

REPORT NO. WA24-018

**LAND USE COMPATIBILITY ASSESSMENT
PROPOSED GARNER WEST SECONDARY PLAN AREA
NIAGARA FALLS, ONTARIO**

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SEPTEMBER 26, 2024

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<u>INDEX</u>	<u>PAGE</u>
EXECUTIVE SUMMARY	
1.0 INTRODUCTION	1
2.0 DESCRIPTION OF PROPOSED DEVELOPMENT AND SURROUNDING AREA	2
3.0 ASSESMENT CRITERIA AND METHODOLOGY	3
4.0 SURVEY OF SURROUNDING INDUSTRIES	7
5.0 CONCLUSIONS	11

FIGURES

**APPENDIX A: NIAGARA REGION OFFICIAL PLAN – REGIONAL STRUCTURE
APPENDIX B: CITY OF NIAGARA FALLS OFFICIAL PLAN – SCHEDULE A –
LAND USE PLAN**

EXECUTIVE SUMMARY

SS Wilson Associates (SSWA) was retained by the City of Niagara Falls to prepare a Land Use Compatibility Study for the proposed Secondary Plan Area referred to as the Garner West Secondary Plan Area. This compatibility study considers air quality, odour, dust, noise, and vibration emissions from neighboring industries as per the Government of Ontario document D-6: *“Compatibility between Industrial Facilities.”*

The results of the survey and review confirm that the proposed Secondary Plan Area is expected to be compatible with the existing neighboring industries without any adverse impacts. This is to say that no disruptive impacts as a result of air quality, odour, dust emissions, noise, and vibration are anticipated.

Independent noise, dust, and odour studies are to be conducted as it pertains to BV Glazing Systems as a result of its proximity and the nature of its operations. An independent noise study is to be conducted as it pertains to Dans Produce should the Plan Area propose a noise sensitive land use in proximity to the existing facility.

With regard to the proposed Walker Brothers Quarry to the north-west, SSWA recommends that independent noise/vibration, odour, and dust studies be undertaken to address the impact on the limited number of properties within the Plan Area, that may be impacted from the proximate limits of the proposed Quarry, should that project come to fruition.

1.0 INTRODUCTION

- 1.1** SS Wilson Associates (SSWA) was retained by the City of Niagara Falls to prepare a Land Use Compatibility Study as outlined in the Ministry of Environment, Conservation and Parks (MECP) D-1 and D-6 guidelines for the proposed Garner West Secondary plan areas in the City of Niagara Falls, Ontario.
- 1.2** As per “Attachment 2” in a document received by SSWA on April 22, 2024, prepared by the City staff, a compatibility assessment is required to identify all potential sources of incompatibility from outside sources on sensitive land uses within the Plan Areas (primarily residential) in accordance with the MECP D-6 guidelines; and to identify existing areas of influence and typical setbacks that will need consideration during land use planning exercises together with any typical mitigation practices that could be explored as well.
- 1.3** The objective of this report is to review the surrounding land uses for the potential to cause adverse effects in terms of noise, dust, odour, vibration, and other contaminants to support City initiated Official Plan Amendments and any subsequent Zoning By-law Amendments to provide for the future development of lands within the Plan Area. It is to be noted that a quantitative assessment of adverse effects has not been undertaken as part of this land use compatibility assessment, which has been performed based on the MECP D-6 guideline distance setbacks and industrial classifications; in such a case where a potential incompatibility has been identified by this study which warrants the need for additional analysis and studies, such detailed studies will undertake the necessary quantitative analyses in the form of measurements, predictions, calculations, etc.
- 1.4** The subject site is known as the Garner West Secondary Plan Area, in the City of Niagara Falls. The Plan Area is bounded on the north side by Lundy’s Lane (a Regional Road), to the east by Garner Road, to the south by McLeod Road, and to the west by Beechwood Road. The key plan showing the location of the property is shown in Figure 1.
- 1.5** This report is based on the features of the proposed site as shown in the Location Map prepared by the City, dated June 7, 2023. The Location Plan is included in Figure 2.

2.0 DESCRIPTION OF PROPOSED DEVELOPMENT AND SURROUNDING AREA

2.1 Proposed Development Concept

The Plan Area is proposed to be developed / redeveloped, with the City generating two proposed land use options for the Garner West Secondary Plan Area in their Phase 2 work program for further assessment and consultation at a later date. This Secondary Plan area is comprised of new urban expansion lands, brought into the urban area boundary by Niagara Region for “community use” during their new Official Plan process in 2022.

2.2 Surrounding Area Description

Generally, the Plan Area is surrounded on three sides by existing urban uses. To the north, lands are described as a seasonal mobile home park with commercial uses such as laser tag, escape rooms, and similar in conjunction with the mobile home resort operations. This represents an intervening use to BV Glazing, one of the industrial sites described later in this report.

To the east, lands are entirely developed as residential subdivisions with a smaller portion of wooded wetland area and a storm detention pond making up part of the Garner Road frontage. These subdivisions have been developed at various stages within the last 20 years and are mostly detached dwellings with, some semi-detached, and some townhomes.

Lands to the south are very recent residential developments on lands that were previously vacant industrial (never developed) that have been converted for residential use. A portion of the southern limits are presently under construction and remaining lands on the adjacent south side are approved but not yet developed while the application is being dealt with at the Ontario Lands Tribunal as a result of an appeal.

Lands west remain in agricultural production with some rural residential dwellings along the western side of Beechwood Road.

The proposed Walker Brother Quarry to the north-west is noted with some interest with respect to compatibility, as the proposed extraction property limits are within the 1000m distance band from the property line of the Secondary Plan Area, as set out by the MECP. However, proposed Quarries are exempt from Land use compatibility assessments under the MECP’s D6 guidelines, which only speak on existing quarries in the absence of other studies. As such, the potential impacts of the proposed quarry (particularly those as a result of blasting) will not be included in this study, given a decision on its permissions remain unresolved and with the Ontario Land Tribunal. SSWA recommends independent noise/vibration, odour,

and dust analysis/ studies be conducted should the proposed quarry come into fruition.

It should be noted that the Garner West Secondary Plan area was added for urban, community use prior to the Quarry applications (Planning Act) having been received by the City. It is known to the proponents of the Quarry that the Garner West Secondary Plan will contain sensitive receptors.

2.3 Official Plan & Zoning Details of Proposed Site and Surrounding Area

The Plan Area is designated Greenfield Area as per Niagara Region Official Plan (Schedule B – Regional Structure, May 2024 Consolidation). The City will recognize these Greenfield lands as being added to its urban area boundary as part of the required conformity amendments included in the City's new Official Plan process underway currently. The City's new Official Plan will identify the appropriate urban designation for the Plan Area, providing the appropriate accommodation for the secondary planning requirements. The City's current Official Plan designations are shown in Appendix B.

The Plan Area zoning is currently a combination of predominantly agricultural zoning with hazard land (flood plain and environmental features), open space (golf course), and a single tourist commercial site (motel), as per Niagara Falls (Zoning Bylaw 79-200).

The lots located immediately to the west of the subject property are zoned as agricultural, and hazard land.

The areas to the south are zoned residential and light industrial (however, were approved for residential and remain under appeal). There is also some environmental zoning, hazard lands zoning, and a small development holding zone, as these lands transition to residential use.

Lands east comprise of residential, environmental, open space, and some development holding zones. There is some tourist commercial zoning at the corner of Lundy's Lane and Garner Road.

Lands north remain in a camping establishment zone hosting seasonal mobile home operations with ancillary commercial uses occurring as well.

A map from the City of Niagara Falls is included in Appendix B.

3.0 ASSESSMENT CRITERIA AND METHODOLOGY

3.1 General Information

The intent of this study is to survey the area surrounding the Plan Area to identify whether any of the existing or proposed future land uses present a potential concern with regard to incompatibility. In the case where the potential for compatibility concerns exists, additional investigation will be warranted to determine the severity of potential impacts and to identify control measures to eliminate or mitigate adverse effects. The assessment has been based on SSWA's experience with industrial facility emissions within the MECP frameworks in the context of land use planning and applications for Environmental Compliance Approvals.

3.2 D-Series Guidelines

The D-series guidelines were developed in 1995 by the MECP with the intent to provide a methodology for reviewing cases where non-sensitive land uses are proposed to be located in proximity to sensitive land uses, or vice versa, to identify the potential for adverse effects related to environmental contaminants. Several D-series guidelines exist for likely sources of potential incompatibility, such as sewage treatments plants (D-2), oil & gas pipelines (D-3), landfills (D-4), and water service (D-5), with the overarching methodology being described in D-1 "*Land Use and Compatibility*".

The specific document which will apply in the subject case is that for industrial land uses, i.e., D-6 "*Compatibility between Industrial Facilities*," which will be the primary reference for this assessment. The D-6 guideline is concerned with adverse effects as a result of "*point source and/or fugitive air emissions such as **noise, vibration, odour, dust** and others, either through normal operations, procedures, maintenance or storage activities, and/or from associated traffic/transportation.*"

The definition of "adverse effects" is included in the Environmental Protection Act (EPA), and can include one or more of the following:

- Impairment of the quality of the natural environment for any use that can be made of it
- Injury or damage to property or to plant or animal life
- Harm or material discomfort to any person
- An adverse effect on the health of any person
- Impairment of the safety of any person
- Rendering any property or plant or animal life unfit for human use
- Loss of enjoyment of normal use of property; and
- Interference with the normal conduct of business

3.2.1 D-6 Guideline Classifications and Setback Distances

The primary mechanism used within D-6 to identify and to limit the potential for adverse effects is the use of distance setbacks based on the classification of an industry within certain criteria.

A given property or land use must be characterized as light, medium, or heavy industrial referred as Class I to Class III, respectively. The table below illustrates the industrial categorization criteria as identified in Appendix A of D-6, referred to as D-6-1 “*Industrial Categorization Criteria*.”

Industrial Categorization Criteria (per D-6-1)					
Category	Outputs	Scale	Process	Operation /Intensity	Possible examples
Class I – Small Scale Industrial	- Noise: Sound not audible off property - Dust and/or Odour: Infrequent and not intense - Vibration: No ground borne vibration on plant property	- No outside storage - Small scale plant or scale is irrelevant in relation to all other criteria for this Class	Self-contained plant or building which produces/stores a packaged product. Low probability of fugitive emissions	- Daytime operations only - Infrequent movement of products and/or heavy trucks	- Electronics manufacturing and repair - Furniture repair and refinishing - Beverages bottling - Auto parts supply - Packaging and crafting services - Distribution of dairy products - Laundry and linen supply
Class II – Medium Scale Industrial	- Noise: Sound occasionally audible off property - Dust and/or Odour: Frequent and occasionally intense - Vibration: Possible groundborne vibration, but cannot be perceived off property	- Outside storage permitted - Medium level of production allowed	- Open process - Periodic outputs of minor annoyance - Low probability of fugitive emissions	- Shift operations permitted - Frequent movement of products and/or heavy trucks with the majority of movements during daytime hours	- Magazine printing - Paint spray booths - Metal command - Electrical production manufacturing - Manufacturing of dairy products - Dry cleaning services - Feed packing plant
Class III – Large Scale Industrial	- Noise: sound frequently audible off property - Dust and/or Odour: Persistent and/or intense - Vibration: Ground-borne vibration can frequently be perceived off property	- Outside storage of raw and finished products - Large production levels	- Open process - Frequent outputs of major annoyances - High probability of fugitive emissions	- Continuous movement of products and employees - Daily shift operations permitted	- Manufacturing of paint and varnish - Organic chemicals manufacturing - Breweries - Solvent recovery plants - Soaps and detergent manufacturing - Manufacturing of resins and costing - Metal manufacturing

The notes on the subject table indicate that the categorization of a particular industry can vary with respect to the specific site conditions. It is noted that some of the uses listed in the ‘Possible examples’ column might otherwise be considered a commercial use (i.e., auto parts supply, dry cleaning, etc.) however in the context of D-6, these uses are considered as industrial uses.

The D-6 guidelines list specific distance setback criteria for Class I to Class III industries to identify the potential for incompatibilities, and to mitigate such adverse effects. The guideline defines “influence areas” for the various classes of industries to identify the potential area of influence within which adverse effects may be experienced, outlined in D6-4.1.1 *“Potential influence areas for industrial land uses.”* Further to this, the guideline also defines “minimum separation distance” between industrial and sensitive uses to provide buffer space between the uses to mitigate adverse effects, as outlined in D6-4.3. The guideline recommends that *“no incompatible development [...] should occur [within the minimum separation distances] even if additional mitigation for adverse effects [...] is provided.”* However, the guideline also states that such development may be permitted to proceed in the case of redevelopment, infilling, and mixed-use areas, as defined in D6-4.10. The table below illustrates the area of influence and minimum separation distance setbacks for each of the industrial classifications.

Industry Classification	Influence Area (D6-4.1.1)	Minimum Separation Distance (D6-4.3)
Class I – Light Industrial	70 m	20 m
Class II – Medium Industrial	300 m	70 m
Class III – Heavy Industrial	1,000 m	300 m

The distance setbacks above are measured from the property lines of the source and receiver land uses, to guarantee full use of the property area upon each site.

With respect to the proposed Walker Quarry, it is important to note that the future development within the Plan Area, once subdivided, will likely be further separated by intervening zoning for environmental or hazard lands, in light of current site conditions. This will have the effect of further reducing potential impacts to proposed dwellings from operations. Nevertheless, the subject analysis will consider whether there is the potential for any adverse impacts anywhere upon the subject property.

The guideline in Section 4.1.3 also indicates that the influence area may be reduced through the use of industrial controls applied at the industrial source, which may enable an industry to be categorized as a lesser Class, thereby reducing the necessary minimum separation distance requirements set out above.

In cases where the distance setback between a sensitive land use is within the influence area for a given industry, additional studies should be conducted to assess impacts based on more detailed designs for respective development proposals.

As part of this land use compatibility assessment, SSWA prepared a diagram outlining the various distance setbacks with respect to the Plan Area limits containing the proposed sensitive uses, and identified whether any potential Class I, II, and III industries were within the relevant setbacks based on aerial photography; the setback figure is included in Figure 3. These classifications were

then considered based on-site visits to observe/ confirm uses in relation to the Plan Area on March 7, 2023.

Figure 3 illustrates the distance setbacks surrounding the Plan Area and all of the potential industrial sites which were considered in this assessment.

3.3 MECP Environmental Compliance Approvals

In addition to the review of all facilities within the distance setbacks identified in D-6, this land use compatibility assessment included a review of any existing Environmental Compliance Approvals (ECAs) held by the surrounding properties. The MECP requires that industrial facilities obtain and maintain an ECA to ensure compliance with all applicable limits for any potential off-site adverse effects. The presence of an ECA for a subject facility represents an undertaking to measure, monitor, and control emissions and adverse effects at offsite points of reception to avoid or mitigate impacts.

SSWA utilized the MECP's online Access Environment tool in order to collect any and all ECA documentation in the areas of influence surrounding the Plan Area. Where a property was subject to an ECA, reference is made in the analysis below.

3.4 Meteorological Data

Weather conditions, in particular wind speed and direction, can cause airborne contaminants, particularly odour, noise, and dust, to propagate further and to increase the potential influence area for a given industry.

The wind rose diagram for the area close to the Plan Area was sourced from meteoblue.com, to determine the prevailing wind direction and intensity. The wind rose diagram is included in Figure 4 and shows that typically the wind in the subject area prevails from a south-westerly/ Westerly direction. Although there exists Dans Produce South-west of the Plan Area, it is not expected that there will be adverse effects in the form of wind carrying airborne contaminants toward the Plan Area as a result of wind direction.

4.0 SURVEY OF SURROUNDING INDUSTRIES

- 4.1** The influence areas for this project as set out in the D-6 environmental guideline are illustrated in Figure 3. SSWA utilized this figure to identify potential sites for observation, and later conducted onsite investigation to assess the potential for impacts from the subject facilities, where local industries were visited, inventoried, and examined.

At the time the site visit, there was no noticeable dust, odour, air quality or vibration impacts observed from any of the surrounding industries on the proposed site. The noise environment around the proposed site was dominated by noise from surrounding road traffic. The potential impacts from each individual site are discussed in detail in the following sections.

It is important to note that the proposed uses within the Plan Area itself are not considered to be of concern with respect to impacts upon the neighbouring properties. The proposed undertaking to develop/ redevelop the site is not expected to introduce any permanent sources of noise, vibration, odour, or dust. As such, this analysis has only considered the impacts from external sites upon the Plan Area.

The following is a summary and analysis of all neighboring industries of concern as per their respective D-6-1 industrial categorization criteria classification, as well as a determination regarding additional assessment.

4.2 Dan's Produce

Company Name	Dan's Produce
Address	7201 Beechwood Rd.
Approx. Distance to Plan Area	50 m
Figure 3 Reference Number	1
Industry Classification Assessment	Class I
ECA Number	N/A

The first land use identified in proximity to the Plan Area is Dan's Produce, which is a fresh produce storage and distribution facility located approximately 50m west of the Plan Area. The facility contains at least 6 garage overhead doors to facilitate the shipping and receiving of produce through use of both refrigerated and non-refrigerated delivery trucks.

During SSWA's site inspection, no noise, dust, or odour was realized from Dan's produce. As per the D-6 guideline and as Dan's produce is considered a Class I industry, this industry does not require independent study. SSWA does not expect

adverse effects as far as odour and dust, however, due to the nature of this facility, the undertaking of an independent noise study is required to address proximity to future noise sensitive spaces at the time of more detailed planning applications for localized site development proposals.

4.3 Garlund Properties Inc. (Tenant BV Glazing Systems)

Company Name	BV Glazing
Address	4855 Garner Rd.
Approx. Distance to Plan Area	140 m
Figure 3 Reference Number	2
Industry Classification Assessment	Class II
ECA Number	N/A

The second land use identified in proximity to the subject development site is operating as BV Glazing Systems and offers manufacturing of residential railing and commercial glazing products. This includes but is not limited to curtain wall systems, skylights, canopies, metal panels, commercial terrace domes, and custom stainless-steel fittings.

The subject facility was visited by SSWA staff to observe the potential for emissions from the facility. Based on the observations/ operations of the facility, as well as the equipment present, it appears to bear most characteristics of a Class II industry.

The facility is located approximately 140m from the Plan Area boundary, which places it within the influence area for a Class II industry (300m). It should be noted however that residential land uses exist in very close proximity to the subject industry (as close as 30m to the west).

As such, although SSWA does not expect adverse effects on the Plan Area, as per the D-6 guideline this industry will require further investigation and independent studies as it pertains to noise, dust, and odour at the time of more detail planning application submissions for specific sites within the Plan Area.

5.0 CONCLUSIONS

A Land Use Compatibility assessment has been conducted in order to assess the potential for adverse impacts in terms air quality, dust, odour, noise, and vibration as perceived on the Plan Area (i.e. Garner West Secondary Plan Area) as a result of nearby industries.

A site visit was conducted to assess the actual perceived effects of fugitive dust, odour, noise, and vibration emissions on the Plan Area. Neighboring industries were also researched in order to gain a comprehensive understanding of the process taking place at each industry. Further, MECP Environmental Compliance Approvals for these neighboring industries were examined in order to assess the mitigation measures already put into place, as well as to gain further knowledge of the industries.

All of the above investigations cumulatively conclude that the neighboring industries are not expected to have any adverse effects on the proposed development as it pertains to dust, odour, vibration, and noise, and that the proposed development is anticipated to be compatible with the surrounding land uses.

Independent noise, dust, and odour studies are to be conducted as it pertains to BV Glazing Systems as a result of its proximity and the nature of its operations at the time of detailed applications for development. Additionally, an independent noise study is to be conducted as it pertains to Dan's Produce should the facility be proposed in proximity to a noise sensitive land use at the time of detailed application for development.

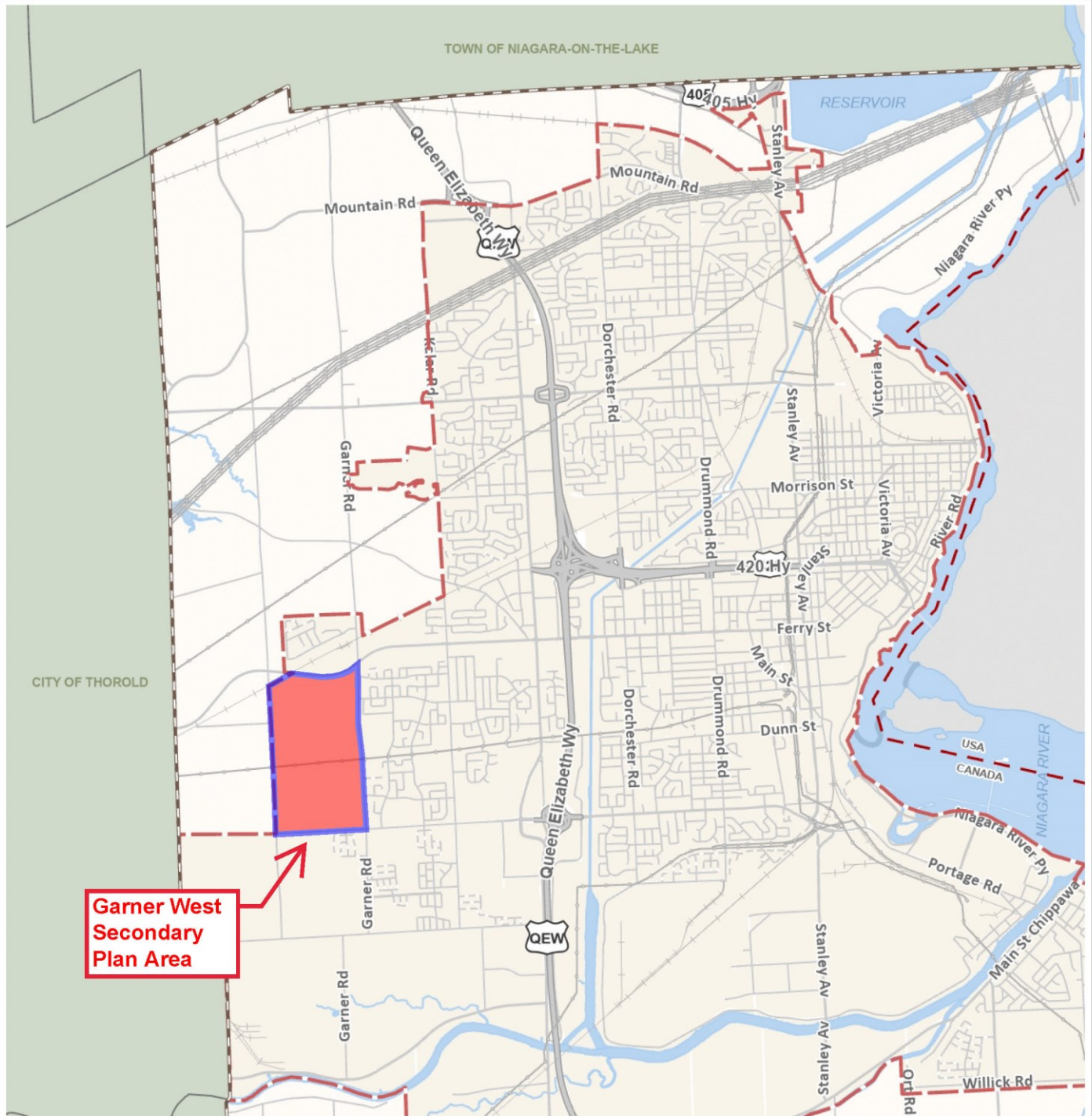
With regard to the proposed Walker Brothers Quarry to the north-west, SSWA recommends that independent noise/vibration, odour, and dust studies be undertaken to address the impact of the proposed Quarry on the Plan Area, should the project gain approval and come into fruition. Walker Brothers are aware and have acknowledged the planned use of the Garner West Secondary Plan for sensitive land use.

FIGURES



**FIGURE 1
KEY PLAN**

Garner West Secondary Plan Area - Location Map



**Garner West
Secondary
Plan Area**

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Print Date: 6/7/2023

**FIGURE 2
PROPOSED LOCATION MAP
GARNER WEST SECONDARY PLAN AREA**

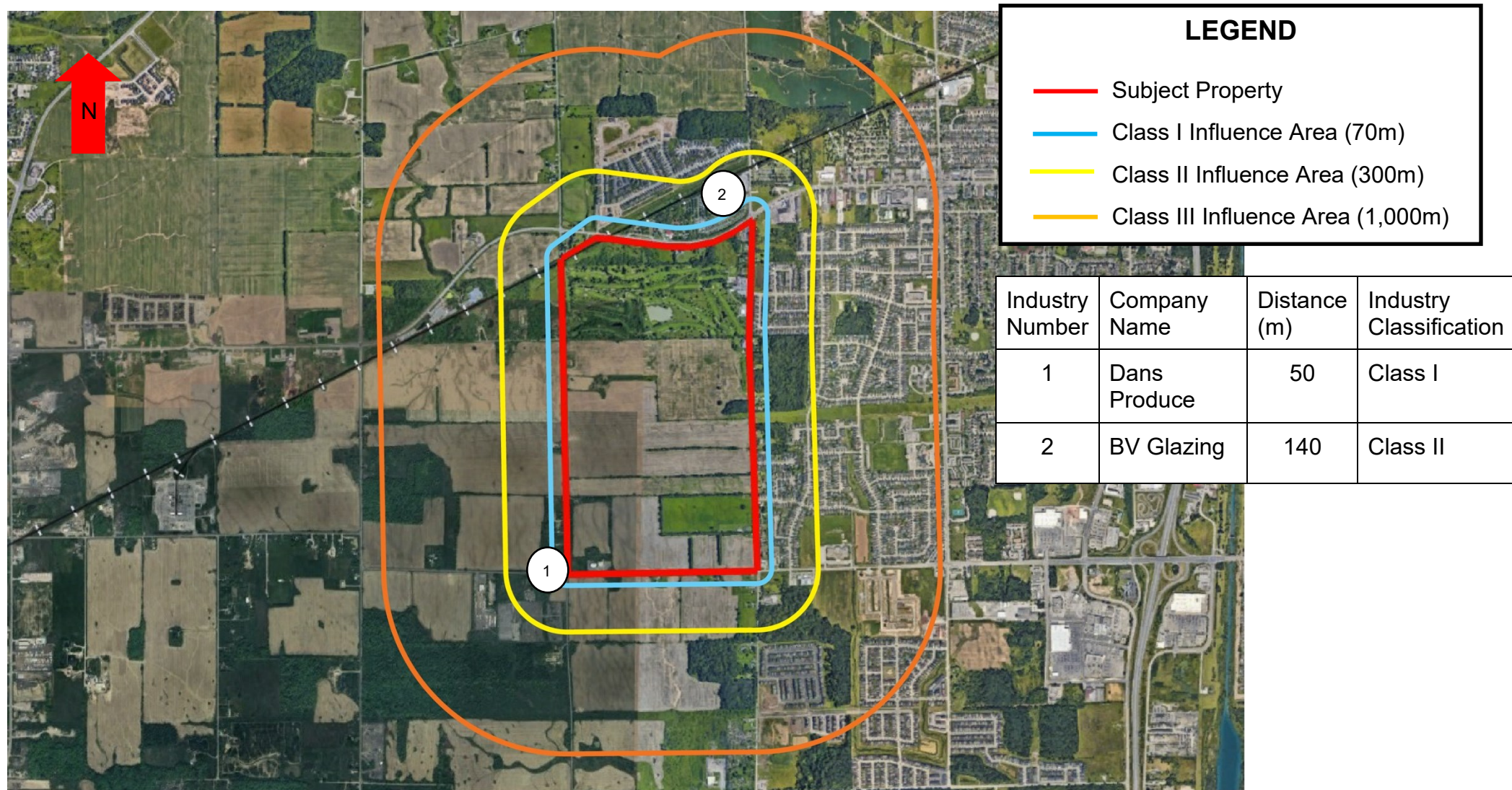


FIGURE 3
D-6 DISTANCE SETBACKS

Niagara Falls

43.10°N, 79.07°W (184 m asl).

Model: ERA5T.

meteoblue

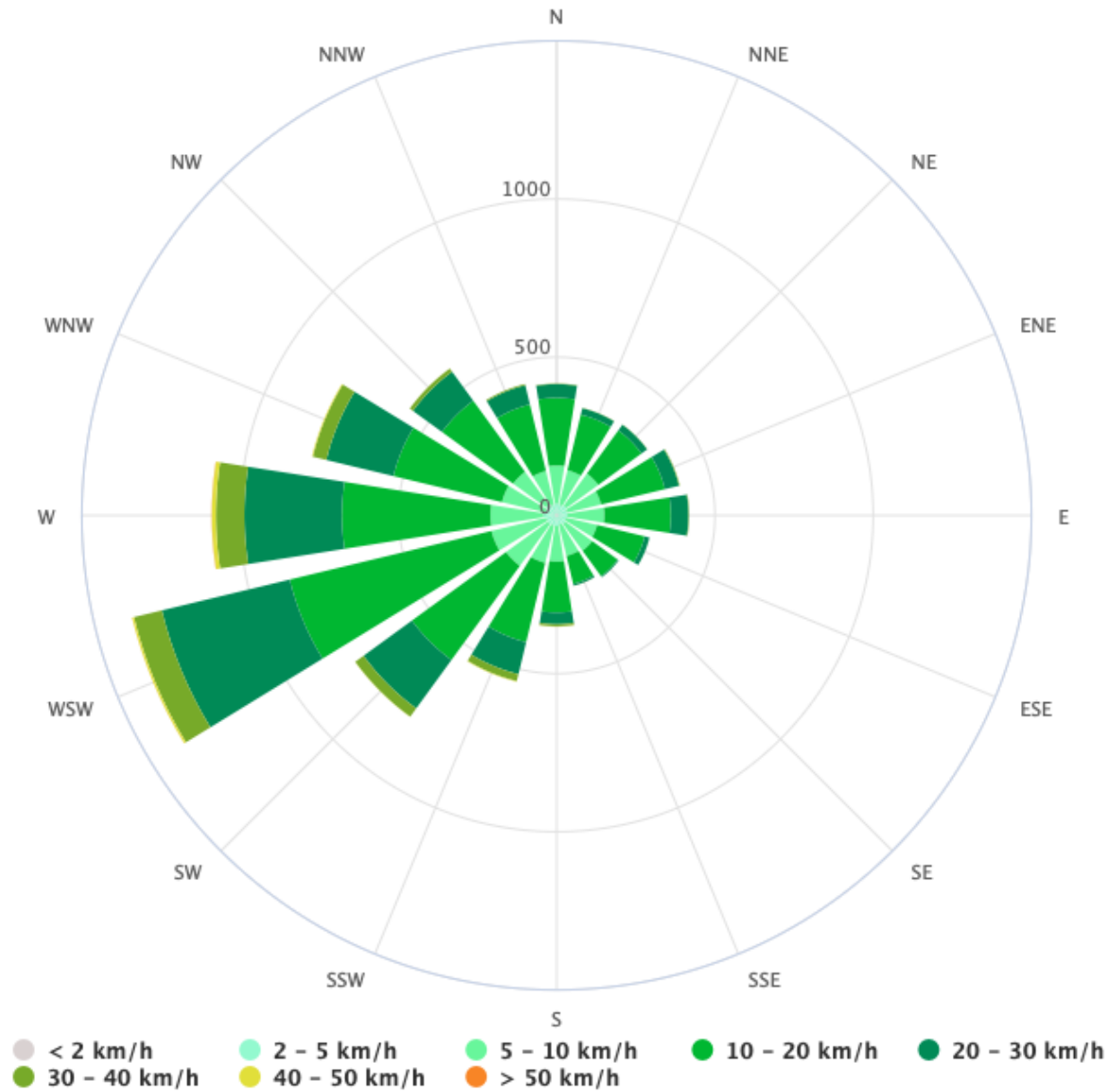
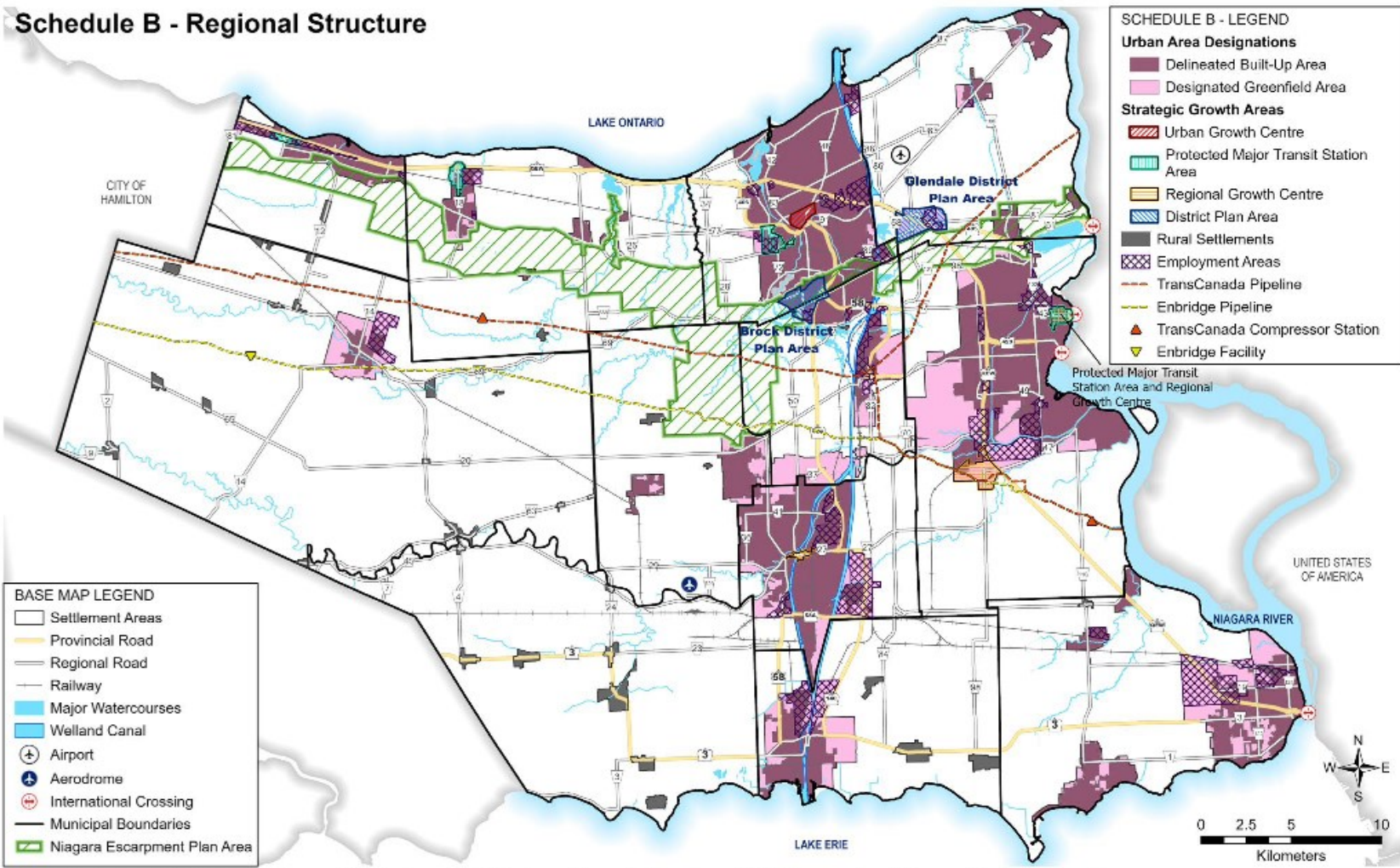


FIGURE 4
WIND ROSE DIAGRAM

APPENDIX A

NIAGARA REGION OFFICIAL PLAN REGIONAL STRUCTURE

Schedule B - Regional Structure



Appendix B
CITY OF NIAGARA FALLS OFFICIAL PLAN – SCHEDULE A –
LAND USE PLAN

