Proposed Burlington Quarry Expansion JART COMMENT SUMMARY TABLE – Agriculture

Please accept the following as feedback from the Burlington Quarry Joint Agency Review Team (JART). Fully addressing each comment below will help expedite the potential for resolutions of the consolidated JART objections and individual agency objections. Additional, new comments may be provided once a response has been prepared to the comments raised below and additional information provided.

JART Comments (February 2021)	Reference	Source of Comment	Applicant Respon
 The goin course ratios in the West Extension are within a printe agricultural area, as mapped by both Halton Region and the Province. The Implementation Procedures for the Agricultural System in Ontario's Greater Golden Horseshoe outlines the process for refining the Provincially mapped prime agricultural area. Specifically, section 3.3.1 provides that: "within the GGH, any official plan amendment to designate, amend or revoke a prime agricultural area must come to the minister of Municipal Affairs and Housing for approval (other than for the purposes of including all of the applicable land within a settlement area). This means that refinements to the agricultural land base mapping must still come to the Province for approval even where they are proposed outside of an official plan review or municipal comprehensive review." Further, section 3.3.2.1 notes that: "During the municipal refinement process, refinements to prime agricultural areas mapped in OMAFRA's agricultural land base map are to be based on consistency with the Agricultural System mapping method, purpose and outcomes, and may be approved in the following circumstances: Contiguous areas greater than 250 ha of existing, permitted non-agricultural and non-residential uses19 that are unlikely to be rehabilitated to agricultural and are not characteristic of prime agricultural areas. Non-agricultural uses may include commercial, institutional, cemeteries, golf courses, industrial parks, mineral aggregate resources areas below the water table, built-up areas along highways, developed shoreline areas (as per A Place to Grow policy 4.2.4.5), infrastructure (named in A Place to Grow Schedules 5 and 6) that has been developed, large impervious surfaces, and designated employment areas. Municipalities and the Province will work together to avoid refinements to prime agricultural areas in the agricultural lands base map in the following circumstances: To exclude small pockets of land i		Burlington	 As outment of planning policy there is a difference is a difference of the second and the prime agricultural lands". Within prime do not contain prime agricultural lands. Whil Quarry Extension are mapped as a Prime Agricultural land an This was confirmed based on the soil addence review of this report OMAFRA agrees that the prime agricultural land. As noted in OMAFRA staff have had an opportunity to readditional information in the response. Based of the site provided, it seems reasonable to a capability of the soils on the site are likely no (CLI 1-3)." As per earlier discussions with JART Map 1E Plan map the property as a Prime Agricultural City of Burlington Official Plan do not include To avoid removing land from the Prime Agric amend the proposed Region of Halton Official Agricultural Area" mapping on Map 1E and 10. The proposed Region of Halton Official Settlement Areas, on land legally des 2 and Part of Lots 17 and 18, Concess of Nelson), City of Burlington is hereb "Mineral Resource Extraction Area", a and forming Part of this Amendment. Item 6. That Region of Halton Official Greenbelt and Regional Natural Heritra as Part of Lots 1 and 2, Concession 2 NDS (former geographic Township of Halton is hereby amended by adding Area" on areas designated "Prime Agric System" and change the designation Resource Extraction Area" as shown forming Part of this Amendment.

nse (June 2022)

rence between "prime agricultural areas" a agricultural areas there can be areas that ile the South Quarry Extension and West gricultural Area, the South Quarry nd the West Quarry Extension does not. dum submitted to JART. Based on a ne West Quarry Extension does not contain A letter dated June 29, 2021 (**Tab 1**), review the Soil Survey Addendum and the d on the soil information and the description conclude that the current agricultural by representative of prime agricultural land

and Map 1G Region of Halton Official Al Area. The Niagara Escarpment Plan and "prime agricultural area" mapping.

cultural Area mapping Nelson agrees to al Plan Amendment to maintain the "Prime G of the Region of Halton Official Plan. Amendment is amended as follows:

Plan Map 1E – Agricultural System and scribed as Part of Lots 1 and 2, Concession ssion 2 NDS (former geographic Township by amended by adding an overlay of as shown in Schedule "D" attached hereto

I Plan Map 1G – Key Features within the tage Systems, on lands legally described 2 and Part of Lots 17 and 18, Concession 2 f Nelson), City of Burlington, Region of an overlay of "Mineral Resource Extraction gricultural Areas in the Natural Heritage of land from "Key Features" to "Mineral in Schedule "F" attached hereto and

ns to Map 1E and Map 1G.

2.	The AIA has focused almost exclusively on soil-based agricultural production, or the 'Land Evaluation" component of a LEAR and has not sufficiently addressed the 'Area Review' component, or consideration of the agricultural system as a whole. The study should include indoor horticulture, livestock, equine and other non-soil based types of agriculture. The study should speak to all types, sizes and intensities of agricultural operations that may be viable on the subject lands and surrounding lands, both now and in the future, given the constantly changing and evolving nature of the sector. Similarly, the study should also consider agriculture-related uses and on-farm diversified uses which benefit from close proximity to agriculture and/or cannot located in urban areas due to land use compatibility issues. Recent changes to Provincial policy have opened up a variety of options with respect to permitted uses- the study should speak to this when assessing the long-term productive capacity and overall viability of these lands.	General	City of Burlington	As it relates to the subject site the AIA does f since mineral aggregate operations are a per areas and the planning policy varies based o As it relates to off-site impacts the AIA consid operations ('soil-based' and non 'soil-based') extension will minimize impacts on surroundi As it relates to the West Quarry Extension, a it was concluded that the West Quarry Extension, a it was concluded that the West Quarry Extension, a it was concluded that the West Quarry Extension land. To assist JART with its review of the applicate exchanged between OMAFRA and MHBC has
	The AIA should also provide a definition for the term 'disturbed' to inform a more fulsome evaluation of the rehabilitation potential for the Western Extension lands, in relation to both soil and non-soil based agricultural uses, agriculture-related uses and on-farm diversified uses.			 OMARFA comments dated December MHBC response dated June 1, 2021 OMAFRA comments dated June 29, 2 MHBC response August 25, 2021 inc OMAFRA and MHBC email exchange included as Tab 6; OMAFRA sign-off letter dated Februar
3.	NEC Staff do not agree with the exclusion of the western expansion lands from the soil assessment. While it is understood the proposal seeks to excavate the majority of the Class 1 & 2 lands present on the site, conclusions of the report with regards to rehabilitation must be substantiated through field investigation. At this time NEC Staff view the western expansion lands as prime agricultural lands regardless of the use that currently operates on them.	General	Niagara Escarpment Commission	A soil assessment for the West Extension wa West Extension does not contain prime agric As noted in OMAFRA letter dated June 29, 2 an opportunity to review the Soil Survey Add response. Based on the soil information and seems reasonable to conclude that the curre site are likely not representative of prime agr
4.	 The AIA states that fragmentation of prime agricultural lands is minimized as the project is being proposed as an 'expansion' to an existing extraction operation. This argument has merit for the western expansion area, however it is noted that the southern expansion is not contiguous with the existing site and, in NEC Staffs opinion, introduces a fragmenting effect on surrounding agricultural lands. Summary of net impacts table provides 'below water extraction' as justification to avoid fragmentation. This is not a recognized mitigation measure nor does it fundamentally address the impact of fragmentation 	General	Niagara Escarpment Commission	Mineral Resource Extraction is permitted on agricultural areas. The policies of the Niagar mitigation to avoid fragmentation. Although r South Quarry Extension, include No. 2 Sider east, south and west. Also see MHBC respon- included in Tab 4 .
5.	 The AIA quotes Part 2.8.2 of the NEP which requires development shall comply with minimum distance separation formula; however there is no commentary relative to the proposed rehabilitation plan or the potential for the introduction of new MDS constraints. Summary of net impacts table provides that 'MDS I and II setbacks are not required for mineral aggregate extraction uses. Are they required for any of the uses proposed in through the rehabilitation plan? 	General	Niagara Escarpment Commission	The proposed rehabilitation plan only creates future Niagara Escarpment Plan amendment be considered at that time.
6.	It is noted that the proposal suggests below water extraction and that the policies of the NEP permits a site with below-water extraction to avoid rehabilitation back to prime agricultural soil conditions.	General	Niagara Escarpment Commission	As per discussions with JART and OMAFRA Extension and South Quarry Extension lands rehabilitation unless the sites were filled back West Quarry Extension are not suitable for a

focus on the quality of the soils on-site rmitted land use within prime agricultural on the quality of the soils located on-site. ders and documents all existing agricultural and concludes that the proposed ing agricultural operations. additional soil surveys were completed and sion does not contain prime agricultural tion, the following additional information as been included: er 14, 2020 included as Tab 3; included as Tab 4; 2021 included as **Tab 1**; cluded as Tab 5; e January 20, 2022 to February 2, 2022 ary 7, 2022 included as **Tab 7**. as submitted to JART and confirmed the cultural lands. 2021 (attached), "OMAFRA staff have had dendum and the additional information in the the description of the site provided, it ent agricultural capability of the soils on the ricultural land (CLI 1-3)." prime agricultural land within prime ra Escarpment Plan do not require not applicable the lands surrounding the road to the north and natural features to the nse to OMAFRA dated June 1, 2021 s a landform. Any after uses require a and if applicable consideration of MDS will , it was determined that the West Quarry

s were not feasible for agricultural k to grade. Furthermore, the soils from the agricultural rehabilitation.

	 Part 2.9.11 (i) requires that any remaining areas not subject to such extraction should be prioritized for and maximized as a first priority. NEC Staff notes that the existing Nelson site is subject to this application and that it could contain areas suitable for this type of rehabilitation. Please elaborate as to why this was not explored given the specific wording of Part 2.9.11 (i)? Currently, there is no consideration of any type of agricultural after-use despite sections of the report identifying that there is a whole suite of ARU and OFDU uses that could be appropriate and that do not require rehabilitation of soils. Were these uses explored as a way to potentially achieve Part 2.9.11 (i)? 			In accordance with the policy requirements of rehabilitation. Based on these discussions, to Burlington Quarry was updated to propose a the soils from the proposed South Quarry Ex the existing Burlington Quarry and Burlington
7.	Better integration with the direction of the rehabilitation and after-use plan needs to be incorporated into the AIA. Much of the proposed rehabilitation, specifically on the western expansion lands, may result in the lands achieving the criteria for designation as Escarpment Protection Area if the work is successful. Recreation uses are not permitted within this designation but agriculture/ARU/OFDU may be.	General	Niagara Escarpment Commission	Any future after uses will require an amendm only uses permitted within the applicable des proposed to convey the lands to public owne Escarpment Parks and Open Spaces. Withi Niagara Escarpment Plan permits "uses per System Master / Management Plans that are Escarpment Plan." These uses can include
8.	Summary of net impacts table identifies that the subject lands do not contain any farm infrastructure and makes reference to a storage barn on the western expansion lands. Is there no infrastructure on the southern lands (barn, tile drainage, etc.)?	General	Niagara Escarpment Commission	As noted in the AIA there is no farm infrastru Extension lands.
9.	Summary of net impacts table could explore the implementation of pollinator gardens/species as broad mitigation.	General	Niagara Escarpment Commission	These mitigation measures were not propose agricultural resources in accordance with the Escarpment Plan.
10.	 Changes in the type and sensitivity of agricultural uses in the primary and secondary study areas associated with the proposed South and West Extensions will likely be affected by climate change/warming. Agriculture contributes to climate change as does the production and use of aggregate directly or as part of concrete and asphalt. Climate change will affect agriculture on a scale broader than the primary and secondary study areas. Therefore how: i. is the size of the secondary study area sufficient to document off-site agricultural impacts; ii. has the MHBC AIA considered climate change when evaluating agricultural impacts; and, iii. has the MHBC AIA evaluated cumulative agricultural impacts associated with aggregate mining in the context of various scales from Burlington to Halton Region to the Niagara Escarpment as well as to climate change generally? 	General	AgPlan Limited	The AIA was completed using the Province's Guidance Document, and OMAFRA has agri to implement the Provincial Plan requiremen document outlines the recommended Study operations, 1 km being the recommended siz Additionally, the Guidance Document does n recommended Assessment of Impacts section with this Provincial Guideline document, per
11.	 Given that the current application South Extension area is similar to the previous application (2004 with modifications to the application at later times), in addition to observations made during the time the current quarry has been in operation, there are previous observations, letters and/or reports available that will assist, in conjunction with other information sources, to ascertain: changes, if any, in the type and sensitivity of agricultural activities over time; ii. impacts to agriculture identified by complaint and/or applied mitigation; and, the distance and/or off-site area affected as related to complaint and/or applied mitigation. 	General	AgPlan Limited	The AIA was completed in accordance with the Guidelines provide a much more fulsome and assessment than what was required in previous representation of agricultural trends in the ard determine changes in type of agricultural act. The evaluation of this AIA should be based of are required by current Provincial and Munico outside of the scope of this AIA review, as the provided by the Province, which includes guide for the report.

other areas were considered for agricultural the proposed rehabilitation plan for the an area of agricultural rehabilitation to utilize xtension. See updated ARA Site Plans for n Quarry Extension.

nent to the Niagara Escarpment Plan and signation will be permitted. Nelson has ership to form part of the Niagara in the Escarpment Protection Area, the mitted in the Parks and Open Space e not in conflict with the Niagara recreational uses.

acture located within the South Quarry

ed necessary to mitigate impacts to e policy requirements of the Niagara

s Draft Agricultural Impact Assessment reed and supported this approach as means ints to complete an AIA. Section 3 of the Area sizes for new or expanding aggregate ize for the Secondary Study area. not outline or discuss climate change in its on. The AIA was prepared in accordance the request of OMAFRA.

the Province's Draft Guidelines. The Draft nd holistic approach to the Impact ious applications, including a statistical rea using Census of Agriculture data to tivities over time.

on the most current technical report, which sipal policy. Previous applications are ne current AIA follows the guidelines idance on what is needed to be reviewed

	These previous observations, letters and/or reports need to form part of the impact analysis in the MHBC AIA.			
12.	The change in type and sensitivity of agricultural activities will also potentially be affected by the rate and density of urbanization within Halton Region. However, based on the Niagara Escarpment Plan (NEP) and the Greenbelt Plan (GBP) as well as other planning documents, the proposed Nelson South and West Extensions are in an agricultural area (Escarpment Rural Area, Protected Countryside, Prime Agricultural Area) which is planned to remain permanently agricultural within the NEP/GBP. Therefore, agricultural information analyses need to be based on the scale of the NEP/GBP to place the proposed aggregate expansion in that context as well as in the context of Halton and Burlington.	General	AgPlan Limited	The subject lands are designated Escarpme Aggregate operations are a permitted use wi 1.5.3). As such, the lands are not "planned to mineral aggregate is permitted. The AIA sati section 4.2 of the AIA. The purpose of the N Niagara Escarpment and land in its vicinity s environment, and to ensure only such develor natural environment." Accordingly, policies w context of the Niagara Escarpment in mind. the Niagara Escarpment through its satisfact
13.	The MHBC AIA neglects to address some matters described in policy and/or guidelines. For example, Halton Region's AIA Guidelines include reference to agricultural viability and farm management. The MHBC AIA needs to address these agricultural characteristics in their assessment.	General	AgPlan Limited	The AIA uses the Provincial Draft Agricultural determine what should be included in the AIA recently (2018) than the Region's Guidelines dedicated to agricultural viability or farm mar comments are made on the viability of the la characteristics such as fragmentation, surrou infrastructure, size of the lands, etc. The rep ownership of the lands (Nelson). It can there agricultural operation on the lands is leased. there is no residence on site.
14.	Reference has been made within the AIA to reports by other disciplines. However, there is a lack of integration of information from other disciplines. For example, the infiltration of water into the soil profile and subsequent (unsaturated flow of water within the agricultural soil profile which occurs during the time of crop growth) may change because of the pumping of water during the excavation of aggregate materials below the water table. The probability of change will require the integration of information from the disciplines of Hydrology, Hydrogeology, and Agrology (soil physics). Information needs to be integrated either within the AIA or within another report. If the information is described in another (different discipline) report, the other report should be quoted as well as referenced within the AIA.	General	AgPlan Limited	A Hydrogeology Report was completed and section. Their mitigation measures and conc inform the AIA's conclusion that there would surrounding agricultural uses.
15.	Firstly, based on this peer review, the MHBC Agricultural Impact Assessment and supporting documents provided by DBH lack some information where that information would assist in evaluating whether the proposed change in use has relatively low agricultural impacts and is appropriate and reasonable. Secondly, the current AIA, and supporting documentation, in addition to information requested within this peer review, is needed to establish whether the MHBC AIA and DBH documents address impacts to agricultural characteristics described in the published literature, policy, and guidelines.	General	AgPlan Limited	The AIA was completed in accordance with a Guidelines provide a much more fulsome an assessment than what was required in previous representation of agricultural trends in the ar determine changes in type of agricultural act The evaluation of this AIA should be based of are required by current Provincial and Munic outside of the scope of this AIA review, as the provided by the Province, which includes gu for the report.
16.	In the introduction (page 1), the AIA refers to the West Extension as non- agricultural based on the current golf course use and in the AIA Response, the fact that the golf course is part of a prime agricultural area is recognized. In addition, the AIA Response states that the golf course lands have been substantially disturbed and therefore have no capability rating for the production of common field crops. The level of disturbance can only be ascertained by soil observation. Therefore, the AIA statement with respect to "substantially disturbed" has not been verified.	Page 1 Introduction	AgPlan Limited	A Soil Survey Addendum was completed and information and a description of the site. The agricultural capability of the soils on the site agricultural land (CLI 1-3). OMAFRA's respo conclusion. See Tab 1 .

ent Rural Area in the NEP. Mineral within the Escarpment Rural Area (Section to remain permanently agricultural" as tisfies relevant policies within the NEP in NEP is to "provide for the maintenance of the substantially as a continuous natural elopment occurs as is compatible with that within the NEP are written with the scale and . Therefore, the AIA addresses the scale of ction of the NEP's policies.

ral Impact Assessment Guidelines to IA. These Guidelines were developed more es (2014). As such, there is no section anagement. However, throughout the report, ands/operation through an analysis of bunding land uses, investment in agricultural port also includes information regarding the efore be concluded that the current d. A description of the site also indicates that

referenced in the assessment of impacts clusion of no negative impacts was used to be no anticipated negative impacts to

the Province's Draft Guidelines. The Draft nd holistic approach to the Impact ious applications, including a statistical area using Census of Agriculture data to ctivities over time.

on the most current technical report, which cipal policy. Previous applications are he current AIA follows the guidelines uidance on what is needed to be reviewed

nd provided to OMAFRA, which provided soil e addendum concluded that the current e are likely not representative of prime onse dated June 29, 2021 confirms this

17.	On page 3 it is stated that the potential for impacts will vary and mitigation is dependent on the type and sensitivity of the agricultural activities identified in the primary and secondary study areas. A reasonable statement, but, given the length of time that the quarry "additions" will be in operation, the type and sensitivity of agricultural activities will potentially vary. How this change in type and sensitivity of agricultural activity will be analysed and mitigated is not described in the MHBC AIA.	Page 3	AgPlan Limited	The AIA partially relies on the results of the term Traffic, etc.) submitted with the application to impacts. The technical studies largely assum as a result, the anticipated impacts from thes considered in our assessment of impact unde our report, the most significant impact on the approximately 12.7 hectares of productive ag Nelson has agreed to amend their existing Be approximately 14 hectares of rehabilitated ag floor of the existing quarry. This area is equive South Extension lands. This will allow stripped immediately placed in the existing quarry to far rehabilitation. This approach will avoid the ne long periods of time, which will help maintain the success of the rehabilitation efforts. See updated ARA Site Plans for the existing Extension.
18.	The AIA (pages 4 and 5) states that the proposed after use vision for the extension and existing quarry is to develop a landform suitable for a future park. As a result, the rehabilitation plan for the South extension includes a beach, lake, exposed quarry faces, wetlands, and forested areas. The rehabilitation plan for the West Extension includes a series of ponds, wetlands, exposed quarry faces and forested areas. There is no discussion how this proposed after use is compatible with agriculture in the context of agricultural use and soil capability in the area potentially influenced or affected by the existing quarry and proposed quarry extensions as well as the NEP, GBP, PPS, Halton, and Burlington plans.	Pages 4 and 5	AgPlan Limited	As noted above, Nelson has agreed to amen approximately 14 hectares of rehabilitated ag floor of the existing quarry. This will allow stri immediately placed in the existing quarry to fa rehabilitation. This approach will avoid the ne long periods of time, which will help maintain the success of the rehabilitation efforts. A number of recommendations have also bee ensure the rehabilitated agricultural area be r capability and production as the South Exten for the existing Burlington Quarry and Burling As noted in response to comment #1 Nelson remove both extension areas from the Prime
19.	It is stated in the AIA (page 5) that; furthermore, a soil survey and Canada Land Inventory (CLI) Evaluation was completed by DBH Soil Services Inc. to document the existing soil conditions and provide a more detailed assessment of the Canada Land Inventory (CLI) classification for the soil resources on both properties. If the assumption is made that the reference to both properties means the South Extension and the West Extension, the quote above is interpreted to indicate that a CLI classification for both extensions has been presented. In addition, the DBH Addendum (November, 2020) states on page 3 that the Addendum soil survey included completion of mapping to illustrate the location of the property, the occurrence of soil polygons and appropriate CLI capability ratings. Subsequently, DBH presents no maps of soil polygons or appropriate CLI capability ratings. The information presented in the DBH indicates:	Page 5 and DBH Addendum	AgPlan Limited	 is to apply an extraction overlay in the Region Both the original soil survey of the South Extension were completed to the O Rural Affairs (OMAFRA) Guidelines for Detai Planning, a copy of which may be found at the http://www.omafra.gov.on.ca/english/landuse Further, as per the OMAFRA guidelines, the Describing Soils in Ontario (Ontario Centre for OMAFRA document Classifying Prime and N Guidelines for the Application of the Canada may be found at the following link (http://www.omafra.gov.on.ca/english/landuse) As stated in the original soil survey and the a Extension respectively), a Dutch Soil Auger a extract soil material to a minimum depth of or

technical studies (e.g. Noise, Hydrogeology, o assess and mitigate against the potential med 'worst-case' scenarios in their analysis, se activities on agricultural uses has been ler Section 5.0 of our report. As noted in a agriculture system is the loss of gricultural land. In response to this loss, Burlington Quarry Site Plan to include gricultural land on the rehabilitated quarry ivalent to proposed extraction area of the bed soils from the South Extension to be facilitate the proposed agricultural need to stockpile/store stripped material for in the soil fertility and structure and improve

Burlington Quarry and Burlington Quarry

nd their existing license to include gricultural land on the rehabilitated quarry ipped soils from the South Extension to be facilitate the proposed agricultural eed to stock pile/store stripped material for in the soil fertility and structure and improve

een made to the site plan conditions to returned back to the same average soil nsion lands. See updated ARA Site Plans gton Quarry Extension.

n is modifying their application to not e Agricultural Areas designation. The intent on's Official Plan.

tension and the addendum soil survey on Ontario Ministry of Agriculture, Food and iled Soil Surveys for Agricultural Land Use he following link: e/facts/soil_survey.htm

soil survey referenced the Field Manual for or Soil Resource Evaluation, 1993), and the Marginal Agricultural Soils and Landscapes: Land Inventory in Ontario, a copy of which

se/classify.htm).

addendum (South Extension and West and/or Dutch Stone Auger was used to one metre (or to refusal). Further,

	 i. There are differences in depth to bedrock, or at least to refusal, when a Dutch auger is used to expose the soil profile (were other methods of exposing the soil profile used to determine the reason for refusal?). ii. There are differences in soil drainage (in the sense that some profiles are identified by DBH as imperfectly drained and others are "unknown"). Differences in vegetation as well as in characteristics within a soil profile are used to distinguish soil drainage class. In those areas planted to grasses, how were water tolerant versus water intolerant grasses differentiated by DBH in the field? DBH also identifies on page 2 of the Addendum that topography information was provided by MHBC Planning. These aforementioned three pieces of information (depth to bedrock, soil drainage class and slope class) could have been used to differentiate on the basis of these three characteristics? 			observations, or visual evidence of landforms determine areas of shallow to bedrock soils. The assessment of drainage class is a function on size of the soil mottle, the relative colour (H mottle), depth of mottling and depth of colour Manual for Describing Soils in Ontario). There Manual for Describing Soils in Ontario for detere vegetation. It is noted that vegetation may be a function of the Ecological Land Classification of Natural Resources and Forestry (MNRF) (https://www.ontario.ca/page/introduction-eco the purposes of these soil surveys, the assess the Field Manual for Describing Soils in Ontar The evaluation of soil resources for the South was completed to determine the extent of soil determined the location and extent of the soil defining soil polygons and assigning Canada OMAFRA document Classifying Prime and M. Guidelines for the Application of the Canada I documented within the addendum report (We mapping, the areas of disturbed soils compriss while the minor areas of shallow to bedrock se entire site (Subject Lands) is considered as di the CLI system." As such, the entire site has has been determined to be "not rated in the O have provided detailed information regarding capability rating per the Canada Land Inventor
20	. The legend in Figure 4 "Agricultural Land Uses" has various crops listed but they are not visible on the Figure 4 map that the retained consultant has been able to access. The report should be revised to include this information.	Figure 4	AgPlan Limited	Attached as Tab 8 is a copy of Figure 4, whic your comment.
21	 On page 7 of the MHBC AIA, the site visit confirmed that there are not many productive and contiguous agricultural operations within the Primary Study Area, as this area is already fragmented by the existing aggregate, recreational, natural and rural residential uses. And then on page 10, in addition to the existing aggregate extraction operations within the Study Area, there are few active agricultural operations within the Secondary Study Area [underlining added]. "Few" and "not many" are not defined and are not put in context, with what occurs on average, or within a specific range of values within different areas or at different scales such as Halton Region, the City of Burlington, and the Primary and Secondary Study Areas. The PPS has the principal determining factor for prime agricultural areas and prime agricultural lands as soil capability. For example, in OMAFRA's Land Evaluation and Area Reviews (LEAR) for the Greater Golden Horseshoe, (Agricultural System Mapping Method, technical document, January 2018) soil capability was assigned a relative importance of 60.0% and farm production is assigned 30.0% of the score leaving 10.0% for parcel fragmentation. Therefore, the specific meaning of productive and contiguous agricultural operations and active agricultural operations found in the MHBC AIA need to be defined in the context of specific wording in plans, guidelines, and technical documents. 	Pages 7 and 10	AgPlan Limited	Noted. As indicated on Figure 4, the Primary 3 contains 5 different active parcels within the e typically shaped (rectangular), which would in study area are fragmented, and not considered description the study area there is no numeric fabric information is available on Figure 4. Th being consistent with the average parcel size Similarly, a detailed numerical value was not cropping fields or livestock operations. However information in Figure 4.

and rock outcropping was used to

on of the degree of soil mottling as based Hue/Chroma/Value, matrix as compared to change (Pages 26 and 27 of the Field re is no consideration within the Field termining soil drainage class as based on e used an indicator of soil drainage and is on (ELC) as defined by the Ontario Ministry A link to the ELC is provided as follows <u>blogical-land-classification-systems</u>). For essment of drainage was conducted as per rio.

n Extension and the West Extension areas il resources in both areas. The evaluation I resources on the South Extension area by Land Inventory (CLI) ratings as per the larginal Agricultural Soils and Landscapes: Land Inventory in Ontario. It has been est Extension) that "Due to the scale of se large portions of the Subject Lands, soils are too small to map. Therefore, the listurbed and is considered as not rated in been mapped as one soil polygon and CLI system". Therefore, the DBH reports soils, soil resources, and comment on soil ory classification system.

h hopefully is more legible and addresses

Study Area for the South Expansion expansion boundary. The Parcels are not indicate that the lands within the primary ed contiguous. It is noted that in the cal definition of few, however the parcel he total size of the 5 parcels is noted as in the City of Burlington (p.7).

used to define the number of large cash ver, the details can be ascertained via the

	22.	There are equestrian operations, ranging in size from hobby farms to training facilities is stated in the AIA on page 11. While the use of the phrase "hobby farm" has been in use for at least 50 years, the definition of the phrase has not been provided in the MHBC AIA and is generally not provided, when the phrase is used, in other AIA's. If a hobby is something that provides enjoyment, and costs more money than it generates, then an argument can be put forward that approximately 80.0% of farms can be classified as hobby given that:	Page 11	AgPlan Limited	Noted. The use of the Term "Hobby Farm" w nature of the operation when describing the evaluation of potential impacts on Hobby Far the mitigation measures. The term is not use Policy requirements. Because all agricultural equally in the analysis of impacts, and propo discrimination based on size of operation.
		 The 80.0% of farms have higher off-farm income than on-farm income; The off-farm income is necessary to sustain the farm and the farmers operating that farm. Additionally, the PPS (2020) in section 2.3.3.2 states, in prime agricultural areas, all types, sizes and intensities of agricultural uses and normal farm practices shall be promoted and protected in accordance with provincial standards. This can be interpreted to mean that discriminating amongst agricultural uses by type, size, and/or intensity, is prohibited, and therefore, distinguishing a hobby farm use versus an equestrian or common field crop use is inappropriate. Recognizing differences in agricultural land uses is only of importance in the PPS when identifying areas of fruit and vegetable production (which are part of the definition of specialty crop area).			
		The MHBC AIA needs to define the meaning of "hobby farm" and provide a measure of the relative predominance of hobby farms at various scales from the municipal to the regional. As well, the AIA needs to explain why the differentiation of hobby farms is of significance in the context of the wording of planning policy.			
	23.	The AIA states on page 12 - Based on the site visit, the agricultural lands within the Primary and Secondary Study Areas are significantly fragmented by existing rural residential, natural areas and recreational uses. The parcel sizes are indicative of smaller, hobby-sized farms rather than large cash crop or livestock operations found elsewhere in southern and central Ontario. No extensive farm investment such as tile drainage, irrigation or other specialized cropping practices or equipment were observed or are documented within the Primary or Secondary Study Areas. Following the discussion as already outlined in comment 22 above, the lands still need to be promoted and protected based on the wording of the PPS. Additionally, what does "extensive farm investment" mean and how has that relative investment been compared at different scales (regional, municipal through to site-specific).	Page 12	AgPlan Limited	For comments regarding hobby farms, see re Extensive farm investment is characterized b specialized cropping practices or equipment. is used to understand any potential impact th Agricultural System. There were no extensive of the consideration when determining impact
-	24.	Limited rural residential uses, natural areas and passive recreational uses are considered complementary uses within prime agricultural areas. It is somewhat misleading to characterize these uses as having 'significantly' fragmented a portion of contiguously mapped prime agricultural area. This statement, and others, should be examined in relation to the LEAR scores generated through both the Halton Region and Provincial LEAR studies. While these studies each use different weighting configurations, both have recently confirmed these lands was meeting the criteria for a prime agricultural area, and would have accounted for fragmentation in the scoring. This data should be provided and analyzed in the AIA.	Page 12	City of Burlington	See response to comment # 21. Also minera complementary uses within prime agricultura accordance with the Provincial Policy Statem
	25.	"The loss of approximately 12.7 hectares of agricultural land, currently used for cash crop production, will have a negligible effect on the social and economic impacts of agriculture in the City of Burlington, Halton Region and province as a	Page 13	City of Burlington	See response to comment # 6, 17 and 18. T is being mitigated.

was used only to describe the size and e Primary and Secondary Study area. The arms and larger operations is the same, as is ed to differentiate in terms of Planning al operations identified are considered osed mitigation measures, there is no

response to 22.

by tile drainage, irrigation, or other t. Identification of these types of investments the proposal may have to the broader ve farm investments identified, which is part act on the agricultural system.

ral aggregate uses can also be considered al areas since they are permitted use in ment.

The loss of 12.7 hectares of agricultural land

	whole." Without relative comparisons to scale, existing trends of decline and a cumulative impact assessment lens, it is challenging to verify such a statement.			
	For example, the impacts of a changing climate are not addressed anywhere in the study's evaluation of long-term agricultural viability. The overall system impact of continuously removing small amounts of prime agricultural lands is complicated by the impacts of changing climate, which may compromise agricultural viability and heighten the need to preserve the agricultural land base to enable a strong, diverse agricultural system. Regenerative farming practices and on-farm stewardship can make a significant contribution to mitigating and adapting to the impacts of a changing climate, while supporting the integrity natural heritage system and providing opportunities for passive recreation (i.e. Bruce Trail). The loss of these types of secondary services provided by agricultural lands has not been accounted for.			
26	The AIA continues on page 13, stating that based on the site visits, the agricultural activities within both the Primary and Secondary study area are indicative of broader agricultural trends in the City of Burlington and the Halton Region. Overall, agricultural uses within both the Primary and Secondary Study Area are representative of normal agricultural production for this area. The loss of approximately 12.7 hectares of agricultural land, currently used for cash crop production, will have a negligible effect on the social and economic impacts of agriculture in the City of Burlington, Halton Region, and province as a whole. The conclusion in the first paragraph quoted above would appear to be based, at least in part, on the statistical analysis of a single census year. This interpretation is an unnecessary assumption if the AIA report provides information stating what evidence was used in support of the MHBC AIA statement quoted above. Regardless, a one census year analysis is limited because a single year is insufficient to indicate trends. An analysis of trends is necessary because not all components of agriculture are static. Additionally, some of the categories used in that statistical work would appear to be based on the "StatsCan" classification of the predominant use of each farm operation. There are no discussions about the specific Statistics Canada data descriptors used in the MHBC AIA and there is no discussion about the limitations of the categories used on agricultural census categories for livestock such as total cattle and calves, total hens and chickens etc. (livestock numbers can be calculated per farm operation or per unit area), as well as crops such as total proportionate area of corn, wheat, soybeans, fruit, vegetables etc.? This Statistics Canada information can then be compared at minimum from the regional to municipal scales. Fieldwork could supply the agricultural information from the primary and secondary study area are no discussion do and the dator crops orduced yearly by Agricult	Page 13	AgPlan Limited	The AIA uses two Census years to compare can be seen in the following paragraphs of s "The total numbers of farms in Halton Region farms) have declined since 2011. The City o (5.7%) in total number of farms when compa- "The amount of lands in crop production has and the City (26.4%). Burlington has experie 3,828 acres) in the amount of lands in crop p Halton Region (61,673 acres to 52,602 acres." The use of two census years is to provide a trends within the City and Region. For this re- amount of land was sufficient in providing a g analysis is outside of the scope of the AIA ar Province's Draft Guidelines. Further, the characterization of the study are of trends, but a comparison of what is typica would be sufficient in justifying that at this giv indicative of agricultural uses in the City and As previously stated, it is further noted that N rehabilitated landform of their existing quarry landform, which will include rehabilitated agr proposed extraction are of the South Extens

agricultural statistics, 2016 and 2011. This subsection 2.3:

on (451 farms) and the City of Burlington (66 of Burlington experienced a greater decline ared to the Region of Halton (3.8%)."

s declined in the both the Region (14.7%) enced a stronger decline (5,203 acres to production since 2011 in comparison to es)."

general understanding of broad agricultural eason, the number of Farms and total general agricultural trend. A multi-attribute nd is not recommended within the

eas to the City and Region is not an analysis al in the City and Region. Thus, a single year iven point in time, the Study Areas are d Region.

Nelson has agreed to change the y from a lake-based landform to a terrestrial ricultural land equivalent to the to the sion lands.

	The description of differences when comparing the Region and City in the analyses presented, could have been entered as numerical data and compared using multi-attribute analysis (a LEAR is an example of one kind of multi-attribute analysis). This kind of analysis, as described in the previous three paragraphs, was not completed, and should be included in the AIA. The second paragraph quoted above concludes that the loss of the 12.7 hectares of agricultural land (the author chose to use number of hectares only in agricultural production, which, suggests incorrectly that land uses such as fence rows have no benefit to, and/or are not part of, agriculture) will have a negligible effect on the social and economic impact of agriculture at three scales - City, Region, and Province. The statistics quoted in the AIA are insufficient to support this conclusion, including context, for the phrase quoted in comment 23 where the agricultural activities within both the Primary and			
	Secondary study area are indicative of broader agricultural trends in the City of			
27.	Figure 5, following page 14, has been reproduced at a scale of 1:25,000. The original mapping, upon which the Land Information Ontario soil shape files are based, were mapped at a scale of 1:63,360 (Gillespie et al., 1971). The scale of the original work is not mentioned in the AIA and the significance of the difference of scale with respect to matters such as minimum mappable area have not been discussed (a map can be accurate to scale but imprecise at a more detailed scale).	Figure 5	AgPlan Limited	Noted. Nevertheless, as you know a detaile to confirm the soil classification.
28.	Tables 2 and 3 on page 15 are based on maps produced at two different scales. Table 2 is based on the work of DBH Soil Services whereas Table 3 is based on the original published information by Gillespie et al. (1971). Therefore, the two tables are not comparable. The AIA analysis on soil capability should compare the two proposed expansion areas based on published information as well as a third table using the more detailed DBH information. Given the need to characterize the soils on the West Extension, the capability comparison should include the current agricultural capability of the golf course lands based on field soil observations as well as to the soil capability of the golf course lands after they have been rehabilitated for agriculture.	Page 15 Tables 2 and 3	AgPlan Limited	The tables are used to present the information one another, and use the most accurate inforwas DBH's soil sample findings. For the Weyou know, an addendum to the Soil Survey OMAFRA's review of the Addendum OMAF agricultural capability of the soils on the site agricultural land (CLI 1-3).
29.	On page 16, there is a discussion in a subsection title indicating microclimate for specialty crop production. However, the discussion does not deal with microclimate including cold air drainage. The data quoted in the AIA are for Crop Heat Units (CHU) mapped at a broad scale. Specialty crop areas mapped by the Province include the Holland Marsh which has similar or lower CHU compared to the Nelson Aggregate site. Therefore, why does the MHBC AIA state that the Nelson Aggregate area has not been mapped as a specialty crop area because of climate?	Page 16	AgPlan Limited	The CHU were used to provide a description and is one of many characteristics, which and The AIA states that the area has not been not been by OMAFRA, the Region or the Ci
30.	Provincial policy does not provide a hierarchy of interests, only that both are important and must be protected. In this case, assessing long-term local supply and demand for each resource could assist in determining the appropriate prioritization.	Page 18	City of Burlington	See response to comments # 6, 17 and 18. the prime agricultural land from the south que considering the hierarchy of interests there extraction within prime agricultural areas, or rehabilitation is not required if certain condition
31.	Based on publicly available materials (see link below), the applicant proposes a single/unified rehabilitation plan concept for the existing licenced area (licences #5657 and #5499) and the southern and western extensions. Recognizing that both the southern and western extensions cannot be rehabilitated if extraction occurs below the water table, the proposed rehabilitation should address	Page 19	City of Burlington	See response to comments # 6, 17 and 18.



	opportunities to maximize agricultural rehabilitation in the remaining areas			
32.	The MHBC AIA on pages 19 and 20 states that in terms of impacts on surrounding agricultural properties, an expansion of an existing quarry is preferable as it minimizes impacts on the surrounding agricultural system. Why it is preferable to have a larger pit operating over a longer time than several smaller pits over a shorter time has not been explained in the MHBC AIA.	Pages 19 and 20	AgPlan Limited	The expansion is preferable to a new quarry new impacts to the area on existing agricultu haul routes and processing facilities. An exp licenses collectively, using the same process haul route. This also allows for the comprehe
33.	There are some questions related to the section in the MHBC AIA discussing the Planning Policy Framework. On page 19, the PPS is quoted relating to extraction below the water table (section 2.5.4.1, d) where agricultural rehabilitation in remaining areas is maximized. This wording is repeated on page 23 of the MHBC AIA when quoting from the Halton Region Official Plan. Subsequently, on page 22, related to the NEP section 2.9.11, the following is quoted: in prime agricultural areas, where rehabilitation to the conditions set out in (g) and (h) above is not possible or feasible due to the depth of planned extraction or due to the presence of a substantial deposit of high quality mineral aggregate resources below the water table warranting extraction, agricultural rehabilitation in the remaining areas will be maximized as a first priority. How does the proposed after use, described in the AIA, demonstrate that the agricultural rehabilitation of remaining areas is maximized and/or agricultural rehabilitation in the remaining areas will be maximized and/or agricultural rehabilitation in the remaining areas a first priority? Based on the previous paragraph and description in other parts of this peer review, impacts to agriculture need to be evaluated in the MHBC AIA during	Pages 19, 22, and 23	AgPlan Limited	See response to comments # 6, 17 and 18.
34.	 extraction, rehabilitation, and post-rehabilitation. On page 19 the MHBC AIA states that; it would be difficult to locate any new aggregate operation within the City of Burlington or Region of Halton that would avoid prime agricultural areas. This phrase is an answer to the requirement quoted from the PPS in the MHBC AIA on page 19 as well as repeated in the Halton Region Official Plan (MHBC AIA, page 23). Other alternative locations have been considered by the applicant and found unsuitable. The consideration of other alternatives shall include resources in areas of Canada Land Inventory Class 4 to 7 soils, resources on lands identified as designated growth areas, and resources on prime agricultural lands where rehabilitation is feasible. Where no other alternatives are found, prime agricultural lands shall be protected in this order of priority: specialty crop areas, and Canada Land Inventory Class 1, 2 and 3 lands. However, there are no maps presented demonstrating the relationship between soil capability classes, the location(s) of the same or similar aggregate resources are available and where rehabilitation is feasible. Neither is there mapping to demonstrating where aggregate resources are available and where rehabilitation is feasible. Neither is there mapping to demonstrate the protection of prime agricultural lands relative to the priority outlined in policy. The MHBC AIA needs to contain this mapping as evidence that there are no suitable sites based on the wording of planning policy. 	Pages 19 and 23	AgPlan Limited	It is noted that there are no maps pertaining following is the justification. Although Section 2.5.4.1c) of the Provincial consideration of alternatives on lower quality to consider alternatives is based on what is a have been considered by the applicant and funsuitable to consider alternatives that are in has already been a considerable amount of the existing quarry. As noted in the AIA, expletely minimize potential impacts to agriculture the area by utilizing established haul routes new licensed areas will be operated as an explored that given the existing physical and surrounding the quarry, potential expansion and west as the Mount Nemo settlement are of this application has been to the south and expanding in all directions has been given. Considerations that have precluded consider directions:
				Southwest: Existing golf course that is not a

y in a new location as it does not introduce ural operations through the use of existing bansion allows the operation to use both using equipment, entrance/exit, and existing bensive rehabilitation of the lands.

to an evaluation of alternatives. The

Policy Statement (2020) requires y land (among other areas), the requirement suitable to the applicant ("other alternatives found unsuitable"). In this regard, it is not adjacent to the existing quarry as there financial and physical resources invested at pansion of the quarry on adjacent lands will re as it does not introduce 'new' impacts in and existing processing equipment. The expansion to the existing quarry, and does ral land in other parts of the Region.

nd land use constraints in the area to the quarry is limited to the north, south ea is located to the east. Although the focus d west extension areas, consideration of The following summarizes the land use ration of expanding the quarry in other

ea as well as presence of significant

vailable for purchase.

35.	Impacts avoided would primarily be transportation related (i.e. avoiding the development of new haul routes) but there are other impacts to consider, i.e. the extended duration of use and the intensification of the existing haul routes and activities. "2.5.3.1 Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation shall take surrounding land use and approved land use designations into consideration." Neither the current or proposed extensions sites are currently designated for recreational uses, and nor are any of the surrounding land uses. The broader rehabilitation plan proposed does not align with the current land use objectives.	Pages 19, 24, and 27 Page 20	City of Burlington City of Burlington	 North/Northeast: Farms are more contiguous uses and natural features. There is more farm north in the form barns, fencing, etc. associat operations. The natural feature along Colling Road from E part of the Regional Natural Heritage System. As noted in the Planning Report, a high press Road alignment. The gas line would create of and working around this established easement. A portion of the Bruce Trail is also located alca along Colling Road. It is noted that protection in the Niagara Escarpment Plan. Northwest: As noted in the Planning Repoling Road is Escarpment Area and would not be available to extraction metres of the Escarpment Brow and aggregat. Given the foregoing, the selected locations for favourable from an agricultural perspective as policy perspectives. Lastly, as it relates to the west extension, it is does not apply as these land are not considered prime agricultural land. The application does not result in the intensifi of the existing haul route is appropriate and is of traffic including truck traffic. The rehabilitation plan includes a proposed la account surrounding land uses and approved current West Quarry Extension is permitted for golf course. Other recreational uses in the irr the Mount Nemo Conservation Area. Any future after uses will require an amendme only uses permitted within the applicable design proposed to convey the lands to public owner Escarpment Parks and Open Spaces. The Ni
37.	 designations or demonstrate compatibility with rural area land use objectives. "Assessment of Impact" should address the following: There is no evidence produced in support of the statement the resulting 	Assessment of Impact Page 28	AgPlan Limited	Escarpment Parks and Open Spaces. The Ni permitted in the Parks and Open Space Syste not in conflict with the Niagara Escarpment Pl uses. See response to comments # 6, 17 and 18
	loss of 12.7 hectares of productive agricultural lands is considered to be a negligible loss (page 28).			

and less fragmented by non-agricultural m infrastructure and investment to the ted with the 3-4 existing livestock

Blind Line to Guelph Line is identified as

sure gas oil pipeline runs along the Colling pperational challenges in terms of cross nt.

ong the north side of the existing quarry n of the Bruce Trail is identified as a priority

ort, part of the properties between Blind Protection Area and Escarpment Natural D. Other Rural Areas would be within 200 ate extraction is prohibited in this area.

or expansion are considered more swell as other operational or planning

s noted that the alternatives test in the PPS red prime agricultural land (see response extension lands are preferred as they are

ication of the existing haul route. The use s a route that is planned for high volumes

andform that is appropriate taking into I land use designations. Furthermore, the or recreational uses and includes an active nmediate area include the Bruce Trail and

ent to the Niagara Escarpment Plan and signation will be permitted. Nelson has rship to form part of the Niagara iagara Escarpment Plan permits "uses em Master / Management Plans that are Plan." These uses can include recreational

38.	"Assessment of Impact" should address the following:	Assessment of Impact	AgPlan Limited	The Fragmentation section is in reference to a result of the proposal. As such, reference i
	• The section on fragmentation does not discuss fragmentation (page 28).	Page 28		taken out of production, and compatibility of
39.	 *Assessment of Impact" should address the following: The discussion on air quality (page 29) does not quote information related to the monitoring of contaminants during the lifetime of the current Nelson Aggregate pit. There is no evidence provided based on actual performance of no significant health impacts and the reader is not referred to a document that defines the meaning of "significant". It should be noted that agriculture itself potentially produces dust, noise, odours, light; can or does contribute to problems with water quality and quantity; and has documented accident rates, and occupational health problems. Given matters such as those described in the previous sentence, there is no discussion about the contribution of agriculture relative to the proposed Nelson Aggregate Expansion in the MHBC AIA. Neither is there a discussion about the combined contribution of the proposed expansion plus the contributions of agriculture 	Assessment of Impact Page 29	AgPlan Limited	The Air Quality assessment assessed five m which takes into account the operations at th significant health impacts is in accordance w Conservation, and Parks Guidelines.
40.	 *Assessment of Impact" should address the following: The section on hydrogeology (page 30) states that the management of water resources is an important consideration for farm operations particularly for watering field/vegetable crops and hydrating livestock. The irrigation of field crops will be soil dependent and the definition of field crops used in the AIA is not specified. Elsewhere in the report, there is a statement that the lands are not suitable for specialty crops, but they have mentioned vegetables (but not fruit) in relation to irrigation use of water resources. The South Extension lands do have potential for producing specialty crops (fruits and vegetables), and the West Extension will have potential for producing specialty crops assuming that not all the area has been disturbed and/or can be rehabilitated (even though The South and West Extensions are not a specialty crop area). There is no mention of previous water quality and/or quantity complaints related to agricultural use and/or aggregate mining in or around the current quarry. Additionally, there is no discussion concerning whether the complainants were satisfied with mitigation applied. The AIA also indicates there is no evidence of irrigation. This statement in the AIA assumes that agriculture in the area will not change during the time of the extraction and rehabilitation. 	Assessment of Impact Page 30	AgPlan Limited	The Hydrogeological assessment concluded Vegetable production was identified in this si Hydrogeology on potential vegetable product sections of the report, there was no specialty the Study Areas. According to the PPS, the of areas that are 'designated using guidelines of specialty crops are predominantly grown, resp produce specialty crops, or lands that are su combination of both; Farmers skilled in the p term investment of capital. DBH concluded the not meet the criteria for specialty crop soils of production was identified in the Study Areas, investment identified. Lastly, and most import designated in the Primary or Secondary Areas
41.	 "Assessment of Impact" should address the following: The section on traffic states it is not anticipated that the truck traffic on the haul route will conflict with agricultural traffic on No. 2 Sideroad. While there is one field access along Guelph Line (between No. 2 Sideroad and 1 Sideroad), Guelph Line is designed with wide shoulders that agricultural traffic can use to move between fields, if needed. This opinion further recognizes that neighbouring property owners have been accustomed to the truck traffic patterns from the existing quarry operation in the area. Furthermore, given the limited operating hours of the aggregate operations it is anticipated that any potential impacts/conflicts with agricultural traffic/machinery would be nominal and only concentrated during planting and harvest periods (early spring 	Assessment of Impact	AgPlan Limited	As stated in the Transportation subsection, C designed and meant to carry high volumes o is not anticipated to be high as it would gene directed toward local roads.

the degree of agricultural fragmentation as is made to the investment, amount of land the rehabilitated landform.

naximum emission operating scenarios, he current quarry. The evaluation of vith the Ontario Ministry of Environment,

d that surrounding wells will be protected. subsection to highlight the importance of ction, however as indicated in previous y crop or vegetable production identified in definition of specialty crop areas is those developed by the Province' in which sulting from; soils that have suitability to ubject to special climatic conditions, or a production of specialty crops, and; a long that the south and west extension lands do or climate. Additionally, no specialty crop s, nor was there any significant long-term portantly, there are no specialty crop areas ea.

Guelph Line is a major arterial road of heavy and light traffic. Agricultural traffic erally avoid high volume routes and be

	/ late fall). There is no evidence provided that the road shoulders are wide enough for the farm machinery used in Halton and/or in Burlington. The reference to impacts/conflicts as "nominal", because they only occur during planting and harvesting, is specious.			
42.	 *Assessment of Impact" should address the following: Under "blasting impacts" (page 31) the statement is made that while impacts to water quality and production capacity of groundwater supply wells is a common concern for residents near blasting operations, the report emphasizes that blasting operations do not result in any permanent impact on wells outside of the immediate blast zone. The statement begs the question - what intermittent impacts occur, what are those impacts and what is their frequency and duration, and, who or what is affected? 	Assessment of Impact Page 31	AgPlan Limited	 The Following excerpt is from the BIA (p.23) There is an intuitive belief that blasting operating pacts on residential water wells for large of Unfortunately, there is no scientific basis for radius of approximately 20-25 blast hole dial permanent ground displacement. As such, bo of an existing well, the probability of damage existent. Despite the scientific support for the above of performed to verify the validity of this statement of blasting on varied well configuration ensure results could be readily extrapolated these studies has confirmed that with the exturbidity, blasting operations did not result in the immediate blast zone of the blast until via intensities. Applying universally accepted the eliminates the possibility for any long term are blasting operations. In a study by Froedge (1983), blast vibration the bottom of a shallow well located at a dist pit blast. There was no report of visible damage the water pumping flow rate. This study cond 50mm/s PPV level is adequate to protect we current guideline limit for vibrations from quarties that will occur as a result perspective.
43.	 "Assessment of Impact" should address the following: Under "noise impacts", there is no evidence presented about the efficacy of mitigation applied during the lifetime associated with the current Nelson Aggregate pit. Neither is there a review of complaints received associated with noise. On the other hand, as stated previously, agriculture can be a noisy industry and comparatively speaking, can potentially be more or less noisy than the pit operation depending on several factors. The comparison and additive result of noise is not discussed in the MHBC AIA. 	Assessment of Impact	AgPlan Limited	Nelson's current and proposed operation are limits. The Noise Impact Study concluded th with recommended noise control measures, the MECP guideline limits. The Noise Impac levels within the respective Study Area. This Operations, and their noise contribution.
44.	The "summary of net impacts" (starting on page 32) is limited given questions raised previously in this review. For example, the areas planned as buffers have not been demonstrated to be effective through field study and/or the published literature, and the people affected by the current operation have not been interviewed with respect to their opinion about Nelson's "open-door policy"	Page 32	AgPlan Limited	Buffers and other impact mitigation measure technical studies to mitigate impacts on surre has demonstrated how mitigation measures It is noted that persons who may have been have not been interviewed on their opinion of

rations have dramatic and disastrous distances around such operations. r such claims. Outside of the immediate ameters from a loaded hole, there is no barring blasting activity within several meters e to residential wells is essentially non-

conclusion, numerous studies have been nent. These studies have investigated the ons and in varied geological mediums to d to all blasting operations. The conclusion of exception of possible temporary increases in n any permanent impact on wells outside of ribrations levels reached exceedingly high meshold levels for ground vibrations adverse effects on wells in the vicinity of

n levels of up to 32.3mm/s were recorded at stance of 60 meters (200 feet) from an open hage to the well nor was there any change in included that the commonly accepted limit of ells from any damage. We reiterate, the arry and mining operations is 12.5mm/s.

rom the BIA, there are minimal to no ult of blasting from an agricultural

re governed by the MECP noise guideline hat under worst-case operating scenarios, , the proposed application will comply with ct Study takes into account current noise s would account for surrounding Agricultural

es are recommended on the basis of other rounding land uses. Each respective report are effective in mitigating impacts.

potentially impacted by current operations of the "Open-door policy" and its

	and its effectiveness (or if they have been interviewed/surveyed, their comments are not in the AIA).			effectiveness. From an Agricultural perspective surrounding landowners of the operations and regarding Nelson's operations may still be file
45.	Conclusions of Section 6 – Proposed Rehabilitation Plan may require updating as a result of the above NEC Staff comments.	Section 6	Niagara Escarpment Commission	The proposed rehabilitation plan for the propo Burlington Quarry have been updated and inc conditions related to agricultural rehabilitation
46.	 Additional information is required to substantiate these proposed benefits. Are there known flooding hazards/concerns in this area? Are the surrounding agricultural operations in need of additional irrigation? 	Page 37	City of Burlington	Overall this is not applicable to overall policy of application. Mineral aggregate operations are prime agricultural lands. From a policy perspi be located on-site and is required to be desig agricultural resources/ operations.
47.	On page 37, the AIA opines that this final rehabilitated land-use is compatible with the surrounding agricultural uses and operations and will create landscape diversity. The open-water feature can provide benefits to the agricultural uses in the area through flood attenuation and the storage of fresh water for potential irrigation purposes. The MHBC AIA does not describe the probable use of the rehabilitated lands given human behaviour in areas with open water. There is some probability that the rehabilitated lands will be used for recreation rather than open space uses. Under those circumstances, OMAFRA's MDS Document would characterize the proposed rehabilitated use as type "B" because it would have a higher intensity of recreational use (formerly called active recreational use). Therefore, there is evidence that the proposed after use may be less compatible with agriculture if adjacent uses have or will have livestock production. Additionally, there is no discussion about whether open space uses and/or recreational uses will affect water quality. Neither is there any discussion about whether recreational uses such as swimming and the necessity for washroom facilities will affect coliform counts.	Page 37	AgPlan Limited	The proposed rehabilitation plan only creates future Niagara Escarpment Plan amendment be considered at that time.
48.	The South Extension does contain soils that would support specialty crops such as apples, sweet corn, garlic, cole crops etc. (and the West Extension will support specialty crops in areas where soil profiles have not been disturbed during the creation and use of the golf course or, could support fruit and vegetable production after rehabilitation).	Page 39 Bullet 2	AgPlan Limited	The DBH soil report concluded that the soils i Specialty Crop production. The Extension are which are unique to specialty crop areas. As Specialty Crop Areas, nor are they considered
49.	New agricultural impacts may be introduced by the expansions depending on whether there are changes in technology associated with agriculture and/or aggregate extraction.	Page 39 Bullet 4	AgPlan Limited	Noted – The impact assessment considers or
50.	There has been no mapped evidence demonstrating that there are no reasonable alternatives in prime agricultural areas and there may be alternatives which avoid prime agricultural land.	Page 39 Bullet 5	AgPlan Limited	It is noted that there was no map produced to For justification, refer to response to commen
51.	There may be impacts to the adjacent agricultural uses or operations due to cumulative impacts.	Page 39 Bullet 8	AgPlan Limited	The impact assessment considers the current proposed extensions. There are no other min Areas to contribute to cumulative impacts.
52.	The proposed after use does not demonstrate that the agricultural rehabilitation of remaining areas [areas not underwater] is maximized and/or agricultural rehabilitation in the remaining areas will be maximized as a first priority. The presence of open water may result in water-based activities and other recreational uses. These active recreational uses have the potential to be incompatible with agricultural use.	Page 39 Bullet 10	AgPlan Limited	See response to comment # 6, 17 and 18.
53.	The DBH Addendum concludes that the entire West Extension site (identified in the DBH Addendum as the subject lands) is considered as disturbed and is considered as not rated in the CLI system. On that basis, it can be interpreted that no soils that have been disturbed can be rated using the CLI system. Therefore, following that statement, farmlands that have been land levelled (disturbed) to improve surface drainage, for example, so as to improve crop	DBH Addendum	AgPlan Limited	Noted. OMAFRA staff have concluded that the soils on the West Extension site are likely not (CLI 1-3).

ive, this policy is intended to help educate
nd rehabilitation. Formal complaints
ed with MNDMNRF.

posed Burlington Quarry Extension and ncluded additional considerations and on.

y framework governing the review of the are permitted in prime agricultural areas on spective the proposed quarry is permitted to igned to minimize impacts on surrounding

es a landform. Any after uses require a not and if applicable consideration of MDS will

s in both extension areas are not suitable for reas are not within climactic conditions, s such, the extensions are not mapped as red Specialty Crop areas under the PPS.

operational technology as it currently exists.

o demonstrate no reasonable alternatives. ent # 34.

nt operation in conjunction with the ineral aggregate operations within the Study

the current agricultural capability of the ot representative of prime agricultural land

	yields, would not be rated under the CLI system. However, the CLI system states that good soil management practices that are feasible and practical under a largely mechanized system of agriculture are assumed and that soils considered feasible for improvement by drainage, by irrigating, by removing stones, by altering soil structure, or by protecting from overflow, are classified according to their continuing limitations or hazards in use after the improvements have been made. Land leveling can be considered as an improvement rather than an indication of disturbance.			
	Secondly, the PPS (2020) defines an agricultural condition with respect to the rehabilitation of mineral extraction areas found within specialty crop areas and prime agricultural land as needing to result in substantially the same areas and same average soil capability for agriculture are restored. Because former quarries and mined aggregate areas, where extraction has not been completed below the water table, have been disturbed, then, following the conclusion of the DBH Addendum, those former quarries and mined aggregate areas could not be rated in the CLI system. Therefore, the lack of the CLI rating would not allow anyone to establish whether the rehabilitated lands could be and/or had been restored to the same average soil capability as required by the PPS (2020).			
	Does DBH take the view that language in the PPS, related to the level of acceptable rehabilitation, cannot be reached because the CLI capability classification cannot be applied to disturbed soils?			
54.	DBH Soil Services concludes that the West Extension lands should not be considered as Prime Agricultural Land and should not be considered as part of the Provincial Land Base Prime Agricultural Area mapping. The PPS (2020) definition of Prime Agricultural Area means areas where prime agricultural lands predominate. This includes areas of prime agricultural lands and associated Canada Land Inventory Class 4 through 7 lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Therefore, it can be interpreted that a given map polygon defined as Prime Agricultural Area and/or CLI Class 1, 2, and 3 lands as well as associated Class 4 through 7 lands and areas of ongoing agriculture.	DBH Addendum	AgPlan Limited	Noted. OMAFRA staff have concluded that soils on the West Extension site are likely r (CLI 1-3).
	Given the previous discussion in comments 19 and 53 as well as the definition of a Prime Agricultural Area in the PPS (2020), it is unclear how DBH concluded that the West Extension lands should not be considered as Prime Agricultural Land and should not be considered as part of the Provincial Land Base Prime Agricultural Area mapping. Additional explanation is required in support of the conclusion reached in the DBH Addendum.			

at the current agricultural capability of the not representative of prime agricultural land

Tabs

Tab 1



Ministry of Agriculture, Food and Rural Affairs Ministère de l'Agriculture, de l'Alimentation et des Affaires rurales

6484 Wellington Rd. 7, Unit 10 Elora, ON, NOB 1S0 Tel: (519) 846-0941 6484 chemin Wellington 7, Bureau 10 Elora, ON, NOB 1S0 Tél.: (519) 846-0941

June 29, 2021

Brian Zeman, President MHBC Planning Limited 113 Collier Street Barrie, Ontario L4M 1H2

Re: Burlington Quarry Extension Response, Nelson Aggregate - Category 2, Class A Licence Application under the *Aggregate Resources Act* – Part Lot 17 & 18, Concession 2 NDS and Part Lot 1 & 2, Concession 2, City of Burlington (Geographic Township of Nelson) Region of Halton – OMAFRA Comments.

Mr. Zeman,

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is in receipt of Nelson Aggregate's June 1, 2021 response letter, submitted in support of the proposed Burlington Quarry Extension - Category 3, Class A license application under the *Aggregate Resources Act* (ARA). The response letter also includes additional information from DBH Soil Services in support of the Soil Survey Addendum that was completed for the proposed West Extension lands.

It is understood that the response is intended to address OMAFRA's December 14, 2020 review of the license application. Our initial review recommended that the Planning Justification Report (PJR) and the Agricultural Impact Assessment (AIA) provide more information to address some of the agricultural related policies in the Provincial Policy Statement (PPS), A Place to Grow (APTG) and the Niagara Escarpment Plan (NEP), among other matters. Our review at the time also did not include the Soil Survey Addendum, as this information was submitted during the 45-day review period for the application.

OMAFRA staff appreciates the opportunity to review the response for the proposed Burlington Quarry Extension, and we can offer the following comments for your consideration.

General Comments

• As described in the AIA, the Province has identified an Agricultural System for the Greater Golden Horseshoe (GGH). A component of the Agricultural System includes an agricultural land base comprised of prime agricultural areas, including specialty crop areas, and rural lands that together create a continuous productive land base.



Based on the policy direction in APTG Policy 4.2.6.8, the provincial mapping of the agricultural land base is in effect 'within' the *Greenbelt Area* (e.g. the areas covered by the Niagara Escarpment Plan). This includes the lands subject to the license application. The provincial mapping identifies that both the proposed South Extension and West Extension lands are within a prime agricultural area. We do appreciate, however, that the subject lands are also currently designated as prime agricultural area (Agricultural System) in the Region of Halton official plan.

• The response appears to describe that licensed and rehabilitated quarries (e.g. the existing Burlington Quarry) are not rated and are removed from the agricultural land base mapping, and it is anticipated that this would be the case for the proposed extension lands. We would like to take this opportunity to clarify the mapping methodology for the Agricultural System's agricultural land base, and how areas may be removed from a prime agricultural area.

The mapping methodology for the Agricultural System did not automatically exclude mineral aggregate operations from the agricultural land base mapping. If certain active or former operations were not included in the mapping, it is because these sites likely did not meet the scoring thresholds in the provincial Land Evaluation and Area Review to be included, or were not already designated as a prime agricultural area in the applicable official plan.

APTG Policy 4.2.6.9 outlines how refinements to the provincial mapping of the agricultural land base may occur. Specifically, upper- and single-tier municipalities may refine the provincial mapping of the agricultural land base at the time of initial implementation in their official plans, provided the refinements are in keeping with the Implementation Procedures issued by the Province. The initial implementation by upper-tier municipalities may also be done separately for each lower-tier municipality. This refinement review is a municipal-led process. After the provincial mapping of the agricultural land base has been implemented in official plans, further refinements (e.g. removal of land from prime agricultural areas) may only occur through a municipal comprehensive review and/or for settlement area boundary expansions, provided the relevant policy requirements of the PPS and the Provincial Plans are met.

The PPS recognizes that the extraction of mineral aggregate resources is permitted in prime agricultural areas as an interim use. It may be beneficial for the project team to discuss how these comments may inform any required planning approvals for the quarry extension with the relevant approval authorities.

• OMAFRA is working towards finalizing our technical guidance for AIAs. This technical guidance is intended to support the Provincial Plan policies that require the completion of an AIA. In the interim, a draft of the AIA technical guidance was posted on the Environmental Registry for public consultation in 2018 (<u>http://www.omafra.gov.on.ca/english/landuse/aia.htm</u>). Although this document is considered draft, it may provide some useful information and approaches to support the reporting requirements for an AIA.

As a general comment, it is suggested that the project team consider following the AIA technical guidance to define Primary (i.e. the proposed license area) and Secondary Study Areas for future applications. This approach may help to more clearly differentiate between land uses in the study areas, and the impacts that may be associated with the proposed use. This approach may also better frame what information and methods may be necessary to support the rehabilitation

of a site back to an agricultural condition within the Primary Study Area, if required to address any applicable provincial land use policies.

South Extension Comments

• The PPS protects prime agricultural areas for long-term agricultural use. As such, PPS Policy 2.5.4 provides policy direction when considering mineral aggregate resource extraction on prime agricultural land in prime agricultural areas. PPS Policy 2.5.4.1 c) directs that complete rehabilitation to an agricultural condition is not required if other alternatives, subject to the criteria in the policy, have been considered by the applicant and found to be unsuitable. The consideration of alternative locations can help to ensure that prime agricultural areas remain available for agricultural uses, and wherever possible, other non-agricultural uses are directed to lands that are of a lower priority for agriculture.

The information provided in the AIA and the response has addressed our comments regarding how alternative locations were considered for the South Extension lands.

• The response notes that Nelson is prepared to only strip the area required for extraction in the South Extension lands. This would allow the remaining areas in the South Extension lands to continue to be used for agricultural uses as the site is progressively stripped and extracted.

OMAFRA staff generally supports stripping/extracting the South Extension lands in a manner that allows agricultural uses to continue for as long as possible. However, we recommend that the response describe in more detail how these uses will effectively continue on the site as operations proceed in Phases 1 and 2. For example, given the extent and direction of the phasing described on the site plan, it would be beneficial to describe how access to the areas of the site not being stripped/extracted, and to the additional areas on the property south of the proposed license area, will be provided. It is also recommended that this direction be referenced on the site plan (e.g. Operational Plan technical notes – Extractive Sequence and/or AIA Recommendations) to guide the operations on the South Extension lands.

West Extension Comments

• As described in the AIA, the Western Extension Lands are provincially mapped as predominately Canada Land Inventory (CLI) Class 1, 2, and 3 lands. A portion of the site also includes CLI Class 7 lands. The PPS defines prime agricultural lands as including specialty crop areas and/or CLI Class 1-3 lands.

CLI for agriculture is an interpretive system that is completed at a regional planning scale based, in-part, on the Soil Survey Reports for Ontario. The system assesses the effects of climate and soil characteristics on the limitations of land for growing common field crops. This regional approach to the mapping provides for a consistent and standardized approach across the Province. More detailed, site-specific soil surveys may also be undertaken by a proponent on a case-by-case basis, to help inform specific land use planning/development proposals.

OMAFRA staff have had an opportunity to review the Soil Survey Addendum and the additional information in the response. Based on the soil information and the description of the site

provided, it seems reasonable to conclude that the current agricultural capability of the soils on the site are likely not representative of prime agricultural land (CLI 1-3).

• However, OMAFRA staff would like to take this opportunity to clarify some of the comments offered in the Addendum and response concerning disturbed areas and agricultural capability. The mapping conventions in some of the Soil Surveys Reports may have identified golf courses as 'Not Mapped,' based on the soil surveys at the time. However, we recommend that this not be interpreted as a provincial position that golf courses should not receive a CLI rating. When undertaking detailed soil surveys, it is important to consider that although soils maybe disturbed, certain sites may still retain (or should retain) their CLI ratings. This may be based on several factors.

When interpreting the CLI rating of disturbed areas, the agricultural capability of the soils should be carefully considered in context to the degree and purpose of the disturbance, among other matters (e.g. any past planning approvals). This should be reviewed on a case-by-case basis. The feasibility of restoring the agricultural capability of disturbed areas, such as golf courses, should also be reviewed on a case-by-case basis. For example, there are examples of former golf courses being restored to an agricultural use. We recommend that this be considered when undertaking future site-specific soil surveys.

• As noted above, the West Extension lands are currently within a prime agricultural area. Development Criterion 2.9.11 i) in the NEP therefore may provide relevant direction for this area of the proposed quarry extension. This criterion directs that "in prime agricultural areas, where rehabilitation to the conditions set out in (g) and (h) above is not possible or feasible due to the depth of planned extraction or due to the presence of a substantial deposit of high quality mineral aggregate resources below the water table warranting extraction, agricultural rehabilitation in the remaining areas will be maximized as a first priority."

The PJR and the AIA appear to provide some justification (e.g. below water and depth of extraction) to support why the South Extension and West Extension lands will not include agricultural rehabilitation. However, considering that the direction in Development Criterion 2.9.11 i) is to maximize agricultural rehabilitation in remaining areas as a first priority, it is recommended that the response may benefit from including more detail to support why it would not be possible and/or practical to include agricultural rehabilitation on certain portions of the West Extension lands (e.g. areas where below water extraction is not proposed).

Site Plan Comments

 The AIA (Section 5.4 and Table 5) notes that Nelson will implement a 'Residential/Agricultural' Well Complaint Procedure. A cursory review of the Hydrogeological Assessment appears to suggest that additional baseline well surveys will be completed, prior to extraction, in order to support the water well compliant program. However, technical note 6.E (Water Resources) on the Operational Plan appears to describe this baseline survey as being a 'residential' well survey.

Based on the description in the AIA, it is not clear if the residential well survey is also intended to include any agricultural wells that are within the area of influence of the quarry extension. OMAFRA staff would appreciate if the project team could confirm if any wells for agricultural uses were documented within the study area. If wells for agricultural uses were documented, we would also appreciate if the project team could comment on whether the notes on the Operational Plan would benefit from also referencing 'agricultural wells', to align with the AIA.

- The Operational Plan (e.g. technical note C.5) suggests that the existing field access for the property located at 2280 No. 2 Side Road will be maintained during the operations of the South Extension lands. Would there be an opportunity to leverage this existing entrance for farm access to the subject lands, to provide some flexibility for agricultural uses to continue during the lifecycle of the quarry extension (see Southern Extension lands comment above)?
- As a general comment, some of the technical notes on the site plans (e.g. Operational Plan Report Recommendations) appear to include some discretionary terms (e.g. 'recommend' and 'should be') to describe how the site is to be operated. We would suggest that the project team consider reviewing these notes, to determine if clearer direction should be provided to inform the operations of the quarry extension (e.g. replace these terms with 'shall' or 'will be' as appropriate).

Closing

OMAFRA staff appreciates the project team's attention to our December 14, 2020 comments on the proposed Burlington Quarry Extension.

The response has addressed many of our comments on the application. We would appreciate, however, if some additional information could be provided to address our comments on the proposed South and West Extension lands and the site plans.

The Ministry would be pleased to discuss the content of this letter with the project team. Please note that we may have additional comments on the technical reports and the site plan, when a response to our comments has been provided for review.

Please contact the undersigned if further comment or clarification is required.

Regards,

1 added

Rural Planner Ontario Ministry of Agriculture, Food and Rural Affairs 6484 Wellington Road 7, Elora, ON, NOB 1SO (P) 519-766-5990

Cc: Pierre Chauvin - MHBC

Tab **2**

Schedule 'D'

Part Lots 1 & 2, Concession 2 and Part Lots 17 & 18, Concession 2 NDS (former geographic Township of Nelson) City of Burlington Region of Halton





Land to be designated Mineral Resource Extraction Area

Mineral Resource Extraction Area overlay on land designated Prime Agricultural Area

This is Schedule 'D' to Regional Official Plan Amendment _____ Passed this ____ day of _____, 2022

Regional Chair

Regional Clerk

Schedule 'F'

Part Lots 1 & 2, Concession 2 and Part Lots 17 & 18, Concession 2 NDS (former geographic Township of Nelson) City of Burlington Region of Halton





Land to be designated Mineral Resource Extraction Area

Land to be re-designated from Key Features to Mineral Resource Extraction Area

This is Schedule 'F' to Regional Official Plan Amendment _____ Passed this ____ day of _____, 2022



Mineral Resource Extraction Area overlay on land designated Prime Agricultural Areas in Natural Heritage System Enhancements/Linkages/Buffers

Regional Chair

Regional Clerk

Tab 3



Ministry of Agriculture, Food and Rural Affairs Ministère de l'Agriculture, de l'Alimentation et des Affaires rurales

6484 Wellington Rd. 7, Unit 10 Elora, ON, NOB 1S0 Tel: (519) 846-0941 6484 chemin Wellington 7, Bureau 10 Elora, ON, NOB 1S0 Tél.: (519) 846-0941

POLICY DIVISION FOOD SAFETY & ENVIRONMENT POLICY BRANCH LAND USE POLICY AND STEWARDSHIP UNIT

December 14, 2020

Nelson Aggregate Co. Attn: Tecia White 2433 No 2 Sideroad P.O. Box 1070 Burlington, ON L7R 4L8 tecia@white-water.ca (via email only)

 Re: Nelson Aggregate – Burlington Quarry Extension Aggregate Resources Act Licence Application – Category 2, Class A – Quarry Below Water
 Part Lot 17 & 18, Concession 2 NDS and Part Lot 1 & 2, Concession 2, City of Burlington (Geographic Township of Nelson) Region of Halton – Licence No. 626477 MHBC File 9135D

Scope of Review

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is in receipt of the licence application for the proposed Nelson Aggregate – Burlington Quarry Extension under the Aggregates Resources Act (ARA). The licence application was accompanied by several technical reports, including a Planning Justification Report (PJR) and Agricultural Impact Assessment (AIA). OMAFRA staff have reviewed the relevant information in the technical reports and on the site plans and have significant concerns. We offer the following comments.

Key Issues

• OMAFRA has concerns that the AIA does not meet the intent of an agricultural impact assessment as it does not appear to extend to the broader Agricultural System. Please



provide rationale for the scoping of the AIA and why the Agricultural System was not addressed.

- Aggregate sites in *prime agricultural areas* may be permitted subject to criteria including that alternative locations on lower quality land have been evaluated. The AIA report indicates that the chosen location (west and south extensions) are appropriate because of the existing operation (page 24). No evaluation of alternatives was found. Please provide the review of location alternatives.
- Rehabilitation of areas not intended for below water extraction are proposed to be for recreation and natural heritage uses. Please identify how PPS 2.5.4 is met. Additional information regarding soil capability on the west extension was submitted partway through the review period. The additional report is outside of the scope of this review. Also, with regards to rehabilitation, it is unclear how the proposed rehabilitation interacts with the currently approved rehabilitation for existing quarry or what changes may be needed.
- Section 5 of the AIA report identifies impacts. The highest quality prime agricultural land is proposed to be extracted first. Have options to extract the lower quality land first been explored as a way of ensuring agricultural land remains in production as long as possible?
- Section 12.1 of the Planning report states that the proposal is subject to the Niagara Escarpment Plan, not the Growth Plan. Matters that are not addressed in the Niagara Escarpment Plan must continue to be addressed by the Growth Plan. OMAFRA is concerned that, overall, the Growth Plan has not been fully considered in areas where it may not overlap, specifically Section 4.2.6 of the Growth Plan. Please provide rationale for how these policies are addressed.
- It is unclear if the intention is to remove the land from the prime agricultural designation either for extraction or for rehabilitation purposes. As a reminder, removal of land from Prime Agricultural Areas may only be for the purposes of *settlement areas* as per PPS policy 2.3.5.1. Non-agricultural uses in Prime Agricultural Areas may be permitted subject to PPS policy 2.3.6.1. Please provide clarity on the future land use designations and/or how the proposal meets the criteria of PPS 2.3.6.1.
- Section 12.3 of the PJR identifies PPS policies for *rural lands* in municipalities. *Rural lands* is a defined term in the PPS.

Rural lands: means lands which are located outside *settlement areas* and which are outside *prime agricultural areas*. (PPS, 2020)

As noted elsewhere in the report and in the AIA, the lands are designated as prime agricultural lands.

Closing Comments

Considering the above comments, OMAFRA objects to the application at this time.

The Ministry would appreciate a response to the comments provided. Please be advised that OMAFRA staff may have additional comments when a response to the above has been provided for review.

The Ministry would be pleased to discuss the content of this letter with the project team.

If you have any questions about the comments outlined here please contact me at <u>anneleis.eckert@ontario.ca</u> or 519-827-6040.

Kind regards,

anneleis Eckut

Anneleis Eckert Rural Planner

cc: ARA Approvals, MNRF (via email only) Calinda Manning, MNRF (via email only)

Tab 4

From: Pierre Chauvin
Sent: June 1, 2021 1:29 PM
To: Dave Marriott <<u>David.Marriott@ontario.ca</u>>
Cc: Brian Zeman <<u>bzeman@mhbcplan.com</u>>; Dave Hodgson <<u>davidhodgson@rogers.com</u>>
Subject: Nelson Aggregate, Burlington Quarry Extension, ARA Response to AIA

Hi Dave,

Further to our discussion, please find attached our response to the Ministry's comments dated December 14, 2020 (attached for your easy reference). I trust the attached response satisfies your comments.

I suggest we schedule a time to review and discuss over the phone next week. Please let me know when you have some availability next week.

Thanks,

PIERRE CHAUVIN, MA, MCIP, RPP | Partner

MHBC Planning, Urban Design & Landscape Architecture

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Special Note: Due to the Covid-19 outbreak, we are moving the majority of our staff to remote access and reducing our offices to minimal in-person staff. The firm remains open. We will make this transition as seamless as possible.



Ministry of Agriculture, Food and Rural Affairs Ministère de l'Agriculture, de l'Alimentation et des Affaires rurales

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POLICY DIVISION FOOD SAFETY & ENVIRONMENT POLICY BRANCH LAND USE POLICY AND STEWARDSHIP UNIT

December 14, 2020

Nelson Aggregate Co. Attn: Tecia White 2433 No 2 Sideroad P.O. Box 1070 Burlington, ON L7R 4L8 tecia@white-water.ca (via email only)

 Re: Nelson Aggregate – Burlington Quarry Extension Aggregate Resources Act Licence Application – Category 2, Class A – Quarry Below Water
 Part Lot 17 & 18, Concession 2 NDS and Part Lot 1 & 2, Concession 2, City of Burlington (Geographic Township of Nelson) Region of Halton – Licence No. 626477 MHBC File 9135D

Scope of Review

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is in receipt of the licence application for the proposed Nelson Aggregate – Burlington Quarry Extension under the Aggregates Resources Act (ARA). The licence application was accompanied by several technical reports, including a Planning Justification Report (PJR) and Agricultural Impact Assessment (AIA). OMAFRA staff have reviewed the relevant information in the technical reports and on the site plans and have significant concerns. We offer the following comments.

Key Issues

• OMAFRA has concerns that the AIA does not meet the intent of an agricultural impact assessment as it does not appear to extend to the broader Agricultural System. Please



provide rationale for the scoping of the AIA and why the Agricultural System was not addressed.

- Aggregate sites in *prime agricultural areas* may be permitted subject to criteria including that alternative locations on lower quality land have been evaluated. The AIA report indicates that the chosen location (west and south extensions) are appropriate because of the existing operation (page 24). No evaluation of alternatives was found. Please provide the review of location alternatives.
- Rehabilitation of areas not intended for below water extraction are proposed to be for recreation and natural heritage uses. Please identify how PPS 2.5.4 is met. Additional information regarding soil capability on the west extension was submitted partway through the review period. The additional report is outside of the scope of this review. Also, with regards to rehabilitation, it is unclear how the proposed rehabilitation interacts with the currently approved rehabilitation for existing quarry or what changes may be needed.
- Section 5 of the AIA report identifies impacts. The highest quality prime agricultural land is proposed to be extracted first. Have options to extract the lower quality land first been explored as a way of ensuring agricultural land remains in production as long as possible?
- Section 12.1 of the Planning report states that the proposal is subject to the Niagara Escarpment Plan, not the Growth Plan. Matters that are not addressed in the Niagara Escarpment Plan must continue to be addressed by the Growth Plan. OMAFRA is concerned that, overall, the Growth Plan has not been fully considered in areas where it may not overlap, specifically Section 4.2.6 of the Growth Plan. Please provide rationale for how these policies are addressed.
- It is unclear if the intention is to remove the land from the prime agricultural designation either for extraction or for rehabilitation purposes. As a reminder, removal of land from Prime Agricultural Areas may only be for the purposes of *settlement areas* as per PPS policy 2.3.5.1. Non-agricultural uses in Prime Agricultural Areas may be permitted subject to PPS policy 2.3.6.1. Please provide clarity on the future land use designations and/or how the proposal meets the criteria of PPS 2.3.6.1.
- Section 12.3 of the PJR identifies PPS policies for *rural lands* in municipalities. *Rural lands* is a defined term in the PPS.

Rural lands: means lands which are located outside *settlement areas* and which are outside *prime agricultural areas*. (PPS, 2020)

As noted elsewhere in the report and in the AIA, the lands are designated as prime agricultural lands.

Closing Comments

Considering the above comments, OMAFRA objects to the application at this time.

The Ministry would appreciate a response to the comments provided. Please be advised that OMAFRA staff may have additional comments when a response to the above has been provided for review.

The Ministry would be pleased to discuss the content of this letter with the project team.

If you have any questions about the comments outlined here please contact me at <u>anneleis.eckert@ontario.ca</u> or 519-827-6040.

Kind regards,

anneleis Eckut

Anneleis Eckert Rural Planner

cc: ARA Approvals, MNRF (via email only) Calinda Manning, MNRF (via email only)



KITCHENER WOODBRIDGE LONDON KINGSTON BARRIE BURLINGTON

June 1, 2021

David Marriott Ontario Ministry of Agriculture, Food and Rural Affairs 6484 Wellington Road 7, Unit 10 Elora, ON NOB 1S0 <u>david.marriott@ontario.ca</u>

Dear: Mr. Marriott

RE: Nelson Aggregate- Burlington Quarry Extension- Part Lot 17 & 18 , Concession 2 NDS and Part Lot 1 & 2, Concession 2, City of Burlington (Geographic Township of Nelson) Region of Halton OUR FILE: 9135J

I am writing in response to the Ontario Ministry of Agriculture, Food & Rural Affairs (the Ministry) Aggregate Resources Act objection letter dated December 14, 2020, regarding the referenced quarry expansion by Nelson Aggregates. Further to our follow-up discussion, I am providing the following which is intended to address the Ministry's comments. For ease of reference, I have summarized the Ministry's comments followed by our response.

1) Comment

OMAFRA has concerns that AIA does not meet the intent of an agricultural impact assessment as it does not appear to extend to the broader Agricultural System. Please provide rationale for the scoping of the AIA and why Agricultural System was not addressed.

Response:

Based on our discussions, I confirm my understanding that this comment relates to the potential fragmentation of approximately 4 hectares of agricultural land owned by Nelson immediately south of the south extension lands post extraction and how this may affect the broader agricultural land system. Part of the concern relates to the limited access to the remnant farmlands post extraction and the intended after-use. It is noted that these lands are regulated as Jefferson Salamander habitat, and as noted in the Planning Report and the Level 1 and 2 Natural Environment Technical Report, will be ecologically restored/enhanced to improve the Jefferson Salamander habitat, local landscape connectivity and buffering. Although there will be a loss of approximately 4 hectares of productive farmland, there is no physical loss of prime agricultural land associated with the proposed restoration. In fact, the conversion of these lands from productive farmlands to ecological state will not only benefit and improve the Jefferson Salamander habitat but also contribute to the overall rural area landscape.

2) Comment

Aggregate sites in prime agricultural areas may be permitted subject to criteria including that alternative locations on lower quality land have been evaluated. The AIA report indicates that the chosen location (west and south extensions) are appropriate because of the existing operation (page 24). No evaluation of alternatives was found. Please provide the review of location alternatives.

Response:

Although Section 2.5.4.1c) of the Provincial Policy Statement (2020) requires consideration of alternatives on lower quality land (among other areas), the requirement to consider alternatives is based on what is suitable to the applicant ("other alternatives have been <u>considered by the applicant</u> and found unsuitable"). In this regard, it is unsuitable to consider alternatives that are not adjacent to the existing quarry as there has already been a considerable amount of financial and physical resources invested at the existing quarry. As noted in the AIA, expansion of the quarry on adjacent lands will help minimize potential impacts to agriculture as it does not introduce 'new' impacts in the area by utilizing established haul routes and existing quarry, and does not create further fragmentation of agricultural land in other parts of the Region.

As per our discussions, it is understood that the rationale for the study area for expansion is around the existing quarry, and I confirm my understanding that OMAFRA agrees with study area chosen.

It is noted that given the existing physical and land use constraints in the area surrounding the quarry, potential expansion to the quarry is limited to the north, south and west as the Mount Nemo settlement area is located to the east. Although the focus of this application has been to the south and west extension areas, consideration of expanding in all directions has been given. The following summarizes the land use considerations that have precluded consideration of expanding the quarry in other directions:

- East/Southeast: Mount Nemo Settlement Area as well as presence of significant Natural Heritage features.
- Southwest: Existing golf course that is not available for purchase.

North/Northeast: Farms are more contiguous and less fragmented by non-agricultural uses and natural features. There is more farm infrastructure and investment to the north in the form barns, fencing, etc. associated with the 3-4 existing livestock operations.

The natural feature along Colling Road from Blind Line to Guelph Line is identified as part of the Reginal Natural Heritage System.

As noted in the Planning Report, a high pressure gas oil pipeline runs along the Colling Road alignment. The gas line would create operational challenges in terms of cross and working around this established easement.

A portion of the Bruce Trail is also located along the north side of the existing quarry along Colling Road. It is noted that protection of the Bruce Trail is identified as a priority in the Niagara Escarpment Plan.

Northwest: As noted in the Planning Report, part of the properties between Blind Line and Cedar Springs Road is Escarpment Protection Area and Escarpment Natural Area and would not be available to extraction. Other Rural Areas would be within 200 metres of the Escarpment Brow and aggregate extraction is prohibited in this area.

Given the foregoing, the selected locations for expansion are considered more favourable from an agricultural perspective as well as other operational or planning policy perspectives.

Lastly, as it relates to the west extension, it is noted that the alternatives test in the PPS does not apply as these land are not considered prime agricultural land (see response to comment 4 below). As a result, the west extension lands are preferred as they are not considered prime agricultural land.

3) Comment

Rehabilitation of areas not intended for below water extraction are proposed to be for recreation and natural heritage uses. Please identify how PPS 2.5.4 is met....

Response:

In accordance with policy 2.5.4.1 of the PPS, rehabilitation back to an agricultural condition is only required for lands that are within a prime agricultural area <u>and</u> on prime agricultural land. As previously noted, this policy does not apply to the west extension and only applies to the south extension. Policy 2.5.4.1(a) goes on to state that agricultural rehabilitation is not required if "there is a substantial quantity of mineral aggregate resources below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible". As noted in the AIA, the extension areas are proposed to include below water table extraction and therefore rehabilitation to an agricultural use post-extraction is not feasible.

As noted above, other alternative locations to be considered are limited to those "suitable" by the applicant. In this instance, those lands that are most suitable to the applicant are lands located immediately adjacent to the existing quarry.

4) Comment

...Additional information regarding soil capability on the west extension was submitted partway through the review period. The additional report is outside of the scope of this review...

Based on our conversation, I understand the Ministry requires more information on the conclusion of the soil classification for the western extension. In response, the following has been prepared by DBH Soils:

A typical soil survey is initiated by a review of aerial photography. Aerial photographic interpretation was used to delineate soil polygon boundaries by comparing areas, on stereoscopic photographs, for similar tone and texture. MHBC provided topographic mapping (shapefile layer) for the property (sideways_elevation_for_Subject_Lands_export_wedjan09143757.shp) at a 25 cm line interval. A review of this data illustrated the complex topography of the property and showed evidence of the landforming that had occurred as a result of the construction of the golf course fairways, tees and greens. Steeper topography was observed at the edges of many of the greens as result of the building

of the green areas. Greens typically are constructed with deep sands and are contoured to provide challenges for golfers.

The review of the topographic layer usually allows for a delineation of soil polygons. In this instance, due to the complexity of the slopes, polygons were not created prior to conducting the field work. Delineated soil polygons are usually evaluated for the purpose of verifying soil series and polygon boundaries. The evaluation was completed through an examination of the existing soil conditions to a minimum depth of 100 cm or to refusal. A hand held Dutch Soil Auger and/or Dutch Stone Auger was used to extract the soil material to a minimum depth of one metre (or to refusal).

Depth to free water within one metre of the soil surface was also recorded at inspection sites located on lower slope positions (where applicable). Typically, the names for the soil series and the Canada Land Inventory (CLI) ratings are assigned to each soil polygon by correlating the soil series with soils information presented in *The Soils of Halton County (Report No. 43 of the Ontario Soil Survey*. Gillespie, J.E., R.E. Wicklund and M.H. Miller, 1971) and with the CLI information presented on the 1:50000 scale manuscript mapping.

Each soil profile was examined to assess inherent soil characteristics. Soil attributes were correlated with the *Canadian System of Soil Classification* (CSSC) (Agriculture Canada, 1998) and the *Field Manual for Describing Soils in Ontario* (Ontario Centre for Soil Resource Evaluation, 1993). A hand held clinometer was used to assess percent slope characteristics. Soils are typically assigned to a soil map unit (series) based on soil texture (hand texturing assessment), soil drainage class and topography (position and slope). In this instance, due to the complex topography, the extent of the disturbed soils, the areas associated with bedrock outcrops, and the undulating bedrock, soil polygon boundaries were not established. The entire site was determined to be disturbed soils and was identified as 'Not Mapped'.

If the property was mapped at a highly detailed scale and there were areas that were not disturbed, there may be opportunities to map out small areas of shallow to bedrock soils, with Canada Land Inventory (CLI) ratings from CLI class 3 to 7. CLI ratings would be addressed as per Table 8. Determination of Subclass R (shallowness to bedrock) from the OMAFRA document "Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory" provides the following CLI classifications for shallow to bedrock soils in undisturbed conditions.

Class 3R: Consolidated bedrock occurs at a depth of 50-100 cm from the surface causing moderately severe restriction of moisture holding capacity and/or rooting depth.

Class 4R: Consolidated bedrock occurs at a depth of 20-50 cm from the surface causing severe restriction of moisture holding capacity and/or rooting depth.

Class 5R: Consolidated bedrock occurs at a depth of 10 to 20 cm from the surface causing very severe restrictions for tillage, rooting depth and moisture holding capacity. Improvements such as tree removal, shallow tillage, and the seeding down and fertilizing of perennial forages for hay and grazing may be feasible.

Class 6R: Consolidated bedrock occurs at a depth of 10-20 cm from the surface but improvements as in 5R are unfeasible. Open meadows may support grazing. Class 7R: Consolidated bedrock occurs at < 10cm from the surface.

Observations noted at the time of the onsite soil survey included:

- The majority of the Subject Lands were used for an active golf course, including pro shop, maintenance building (golf carts), various sheds/shops and an old barn used for storage of tractors and equipment.
- The topography of the lands included gently sloping areas associated with the fairways, and steeper sloping areas along the edges of the greens, and along the western portions of the property. Areas of piled soil materials were noted along the edge of the ponded areas. These piled soils comprised materials that were dug out during the construction of the ponds.
- Stone piles were noted along the edge of the fairways and in some tree rows in various locations around the golf course. Stone piles included stone sizes from cobble to boulder size.
- Bedrock outcrops were noted in many locations around the property and within the golf course fairways.

Due to the presence of the disturbed soils, the soil profile characteristics provided little information as to the soil moisture. There were few mottles (colour changes) within the shallow soil profiles. This lack of mottling is also a characteristic of disturbed soil areas, where soil mixing has occurred.

Soil Capability Rating

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) provides soils reports and mapping for Southern Ontario and has been a major component of the soil survey process in Ontario, in conjunction with the University of Guelph (UG) and Agriculture and Agri-Food Canada (AAFC) as part of the Ontario Institute of Pedology and the Ontario Centre for Soil Resource Evaluation.

Soil survey reports and mapping for Southern Ontario date back to the 1920's, with updates completed as funds and necessity are presented. Each update considers the existing soil survey, and attempts to update survey convention as new methods, techniques and policy become available. As such, the newer soil surveys (>1980) consider other non-soil representations and classifications. New soil conventions that have been adopted include Not Mapped (NM) Areas and Urban Land (ULD). The definitions of these mapping and labeling conventions change from Soil Survey to Soil Survey, however, there is a common thread for the need to pull out areas of disturbed or modified lands.

As an example, the Soils of the Regional Municipality of Niagara, Report No. 60 of the Ontario Institute of Pedology, 1989 (Kingston, M.S. and E.W. Presant) considered the Not Mapped (NM) areas to include "built-up areas of towns and cities; areas adjacent to built-up areas where construction was occurring and soil was being disturbed; four-lane highways and interchanges; airports; **golf courses**; gravel pits; quarries; and areas of intensive strip development along roads." Further, the Soils of Brant County, Volume 1, Report No. 55 of the Ontario Institute of Pedology, 1989 (C.J. Acton) considered that Urban Land (ULD) included "built-up areas, parks, **golf courses**, railway yards, land-fill sites, etc.". Similarly, the Soils of Elgin County, Report No. 63 of the Ontario Centre for Soil Resource Evaluation, 1992, (L.W.Schut) identified Not Mapped (NM) areas as lands that include "**golf courses**, gravel pits, sewage lagoons, or areas that have been developed for residential, industrial, or commercial uses". It is clear that the mapping conventions used by OMAFRA are dynamic and change over time. It is also clear that OMAFRA is identifying golf course lands as areas that are Not Mapped/Urban Land and as such, have no potential for rehabilitation to an agricultural after use.

Therefore, when considering the golf course lands along the western extent of the Burlington Quarry, the classification of Not Mapped is appropriate and follows the mapping conventions employed by OMAFRA. Further, that due to the disturbed and landformed condition of the existing golf course area, the potential to re-landform the land for the purposes of an agricultural after use (that is consistent or similar to the agricultural uses in the area) would be cost prohibitive and would still result in lands that are shallow to bedrock with a CLI equivalent of Class 4 to Class 7 (non-prime agricultural lands). This assumes that any deeper soil areas (50 - 100 cm) are relocated in an attempt to create a more uniform field depth.

5) Comment

Also, with regards to rehabilitation, it is unclear how the proposed rehabilitation interacts with the currently approved rehabilitation for existing quarry or what changes may be needed.

Response:

Section 11 of the Planning Report details the proposed after use for the extension lands, which is proposed to be integrated with the rehabilitation of the existing quarry. As per the Planning Report, Nelson's vision for the extension and existing quarry is to convey 382 hectares of land to a public authority, with the overall landform suitable for a range of after uses including conservation, recreational and water management uses. These after-uses are consistent with uses typically found in Rural Areas throughout the province.

See attached revised rehabilitation plan that has been submitted to MNRF.

6) Comment

Section 5 of the AIA report identifies impacts. The highest quality prime agricultural land is proposed to be extracted first. Have options to extract the lower quality land first been explored as a way of ensuring agricultural land remains in production as long as possible?

Response:

Nelson has considered extracting the west extension first; however, there preference is to extract the south extension for the following:

- The intent is to extract and rehabilitate the lands as quickly as possible in order to convey the lands for public use for lake-based recreation uses, which is a documented public need/asset for the area. Conveyance of this public asset can occur relatively quickly if extraction of the south extension lands proceeded first (e.g. 10 years); and,
- Nelson has 20-30 years of background (ground and surface water data) for lands to the south and has a more established monitoring network. Proceeding to the south first would allow Nelson to collect more baseline data to the West before commencing extraction to reaffirm their monitoring and mitigation program.

In order to mitigate the loss of agricultural lands, Nelson is also prepared to only strip the area required for extraction in any given year in the south extension lands. This would allow the remaining lands to stay in production for as long as possible as the balance of the site is progressively stippled and extracted.

7) Comment

Section 12.1 of the Planning report states that the proposal is subject to the Niagara Escarpment Plan, not the Growth Plan. Matters that are not addressed in the Niagara Escarpment Plan must continue to be addressed by the Growth Plan. OMAFRA is concerned that, overall, the Growth Plan has not been fully considered in areas where it may not overlap, specifically Section 4.2.6 of the Growth Plan. Please provide rationale for how these policies are addressed.

Response:

It is noted that Section 4.2.6.8 of the Growth Plan states that outside of the *Greenbelt Area*, provincial mapping of the agricultural land base does not apply until it has been implemented in the applicable upper- or single-tier official plan. Until that time, *prime agricultural areas* identified in the upper- and single-tier official plans that were approved and in effect as of July 1, 2017 will be considered the agricultural land base. The Region of Halton Official Plan has identified a prime agricultural land base, and as a result, this designation would apply with respect to the implementation of Section 4.2.6.8 of the Growth Plan.

Further, Section 4.2.8.3 of the Growth Plan directs that applications for new mineral aggregate operations by supported by an AIA and only where possible seek to "improve connectivity of the Agricultural System". This situation it is not possible and not mandatory. Having said this, it is noted that Section 4.2.8.6 of the Growth Plan directs back to the PPS with respect to the management of mineral aggregate resources, and the Provincial Policy permits mineral aggregate extraction in prime agricultural areas.

It is also noted that Section 1.2.3 of the Growth Plan states that:

Within the Greenbelt Area, policies of this Plan that address the same, similar, related, or overlapping matters as the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, or the Niagara Escarpment Plan do not apply within that part of the Greenbelt Area covered by the relevant plan except where the policies of this Plan, the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, or the Niagara Escarpment Plan provide otherwise.

The Niagara Escarpment Plan has policies that related to mineral aggregate and prime agricultural areas, which are addressed in a similar, related and overlapping manner. Section 2.9.11 g) of the NEP requires that in prime agricultural areas mineral resource extraction areas be rehabilitated back to a condition in which substantially the same area and average soil capability for agriculture are restored. The polices also go on to state in subsection (i) that rehabilitation is not required if the depth of the planned extraction as a result of the presence of a substantial deposit of high quality resource below the water table. The proposed extraction of the south extension lands meets this test because of the substantial resource deposit below the water table.

8) Comment

It is unclear if the intention is to remove the land from the prime agricultural designation either for extraction or for rehabilitation purposes. As a reminder, removal of land from Prime Agricultural Areas

may only be for the purposes of settlement areas as per PPS policy 2.3.5.1. Non-agricultural uses in Prime Agricultural Areas may be permitted subject to PPS policy 2.3.6.1. Please provide clarity on the future land use designations and/or how the proposal meets the criteria of PPS 2.3.6.1.

Response:

PPS policy 2.3.6.1 clearly permits extraction of mineral aggregate resources in prime agricultural areas, and Policy 2.5.4.1(a) does not require rehabilitation to an agricultural condition. Therefore, non-agricultural uses in a post-extraction condition are clearly contemplated in prime agricultural areas. In the end, the proposed natural area after-uses would be consistent with uses permitted and existing in Rural Areas throughout the province.

Finally, it is noted that licensed and rehabilitated quarries are not rated and removed from the agricultural land base. Note, the existing quarry is not rated. It is anticipated this would be the case for the extension lands.

9) Comment

Section 12.3 of the PJR identifies PPS policies for rural lands in municipalities. Rural lands is a defined term in the PPS.

Rural lands: means lands which are located outside settlement areas and which are outside prime agricultural areas. (PPS, 2020)

As noted elsewhere in the report and in the AIA, the lands are designated as prime agricultural lands.

Response:

Acknowledged

It trust the above satisfies your comments. Please do not hesitate to call if you have any questions.

Yours truly, **MHBC**

Pierre J Chauvin BSc(Agr), MA, MCIP, RPP Partner

cc: Brian Zeman, Dave Hodgson

Tab 5



KITCHENER WOODBRIDGE LONDON KINGSTON BARRIE BURLINGTON

August 25, 2021

David Marriott Ontario Ministry of Agriculture, Food and Rural Affairs 6484 Wellington Road 7, Unit 10 Elora, ON NOB 1S0 <u>david.marriott@ontario.ca</u>

Dear: Mr. Marriott

RE: Nelson Aggregate, Burlington Quarry Extension, Part Lot 17 & 18, Concession 2 NDS and Part Lot 1 & 2, Concession 2, City of Burlington (Geographic Township of Nelson) Region of Halton OUR FILE: 9135J

I am writing in response to the Ontario Ministry of Agriculture, Food & Rural Affairs (OMAFRA) response letter dated June 29, 2021, regarding the referenced quarry expansion by Nelson Aggregates. Further to our follow-up discussion, I am providing the following which is intended to address the Ministry's comments. For ease of reference, I have summarized the Ministry's comments followed by my response.

General Comments

1) Comment

As described in the AIA, the Province has identified an Agricultural System for the Greater Golden Horseshoe (GGH). A component of the Agricultural System includes an agricultural land base comprised of prime agricultural areas, including specialty crop areas, and rural lands that together create a continuous productive landbase.

Based on the policy direction in APTG Policy 4.2.6.8, the provincial mapping of the agricultural land base is in effect 'within' the Greenbelt Area (e.g. the areas covered by the Niagara Escarpment Plan). This includes the lands subject to the license application. The provincial mapping identifies that both the proposed South Extension and West Extension lands are within a prime agricultural area. We do appreciate, however, that the subject lands are also currently designated as prime agricultural area (Agricultural System) in the Region of Halton official plan.

Response:

Noted, but with the exception that the West Extension lands are not considered prime agricultural land as acknowledged by OMAFRA below under Comment 6.

2) Comment

The response appears to describe that licensed and rehabilitated quarries (e.g. the existing Burlington Quarry) are not rated and are removed from the agricultural land base mapping, and it is anticipated that this would be the case for the proposed extension lands. We would like to take this opportunity to clarify the mapping methodology for the Agricultural System's agricultural land base, and how areas may be removed from a prime agricultural area.

The mapping methodology for the Agricultural System did not automatically exclude mineral aggregate operations from the agricultural land base mapping. If certain active or former operations were not included in the mapping, it is because these sites likely did not meet the scoring thresholds in the provincial Land Evaluation and Area Review to be included, or were not already designated as a prime agricultural area in the applicable official plan.

APTG Policy 4.2.6.9 outlines how refinements to the provincial mapping of the agricultural land base may occur. Specifically, upper- and single-tier municipalities may refine the provincial mapping of the agricultural land base at the time of initial implementation in their official plans, provided the refinements are in keeping with the Implementation Procedures issued by the Province. The initial implementation by upper-tier municipalities may also be done separately for each lower-tier municipality. This refinement review is a municipal-led process. After the provincial mapping of the agricultural land base has been implemented in official plans, further refinements (e.g. removal of land from prime agricultural areas) may only occur through a municipal comprehensive review and/or for settlement area boundary expansions, provided the relevant policy requirements of the PPS and the Provincial Plans are met.

The PPS recognizes that the extraction of mineral aggregate resources is permitted in prime agricultural areas as an interim use. It may be beneficial for the project team to discuss how these comments may inform any required planning approvals for the quarry extension with the relevant approval authorities.

Response:

Noted. Please also be advised that Nelson is modifying their application to <u>not</u> remove both extension areas from the Prime Agricultural Areas designation as identified in the Region of Halton Official Plan.

3) Comment

OMAFRA is working towards finalizing our technical guidance for AIAs. This technical guidance is intended to support the Provincial Plan policies that require the completion of an AIA. In the interim, a draft of the AIA technical guidance was posted on the Environmental Registry for public consultation in 2018 (<u>http://www.omafra.gov.on.ca/english/landuse/aia.htm</u>). Although this document is considered draft, it may provide some useful information and approaches to support the reporting requirements for an AIA.

As a general comment, it is suggested that the project team consider following the AIA technical guidance to define Primary (i.e. the proposed license area) and Secondary Study Areas for future applications. This approach may help to more clearly differentiate between land uses in the study areas, and the impacts that may be associated with the proposed use. This approach may also better frame what information and methods may be necessary to support the rehabilitation of a site back to an agricultural condition within the Primary Study Area, if required to address any applicable provincial land use policies.

Response:

Noted. I confirm that our AIA uses the primary and secondary study areas as recommended in the draft AIA technical guidance, and we acknowledge to continue to utilize this approach with future applications. It is understood that this is an advisory comment and the Ministry is not looking for any revisions to our report.

South Extension Comments

4) Comment

The PPS protects prime agricultural areas for long-term agricultural use. As such, PPS Policy 2.5.4 provides policy direction when considering mineral aggregate resource extraction on prime agricultural land in prime agricultural areas. PPS Policy 2.5.4.1 c) directs that complete rehabilitation to an agricultural condition is not required if other alternatives, subject to the criteria in the policy, have been considered by the applicant and found to be unsuitable. The consideration of alternative locations can help to ensure that prime agricultural areas remain available for agricultural uses, and wherever possible, other non-agricultural uses are directed to lands that are of a lower priority for agriculture.

The information provided in the AIA and the response has addressed our comments regarding how alternative locations were considered for the South Extension lands.

Response:

Noted.

5) Comment

The response notes that Nelson is prepared to only strip the area required for extraction in the South Extension lands. This would allow the remaining areas in the South Extension lands to continue to be used for agricultural uses as the site is progressively stripped and extracted.

OMAFRA staff generally supports stripping/extracting the South Extension lands in a manner that allows agricultural uses to continue for as long as possible. However, we recommend that the response describe in more detail how these uses will effectively continue on the site as operations proceed in Phases 1 and 2. For example, given the extent and direction of the phasing described on the site plan, it would be beneficial to describe how access to the areas of the site not being stripped/extracted, and to the additional areas on the property south of the proposed license area, will be provided. It is also recommended that this direction be referenced on the site plan (e.g. Operational Plan technical notes – Extractive Sequence and/or AIA Recommendations) to guide the operations on the South Extension lands.

Response:

Nelson has agreed to amend their existing license to include approximately 14.5 hectares (35.8 acres) of rehabilitated agricultural land on the rehabilitated quarry floor of the existing quarry (see **Figure 1**). This area is equivalent to proposed extraction area of the South Extension lands. This revision will be added to Nelson's amendment application currently before the Ministry of Natural Resources and Forestry. This will allow stripped soils from the South Extension to be immediately placed in the existing quarry to facilitate the proposed agricultural rehabilitation. This approach will avoid the need to stock pile/store stripped

material for long periods of time, which will help maintain the soil fertility and structure and improve the success of the rehabilitation efforts.

Attached as **Figure 1** is a schematic plan of the proposed rehabilitation illustrating the area to be restored to an agricultural condition. The following recommendations will ensure the rehabilitated agricultural area can be returned back to the same average soil capability and production as the South Extension lands:

In order to address the above, the following notes are recommended to be added to the amended site plans.

Existing Burlington Quarry Site Plans:

- 1. The recommended agricultural rehabilitation sequence (see attached **Figure 2**) should be included in the amended ARA rehabilitation plan to ensure best practices are implemented in the agricultural rehabilitation.
- 2. Implementing progressive rehabilitation procedures that avoid substantial storage of topsoil and minimize storage of subsoil is encouraged. For example, stripped soils should be moved directly from Licence #626477 (South Extension) to the agricultural rehabilitation area as identified on the Site Plan.
- 3. Topsoil and subsoil should be replaced at generally the same pre-extraction depth of Licence #626477 (South Extension). The attached **Figure 2** shows the quarry floor agricultural rehabilitation sequence, which suggests topsoil depths of approximately 23 cm, and subsoil depths of approximately 36 cm.
- 4. Soil material for agricultural rehabilitation should only be handled under dry conditions and a wet weather shut down procedure should be put in place. Travel over soils and rehabilitated areas should be minimized to reduce compaction. Ripping/tilling the soils can potentially help alleviate soil compaction; however this process should avoid the mixing of soil materials/layers.
- 5. Vegetation cover (such as perennial crops) over the area should be considered in order to reduce erosion, adds organic matter to the soil and improves soil structure. A grass-legume cover crop should be established throughout rehabilitation and maintained for up to five years and ploughed under annually in order to promote and increase organic matter.
- 6. Plantings in agricultural areas include an agricultural seed mix of Annual Rye (50%), Oats (23%), Winter Rye (23%), and White Clover (4%).
- 7. The post-extraction land form should be rehabilitated in a manner that alleviates compaction and minimizes the potential for erosion.
- 8. Random soil testing should be completed at the beginning of each growing season to analyze soil fertility, structure and drainage. Adjustments to cropping practices and/or soil amendments may be required based on the results of the soil testing.
- 9. An Agricultural Rehabilitation Monitoring Program Report will be submitted annually once progressive rehabilitation efforts have commenced within the agricultural rehabilitation area and

five years following completion of rehabilitation in this area. The report will document the stages of the rehabilitation process and will include details on matters such as the following:

- a. An overview of the status of the current extraction and progressive rehabilitation phases;
- b. Description of annual soil removal and storage methods;
- c. Description of any land that has been progressively rehabilitated;
- d. Documentation on the alleviation of any soil compaction, drainage provisions, erosion control etc.;
- e. Description of how the soil has been replaced and any amendments added (fertilizer, organic matter);
- f. Description of any seeding or planting that has occurred;
- g. A review of previous rehabilitation management activities and observations regarding field conditions;
- h. Report of agricultural activity (crops grown, annual yields) and any anecdotal feedback from the farmer;
- i. Review of drainage issues and recommended mitigation measures as necessary;
- j. Summary of soil test results and post rehabilitation soil capability; and,
- k. Summary of monitoring data.

The report will include observational documentation, records of activity and quantitative information on soil conditions. These reports will be appended as part of annual ARA Compliance Assessment Reports. The purpose of the annual monitoring report is to gather data on average soil capabilities to ensure the recommended rehabilitation sequence is implemented and documented.

- 10. No livestock operations should be permitted.
- 11. Best management practices are encouraged with the respect to the storage and application of fertilizers and pesticides.

Proposed Burlington Quarry Extension Site Plans:

- 1. The topsoil and subsoil from the South Extension shall be transferred to Licence #5499 (Burlington Quarry) for agricultural rehabilitation.
- 2. Stripping areas of should also be limited to what is required for the season of operation to maximize areas remaining in agricultural production.
- 3. Depths of soil being removed during stripping should be monitored and compared to the preextraction depths as found in the Soil Survey completed by DBH to facilitate agricultural rehabilitation on Licence #5499 (Burlington Quarry).
- 4. Soil material for agricultural rehabilitation should only be handled under dry conditions and a wet weather shut down procedure should be put in place.

West Extension Comments

6) Comment

As described in the AIA, the Western Extension Lands are provincially mapped as predominately Canada Land

Inventory (CLI) Class 1, 2, and 3 lands. A portion of the site also includes CLI Class 7 lands. The PPS defines prime agricultural lands as including specialty crop areas and/or CLI Class 1-3 lands.

CLI for agriculture is an interpretive system that is completed at a regional planning scale based, in-part, on the Soil Survey Reports for Ontario. The system assesses the effects of climate and soil characteristics on the limitations of land for growing common field crops. This regional approach to the mapping provides for a consistent and standardized approach across the Province. More detailed, site-specific soil surveys may also be undertaken by a proponent on a case-by-case basis, to help inform specific land use planning/development proposals.

OMAFRA staff have had an opportunity to review the Soil Survey Addendum and the additional information in the response. Based on the soil information and the description of the site CLI for agriculture is an interpretive system that is completed at a regional planning scale based, in-part, on the Soil Survey Reports for Ontario. The system assesses the effects of climate and soil characteristics on the limitations of land for growing common field crops. This regional approach to the mapping provides for a consistent and standardized approach across the Province. More detailed, site-specific soil surveys may also be undertaken by a proponent on a case-by-case basis, to help inform specific land use planning/development proposals.

OMAFRA staff have had an opportunity to review the Soil Survey Addendum and the additional information in the response. Based on the soil information and the description of the site provided, it seems reasonable to conclude that the current agricultural capability of the soils on the site are likely not representative of prime agricultural land (CLI 1-3).

Response:

Agreed, the West Extension does not represent prime agricultural land.

7) Comment

However, OMAFRA staff would like to take this opportunity to clarify some of the comments offered in the Addendum and response concerning disturbed areas and agricultural capability. The mapping conventions in some of the Soil Surveys Reports may have identified golf courses as 'Not Mapped,' based on the soil surveys at the time. However, we recommend that this not be interpreted as a provincial position that golf courses should not receive a CLI rating. When undertaking detailed soil surveys, it is important to consider that although soils maybe disturbed, certain sites may still retain (or should retain) their CLI ratings. This may be based on several factors.

When interpreting the CLI rating of disturbed areas, the agricultural capability of the soils should be carefully considered in context to the degree and purpose of the disturbance, among other matters (e.g. any past planning approvals). This should be reviewed on a case-by-case basis. The feasibility of restoring the agricultural capability of disturbed areas, such as golf courses, should also be reviewed on a case-by-case basis. For example, there are examples of former golf courses being restored to an agricultural use. We recommend that this be considered when undertaking future site-specific soil surveys.

Response:

Noted, but also acknowledged that the golf course (West Extension land) is not considered prime agricultural land as noted above.

8) Comment

As noted above, the West Extension lands are currently within a prime agricultural area. Development Criterion 2.9.11 i) in the NEP therefore may provide relevant direction for this area of the proposed quarry extension. This criterion directs that "in prime agricultural areas, where rehabilitation to the conditions set out in (g) and (h) above is not possible or feasible due to the depth of planned extraction or due to the presence of a substantial deposit of high quality mineral aggregate resources below the water table warranting extraction, agricultural rehabilitation in the remaining areas will be maximized as a first priority.

The PJR and the AIA appear to provide some justification (e.g. below water and depth of extraction) to support why the South Extension and West Extension lands will not include agricultural rehabilitation. However, considering that the direction in Development Criterion 2.9.11 i) is to maximize agricultural rehabilitation in remaining areas as a first priority, it is recommended that the response may benefit from including more detail to support why it would not be possible and/or practical to include agricultural rehabilitation on certain portions of the West Extension lands (e.g. areas where below water extraction is not proposed).

Response:

I confirm my understanding that there has been additional discussion with OMAFRA and JART on this matter, and it was agreed that there are no feasible areas on the West and South Extension lands to maximize agricultural rehabilitation. Having said this, the NEC has advised that "remaining areas" can include the existing quarry. In this regard, Nelson has proposed to change the rehabilitated landform of the existing quarry from a lake-based landform to a terrestrial landform. As a result, Nelson will be amending rehabilitation plan as noted above under Comment 5.

Site Plan Comments

9) Comment

The AIA (Section 5.4 and Table 5) notes that Nelson will implement a 'Residential/Agricultural' Well Complaint Procedure. A cursory review of the Hydrogeological Assessment appears to suggest that additional baseline well surveys will be completed, prior to extraction, in order to support the water well compliant program. However, technical note 6.E (Water Resources) on the Operational Plan appears to describe this baseline survey as being a 'residential' wellsurvey.

Based on the description in the AIA, it is not clear if the residential well survey is also intended to include any agricultural wells that are within the area of influence of the quarry extension. OMAFRA staff would appreciate if the project team could confirm if any wells for agricultural uses were documented within the study area. If wells for agricultural uses were documented, we would also appreciate if the project team could comment on whether the notes on the Operational Plan would benefit from also referencing 'agricultural wells', to align with the AIA.

Response:

The intention is to document agricultural wells and the notes on the site plan will be updated accordingly.

10) Comment

The Operational Plan (e.g. technical note C.5) suggests that the existing field access for the property located at

2280 No. 2 Side Road will be maintained during the operations of the South Extension lands. Would there be an opportunity to leverage this existing entrance for farm access to the subject lands, to provide some flexibility for agricultural uses to continue during the lifecycle of the quarry extension (see Southern Extension lands comment above)?

Response:

Yes, access will provide for farm equipment to the south field.

11) Comment

As a general comment, some of the technical notes on the site plans (e.g. Operational Plan – Report Recommendations) appear to include some discretionary terms (e.g. 'recommend' and 'should be') to describe how the site is to be operated. We would suggest that the project team consider reviewing these notes, to determine if clearer direction should be provided to inform the operations of the quarry extension (e.g. replace these terms with 'shall' or 'will be' as appropriate).

Response:

Noted. This comment consistent with MNRF's comments and the site plans are being updated in consultation with MNRF to remove discretionary terms.

I trust the above satisfies your comments. Please do not hesitate to call if you have any questions.

Yours truly, **MHBC**

Pierre J Chauvin BSc(Agr), MA, MCIP, RPP Partner Encl.

cc: Brian Zeman, MHBC Quinn Moyer, Nelson Peter Graham, Nelson Tecia White, Whitewater Dave Hodgson, DBH Soil Drew Crinklaw, OMAFRA

Tab 6

From: Chloe Spear
Sent: February 2, 2022 12:04 PM
To: Marriott, David (OMAFRA) <David.Marriott@ontario.ca>
Cc: Pierre Chauvin <pchauvin@mhbcplan.com>; Quinn Moyer - Nelson Aggregate
(quinn.moyer@nelsonaggregate.com) <quinn.moyer@nelsonaggregate.com>; Peter Graham
<peter.graham@nelsonaggregate.com>; Tecia White - Whitewater Hydrogeology Ltd. (tecia@whitewater.ca) <tecia@white-water.ca>; Brian Zeman <bzeman@mhbcplan.com>
Subject: RE: Follow up to OMAFRA Call re: June 29 2021 Letter

Hello David,

Further to below, the redline revisions have been accepted. The attached drawings highlight the changes made since the plans were submitted to OMAFRA on January 18 2022.

The requested changes have been highlighted in red to assist with your review.

Please confirm this now addresses all of OMAFRA's outstanding comments.

Regards,

CHLOE SPEAR, BAH, MSc | Planner

MHBC Planning, Urban Design & Landscape Architecture

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I am currently working remotely and it is best to reach me at <u>cspear@mhbcplan.com</u> or (705) 305-4717.



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From: Brian Zeman
Sent: January 28, 2022 4:11 PM
To: Marriott, David (OMAFRA) <<u>David.Marriott@ontario.ca</u>>; Chloe Spear <<u>cspear@mhbcplan.com</u>>
Cc: Pierre Chauvin <<u>pchauvin@mhbcplan.com</u>>; Quinn Moyer - Nelson Aggregate
(quinn.moyer@nelsonaggregate.com) <quinn.moyer@nelsonaggregate.com>; Peter Graham
<<u>peter.graham@nelsonaggregate.com</u>>; Tecia White - Whitewater Hydrogeology Ltd. (<u>tecia@white-water.ca</u>) <<u>tecia@white-water.ca</u>>

Subject: RE: Follow up to OMAFRA Call re: June 29 2021 Letter

Good afternoon David

Thank you for the comments. Nelson confirms it has no concerns with the suggested revisions. We will update the site plans immediately and provide you the updated copies.

Based on our discussions we understand that subject to these revisions being made OMAFRA concerns have been addressed and will issue a letter / email confirming OMAFRA withdraws its objection to the ARA application.

All the best and have a great weekend.

Regards,

BRIAN ZEMAN, BES, MCIP, RPP | President

MHBC Planning, Urban Design & Landscape Architecture

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From: Marriott, David (OMAFRA) [mailto:David.Marriott@ontario.ca]
Sent: January 28, 2022 10:51 AM
To: Chloe Spear <cspear@mhbcplan.com>
Cc: Pierre Chauvin pchauvin@mhbcplan.com; Brian Zeman

Subject: RE: Follow up to OMAFRA Call re: June 29 2021 Letter

Good morning Chloe,

I hope all is well.

OMAFRA staff appreciates the opportunity to review the proposed site plan updates for the Burlington Quarry Extension and the existing Burlington Quarry. This includes the updated site plans that were provided on Jan 18th, and the additional revisions proposed by the project team under separate cover (Jan 20th and 25th emails).

As we discussed during our call this week, the proposed updates to the site plans have addressed several of our comments on the license application and the plan amendment. However, we do have a few recommendations for the project team to consider, as described in our comments below. A few of these recommendations were discussed during our January 20, 2021 meeting with the project team (e.g., the variations from the Provincial Standards on the Burlington Quarry Extension Operational Plan).

For your reference, some of the recommended technical note revisions have been highlighted and the notes have been italicized.

General Comment

• The technical notes on the Existing Quarry Rehabilitation Plan (e.g., notes 19 and 20) refer to a 'qualified individual' undertaking the agricultural area monitoring. In comparison, the related notes on the Burlington Quarry Extension Operational Plan (e.g., note E.5) refer to a 'qualified professional' undertaking the baseline monitoring. As a minor comment, the project team may want to consider using consistent terminology across the site plans (e.g., professional, or individual) for clarity.

Burlington Quarry Extension – Operational Plan

E. Site Preparation

• 5. Prior to the commencement of stripping in the South Extension, agricultural baseline conditions shall be established by a qualified professional for the entire extraction area, using an accredited lab for any analytical testing. Soil inspections shall be conducted at a density to allow for sufficient coverage of the area. The parameters for the baseline conditions soil testing shall be determined by the qualified professional and shall include items such as: soil macro and micronutrients, soil chemistry (e.g., pH, etc.), organic matter, soil texture and structure and bulk density.

O. Variations from Provincial Standards

• 5.16 Topsoil and/or overburden may be transferred between the West and South Extensions and existing License #5499.

Existing Quarry – Rehabilitation Plan

Agricultural Rehabilitation

• 11. The Agricultural Rehabilitation Area identified on the plan view shall be established by importing topsoil and subsoil from Licence #626477 and following the

Quarry Floor Agricultural Rehabilitation Sequence detail on this drawing. The configuration of the Agricultural Rehabilitation Area, as shown on the plan, may vary slightly to support agricultural uses on the site.

 It is recommended that the project team consider revising technical note 19 (Agricultural Rehabilitation), to build on the direction provided in technical note E.5 on the Burlington Quarry Extension Operational Plan. For example, this could include:

19. Soil testing shall be completed at the beginning of each growing season by a qualified individual to analyze soil conditions, using an accredited lab for any analytical testing. Soil inspections shall be conducted at a density to allow for sufficient coverage of the area. The parameters for the soil testing shall be determined by the qualified individual and shall include items such as: soil macro and micronutrients, soil chemistry (e.g., pH, etc.), organic matter, soil texture and structure and bulk density. Adjustments to cropping practices and/or soil amendments may be required based on the results of the soil testing.

As noted above, technical note 19 (and note 20) refers to a 'qualified individual,' whereas technical note E.5 on the Burlington Quarry Extension Operational Plan refers to a 'qualified professional.' The project team may want to consider using consistent terminology in these notes.

- There appears to be two technical note '20s' on the Rehabilitation Plan (Agricultural Rehabilitation). The project team may want to consider renumbering the notes in this section.
- 20. The report shall include observational documentation, records of activity and quantitative information on soil conditions. These reports will be appended as part of annual ARA Compliance Assessment Reports. The purpose of the annual monitoring report is to ensure the site will be rehabilitated to a condition in which substantially the same area and the same average soil capability for agriculture, relative to the baseline conditions in License #626477, are restored.

OMAFRA staff appreciates the project team's attention to our comments on the proposed license application and amendment, and we would be pleased to discuss these recommendations with the project team.

We would also appreciate the opportunity to review updated versions of the site plans when the information becomes available for review.

Thanks

Dave

Dave Marriott

Rural Planner Ontario Ministry of Agriculture, Food and Rural Affairs 6484 Wellington Road 7 Elora, ON, NOB 1S0 (P) 519-766-5990 email: david.marriott@ontario.ca

From: Chloe Spear <<u>cspear@mhbcplan.com</u>>
Sent: January 25, 2022 3:11 PM
To: Marriott, David (OMAFRA) <<u>David.Marriott@ontario.ca</u>>
Cc: Pierre Chauvin <<u>pchauvin@mhbcplan.com</u>>; Brian Zeman <<u>bzeman@mhbcplan.com</u>>
Subject: RE: Follow up to OMAFRA Call re: June 29 2021 Letter

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Hello David,

Further to our email below and our follow up discussion today, we will not modify Note C.7 to provide farm access via 2280 and 2015 Sideroad No. 2 due to the exclusionary fencing for habitat protection.

Instead, we will add a new note C.9 under the Section "Site Access and Fencing" which states the following:

"C.9 Access for farm equipment shall be provided from the new operational entrance/exit in the south extension. During operations the eastern extraction setback may be used to transport farm equipment to the areas that have not been extracted to facilitate ongoing agricultural operations in the south extension."

As a result of this new note, Note N.8 e) under Section "Natural Environment" will need to be modified as follows:

N.8 e) "Prior to extraction commencing in Phase 2, with the exception of the eastern setback, the forested setback areas shown on the plan view in Phase 2 will be planted with trees and shrubs in accordance with Section D. Seeding and Planting on drawing 3 of 4. The eastern setback will be planted once farming operations cease within the south extension and access for farm equipment is no longer required."

In addition, we circulated an updated copy of the Existing Quarry Rehabilitation Plan which referenced a 14.5 hectare Rehabilitation Area. This Agricultural Rehabilitation was based on th amount of agricultural area being removed from the south extension. The south extension area has been reduced to 14.2 hectares and therefore, the following change will be made to Page 3 of 4 of the Proposed Existing Quarry Rehabilitation Plan:

• On the Rehabilitation Schematic, the Agricultural Rehab Area updated from 14.5 to 14.2 hectares.

If you have any questions, please do not hesitate to call.

Regards,

CHLOE SPEAR, BAH, MSc | Planner

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From: Chloe Spear
Sent: January 20, 2022 3:34 PM
To: Marriott, David (OMAFRA) <<u>David.Marriott@ontario.ca</u>>
Cc: Pierre Chauvin <<u>pchauvin@mhbcplan.com</u>>; Brian Zeman <<u>bzeman@mhbcplan.com</u>>
Subject: Follow up to OMAFRA Call re: June 29 2021 Letter

Good afternoon David,

Further to our call, attached is MHBC's letter dated August 25 2021 which provided a response to the June 29 2021 from OMAFRA (also attached) related to the site plan comments.

OMAFRA had three Site Plan comments in this letter. The discretionary terminology has been removed in accordance with the site plans provided to you and summarized in the draft January 17 2022 letter.

The comment related to the well complaint procedure and adding reference to agricultural wells was inadvertently missed in the recent site plan update. To address the comment, this site plan note will be updated as follows:

"d. If a water well (including agricultural wells) complaint is received by the licensee the following actions will be taken:

d.a. The licensee will notify MNRF and MECP of the complaint.

d.b. The licensee will contact a well contractor in the event of a well malfunction and residents the property will be provided a temporary water supply within 24 hours, if the issue cannot be easily determined and rectified.

d.c. The well contractor will contact the resident/owner with the supply issue and rectify the problem as expediently as possible, provided the landowner gives authorization for the work. If the issue raised by the landowner is related to loss of water supply, the licensee will have a consultant/contractor determine the likely causes of the loss of water supply, which can result from a number of factors, including pump failure (owner's expense), extended overuse of the well (owner's expense) or lowering of the water level in the well from potential quarry interference (licensee expense). This assessment process would be carried out at the expense of the licensee and the results provided to the homelandowner.

d.d. If it has been determined that the quarry caused the water supply interference, the quarry shall continue to supply water at the licensee's expense until the problem is rectified. The following mitigation measures shall be considered and the appropriate measure(s) implemented at the expense of the licensee:

· adjust pump pressure;

· lowering of the pump to take advantage of existing water storage within the well;

· deepening of the well to increase the available water column;

- · widening of the well to increase the available storage of water;
- · relocation of the well to another area on the property;
- · drilling multiple wells; and

 \cdot only at the request of a landowner would a cistern be installed.

e. If the issue raised by the land owner is related to water quality, the licensee will have a consultant/contractor determine the likely causes of the change in water quality, and review monitoring results at the quarry and background monitoring results from the baseline well survey to determine if there is any potential correlation with the quarry. If it has been determined that the quarry caused a water quality issue, the quarry shall continue to supply water at the licensee's expense until the problem is rectified. The licensee shall be responsible for restoring the water supply by replacing the well or providing a water treatment system. Only at the request of a landowner would a cistern be supplied. The licensee is responsible for the expense to restore the water quality.

The third comment related to the field access gate in the south extension and the ability to use the access at 2280 Side Road No. 2 for access to agricultural equipment. The note on the January 2022 site plan will be updated as follows:

"A gate shall not be required for the field/property access located at 2280 and 2015 Side Road No. 2 (see Section O. Variations from Provincial Standards). The field/property access shall be used to allow farm equipment to access the property for ongoing farming during operations."

Please let us know if these changes address your comments and we will ensure they are included in the next update the site plan.

Regards,

CHLOE SPEAR, BAH, MSc | Planner

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A. General

- 1. This site plan is prepared under the Aggregate Resources Act (ARA) for a Class 'A' Licence, Category 2.
- 2. Area Calculations: i. Licence Area (total) 76.9 ha South Extension 18.1 ha West Extension 58.8 ha
- B. References
- 1. Contours were obtained from the City of Burlington's Open Data Catalogue based on 2017 data and are displayed in one metre intervals. Elevations shown are in metres above sea level (masl). 2. Topographic information was obtained from numerous sources including Ontario GeoHub (Land Information Ontario), City of Burlington's Open Data Catalogue, Google Earth Pro aerial photography captured on May 7, 2018 and field
- investigations for technical reports. 3. All topographic features and structures are shown to scale in Universal Transverse Mercator (UTM) with North American
- Datum 1983 (NAD83), Zone 17 (metre), Central Meridian 81 degrees west coordinate system.
- 4. The licence boundaries were established using Municipal Property Assessment Corporation (MPAC) parcel fabric data. Distances are approximate and for reference purposes only.
- 5. Land use designations on and within 120 metres of the licences are from the Niagara Escarpment Plan, Map 3 -Regional Municipality of Halton, approved June 1, 2017. The Burlington Quarry Extension lands are designated
- Escarpment Rural Area. 6. Land use information and structures identified on or within 120 metres of the licence boundaries were determined using

Google Earth Pro aerial photography captured on May 7, 2018. C. Drainage

- 1. Surface drainage on and within 120 metres of the licence boundaries are by overland flow in the directions shown by arrows on the plan view, or by infiltration. D. Groundwater
- 1. The established groundwater table varies between 264 masl to 273 masl in the South Extension and 263 masl to 265 masl in the West Extension (EarthFX 2020). E. Site Access and Fencing
- 1. There are four existing site accesses on Side Road No. 2 and a single existing site access on Cedar Springs Road. 2. Post and wire fencing (unless noted otherwise) exists in the locations shown on the plan view.
- F. Aggregate Related Site Features
- 1. There are no existing aggregate operations or features on either Extension such as internal haul roads, processing, stockpiles, scrap, fuel storage, berms or excavation faces. G. Cross Sections
- 1. See drawing 4 of 4.
- H. Technical Reports References
- 1. Adaptive Management Plan, Proposed Burlington Quarry Extension, EarthFX Inc., Savanta, and Tatham Engineering, April 2020.
- 2. Agricultural Impact Assessment, Nelson Aggregate Co. Burlington Quarry Expansion, April 2020.
- 3. Air Quality Study for Nelson Aggregate Co., Burlington Quarry Extension, BCX Environmental Consulting, March 2020.
- 4. Archaeological Assessment (Stages 1, 2 & 3), Nelson Aggregates Quarry Expansion, Archaeologix Inc., August 2003. 5. Archaeological Assessment (Stage 4), Nelson Aggregates Quarry Expansion, Archaeologix Inc., August 2004.
- 6. Stage 1-2 Archaeological Assessment, Proposed West Extension of the Burlington Quarry, Golder Associates, September 2020.
- 7. Blast Impact Analysis, Burlington Quarry Extension, Explotech Engineering Ltd, June 16, 2021.
- 8. Cultural Heritage Impact Assessment Report, Burlington Quarry Extension, MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC), June 2021.
- 9. Financial Impact Study, Proposed Burlington Quarry Extension, Nelson Aggregates Co., September 30, 2021.
- 10. Level 1 and 2 Hydrogeological and Hydrological Impact Assessment Report, Proposed Burlington Quarry Extension, EarthFX Incorporated, April 2020. 11. Level 1 and 2 Natural Environment Technical Report, Proposed Burlington Quarry Extension, Savanta, April 2020.
- 12. Noise Impact Assessment, Nelson Aggregate Quarry Extension, Howe Gastmeier Chapnik Limited, November 15, 2021. Nelson Aggregate Company, Burlington Quarry Extension Traffic Report, Paradigm Transportation Solutions Limited, February 2020.
- 14. Surface Water Assessment, Burlington Quarry Extension, Tatham Engineering, April 2020.
- 15. Visual Impact Assessment Report, Proposed Extension of the Burlington Quarry, MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC), June 2021.
- 16. Safety Review of the Proposed Access Plan for a Proposed Quarry Extension, True North Safety Group, June 2021.



Other Lands Owned by Licensee





1 of 4
 File Path
 N:\Brian\9135D- Nelson - Project Sideways\Drawings\ARA Site Plans\Extension Site Plan\CAD\9135D - Site Plan.dwg

Existing Features

File Name

Drawing No.

A. General	J. Equipment and Processing
Area Calculations: i. Licence Area (total) 76.9 ha	 Equipment used for site preparation, extraction, pond construction, and site rehabilitation includes drills, front-end loaders, graders, bulldozers, backhoes, conveyors, water trucks, fuel trucks and haul trucks. See Section N. Report Recommendations for additional details from the Noise report regarding equipment.
 South Extension 18.1 ha West Extension 58.8 ha 	 No processing shall occur in the South or West Extension. Aggregate extracted in the South and West Extension shall be hauled to existing Licence #5499 for processing
 ii. Limit of Extraction (total) 48.5 ha South Extension 14.2 ha 	K. Fuel Storage
West Extension 34.3 ha The maximum annual tonnage is 2,000,000.	1. No fuel shall be stored in the South or West Extension.
3. The existing golf course use in the West Extension may continue to operate until site preparation for that Extension commences.	 Fuel trucks will be used to transfer fuel to on-site equipment in accordance with the Liquid Fuels Handling Code. A Spills Contingency Program will be developed prior to site preparation
 B. Hours of Operation 1 Hours of operation are Monday to Friday from 7:00am to 7:00pm excluding statutory holidays 	L. Dust
 Blasting is permitted Monday to Friday between 8:00am to 6:00pm excluding statutory holidays. Blasting will typically occur once per 	1. Dust shall be mitigated on-site.
C. Site Access and Fencing	 Water of another provincially approved dust suppressant shall be applied to internal hadroads as often as required to intigate dust. The licensee shall implement all air quality recommendations outlined in Section N. Report Recommendations.
1. Prior to extraction within the South or West Extension, post and wire fencing (at least 1.2 metres in height) shall be erected and maintained (for the life of that extension) along the licence or property boundary. Portions of the West Extension licence boundary	M. Scrap and Recycling
shall be exempt from this requirement (see Section O. Variations from Provincial Standards). Where the licence boundary is not fenced, it will be delineated with marker posts every 30 metres.	 No scrap shall be stored in the South and West Extension. No recycling shall occur in the South and West Extension.
2. Where the licence boundary abuts significant woodlands, fencing shall be in accordance with the Tree Protection Zone detail on this drawing.	N. Report Recommendations
3. Prior to extraction in the South Extension, exclusion fencing (as per MNRF 2013 Species at Risk Branch Best Practices Technical Note Reptile and Amphibian Exclusion Fencing Version 1.1) shall be installed along the perimeter of the licence boundary (see plan	1. <u>Air Quality</u>
 view for approximate location). Prior to extraction in the West Extension, exclusion fencing (as per MNRF 2013 Species at Risk Branch Best Practices Technical Note 	a. The Licensee shall implement their Best Management Practices Plan (BMPP) for the Control of Fugitive Dust dated March 2020, as may be amended from time to time to reflect current best management practices.
Reptile and Amphibian Exclusion Fencing Version 1.1) shall be installed along the west limit of extraction and extended a minimum 50 metres beyond the northern extent of the infiltration pond. The exclusion fencing shall also be installed along the southern limit of extraction until it reaches No. 2 Side Road in the southeast correct (see plan view for approximate location).	 b. The Licensee shall construct the acoustic berms as shown on the operational plan. See Section F for additional detail. 2 Blasting
 A new operational entrance/exit for the South Extension shall be established in the location shown on the plan view (see Section N. Bare d Baser and the south extension shall be established in the location shown on the plan view (see Section N. 	a. All blasts shall be monitored for both ground vibration and overpressure at the closest privately owned sensitive receptors
Report Recommendations for additional details under Traffic). Material being transferred from the South Extension to existing Licence # 5499 (see Section O. Variations from Provincial Standards) shall occur through an at grade roadway crossing on Side Road No. 2 in this location.	adjacent the site, or closer, with a minimum of two (2) instruments - one installed in front of the blast and one installed benind the blast.
 A gate shall be installed at the operational entrance/exit of the South Extension on Side Road No. 2, kept closed during hours of non-operation, and maintained throughout the life of that Extension 	b. Vibration and overpressure data collected during the first 12 months of extraction in the proposed quarry extension lands will be used to calibrate and update the 2004 Golder Associates attenuation equation. The proponent shall ensure information collected includes all relevant blast and monitoring details to permit and facilitate inclusion of the data in the attenuation data
 A gate shall not be required for the field/property access located at 2280 and 2015 Side Road No. 2 (see Section O. Variations from Provincial Standards) 	and resultant equation.
 The West Extension shall be accessed through the common licence boundary with existing Licence #5499 in Phases 3 and 5. The locations shown on the plan view on another plan view on a previous shown. 	maintained below 50mm/s (>40Hz) in accordance with research performed by the United States Bureau of Mines (USBM RI8507). The closest structure located at 2280 No 2 Side Road shall be monitored for ground vibration and overpressure when
 Access for farm equipment shall be provided from the new operational entrance/exit in the South Extension. During operations, the 	 d. All blasts within 60m of the adjacent Sun-Canadian High Pressure Oil Pipeline will be designed and monitored by a registered
eastern extraction setback may be used to transport farm equipment to the areas that have not been extracted to facilitate ongoing agricultural operations in the South Extension.	engineer, licensed in the province of Ontario, or any distance specified in later revisions of the Sun-Canadian guidelines or when vibration calculations suggest vibrations in excess of 35mm/s at the pipeline.
 Drainage and Siltation Control Drainage of undisturbed areas will continue in the directions shown on drawing 1 of 4 	e. To protect adjacent fish habitat, the Department of Fisheries and Oceans (DFO) has established limits for water overpressure and ground vibrations. Water overpressures are to be limited to 100kPa (year round), and in the presence of active spawning beds (March 15 th to July 15 th), ground vibrations at the bed are to be limited to 13mm/s. Fish habitat and assumed spawning
 Prior to site preparation, an Erosion and Sedimentation Control (ESC) Plan shall be prepared and implemented to prevent erosion or acdimentation imports to the petural environment from exercisin and rehabilitation of the guerry (see Section N. Benetter) 	beds are present in the Unnamed Tributary of Willoughby Creek, the Unnamed Tributary of Lake Medad and the East and West Arms of the West Branch of the Mount Nemo Tributary of Grindstone Creek. The utilization of shallower blast holes, decks
Recommendations - Natural Environment note "a").	of year. These mitigation measures would also apply, when adjacent to spawning beds from March 15 th to July 15 th .
3. Prior to extraction in the West Extension, the infiltration pond located in the west setback (including the diversion/discharge pipe and bottom draw outlet) shall be constructed. The pond shall be excavated to an elevation of ±267 masl into bedrock. Non-aggregate material excavated from the infiltration pond will be utilized for the creation of acoustic and visual berms in the West Extension. For the	f. From March 15" to July 15" of any year, blasts shall be designed to maintain vibrations below 13mm/s at the closest point of any spawning habitat to the blast. One (1) additional seismograph shall be installed on the shoreline adjacent the closest spawning habitat to any blast performed between March 15 th and July 15 th when calculations suggest vibrations in excess of
portions of the pond located above bedrock, 3:1 slopes shall be established. The purpose of the diversion pipe is to convey water from the weir pond to the infiltration pond in the west setback and to provide the diffuse discharge in the northwest corner of the site.	75% of the DFO vibration limit may be reached at the location of a potential active spawning habitat.
4. Within the West Extension, the diversion and discharge pipes shall be placed in the locations shown on the plan view (see Section N. Report Recommendations - Natural Environment note "j" for timing to install the diversion pipe within the weir pond). The centreline of the diversion pipe along the north boundary of Phase 5 about the diversion pipe within the weir pond).	Canadian Guidelines outlined in Section 8.3 to 8.5 under the heading "Vibration and Blasting Control" and any requirements specified in later revisions of the Sun Canadian Guidelines.
easement and be installed prior to constructing the berm in this vicinity.	h. The guideline limits for vibration and overpressure shall adhere to standards as outlined in the MECP Model Municipal Noise Control By-law publication NPC 119 (1978) or any such document, regulation or guideline which supersedes this standard.
Definition to removal or the irrigation ponds and irrigation channel in the West Extension, the downstream end of the golf course channel shall be blocked to isolate surface water. If water is to be pumped from the feature to facilitate site preparation, it shall be directed to the existing sump for discharge in accordance with MECP, ECA and PTTW requirements.	i. In the event of an exceedance of NPC 119 limits or any such document, regulation or guideline which supersedes this standard, blast designs and protocol shall be reviewed prior to any subsequent blasts and revised accordingly in order to return the
E. Site Preparation	perations to compliant levels.
1. All existing structures within the South Extension (excluding the house and barn located at 2280 Side Road No. 2) and West Extension (excluding the house and barn located at 2015 Side Road No. 2) shall be demolished prior to extraction in each Extension, in accordance with all applicable regulations (see Section N. Popert Presented Structures Networks).	propagation will be away from structures as much as possible.
"p" regarding removal of three structures within the West Extension that contain Barn Swallow habitat).	shall be modified as required to ensure compliance with current applicable guidelines and regulations.
 No new buildings are proposed for either Extension. Tree removal shall not occur in the West Extension during the active season for Eastern Small-footed Myotis between March 15th and 	 Blasting procedures such as drilling and loading shall be reviewed on a yearly basis and modified as required to ensure compliance with industry standards.
November 30 th (see Section N. Report Recommendations - Natural Environment note "o").	 m. Detailed blast records shall be maintained in accordance with current industry best practices. 3. Noise
and brush cleared will be used for rehabilitation of this site and License #5499 to provide coarse and fine wood debris to enhance soils and create habitats during site rehabilitation.	a. Site preparation, pond construction, rehabilitation, drilling, extraction activities, and transporting material to the existing quarry
 Prior to the commencement of stripping in the South Extension, agricultural baseline conditions shall be established by a qualified professional using an accredited lab for the entire extraction area, using an accredited lab for any analytical testing. Soil inspections 	b. Prior to extraction in the South Extension, all berms in this Extension shall be constructed to the heights specified in the
shall be conducted at a density to allow for sufficient coverage of the area. The parameters for the baseline conditions soil testing shall be determined by the a qualified professional and the testing at the accredited lab shall include items such as: soil macro and soil nutrients, micronutrients, soil chemistry (e.g. pH, etc.), organic matter, soil texture and structure and bulk density, and soil	locations shown on the plan view. Berms shall not be required in the West Extension until prior to extraction in that Extension.
texture/structure.	shown on the plan view.
rehabilitation in Licence #5499 in accordance with the agricultural rehabilitation notes on this page (see Section N.9 Agricultural and Section O. Variations from Provincial Standards). The remaining overburden in the South Extension not required for agricultural	drills - 110 dBA from and londers 101 dBA
rehabilitation will be stripped separately and used for the construction of acoustic/visual berms and rehabilitation in the south extension. In the west extension, topsoil and overburden shall be stripped and stored separately wherever feasible (see Section O. Variations from Provincial Standards).	 Iront-end loaders - 101 dBA haul trucks - 114 dBA
7. With the exception of topsoil and subsoil from the South Extension that will be used for agricultural rehabilitation in Licence #5499, the remaining topsoil and overburden shall be placed in perimeter acoustic/visual berms, pond construction or used immediately for	e. Up to three haul trucks will be used to transport material from this site to the processing area in License #5499, with a posted speed limit of 35 km/hr along this route.
progressive rehabilitation in either Extension or existing Licence #5499 (see Section O. Variations from Provincial Standards).	 f. Equipment used for site preparation, pond construction and rehabilitation shall satisfy the noise emission levels of MOE - 115, "Noise Construction Equipment".
excess topsoil and overburden not required for immediate use in berms or rehabilitation may be temporarily stockpiled on the quarry floor. Topsoil and overburden stockpiles shall be located within the limit of extraction and remain a minimum of 30 metres from the	g. If a noise complaint is received, the noise complaint will be responded to and investigated in a timely manner by the licensee in a manner commensurate to the specific context of the complaint.
licence boundary (except where the West Extension licence boundary abuts existing Licence #5499) and 90 metres from a property with a residential use (see Section O. Variations from Provincial Standards).	4. <u>Visual Impact Assessment</u>
 With the exception of topsoil and subsoil from the South Extension that will be used for agricultural rehabilitation in Licence #5499, temporary topsoil and overburden stockpiles which remain for more than one year shall have their slopes vegetated to control erosion. 	a. For both Extension areas, existing vegetation located along the site perimeter and within the setback area will be retained where possible. Berms will be laid out in a way that favours the retention of existing vegetation where possible. Any and all areas marked for tree protection shall utilize appropriate tree protection hoarding and ensure that no construction activities,
 F. Berms and Screening 1 Acoustic and visual berms shall be constructed to the heights or elevations specified in the locations shown on the plan view. See 	grading or compaction occurs within the tree protection zone (see Tree Protection Zone detail on this drawing for additional information). This includes using these areas for the storage or staging of any materials or aggregate.
Section N. Report Recommendations - Visual Impact Assessment notes and the Typical Acoustic & Visual Berm detail on this drawing for additional information.	 b. Visual and acoustic berms are to be installed in the location shown on the plan view and berm elevation details (on drawing 4 of 4) and to the requirements outlined below.
 Berms adjacent to key natural heritage features shall be constructed in accordance with Section N. Report Recommendations - Natural Environment note "d". 	c. Where berms are deemed to be required, they are to only be constructed where shown on the plan view. Berms are to be constructed in a smooth, rolling manner with varying highpoints (respecting minimum height requirements), and variations along the berne feature to ensure a structure of the berne feature and the berne featu
3. Berm side slopes shall not exceed the following maximums:	the berm frontage to create a more natural appearance. Berms should be seeded with a native mix of wildflowers and grasses to stabilize slopes and minimize mowing and maintenance.
 South Extension Northwest, north and northeast setback = 1.5:1 Southwest setback = 2:1 	d. The existing deciduous trees and shrubs located within 15 metres of No. 2 Side road and in front of the proposed southern noise berm in the West Extension are to be retained.
 ii. West Extension North and west setback = 2:1 Southeast setback = 1.5:1 	e. Visual berms proposed for the South Extension are to be planted with trees (see plan view for berm locations). Larger species will be planted along the visual berm on No. 2 Side Road while smaller species will be planted on the berm adjacent to the Camisle Golf Course. Trees will be planted at a spacing of 5 to 10 m on centre. depending on species. Plantings are to be
 Berms in the South Extension shall be constructed prior to extraction in that extension. 	randomly spaced and staggered up on the berm up to one third of its maximum height to appear more natural, where possible. All vegetation is to be selected for wind and salt tolerance hardiness. Native species that complement the existing surroundings
4. Berms in the West Extension shall be constructed prior to extraction in that extension.	f. For the visual berm adjacent to Side Road No. 2, deciduous trees of minimum 40mm caliper, coniferous trees of minimum 1.2m
 The north toe of the perimeter berm in the West Extension shall not be located within 1 metre of the Sun-Canadian Pipe Line easement. 	height, and shrub species of minimum 40cm height shall be planted. g. For the visual berm in the southwest corner of the South Extension, deciduous tree whips of minimum 1.2m height, coniferous
 Berms shall be vegetated with a native mix of wildflowers and grasses to stabilize slopes and minimize mowing and maintenance. The vegetation on the berms shall be maintained until the berms are removed for rehabilitation. 	trees of minimum 0.6m height, and shrub species of minimum 20cm height (or bare root stock when in season) shall be planted.
7. Existing vegetation within the setbacks shall be maintained except where acoustic berms, visual berms, ponds or diversion/discharge pipes are required (see Section O. Variations from Provincial Standards). Setbacks disturbed will be vegetated with a native mix of wildlowers and grasses to restore grass and minimize moving and maintenance. A portion of the setback grass as shown on the	(White Pine, Common Hackberry, Chokecherry, White Spruce, Paper Birch, Pin Oak Sugar / Silver Maple, Trembling Aspen, Basswood, White Pine, White Spruce or White Cedar) and shrubs (Nannyberry, Common Ninebark, American Elder, Dogwood, or Highbush Cranberry)
operations schematic, will also be forested in accordance with Section N. Report Recommendations - Natural Environment note "t".	i. To ensure survival and positive growth rate, the vegetative screening is to be maintained and managed appropriately so that it
 Setbacks identified as forested setbacks on the plan view shall be forested (see Section N. Report Recommendations - Natural Environment notes "e" and "h" for additional information). 	remains an enective visual screen over time. Allowance of natural succession to occur is encouraged, in keeping with restoration objectives.
 G. Site Dewatering 1. During the initial stages of extraction within the South Extension, a temporary settling pond will be constructed within the extraction 	J. Juring the first year or quarry operations, the planted trees will be watered and monitored until established. After the first year, the trees will be inspected twice each year. Once in spring after leaf break, and once in fall prior to leaf drop, to ensure any trees which are in poor condition at the time, are fertilized, watered and monitored, as needed, to improve their health and vidor.
area (eg. Phase 2). Once sufficient extraction has occurred in Phase 2, the sump and settling pond will be constructed on the quarry floor. See Adaptive Management Plan for additional details.	k. If any of the planted trees die, they will be replaced yearly, and will be planted in spring or late summer. With annual maintenance and monitoring, the trees will have the best chance of survival, and overall, it is anticipated that the need for tree
 The discharge location for the South Quarry Extension shall be constructed in accordance with Section N. Report Recommendations - Natural Environment note "g". 	replacements during the life of the operation will be reduced.
3. For the West Extension, the water will be diverted to existing Licence #5499 and discharged from the existing sumps and discharge locations.	a. The northbound and southbound approaches to Side Road No. 2 shall be controlled by stop sign control.
4. The licensee shall operate in accordance with Environmental Compliance Approval (ECA) and Permit to Take Water (PTTW) requirements.	b. The new roadway crossing will be located on the crest on Side Road No. 2 (in the location shown on the plan view) with a clear sight distance of at least 215 metres in each direction along Side Road No. 2 for both the northbound and southbound
H. Extraction Sequence	c. The roadway geometry and road bed structure will be designed to accommodate the rock trucks that the licensee plans to
 General a. Prior to set preparation in each phase, ensure all requirements contained in Sections C through G are met. 	operate. d. Prior to extraction commencing in the South Extension, the licensee will be responsible to upgrade the crossing on Side Road
 Phase 1 Prepare Phase 1 (South Extension) for extraction and ensure all requirements pertaining to this Extension in Sections C through G of this drawing are met. 	No. 2 to municipal standards. During operations in the South Extension, the licensee will be responsible for maintaining this crossing. The licensee is responsible for all costs associated with the crossing, including any signage at the crossing (Financial Report).
 b. Strip Phase 1 in accordance with Site Preparation notes (see Section E) and Agricultural Rehabilitation notes (see Section N.9). Any overburden not used for agricultural rehabilitation shall be used to construct perimeter berms. Should there be insufficient overburden in Rehabilitation and the construct berms. 	e. The following notes apply for the crossing at No. 2 Side Road:
overburden in Phase 1 to construct berms, import excess soils to complete the perimeter berms. c. Create sinking cut. d. Commence extraction in a southerly direction and complete a noise audit to ensure the site is meeting NPC 300 Noise	e.a. The proposed crossing location shall be constructed and maintained to provide the appropriate approach sight triangles and departure sight distances for a 70 km/hr design speed. Vegetation shall be trimmed or removed as
Guidelines at the nearest sensitive receptors. Noise audit records shall be kept by the licensee and made available to agencies upon request. e. Phase 1A may be extracted to a maximum depth of 271 masl.	necessary during construction to provide the recommended approach sight triangles and departure sight distances in all four quadrants.
f. Phase 1B may be extracted to a maximum depth of 270 masl.g. Prepare Phase 2 for extraction.	e.b. "Truck Entrance" warning signs shall be installed on the approaches to the crossing to warn drivers along No. 2 Side Road of the possible presence of slow-moving trucks crossing the intersection.
 Phase 2 Strip Phase 2 in accordance with Site Preparation notes (see Section E) and Agricultural Rehabilitation notes (see Section N.9) a. Strip Phase 2 in accordance with Site Preparation notes (see Section E) and Agricultural Rehabilitation notes (see Section N.9) b. Section 2 in accordance with Site Preparation notes (see Section E) and Agricultural Rehabilitation notes (see Section N.9) b. Section 2 in accordance with Site Preparation notes (see Section E) and Agricultural Rehabilitation notes (see Section N.9) 	e.c. Regulatory or information signs shall be installed prohibiting the general public from using the crossing.
 b) Sequence as extraction progresses in a sourceny direction. Suppling shall be limited to what is required for the season of operation to maximize areas remaining in agricultural production. b) Extract Phase 2 in a southerly direction from Phase 1 and complete a noise audit to ensure the site is meeting NPC 300 Noise 	e.e. Based on the existing conditions, the municipality may wish to revisit the frequency of maintenance for pavement
 Guidelines at the nearest sensitive receptors. Noise audit records shall be kept by the licensee and made available to agencies upon request. c. Phase 2 may be extracted to a maximum depth of 252.5 masl. 	6. <u>Water Resources and Natural Environment</u>
 d. As extraction advances, complete progressive rehabilitation of Phase 2. e. Prepare Phase 3 (West Extension) for extraction and ensure all requirements pertaining to this Extension in Sections C through G and Archaeology note "a", under Section N. Report Recommendations, of this drawing are met. 	a. The licensee is required to operate in accordance with the Adaptive Management Plan, prepared by EarthFX Inc., Tatham Engineering and Savanta dated April 2020, as may be amended from time to time with approval from MNRF, in consultation
 f. Remove wooded features in Phase 3 (see Section N. Report Recommendations - Natural Environment note "o"). 4. Phase 3 	with NEC, Region of Halton, City of Burlington and Conservation Halton. 7. <u>Water Resources</u>
 a. Strip Phase 3 and a portion of Phase 4 (if required) to construct perimeter berms in West Extension. b. Extract Phase 3 by commencing at the common boundary with existing Licence #5499 and proceeding westerly before heading in a northwesterly direction. At the commencement of extraction complete a poice audit to oppure the site is machine NPO 200. 	a. Based on current approvals for the existing quarry, the water discharge pumping at both locations will cease once extraction is complete, which would have a negative impact on flow and associated fish habitat in both watercourses (Savanta, 2020). The
Noise Guidelines at the nearest sensitive receptors. Noise audit records shall be kept by the licensee and made available to agencies upon request.	proposed revised rehabilitation plan would stipulate that dewatering and pumping will continue at the same locations and in the same manner to ensure there are no negative impacts to any of the hydrological features that rely on this water input. This will result in long-term enhancements to downstroom fich habitation contracted to the substrate the same locations and in the
 c. Friase 5 may be extracted to a maximum depth of 252.5 masi. d. Complete progressive and final rehabilitation in Phases 1 and 2. e. Prepare Phase 4 for extraction. 	management plan.
 Phase 4 a. Strip Phase 4 and use the material for progressive rehabilitation in Phase 3 and existing Licence #5499 	D. FOST renabilitation, the vvest Extension is to be maintained in a dewatered state using the main discharge points to the north and south from Quarry Sump 0100 and 0200 in licence #5499 in accordance with the conditions of the PTTW and ECA to provide public water management benefits.
b. Extract Phase 4 in a westerly and southwesterly direction from Phase 3. At the commencement of extraction, complete a noise audit to ensure the site is meeting NPC 300 Noise Guidelines at the nearest sensitive receptors. Noise audit records shall be kept by the licensee and made available to agencies upon request	c. Prior to extraction commencing in each of the South and West Extensions, the licensee shall complete a residential well survey for properties within one kilometre of the extraction area.
c. Phase 4 may be extracted to a maximum depth of 252.5 masl.d. Prepare Phase 5 for extraction.	d. If a water well (including agricultural wells) complaint is received by the licensee the following actions will be taken:
 Phase 5 Strip Phase 5 and use the material for progressive rehabilitation in Phase 5 and existing Licence #5499. Continue progressive rehabilitation in Phase 9 and 4. 	d.a. The licensee will notify MNRF and MECP of the complaint.
 continue progressive renabilitation in Phases 3 and 4. c. Extract Phase 5 by commencing at the common boundary with existing Licence #5499 and proceeding in a westerly direction. At the commencement of extraction, complete a noise audit to ensure the site is meeting NPC 300 Noise Guidelines at the 	a temporary water supply within 24 hours, if the issue cannot be easily determined and rectified.
nearest sensitive receptors. Noise audit records shall be kept by the licensee and made available to agencies upon request. d. Refer to Section N. Report Recommendations - Blasting for additional requirements regarding the Sun-Canadian Pipe Line easement.	a.c. In ewell contractor will contact the resident/owner with the supply issue and rectify the problem as expediently as possible, provided the landowner gives authorization for the work. If the issue raised by the landowner is related to loss of water supply, the licensee will have a consultant/contractor determine the likely causes of the loss of water
e. Phase 5 may be extracted to a maximum depth of 252.5 masl. f. Prepare Phase 6 for extraction. g. Remove wooded feature in Phase 6 (see Section N. Report Recommondations - Network Environment acts "a")	supply, which can result from a number of factors, including pump failure (owner's expense), extended overuse of the well (owner's expense) or lowering of the water level in the well from potential quarry interference (licensee expense). This assessment process would be carried out at the expense of the licensee and the results provided to the
7. Phase 6 a. Strip Phase 6 and use the material for progressive rehabilitation in Phases 4.5 and within 1 lines. (15100)	homeowner landowner.

ing Licence #5499. b. Prior to extraction commencing in Phase 6, side sloping within Phase 3 shall be completed. c. Extract Phase 6 in a southerly direction from Phase 5. At the commencement of extraction, complete a noise audit to ensure the site is meeting NPC 300 Noise Guidelines at the nearest sensitive receptors. Noise audit records shall be kept by the licensee and made available to agencies upon request. d. Phase 6 may be extracted to a maximum depth of 252.5 masl. e. Complete progressive and final rehabilitation of the West Extension.

1. The maximum height of a lift shall be 25 metres.

Extraction Details

2. The maximum depth of extraction for the South Extension is 29.5 metres. Phase 1 shall be extracted in one lift and Phase 2 shall be extracted in a maximum of two lifts. 3. The maximum depth of extraction for the West Extension is 23.5 metres and the maximum number of lifts is two.

- 4. Extraction shall be permitted in two Phases simultaneously to allow for transition between Phases.
- 5. Internal haul road locations will vary as extraction progresses and will be located on the quarry floor with the exception of the at grade roadway crossing between the South Extension and existing Licence #5499.
- 6. Blasted aggregate will be transported back to existing Licence #5499 for processing and shipping.
- . Berms that encroach within the limit of extraction shall be removed, and the underlying aggregate may be extracted, as part of final extraction for each Extension.

internal haul roads as often as required to mitigate dust. ction N. Report Recommendations.

er supply interference, the quarry shall continue to supply water at the licensee's expense until the problem is rectified. The following mitigation measures shall be considered and the appropriate measure(s) implemented at the expense of the licensee: • lowering of the pump to take advantage of existing water storage within the well;

adjust pump pressure;

drilling multiple wells; and

the water quality.

deepening of the well to increase the available water column;

• widening of the well to increase the available storage of water;

only at the request of a landowner would a cistern be installed.

relocation of the well to another area on the property;





23.5, O.Reg. 242/08 of the Endangered Species Act and implement the requirements of the registration. BSNO C shall not be q. Complete rehabilitation of the site in accordance with the requirements outlined on drawing 3 of 4 to create key natural heritage

and key hydrologic features, including wetlands, lakes and forested areas.



- 1. The Tree Protection Zone (TPZ) for woodlands extends the length of the woodland dripline Legend of significant woodlands. 2. Prior to site preparation in the South and West Extension, liner fencing shall be erected along the licence boundary. The area between the licence boundary and the drip line of the metasignificant woodland is the TPZ. The TPZ is to prevent damage and soil compaction within the TPZ.
- 3. Fencing material shall consist of orange plastic web snow fencing and/or page wire fencing with reflective tape.
- 4. Fencing material shall be installed a minimum 1.2 metres in height above grade. 5. Signage shall be posted in visible locations along the perimeter of each TPZ fence and be a minimum 25 cm x 36 cm. Each sign shall clearly state the text provided to the right. 6. The TPZ must remain fully intact and existing grade shall not be altered or disturbed. The TPZ shall not be used for storage of fill, topsoil, building materials, or equipment. There shall
- be no disposal of deleterious materials. Movement of vehicles and/or equipment, washing of equipment, and dumping of any kind shall be prohibited. 7. Where encroachment into the TPZ is necessary to facilitate construction of the discharge pipe, tree removal shall be kept to a minimum and the disturbed soil shall be restored with

wood chips. In this location a trail will be maintained to provide access to the discharge

Woodland / Tree Dripline Orange Plasti Web Snow Fencing Page Wire Fencing with Reflective Tape Tree Protection Zone





Vegetated side slopes per

requirements (see Section O

Report Recommendations).

Existing Grade

Visual Impact Assessment

Topsoil & Overburder

Drawing No.

2 of 4 File Path N:\Brian\9135D- Nelson - Project Sideways\Drawings\ARA Site Plans\Extension Site Plan\CAD\9135D - Site Plan.dwg

Progressive Rehabilitation A. General

1.	Area Calculations:	
	 i. To be extracted (total) South Extension West Extension 	48.5 ha 14.2 ha 34.3 ha
	ii. To be rehabilitated (total)South ExtensionWest Extension	48.5 ha 14.2 ha 34.3 ha

- 2. The final rehabilitated land form will include the creation of 5.9 hectares of woodland located in the setback area not proposed to be extracted and 23.5 hectares of woodland located within the rehabilitated extraction area.
- B. Phasing 1. As excavation reaches the limit of extraction or maximum depth, progressive rehabilitation shall commence.
- 2. Progressive rehabilitation shall follow the direction and sequence of extraction identified on the plan view and described in the notes on drawing 2 of 4.
- 3. Prior to extraction commencing in Phase 6, side sloping within Phase 3 shall be completed. C. Slopes and Grading
- 1. Progressive rehabilitation will utilize a variety of rehabilitation techniques including:
 - Backfilling extraction faces and quarry floors; • Partially backfilling extraction faces to create a cliff with talus slope; or Leaving extraction faces vertical
- 2. Excess soil, as defined in Ontario Regulation 406/19 under the Environmental Protection Act, may be imported to this site for the following rehabilitation purposes: Creation of 3:1 and 2:1 slopes
- Top dressing to establish vegetation • To establish the final elevations and grades depicted on the plan view
- 3. Excess soil imported for the rehabilitation purposes described above shall meet the soil quality standards set out in Table 1: "Full Depth Background Site Condition Standards", of the Rules for Soil Management and Excess Soil Quality Standards published by the Ministry of Environment, Conservation and Parks, as amended from time to time. 4. The South and West Extension contains approximately 1,190,000 m³ of topsoil and overburden that can be used for
- rehabilitation. It is assumed that 350,000 m³ will be transferred to the existing quarry for agricultural rehabilitation and some rehabilitation directly adjacent to the West Extension. As a result, 840,000 m³ of on-site materials will be utilized and the maximum total amount of excess soil that may be imported to this site for rehabilitation purposes is 2,160,000 m³.
- 5. The licensee shall ensure that the acceptance and reuse of excess soil imported for rehabilitation purposes is compliant with Part I: Rules for Soil Management of the "Rules for Soil Management and Excess Soil Quality Standards" published by the Ministry of Environment, Conservation and Park and as amended from time to time.

6. The final rehabilitated landforms established in the South and/or West Extension using the rehabilitation techniques will consist of lakes, islands, shoreline wetlands, vernal pools, beach, pond, woodlands, gradually sloping grades, 2:1 and 3:1 side slopes, cliff with talus slopes, and vertical faces as shown on the plan view. 7. Beach sand may be imported to establish the beach area in the South Extension.

- 8. As part of rehabilitation of the site, regrade the area along the north boundary of Phase 3, as shown on this drawing to provide surface water flow to the adjacent wetland to reinstate its catchment area. D. Seeding and Planting
- 1. The side slopes and backfilled portions of the quarry floor will be seeded with the Ministry of Transportation's (MTO) Ontario Roadside Seed Mix (Creeping Red Fescue, Kentucky Bluegrass, Perennial Ryegrass and White Clover) or equivalent.
- 2. Ponds, wetlands, and tree planting areas identified in the plan view shall be planted in accordance with Table 1: Rehabilitation Plant List Recommendations on this drawing. 3. The planting design and approach will be guided by the Conservation Halton Landscaping and Tree Preservation
- Guidelines (2010). 4. Planting densities shall be determined based on the restoration objectives and presence/absence of existing natural features. For example, planting densities will be highest where the objective is to restore/establish a woodland, and meet the definition of woodland under the Forestry Act, but may be reduced if/when objective is to establish a buffer adjacent to a naturalized area. The type of species planted will also be dependent on adjacent habitat (e.g., greater reliance on shrub

plantings when restoration occurs adjacent to a meadow, and tree plantings when planting next to woodland).

- 5. Where the restoration objective is the establishment of a woodland, trees will be planted at a minimum density of 10 trees per 100 m², in order to account for competition, stress or wildlife damage and to meet the definition of woodland under the Forestry Act. Within this area, the shrub to tree ratio will be 5:1, with trees planted no closer than 2.5 m on centre and shrubs planted between 0.75 m and 1.5 m apart. 6. Where the restoration objective is the establishment of a setback adjacent to a natural feature, planting densities will be
- dependent on the features they abut (e.g., densities will be higher when planting next to an existing forest relative to the densities when planting next to an anthropogenic or cultural feature). The planting design of a proposed setback adjacent to a natural feature will follow a 3-band approach, where woody planting densities will be highest within Band 1 (closest to the existing adjacent feature) and reduced in Band 2. No woody species will be planted in Band 3, which will be seeded with a soil and moisture-appropriate native seed mix. Where trees will be planted, the following planting densities will be applied: Band 1 - five trees per 100 m². Where shrubs are also being proposed, these will be planted at a shrub to tree ratio of 5:1; Band 2 - three trees per 100 m². Where shrubs are also being proposed, these will be planted at a shrub to tree ratio of 5:1.
- 7. Competing herbaceous vegetation will be controlled by placing mulch around each planted tree or shrub (50 cm radius of mulch around each planting). Rodent protection will be installed as necessary. Where access permits, planting will be watered during periods of drought (defined as a 30 day period between May and September with less than 25mm of precipitation) until establishment has occurred.
- 8. For planting in areas not extracted, plantings shall be monitored and evaluated by a qualified professional annually until "free-to-grow" conditions have been achieved. "Free-to-grow" is considered established based on a minimum stocking standard, a minimum height and freedom from competition that could impede growth. Monitoring, tending and additional planting shall occur until 1000 trees per hectare have reached "free-to-grow" condition.
- 9. For plantings in areas extracted, plantings shall be monitored and evaluated by a qualified professional annually until "free-to-grow" conditions have been achieved. "Free-to-grow" is considered established based on a minimum stocking standard, a minimum height and freedom from competition that could impede growth. Monitoring, tending and additional planting shall occur until 1000 trees per hectare have reached "free-to-grow" condition. E. Drainage
- 1. Final surface drainage will follow the rehabilitated contours and directional arrows shown on the plan view.
- 2. Once the South Extension is depleted, pumping will cease and portions of the site below the ground water table will fill with water. 3. Runoff within the South Extension will drain into the lake.
- 4. Construct overflow outlet in the southwest corner of the South Extension.
- 5. Once the West Extension is depleted, the West Extension will remain in a dewatered state. Runoff within the West Extension will either drain north towards the lake or southeast into existing Licence #5499.
- 6. During rehabilitation the licensee shall maintain discharge to fish habitat to the north and south from Quarry Sump 0100 and 0200 within License #5499 and passive discharge from a bottom draw outlet in the infiltration pond to provide water to the wetland north of No. 2 Side Road adjacent to West Extension.
- 7. During rehabilitation the licensee shall operate in accordance with the conditions of the MECP, PTTW and ECA for the ongoing dewatering of the site. This pumping regime is consistent with current management from License #5499 and provides long term public water management benefits and mitigates impacts to natural heritage features that depend on quarry discharge from the adjacent License #5499. 8. The licensee has committed to: conveying the site into public ownership and to maintain the West Extension in a
- dewatered state by maintaining the pumping regime from License #5499 to provide long-term public water management benefits and mitigate impacts on natural heritage features which depend on quarry discharge from the adjacent License #5499. F. Adaptive Management Plan
- 1. During progressive rehabilitation, until surrendering the licence, the licensee is required to operate in accordance with the Adaptive Management Plan, prepared by EarthFX Inc., Savanta and Tatham Engineering, dated April 2020, as may be amended from the time to time with approval from MNRF, in consultation with NEC, Region of Halton, City of Burlington and Conservation Halton.

Final Rehabilitation A. General

- 1. All equipment shall be removed from the South and West Extension.
- 2. No internal haul roads shall remain in either Extension. 3. The residence and barn at 2280 Side Road No. 2 in the South Extension shall remain.

maintain the site in the condition consistent with this approved rehabilitation plan.

- 4. The residence and barn located at 2015 Side Road No. 2 in the southwest corner of the West Extension shall remain.
- 5. A field/property access entrance shall remain to access the residence and barn located at 2280 and 2015 Side Road No.
- 6. The groundwater table post rehabilitation varies between 263.5 masl to 271 masl in the South Extension and 255.5 masl to 265 masl in the West Extension (EarthFX 2020) or ±269 masl if the West Extension is not maintained in a dewatered
- 7. The licensee, prior to the surrender of the licence, shall complete a Record of Site Condition for the Extensions in
- accordance with the Environmental Protection Act. 8. In the event that a third-party agreement is not arranged prior to site surrender, the licensee will be responsible to







Table 1: Rehabilitation Plant List Pond/Wetland (PW) Grassland and Existing Trees (GL) Gradual Grade/Side Slope with Trees (GG) Forested Setback During Operation (FSO) Forested Setback Post Berm (FSB) Restored to Existing Grade and Forested (REG)

Location	LATIN NAME	COMMON NAME	COEFFICIENT OF CONSERVATISM	WETNESS INDEX	OWES WETLAND SPECIES	PROVINCIAL STATUS (S- RANK)	LOCAL STATUS HALTON (Varga 2005)
FSB, REG	Sambucus racemosa ssp. pubens	Red Elderberry	5	3		S5	X
FSB, REG	Cornus alternifolia	Alternate-Leaved Dogwood	6	3		S5	Х
FSB, REG	Cornus racemosa	Grey Dogwood	2	0	Т	S5	Х
PW, FSB, REG	Cornus sericea	Red-Osier Dogwood	2	-3	*	S5	Х
FSB, REG	Ribes cynosbati	Eastern Prickly Gooseberry	4	3		S5	Х
FSB, REG	Prunus virginiana var. virginiana	Chokecherry	2	3		S5	Х
FSB, REG	Rubus allegheniensis	Alleghany Blackberry	2	3		S5	Х
FSB, REG	Rubus occidentalis	Black Raspberry	2	5		S5	Х
PW	Salix discolor	Pussy Willow	3	-3	I	S5	Х
PW, FSB, REG	Salix eriocephala	Cottony Willow	4	-3	Т	S5	Х
PW, FSB, REG	Salix interior	Sandbar Willow	1	-3	Т	S5	U
PW	Salix petiolaris	Meadow Willow	3	-3	I	S5	Х
GG, FSB, REG	Betula alleghaniensis	Yellow Birch	6	0	Т	S5	Х
GG, FSO, FSB, REG	Betula papyrifera	Paper Birch	2	3	Т	S5	Х
GG, FSB, REG	Carpinus caroliniana ssp. virginiana	Blue-Beech	6	0	Т	S5	Х
GL, GG, FSO, FSB, REG	Ostrya virginiana	Eastern Hop-Hornbeam	4	3		S5	Х
GL, GG, FSO, FSB, REG	Fagus grandifolia	American Beech	6	3		S4	Х
GL, GG, FSO, FSB, REG	Quercus macrocarpa	Burr Oak	5	3	Т	S5	Х
GL, GG, FSO, FSB, REG	Quercus rubra	Northern Red Oak	6	3		S5	Х
GL, GG, FSB, REG	Carya cordiformis	Bitternut Hickory	6	0		S5	Х
GL, GG, FSO, FSB, REG	Tilia americana	Basswood	4	3		S5	Х
GL, GG, FSO, FSB, REG	Prunus serotina var. serotina	Black Cherry	3	3		S5	Х
GG, FSB, REG	Populus balsamifera	Balsam Poplar	4	-3	Т	S5	Х
GL, GG, FSO, FSB, REG	Populus deltoides ssp. deltoides	Eastern Cottonwood	4	0	Т	S5	U
GL, GG, FSO, FSB, REG	Populus tremuloides	Trembling Aspen	2	0	Т	S5	Х
PW, GG, FSB, REG	Salix amygdaloides	Peach-Leaved Willow	6	-3	Т	S5	U
GL, GG, FSO, FSB, REG	Acer nigrum	Black Maple	7	3		S4?	Х
GG, FSB, REG	Acer saccharinum	Silver Maple	5	-3	Í	S5	Х
GL, GG, FSO, FSB, REG	Acer saccharum	Sugar Maple	4	3		S5	Х
GG, FSB, REG	Thuja occidentalis	Eastern White Cedar	4	-3	Т	S5	Х
GG, FSB, REG	Abies balsamea	Balsam Fir	5	-3	Т	S5	U
GL, GG, FSO, FSB, REG	Picea glauca	White Spruce	6	3	Т	S5	U
GL, GG, FSO, FSB, REG	Pinus strobus	Eastern White Pine	4	3	Т	S5	Х
GL, GG, FSO, FSB, REG	Tsuga canadensis	Eastern Hemlock	7	3	Т	S5	Х
Herbaceous seed mixes	s will be applied where appropriate (e.	g. if soil seedbank is deemed u	nsuitable). Potential	mixes coul	d include Upl	and Dry	

	Beach
	Pond
	Swim Area
	Lake
	Wetland / Shoreline Wetland
رلاسل	Vertical Face
	3:1 slope (tree planting)
	2:1 slope (tree planting)
+ + + + +	Setback - grassland & existing trees
$\bigotimes\!\!\!\!\bigotimes\!\!\!\!\bigotimes$	Setback - forested - planted during op
	Setback - forested - planted when ber
	Restored catchment area and ecologi
	Gradual grade (tree planting & vernal









and aquatic vegetation, amphibian breeding and potential fish spawning and cover for fish and other aquatic organisms Lake Level (masl) 255.5 North Extension 1.0 South Extension Width Varie Max. depth 2r

Part Lot 1 & 2, Concession 2 and Part Lot 17 & 18, Concession 2 NDS (former geographic Township of Nelson) City of Burlington Region of Halton				
Legend				
,'	Licence Boundary		120m Offset From Licence Boundary	
. — .	Limit of Extraction	//i	Existing Licence Existing Licenced Boundary (solid line Existing Limit of Extraction (dashed line	
149 150 151	Contours with Elevation Metres above sea level (MASL)		Parcel Fabric	
	Public Road		Diversion or Discha Existing - Single Dash Proposed - Double Dash	
× - × +	Fence 1.2m post & wire fence unless otherwise noted		Discharge Location	
	Water Feature	GAS GAS GAS	Sun-Canadian Pipe	
	Lake / Pond Licence # 5499		Jefferson Salaman Regulatory Bounda	
	Significant Woodlands		Entrance / Exit	
	Woodlands		Gate	
	Wooded Feature		Building/Structure	
Mi Mi Mi Mi	Wetland Surveyed by Savanta/MNRF in Accordance with OWES - Assumed Significant for Planning Purposes	3.0.1	Proposed Final Gra and Slope	
	Wetland MNRF Evaluated - Provincially Significant	270.5	Final Elevation of Land and Lake (N	
	Wetland MNRF Evaluated - Other (Non Provincially Significant)	^ 	Cross Sections	
	Wetland MNRF - Unevaluated (Assumed Significant for Planning Purposes)			

Legal Description

	120m Offset From Licence Boundary
/i	Existing Licence Existing Licenced Boundary (solid line) Existing Limit of Extraction (dashed line)
	Parcel Fabric
	Diversion or Discharge Pipe Existing - Single Dash Proposed - Double Dash
	Discharge Location
	Sun-Canadian Pipe Line
eren - eren	Jefferson Salamander Regulatory Boundary
	Entrance / Exit
	Gate
	Building/Structure
3.0:1 -1%	Proposed Final Grade and Slope
270.5	Final Elevation of Land and Lake (MASL)
	Cross Sections



 File Path
 N:\Brian\9135D- Nelson - Project Sideways\Drawings\ARA Site Plans\Extension Site Plan\CAD\9135D - Site Plan.dwg





Cross Section A-A1







Cross Section C-C1



Cross Section D-D1

Legal Description
Part Lot 1 & 2, Concession 2 and Part Lot 17 & 18, Concession 2 NDS (former geographic Township of Nelson) City of Burlington Region of Halton
Legend
Licence Boundary
Limit of Extraction
Existing Licence
Existing Limit of Extraction
120m Offset From Licence Boundary
Existing Grade - Removed / Altered
Existing Grade - Undisturbed
Quarry Floor / Face
Berm
Existing Water Table
Post Rehabilitation Water Table
Backfilled
Lake or Pond



 File Path
 N:\Brian\9135D- Nelson - Project Sideways\Drawings\ARA Site Plans\Extension Site Plan\CAD\9135D - Site Plan.dwg



Tab 7

From: Marriott, David (OMAFRA) [mailto:David.Marriott@ontario.ca]
Sent: February 8, 2022 4:22 PM
To: Brian Zeman <bzeman@mhbcplan.com>
Cc: Chloe Spear <cspear@mhbcplan.com>; ARA Approvals (NDMNRF) <ARAApprovals@ontario.ca>
Subject: RE: Burlington Quarry Extension - OMAFRA Comments

Good afternoon Brian,

Please see the attached for OMAFRA staff's comments on the proposed Burlington Quarry Extension license application and the related plan amendment for the existing quarry.

I would be happy to discuss if the project team has any questions.

Thanks

Dave

Dave Marriott

Rural Planner Ontario Ministry of Agriculture, Food and Rural Affairs 6484 Wellington Road 7 Elora, ON, NOB 1SO (P) 519-766-5990 email: <u>david.marriott@ontario.ca</u>

Ministry of Agriculture, Food and Rural Affairs Ministère de l'Agriculture, de l'Alimentation et des Affaires rurales

6484 Wellington Rd. 7, Unit 10 Elora, ON, NOB 1S0 Tel: (519) 846-0941 6484 chemin Wellington 7, Bureau 10 Elora, ON, NOB 1S0 Tél.: (519) 846-0941

February 7, 2022

Brian Zeman, President MHBC Planning Limited 113 Collier Street Barrie, Ontario, L4M 1H2

Re: Burlington Quarry Extension - Category 2, Class A Licence Application under the Aggregate Resources Act – Part Lot 17 & 18, Concession 2 NDS and Part Lot 1 & 2, Concession 2, City of Burlington (Geographic Township of Nelson) Region of Halton.

Burlington Quarry Aggregate Resources Act (License Nos. 5499 and 5657) Site Plan Amendment Application – Part Lot 1 & 2, Concession 2, City of Burlington (Geographic Township of Nelson) Region of Halton.

Mr. Zeman,

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is in receipt of Nelson Aggregate's response, dated February 2, 2022, for the proposed Burlington Quarry Extension license application and the associated plan amendment for the existing Burlington Quarry. The response includes updated site plans (February 2022 revisions) for the existing quarry and the proposed extension.

OMAFRA staff appreciates the project team's attention to our comments. Please note that the updated site plans have addressed our outstanding comments on the license application and the plan amendment. OMAFRA staff have no further concerns and we withdraw our objection to the proposed Burlington Quarry Extension license application. When the information becomes available, we would appreciate if the final version of the site plans could be provided for our files.

OMAFRA staff would be pleased to discuss the contents of this letter with the project team. If you have any questions, please contact me at <u>david.marriott@ontario.ca</u> or 519-766-5990.

Regards,

1 added

Rural Planner, OMAFRA 1 Stone Road West, Guelph, ON, N1G 4Y2

cc: Chloe Spear, MHBC

Tab 8

Legend			
ി	Barn		
**	Equestrian		
	• Haul Route		
	Expansion Lands		
	Existing Licensed Pit		
	Primary Study Area (120m)		
	Secondary Study Area (1km)		
Agric	ultural Land Use		
	Corn		
	Pasture		
	Beans		
	Fallow		
	Нау		
	Soy		
	Wheat		
	Cash Crop (not visible from road)		