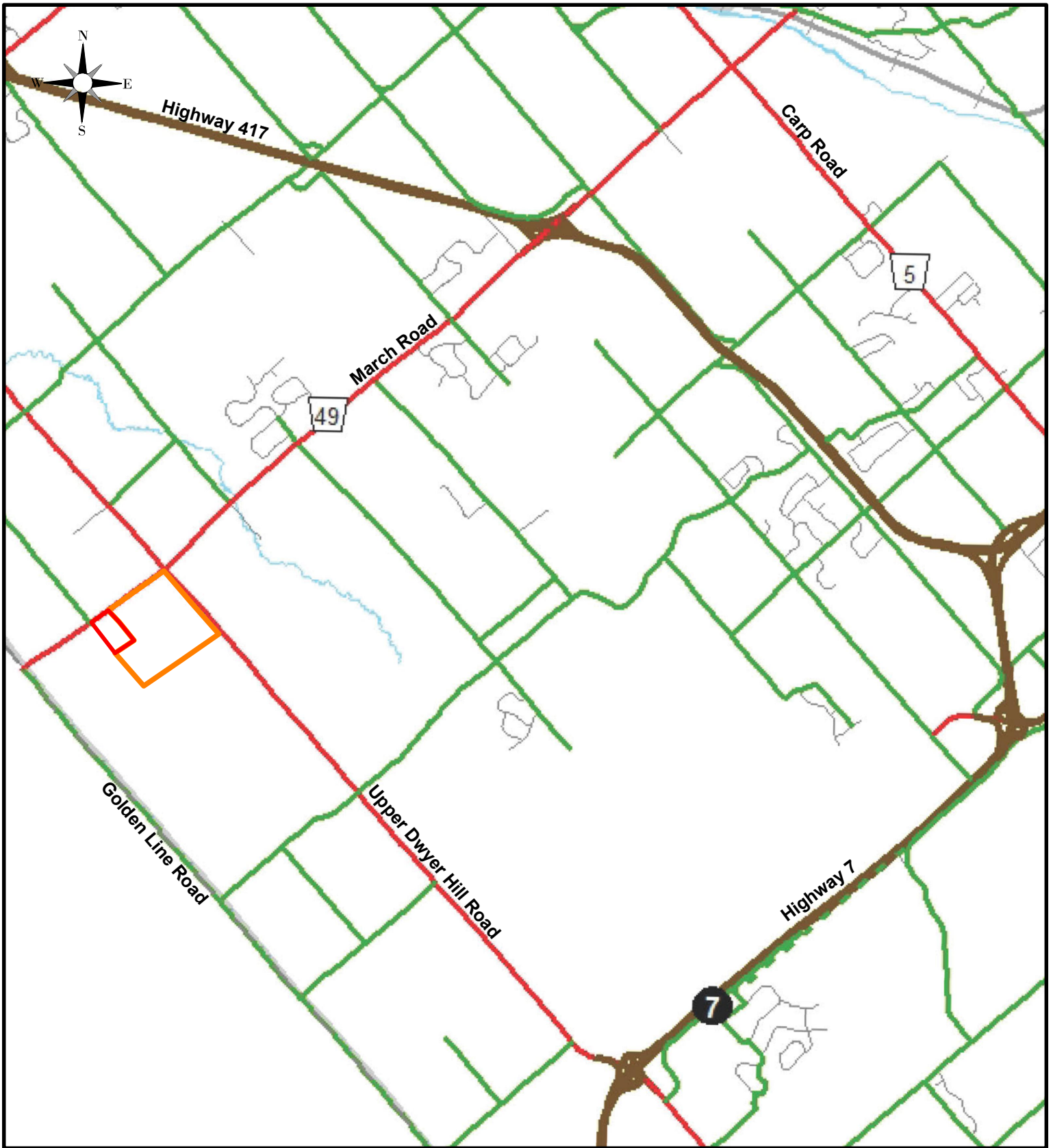


Figure # 7
Rural Road Network
 Official Plan - Schedule G

West Carleton Quarry Extension
Summary Statement
 Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry
- Existing Highway
- Existing Arterial
- Existing Collector

Date	August 2021
Sources	City of Ottawa Official Plan Schedule G - Rural Road Network Updated January 2017
Scale - 1:75,000	0 1000 2000 Meters
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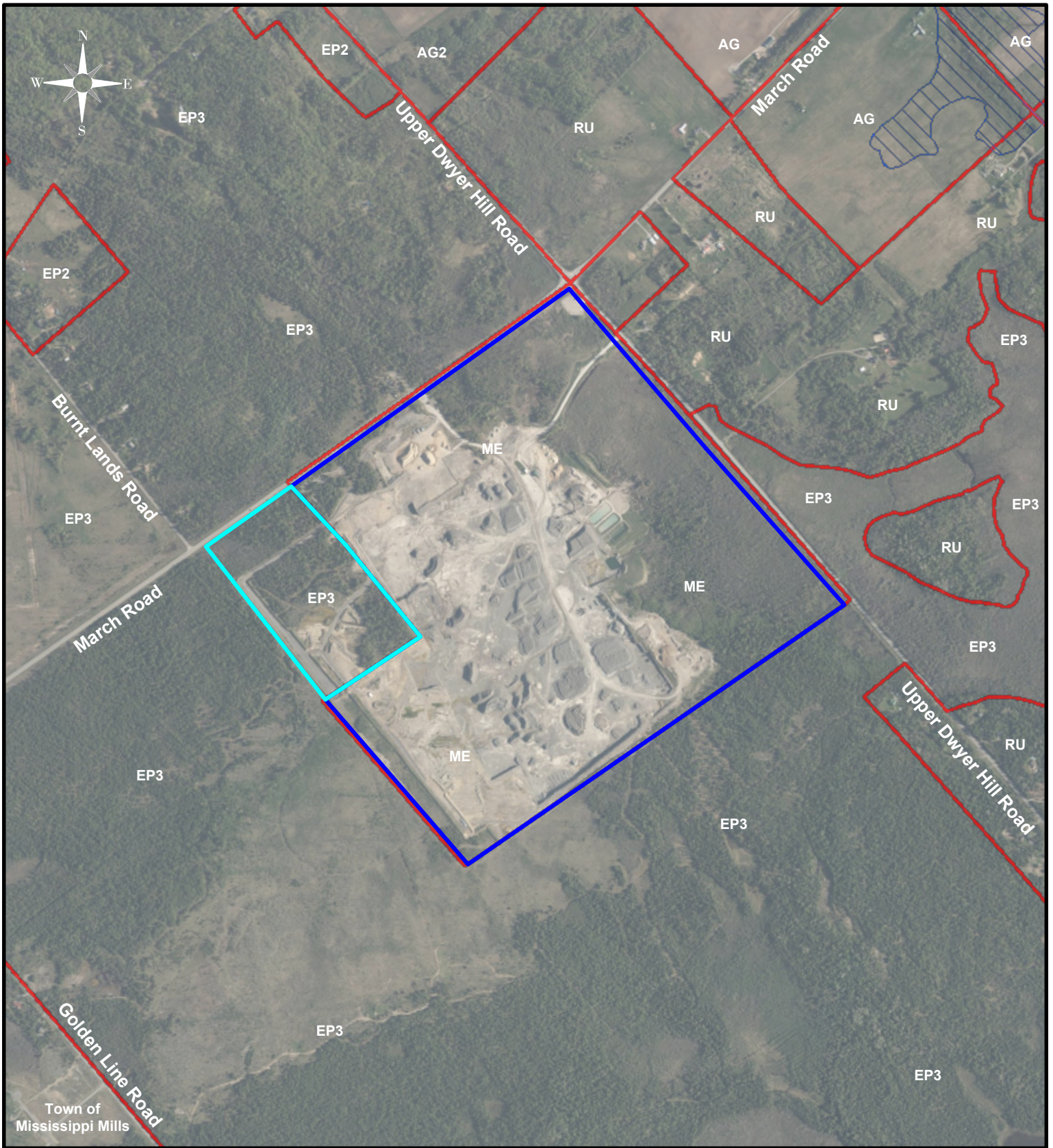


Figure # 8
Zoning
By-law No. 2008-250

West Carleton Quarry Extension
Summary Statement
 Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry
- Zone Boundary
- Flood Plain

Zones

- RU Rural Countryside Zone
- AG Agricultural Zone
- ME Mineral Extraction Zone
- EP Environmental Protection Zone

Date	August 2021
Sources	City of Ottawa Zoning By-law No. 2008-250 Consolidated October 14, 2020
Scale - 1:15,000	
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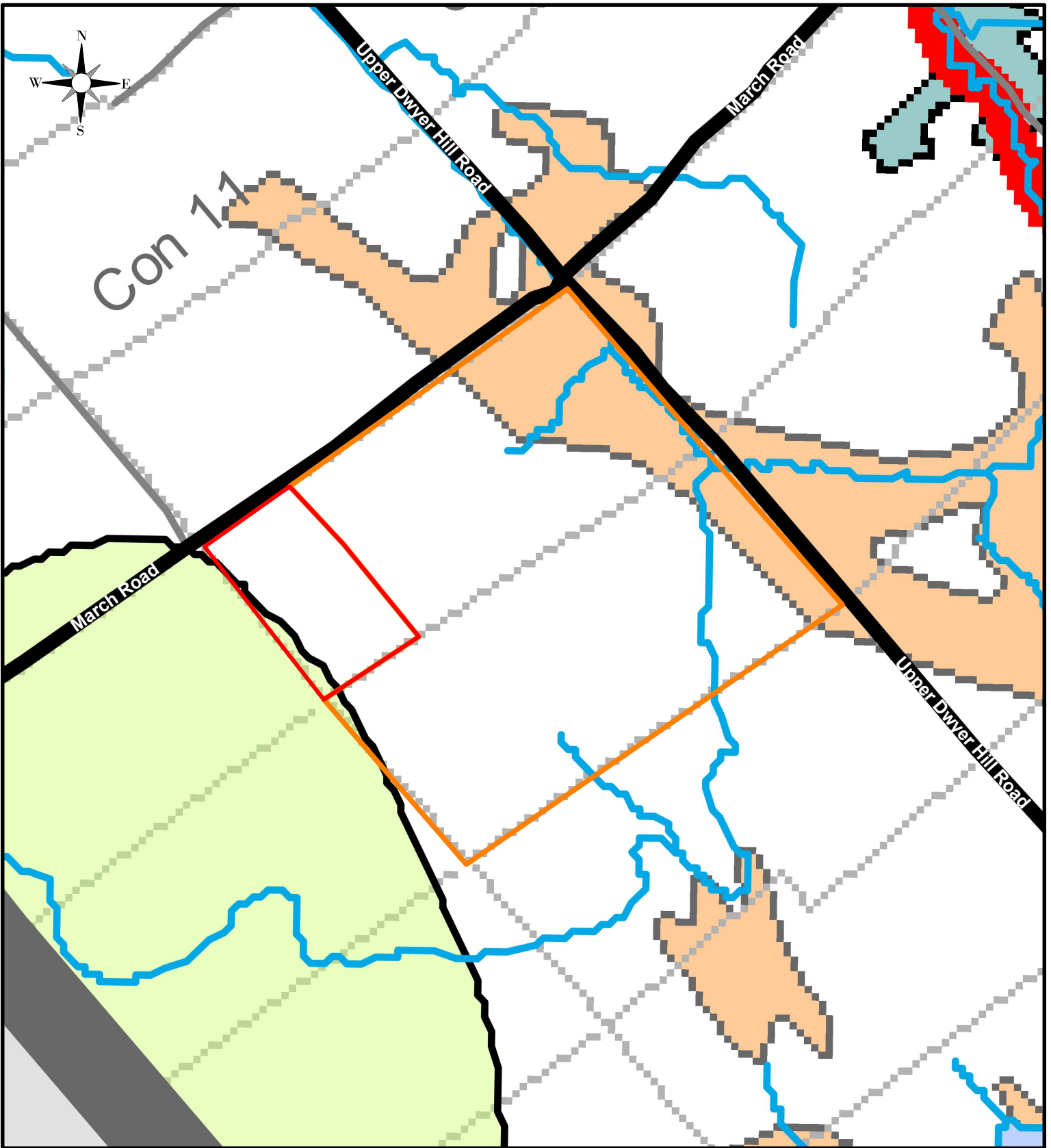


Figure # 9
Environmental Constraints
 Official Plan - Schedule K

**West Carleton Quarry Extension
 Summary Statement**
 Part of Lot 15, Concession 11
 Geographic Township of Huntley
 City of Ottawa

Legend

- West Carleton Quarry Extension
- West Carleton Quarry
- Organic Soils
- Flood Plain
- Unstable Slopes
- Wellhead Protection Area Two

Date	August 2021
Sources	City of Ottawa Official Plan Schedule K - Environmental Constraints Updated during consolidation # 233
Scale - 1:15,000	
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 PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

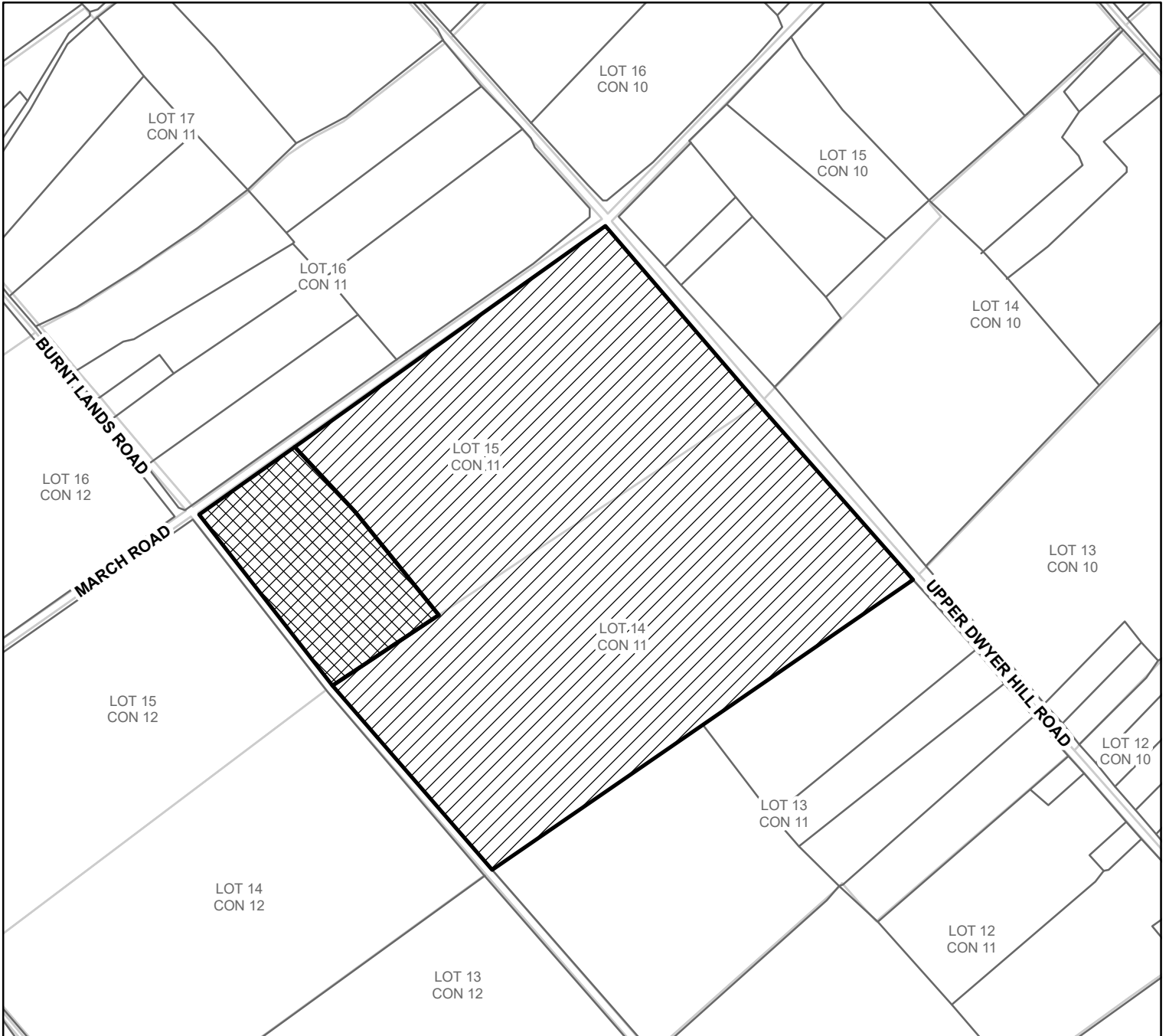
APPENDIX A


Draft Official Plan Amendment and
Zoning By-law Amendment
(Mapping Change Only)




Schedule 'A' to Official Plan Amendment _____

Part of Lot 15, Concession 11
Geographic Township of Huntley
City of Ottawa



 Land to be re-designated from Natural Environment Area to Bedrock Resource Area

 Land to remain Bedrock Resource Area

This is Schedule 'A' to Official Plan _____
Passed this ____ day of _____, 2021

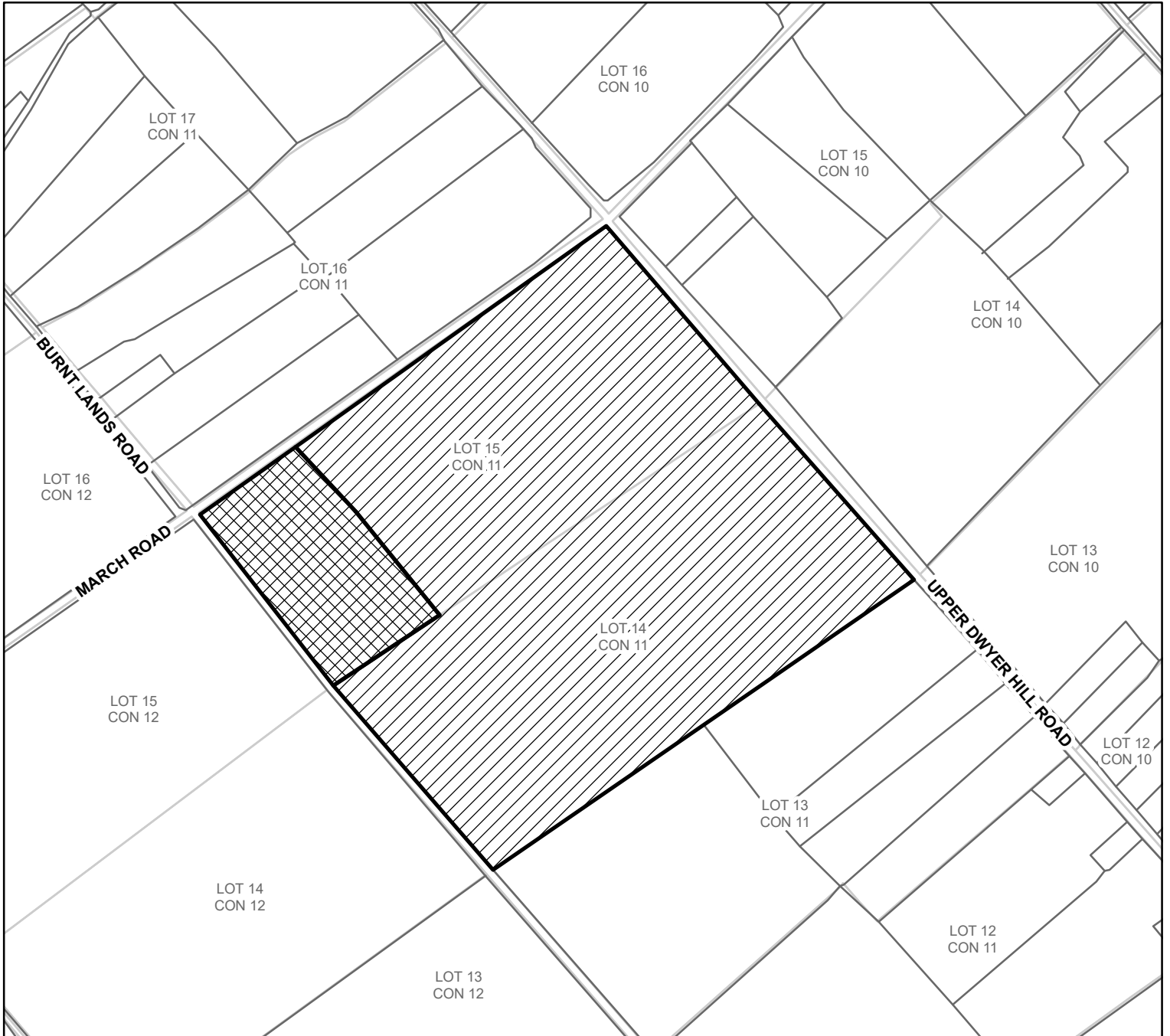
Mayor


Clerk



Schedule 'A' to Zoning By-law Amendment _____

Part of Lot 15, Concession 11
Geographic Township of Huntley
City of Ottawa



 Land to be rezoned from Environmental Protection Subzone 3 (EP3) Zone to Mineral Extraction (ME) Zone

 Land to remain Mineral Extraction (ME) Zone

This is Schedule 'A' to Zoning By-law _____
Passed this ____ day of _____, 2021

Mayor

Clerk

APPENDIX B

Curriculum Vitae



CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

EDUCATION

2008
Bachelor of Environmental Studies
Honours Planning (Co-op)
University of Waterloo

Neal DeRuyter, a Partner with MHBC, joined the firm in 2009 after graduating from the University of Waterloo in the Honours Planning Co-op program. Mr. DeRuyter has worked as a Planner in the private and public sectors with experience in aggregate resource, development and municipal planning.

Mr. DeRuyter has processed and managed several development applications including zoning by-law amendments, official plan amendments, and licence and site plan applications under the Aggregate Resources Act. He is certified by the Ministry of Natural Resources & Forestry to prepare site plans under the Aggregate Resources Act. He is a Registered Professional Planner and is a member of the Canadian Institute of Planners. He has provided expert evidence before the Ontario Municipal Board and Local Planning Appeal Tribunal.

He has participated and authored several research studies and articles related to aggregate resource management. Mr. DeRuyter has presented on several occasions for various events at the School of Planning at the University of Waterloo. Mr. DeRuyter is a member of the Executive Committee for the Pragma Council at the University of Waterloo.

PROFESSIONAL HISTORY

2017- Present	Partner MacNaughton Hermsen Britton Clarkson Planning Limited
2013- 2017	Associate, MacNaughton Hermsen Britton Clarkson Planning Limited
2009- 2013	Planner, MacNaughton Hermsen Britton Clarkson Planning Limited

PROFESSIONAL ASSOCIATIONS

Full Member, Ontario Professional Planners Institute
Full Member, Canadian Institute of Planners

CONTACT

540 Bingemans Centre Drive,
Suite 200
Kitchener, ON N2B 3X9
T 519 576 3650 x733
F 519 576 0121
nderuyter@mhbcplan.com
www.mhbcplan.com

CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

PROFESSIONAL SERVICE

- 2014-Present Member, Executive Committee, University of Waterloo PRAGMA Council
- 2012-Present Member, Ontario Expropriation Association
- 2015-Present Member, Eastern Ontario Committee, Ontario Stone, Sand & Gravel Association

PUBLICATIONS

- 'Future Aggregate Availability and Alternatives Analysis, State of the Aggregate Resource in Ontario Study, 2009' (MNR)
- 'The Future of Ontario's Close to Market Aggregate Supply: The 2015 Provincial Plan Review' (OSSGA, 2015)
- Agricultural Impact Assessment and Rehabilitation Plan Guidelines for Aggregate Extraction, 2016 (OMAFRA)

SELECTED PROJECT EXPERIENCE

- Research, preparation and coordination of reports / applications under the Planning Act, Niagara Escarpment Planning and Development Act and Aggregate Resources Act.
- Project management services for development applications.
- Conduct notification and consultation processes under the Aggregate Resources Act.
- Due diligence and property overview reports for prospective aggregate sites.
- Aggregate Resources Act site plan amendments.
- Planning assessment for commercial, residential, agricultural and industrial developments.

CONTACT

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Suite 200
Kitchener, ON N2B 3X9
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F 519 576 0121
nderuyter@mhbcplan.com
www.mhbcplan.com

CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

- Planning assessment for proposed urban use requests in Niagara Escarpment Plan through 2015-2017 Review.
- Research and preparation of reports / evidence for hearings before the Ontario Municipal Board / Local Planning Appeal Tribunal.
- Planning research and assessment for expropriation matters on behalf of public and private sector clients.

SELECTED PROJECT EXAMPLES

- AAROC Aggregates Bardoel Pit, Township of Southwest Oxford
- Badger Daylighting Pits, Township of Puslinch and City of Ottawa
- Brock University, Niagara Escarpment Plan Lands, City of St. Catharines
- CBM Ayr Pit Site Plan Amendment, Township of North Dumfries
- CBM Bromberg Pit, Township of North Dumfries
- CBM Eramosa Pit Extension, Township of Centre Wellington
- CBM Lake Pit, Township of Puslinch
- CBM Lanci Pit Expansion, Township of Puslinch
- Caledon Sand & Gravel Site Plan and Licence Amendments, Town of Caledon
- Capital Paving Shantz Station Pit, Township of Woolwich
- City of Kingston, Barriefield Affordable Housing Feasibility Study
- Graham Brothers Caledon Pit Site Plan Amendment and NEP Amendment, Town of Caledon
- Halton Crushed Stone Erin Pit Extension, Town of Erin
- James Dick Construction Ltd. Adjala Pit Extension, Township of Adjala-Tosorontio
- James Dick Construction Ltd. Erin Pit Extension, Town of Caledon
- James Dick Construction Ltd. Gamebridge Quarry Site Plan Amendment, Township of Ramara
- James Dick Construction Ltd. Reid Road Quarry, Town of Milton
- Kaneff Properties, Royal Niagara Golf Club, City of St. Catharines
- Kieswetter Excavating Heidelberg Pit Site Plan Amendment, Township of Wilmot
- KPM Brantford Plant Expansion, Brant County
- Lillycrop Highway 6 Expropriation, Township of Puslinch
- Limehouse Clay Products Ltd. New Licence, NEP Amendment & Site Plan Amendment, Town of Halton Hills
- Ministry of Transportation, Highway 410 Expropriation, Town of Caledon

CONTACT

540 Bingemans Centre Drive,
 Suite 200
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 F 519 576 0121
 nderuyter@mhbcplan.com
 www.mhbcplan.com

CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

- Ontario Stone, Sand & Gravel Association, City of Ottawa Official Plan
- Ontario Trap Rock Quarry, Town of Bruce Mines
- Queenston Quarry Reclamation Company Redevelopment, Town of Niagara-on-the-Lake
- Ramada Beacon Hotel, Town of Lincoln
- R.W. Tomlinson Ltd. Brickyards Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Moodie Quarry Expropriation, City of Ottawa
- R.W. Tomlinson Ltd. Moore Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Reids Mills Pit, City of Ottawa
- R.W. Tomlinson Ltd. Stittsville Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Ready-Mix Site Plan Approval, City of Ottawa
- Township of Guelph-Eramosa, Review of Tri-City Spencer Pit
- Township of West Lincoln, Preliminary Bedrock Resource Assessment in Smithville

PRESENTATIONS

- "Planning as a Profession" – Faculty of Environment Open House at the University of Waterloo, March 2013
- "Rehabilitation of Licensed Pits and Quarries" – Canadian Association of Certified Planning Technicians Professional Development Conference, October 21, 2011
- Professional Practice, Public and Private Administration (PLAN 403), University of Waterloo, January 2010

ARTICLES

- "Planning for a sustainable community" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 1, Issue 2, 2011
- "The closer the better" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 2, Issue 2, 2012
- "Diminishing supply" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 1, 2013
- "Shipping aggregate from further afield" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 2, 2013
- "The feasibility of alternative transportation options" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 1, 2014
- "Keeping residents safe and dry" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 2, 2014

CONTACT

540 Bingemans Centre Drive,
 Suite 200
 Kitchener, ON N2B 3X9
 T 519 576 3650 x733
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APPENDIX C

Photos of the Subject Lands and Existing Quarry



View from Subject Lands Towards Existing Quarry



View from Subject Lands Towards Existing Quarry



Vegetated Portion of Subject Lands with Exposed Bedrock



Existing Access Road Along West Side of Subject Lands



View of Existing Quarry Access from March Road



View of Existing Quarry Access to March Road



View of Existing Quarry Access to Upper Dwyer Hill Road



View of Existing Quarry Access from Upper Dwyer Hill Road



View of Subject Lands from March Road

APPENDIX D

Pre-Application Consultation Meeting
Notes (Prepared by City of Ottawa)

Pre-Application Consultation

Official Plan Amendment and Zoning By-law Amendment

4048 March Road

Applicant: Neal DeRuyter, MHBC Planning Group **Owner:** Thomas Cavanagh Construction Limited

Ward 5 – West Carleton-March **Councillor** Eli El-Chantiry

Proposal Summary: An Official Plan Amendment and Zoning By-law Amendment for the property at 4200 March Road. The purpose is to change the designation of this parcel from Natural Environment Area to Bedrock Resource Area and the zoning from EP3 to ME[725r] in order to expand the quarry on the neighbouring property at 4048 March Road.

Attendees: Krishon Walker, Planner, PIEDD, City of Ottawa
Cheryl McWilliams, Planner, PIEDD, City of Ottawa
Brian Morgan, Infrastructure Project Manager, PIEDD, City of Ottawa
Sami Rehman, Environmental Planner, PIEDD, City of Ottawa
Amy MacPherson, Policy Planner (*Natural Systems*), PIEDD, City of Ottawa
Robin van de Lande, Policy Planner, PIEDD, City of Ottawa
Michel Kearney, Project Manager, Hydrogeologist, PIEDD, City of Ottawa
Claire Milloy, Groundwater Scientist, Rideau Valley Conservation Authority
Erica Ogden, Enviro. Planner, Mississippi Valley Conservation Authority
Steve Strong, Aggregate Resources Planner, MNRF
John Boos, Planning Ecologist, MNRF
Graham Buck, Planning Ecologist, MNRF

Meeting Notes

Planning Comments (Provided by Krishon Walker, Planner)

- The subject site (*4200 March Road*) form part of the Burnt Lands Alvar Life Science Areas of Natural Scientific Interest as identified by the Ontario Ministry of Natural Resources and Forestry (*MNRF*).

Section 2.1 of the Provincial Policy Statement states that natural features and areas shall be protected for the long term. 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 (*which includes Areas of Natural Scientific Interest*), 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.

As per Schedule A of the Official Plan, the site is designated Natural Environment Area (*NEA*). The Natural Environment Area designation applies to land having a high environmental value as lands within this designation typically contain several components of the City’s natural heritage system, including wetlands, significant woodlands, and wildlife habitat.

The NEA designation on this site is primarily due to the Province identifying the site as a part of the Burnt Lands Alvar Life Science ANSI.

Please note that development within and adjacent to these areas could unduly stress significant natural features and their ecological functions and careful management, restoration and enhancement are required.

The proposal to expand the quarry at 4048 March Road would require an Official Plan Amendment to designate the site as Bedrock Resource Area. Please note that the City of Ottawa cannot consider removing the NEA designation unless the MNR determines that the site is not a part of the Burnt Lands Alvar Life Science ANSI or that there will be no negative effects on the ecological function of the feature and recommends approval.

- As per the City's Zoning By-law, the site is zoned as Environmental Protection Zone, Subzone 3 (EP3).

The purpose of the Environmental Protection Zone is to recognize lands which are designated in the Official Plan as Natural Environment Areas that contain important environmental resources which must be protected for ecological, educational and recreational reasons and to regulate development to minimize the impact of any buildings or structures within these environmental areas.

The proposed development currently does not comply with the provisions of the Zoning By-law and a Zoning By-law Amendment would be required. Please note that the Zoning By-law Amendment is contingent on the aforementioned Official Plan Amendment.

- As part of the Official Plan Amendment and Zoning By-law Amendment processes, you would be required to:
 - assess any anticipated noise, dust and vibration levels that illustrate that the Ministry of Environment guidelines and criteria will be satisfied;
 - provide a rationale for proposed haul routes, expected traffic volumes and entrance/exit design to show that the road system can safely and efficiently accommodate the proposed truck traffic. This may include provision for upgrading of local City roadways leading to an arterial road and on-going maintenance requirements along such route so long as the pit or quarry is in operation; and
 - assess the impact on neighbours from noise, dust, vibration, truck traffic, etc., due to the duration of the extraction operation in hours per day and number of days per week.
 - discuss the impact on adjacent and nearby land uses and provide an assessment of the compatibility of the proposed development with existing land uses; and
 - provide a proposed after-use and rehabilitation plan and mitigation measures that may be necessary to address the potential impacts of the operation.
- Part of the property lies within the Almont Wellhead Protection Area, WHPA-D (vulnerability score 2). There are no legally-binding source protection policies apply within this zone, however the City of Ottawa is required to provide a Notice to the local Source Protection Authority and Source Protection Committee about any development application within a designated vulnerable area (WHPA or IPZ) that involves creating a new transport pathways; you will also receive a copy of the Notice. The requirements are found in Section 27(3) and Section 27(4) of O.Reg. 287/07 under the Clean Water Act. In terms of timing, the Notice should be prepared after the development application is submitted and before the application is approved.
- Please contact the Ontario Ministry of Natural Resources and Forestry, the Mississippi Valley Nation Conservation Authority (MVCA), amongst other federal and provincial departments/agencies, to identify all the necessary permits and approvals required to facilitate the development. Responsibility rests with the developer and their consultant for obtaining all external agency approvals. The address shall be in good standing with all approval agencies. Copies of confirmation of correspondence will be required by the City of Ottawa from all approval agencies that a form of assent is given.

The City needs to be copied with all correspondence with Provincial agencies (MNRF, MECP etc.) and the CA, and informed of any meetings with these agencies.

- Please ensure that the Site Plan shows the full extent of the property and clearly identifies the limits of extract and required buffer.
- Be sure to follow the City's guide to preparing plans and studies (*see link below*) to ensure a high quality of your submission.
- City staff is in consultation with the Ministry of Natural Resources and Forestry and more information is to come following those discussions.

Feel free to contact Krishon Walker at Krishon.Walker@ottawa.ca, for follow-up questions.

Engineering Comments (Provided by Brian Morgan, Infrastructure Project Manager)

- According to documents submitted to the City, it would appear that similar reports will be required by the MNRF or other government agencies. You may submit these to the City, so long as they meet or exceed City of Ottawa requirements. Be sure to follow the City's guide to preparing plans and studies (*see link below*) to ensure a high quality of your submission.
- The City understands that the following list of reports are being or have been prepared for other agencies:
 - Ref: Proposal Summary, Thomas Cavanagh Construction Limited, dated 24-Sep-2020, (*page 2 of 3*)
 - *"In accordance with the requirements under the Aggregate Resources Act and Section 3.7.4 of the Official Plan, the following technical reports and plans will be prepared for the proposed applications:*
 - *Archaeological Assessment*
 - *Noise Impact Assessment*
 - *Level 1 and 2 Hydrogeological Assessment*
 - *Level 1 and 2 Natural Environment / Environmental Impact Study*
 - *Blast Impact Assessment*
 - *Planning Report and ARA Summary Statement*
 - *ARA Site Plans. [Aggregate Resources Act. Apply through the MNRF]*
- 'Ref: Terms of Reference, Hydrogeological and Hydrological Assessments...' Golder Associates, letter dated: 22-Sep-2020, (*page 1 of 5*)

"The proposed quarry extension will require a City of Ottawa Official Plan Amendment and Zoning By-law Amendment in addition to an ARA license application. As part of the hydrogeological and hydrological study, Golder will be preparing a Hydrogeological and Hydrological Level 1 and Level 2 assessment to satisfy the requirements of an ARA application."

Other reports being provided by Golder: Surface Water Assessment, Hydraulic Conductivity Testing Program, Groundwater Level Monitoring Program.
- 'Ref: Terms of Reference, Hydrogeological and Hydrological Assessments...' Golder Associates, letter dated: 22-Sep-2020, (*page 2 of 5*)

"The hydrogeological and hydrological assessment of the proposed quarry extension would incorporate all hydrological, geological, and hydrogeological data that have been collected as part of previous investigations conducted by Golder and others at the Site and in the vicinity of the Site."

- o The City will also require a Geotechnical and Slope Stability reports for this site; however, you may submit an existing report so long as it meets or exceeds City requirements.
- o The City requires a Stormwater Management report.
- o As always, the City reserves the right to request additional information as required.

Feel free to contact Brian Morgan at Brian.Morgan@ottawa.ca, for follow-up questions.

Environmental Comments (Provided by Sami Rehman and Amy MacPherson)

- o Currently, the subject site is designated Natural Environment Area (NEA). It is part of the Provincially Significant ANSI (*Area of Natural and Scientific Interest*), Burnt Lands Alvar.

As per Schedule L3 of the Official Plan, it is part of the Natural Heritage System.

It is part of Burnt Lands Natural Area (NA #406) in the Regional Municipality of Ottawa-Carleton's Natural Environment Systems Strategy (NESS); identified as HIGH in Overall Assessment and "one of the most significant areas in RMOC for maintaining biodiversity and ecological functions" (p20).

- o An EIS is required to support any planning applications and cover the following items:
 - o NEA, which is based on a variety of information, which includes but not limited to the ANSI Boundary;
 - o Burnt Lands Alvar ANSI;
 - o Natural Heritage System, which includes Significant woodlands, significant wildlife habitat;
 - o Potential significant habitat for or presences of threatened or endangered species;
 - o Significance in the NESS study, refer to "Natural Environment Systems Strategy - Natural Area Reports for Natural Areas West of Rideau River (400 series).";
 - o Any unevaluated wetlands or wetlands associated with significant woodlands, following OWES protocol; and
 - o The EIS should also draw relevant information and results from the Federation of Ontario Naturalists' "Alvars of Ontario"(2000).

Feel free to contact Sami Rehman at Sami.Rehman@ottawa.ca or Amy MacPherson at Amy.MacPherson@ottawa.ca, for follow-up questions.

Conservation Authority Comments (Provided by Erica Ogden (MVCA) and Claire Milloy (RVCA), Environmental Planner, MVCA)

- o The MVCA mapping does not currently identify any regulated features within the proposed expansion area. Please see the attached map.
- o The text-based definition of a wetland under the Conservation Authorities Act should be used to assess any features identified through site inspections to determine if they meet the definition to be regulated. Note non-evaluated wetlands have been identified within the expansion area.
- o Should regulated wetlands be identified a water balance would be required to ensure hydrology is maintained. Further discuss would be required if the features were identified as regulated.

Feel free to contact Erica Ogden at eogden@mvc.on.ca or Claire Milloy at claire.milloy@rvca.ca for follow-up questions.

Application Submission Information

Applications Type: **Official Plan Amendment and Zoning By-law Amendment**

Application processing timeline generally depends on the quality of the submission. For more information on standard processing timelines, please visit: <https://ottawa.ca/en/city-hall/planning-and-development/information-developers/development-application-review-process/development-application-submission/development-application-forms#site-plan-control>

Prior to submitting a formal application, it is recommended that you pre-consult with the Ward Councillor.

For information on application fees, please visit: <https://ottawa.ca/en/city-hall/planning-and-development/information-developers/development-application-review-process/development-application-submission/fees-and-funding-programs/development-application-fees>

To request City of Ottawa plan(s) or report information please contact the City of Ottawa Information Centre: InformationCentre@ottawa.ca or (613) 580-2424 ext. 44455

Application Submission Requirements

For information on the preparation of Studies and Plans and the City's requirements, please visit: <https://ottawa.ca/en/city-hall/planning-and-development/information-developers/development-application-review-process/development-application-submission/guide-preparing-studies-and-plans>

Please provide hard copies and electronic copy (PDF) of all plans and studies required.

All plans and drawings must be produced on A1-sized paper and folded to 21.6 cm x 27.9 cm (8½"x 11").

Note that many of the plans and studies collected with this application must be signed, sealed and dated by a qualified engineer, architect, surveyor, planner or designated specialist.