MIDHURST LANDOWNERS GROUP INC.

By E-mail to *clerks@springwater.ca*

May 15, 2025

Mayor Coughlin and Township Council
c/o Township Clerk
Township of Springwater
Chief Administrative Officer
2231 Nursery Road
Minesing, Ontario
L9X 1A8

Dear Mayor Coughlin and Township Council,

Re: Response to Council Resolution dated February 5, 2025
Future Residential, Community and Employment Lands in Springwater

I am writing on behalf of the Midhurst Landowners Group (the "**MLG**") further to our correspondence dated February 19, 2025, (the "**MLG February Correspondence**") in connection with the Resolution unanimously passed by Council on February 5, 2025 (the "**February Resolution**").

Firstly, we reiterate the MLG's unwavering support for the February Resolution respecting the potential expansion of the Midhurst Secondary Plan area, including lands to the east of Midhurst along the Highway 400 corridor and lands to the south of Midhurst (the "**Midhurst Expansion Lands**"). The MLG is committed to working cooperatively with Council and Staff at the Township of Springwater and the County of Simcoe, together with Ministries and Agencies of the Province of Ontario and other stakeholders to achieve Council's objectives as articulated in the February Resolution, unanimously approved by Council, including determining how water, wastewater and transportation infrastructure currently constructed and planned by the MLG can be designed to accommodate the proposed Midhurst Expansion Lands.

Since providing the MLG February Correspondence, the MLG has had productive discussions with the Township and County staff and Provincial agencies to update the technical studies to demonstrate the serviceability of the Expansion Lands and detail the policy basis for the proposed expansion.

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Enclosed with this letter are the following studies which have been completed on behalf of the MLG for Council's information and consideration at its upcoming meeting on May 21, 2025:

i) Planning Opinion and Land Budget Analysis by Malone Given Parsons;
ii) Economic Benefits Assessment by Keleher Planning & Economic Consulting;
iii) Wastewater Servicing Assessment by TYLin;
iv) Assimilative Capacity Study and Phosphorus Budget by Hutchinson Environmental Services Ltd.;
v) Water Servicing Assessment by TYLin;
vi) Linear Servicing Assessment by SCS Consulting Group;
vii) Transportation Assessment by BA Consulting Group; and
viii) Agricultural Report by Colville Consulting Inc.

Key Findings

We are pleased to summarize the key findings of the enclosed studies demonstrating that the Township's objectives are both visionary and achievable and can deliver great benefit to the Township and the County.

1. The Midhurst Expansion Lands respond to at least two pressing Provincial priorities:

   i) The need for the establishment of Special Enterprise Zones for employment uses, particularly along 400 series highways as part of the Province's economic development and strategy; and

   ii) The need to address the shortfall of housing in the Barrie Regional Market Area[1] (the "**RMA**"), particularly critically needed ground-related family housing.

2. The Highway 400 Enterprise Zone Employment Expansion Lands are strategically located along the Highway 400 corridor and present a significant opportunity to accommodate employment growth in the RMA. The location of these lands provides a connection to the Greater Toronto Area to the south, the Ring of Fire Special Economic Zone to the far north, and many critical economic zones in between, making

[1] Canada Mortgage and Housing Corporation (CMHC) defines Springwater (including Midhurst) and Barrie as part of the same regional market area. This definition is also recognized by Hemson Consulting in its *Joint Land Needs Study*, December 2024.

it an ideal location for logistics, warehousing, advanced manufacturing, and other employment-generating industries that rely on efficient transportation access.

3. There is a significant unmet demand for housing in the Barrie RMA. The Land Needs Assessment shows that there is a forecasted shortfall of 19,000 housing units in Barrie, primarily family-oriented ground-related housing units (singles, semis and row housing). As part of the RMA, the Midhurst Expansion Lands are ideally suited to help address that need in a cost-effective and timely manner.

4. The proposed Expansion Lands represent an historic opportunity to capitalize on significant infrastructure investments of over $500 million already made and planned to service the Midhurst Settlement Area, including $35 million committed to Springwater Township by the Province through its Housing-Enabling Water Systems (HEWS) Fund.

5. The Midhurst Expansion Lands can be serviced cost effectively and in accordance with regulatory requirements through expansions and/or modifications to the existing and/or e wastewater and water treatment facilities, the linear servicing conveyance system and transportation improvements.

    - The estimated cost to extend water and wastewater services to the Highway 400 employment lands is less than $20 million, providing the Township, County and Province with serviced industrial lands that will benefit from synergies with the Lake Simcoe Regional Airport, located less than 15 minutes to the east.

    - The estimated cost to extend water and wastewater services to the South Expansion area, including the Remington and Sadlon 'MZO' lands[2] which straddle Bayfield Street, is approximately $15 million. This would be accomplished by connecting into existing linear infrastructure at Snow Valley Road and Bayfield Street. This will open up the Bayfield corridor for new main street style mixed-use development, along the lines of what is found in Collingwood today, delivering additional benefits to the Township in the form of new property tax revenues and retail amenities for Springwater residents and visitors.

[2] In December 2023, Springwater Council supported separate requests by Sadlon and Remington for support for a Minister's Zoning Order to facilitate development on their respective properties.

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6. The technical work completed for the Midhurst Secondary Plan was visionary and set the stage for the Midhurst Expansion Lands.

    - The Class Environmental Assessment completed in 2020 for the Midhurst Secondary Plan addressed water, wastewater and transportation infrastructure requirements for the Midhurst Secondary Plan, a master planned community. The study area extended beyond the existing Midhurst Settlement Area.

    - The approved Master Drainage Plan completed for the Midhurst Secondary Plan extended beyond the Midhurst Settlement Area and included components of the Midhurst Expansion Lands.

    - We note that among the alternatives considered in the Class EA for the Midhurst Secondary Plan was the option of servicing via the City of Barrie. The City of Barrie option was rejected as its cost exceeded the Midhurst option due largely to the fact that the linear infrastructure at the north end of Barrie was not sized to accommodate the planned development. A new twinned forcemain to the plant would have been required. In 2009, the cost to service Midhurst via Barrie was calculated to be $119 million for water and wastewater (in 2025 dollars, that figure would amount to approximately $170 million).

7. As set out in the attached Economic Benefits Assessment, the Midhurst Expansion Lands would generate the significant economic benefits for the Township and County, as follows:

    a. Approximately **$11 billion** in property assessment for the Township:

        i. $6.1 billion residential and
        ii. $4.8 billion non-residential (industrial, commercial).

    b. Estimated annual property taxes generated for the Township and County of **$140 million**.

    c. Provide for and accommodate approximately **24,430 jobs** in the Township.

    d. **$715,886,814** in Development Charges for the Township, County and School Boards.

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e. Annual retail spending in the region of almost **$350 million** by the population to be accommodated in the Expansion Lands.

We trust that the enclosed material and findings will assist the Township and County in their deliberations on these matters. We would ask that our correspondence be placed on the agenda for the Springwater Township Council Meeting on May 21, 2025.

We look forward to continuing to work with the Township and County on this very important initiative.

Yours truly,
MIDHURST LANDOWNERS GROUP INC.



Daniel Steinberg, A.S.O.

Enclosures: As above.

Copy: Doug Herron, Interim CAO, Township of Springwater
Chris Russell, Manager of Planning Services, Township of Springwater
Trevor Harvey, Director of Public Works, Township of Springwater
Mark Aitken, CAO, Simcoe County
Rob Elliott, General Manager Engineer, Planning and Environment, Simcoe County
Nathan Westendorp, Director of Planning and Chief Planner, Simcoe County
Nancy Huether, Director of Economic Development, Simcoe County
Hon. Doug Downey, MPP for Barrie-Springwater-Oro Medonte and Attorney General
Brian Saunderson, MPP for Simcoe-Grey and Parliamentary Assistant to the Minister of Municipal Affairs and Housing
Midhurst Landowners Group

Malone Given Parsons.

Matthew Cory
905 513 0170 x146
mcory@mgp.ca

May 15, 2025

MGP File: 25-3421

Daniel Steinberg
Trustee
Midhurst Landowners Group
130 Adelaide Street West, Suite 2800
Toronto, ON M5H 3P5

Attention: Daniel Steinberg

Dear Mr. Steinberg:

RE: Request for Urban Boundary Expansion in Springwater to Accommodate Growth Needs in the Barrie Regional Market Area
Midhurst Landowners Group
Springwater, ON

Malone Given Parsons Ltd. ("MGP") is the planning consultant for the Midhurst Landowners Group (“MLG”), the owner of multiple properties designated for development within the Midhurst Settlement Area in the Township of Springwater, County of Simcoe. This planning opinion assesses the opportunity to expand the Midhurst Settlement Area and redesignate lands within the Settlement Area to accommodate growth needs within the Barrie regional market area.

These lands, as shown in Figure 1 in the next section. ("Subject Lands") are located in the Township of Springwater. The Subject Lands comprise approximately 1,870 hectares (4,620 acres) across two distinct areas, both adjacent to the community of Midhurst. One is located south of Midhurst and north of the existing municipal boundary of the City of Barrie (“Barrie”), while the other is situated east of Midhurst, generally along the Highway 400 corridor. Barrie has proposed to annex a portion of the Subject Lands south of Midhurst.

Background Context

In September 2023 Barrie initiated discussions regarding a proposed boundary adjustments with Springwater and Oro-Medonte to accommodate additional employment lands. Barrie’s original proposal sought to annex lands from both Springwater and the Township of Oro-Medonte (“Oro-Medonte) to address employment growth needs within Barrie. Later, Barrie’s proposal was revised to also include lands for residential uses.

As these discussions have progressed under the guidance of the Provincial Land and Development Facilitator, there exists a unique opportunity to leverage the infrastructure investments already being made in Midhurst to accommodate a portion of Barrie’s employment and residential growth within Springwater’s municipal boundaries, while also providing much-needed ground-oriented housing that cannot be provided in Barrie. This approach avoids the complexities of annexation while ensuring the timely servicing and

delivery of these employment lands and providing much needed housing growth within this regional market area. This approach also aligns with Council's direction, as outlined in its February 5, 2025 resolution, which recognized the opportunity for Springwater to accommodate both residential and employment growth within its own municipal boundaries, rather than through annexation, to support balanced and efficient development along key transportation corridors such as Highway 400.

Annexation is a complex, lengthy, and uncertain process that risks delaying the timely servicing and development of these lands. Rather than proceeding with an annexation that may take years to finalize, we are proposing an alternative approach—expanding the Midhurst community to include additional Community Area lands, that are strategically located adjacent to Midhurst and the existing Barrie built-up area, in order to facilitate the servicing and timely delivery of the proposed employment area. This approach not only facilitates the efficient servicing and delivery of employment lands but also provides the necessary residential growth to support them, ensuring a logical and coordinated development pattern. By integrating residential, employment, and community uses, this expansion supports the creation of a complete community where residents can live, work, and access essential services within close proximity, and reducing the need for long commutes.

Through our review of Barrie's Land Needs Assessment dated June 2019 and May 2021 (Barrie LNA), **Barrie faces a significant and unmet demand for ~19,000 additional ground-oriented dwelling units to 2051**, requiring approximately 1,250 hectares of land. However, this demand cannot be accommodated within Barrie's current boundaries, creating a risk of displacing families to other municipalities, which would hinder the Simcoe region's ability to meet its population targets. **As Springwater is within the same regional market area as Barrie (as determined by Canada Mortgage and Housing Corporation, and as stated in the Joint Land Needs Analysis and Study prepared by Hemson Consulting dated December 2024), Midhurst is well-positioned to assist in addressing this housing shortfall.**

Expanding the Midhurst Settlement Area's urban boundary and redesignating lands within the settlement area to include the Subject Lands offers a viable and efficient solution to addressing a portion of this housing shortage while supporting the needs of the broader regional market area. Located just 10 to 15 minutes from downtown Barrie, the Subject Lands provide a natural extension of growth that aligns with regional infrastructure and servicing plans.

The Subject Lands, which can accommodate ~7,200 ground-oriented homes, and ~3,200 high density homes, will assist in meeting this demand while leveraging existing and planned infrastructure investments in Midhurst. It is worth noting that even if the Subject Lands are used to accommodate these housing units, there will still be a shortfall of approximately 11,800 ground-oriented housing units in Barrie, which may need to be addressed through similar forward-thinking expansion strategies in other parts of the Barrie regional market area.

By leveraging the investments in wastewater, water and transportation servicing infrastructure in Midhurst, Springwater can provide much-needed housing options that align with regional growth objectives set out by the Province.

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Integrating Community Area lands together with Employment Area lands ensures a balanced approach to growth, enabling both residential and employment uses to be serviced in a timely and efficient manner. These investments offer an opportunity to ensure that families seeking ground-oriented housing can remain within the region, ensuring that the population forecasts can be met, and strengthening the economic and social vitality of the region.

In addition to addressing the Barrie regional market area's housing shortfall, **the expansion of Employment Area lands within Springwater to service the needs of the regional market area, represents a strategic and timely opportunity to enhance economic development. The Subject Lands are well-positioned along the Highway 400 corridor, a major goods movement route, and are in close proximity to the Lake Simcoe Regional Airport, which provides a critical economic facility for business operations and logistics. The growing demand for serviced large-footprint employment lands across the Greater Toronto Area (GTA) has made it increasingly difficult to secure suitable sites for advanced manufacturing, logistics, and other industrial uses**. Expanding the urban boundary to include these Employment Area lands will help address this regional shortage while ensuring that planned infrastructure investments in Midhurst are fully optimized to support both residential and employment growth.

With the United States imposing new tariffs and Canada's renewed interest in strengthening domestic supply chains, Ontario must ensure it has the capacity to manufacture and produce goods across all stages of the supply chain. **These employment lands provide a crucial opportunity to support domestic production, increase economic resilience, and position the Barrie regional market area (including Springwater) as a key contributor to Ontario, and Canada's ability to compete in a shifting global trade environment.** With the renewed public interest in the need for employment lands that facilitate domestic manufacturing that support northern resource development, including the Ring of Fire lands, and economic self-sufficiency, **this proposal represents a forward-thinking solution that aligns with both local and provincial and national priorities.**

The purpose of this letter is to outline our planning opinion in support of expanding the Midhurst Settlement Area urban boundary to include the Subject Lands. Through our analysis, we have identified a unique, logical, and efficient opportunity to address regional housing and industrial/employment needs. The Subject Lands are well-positioned to accommodate a diverse mix of low, medium and high-density residential uses , as well as employment and community uses, that will contribute to a robust complete community, aligning with the broader growth management goals of the Barrie regional market area and ensuring that critical housing demand for ground-oriented units is met.

1.0 Subject Lands and Surrounding Context

The Subject Lands encompass approximately 1,870 hectares (4,620 acres) and are strategically situated adjacent to the Midhurst Settlement Area with one small area within the Midhurst Settlement Area, as shown in the figure below. One area is located to the east of Midhurst, adjacent to the proposed annexation area for employment lands by the City of Barrie, while the other lies to the south of Midhurst, and directly north of the existing

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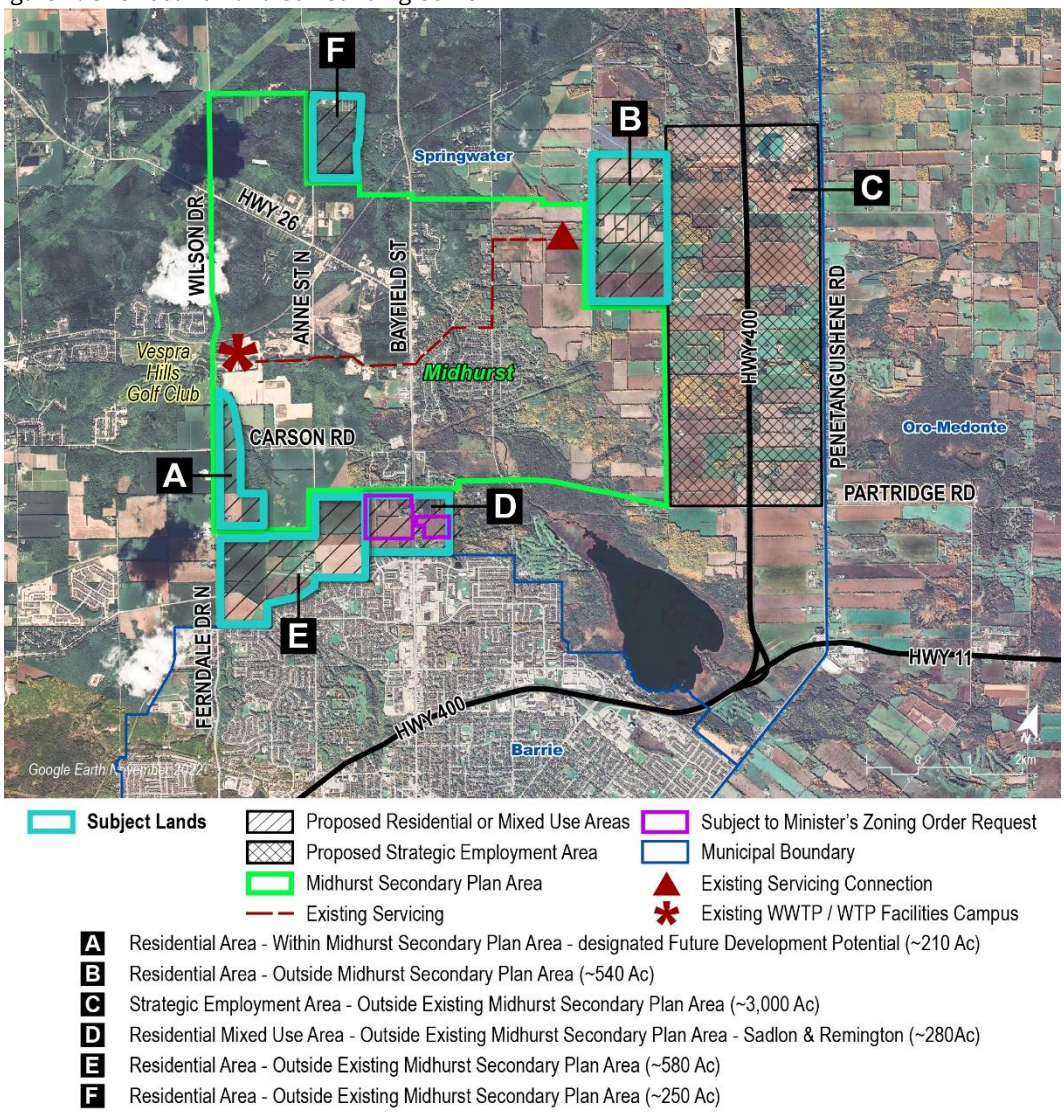
municipal boundary of the City of Barrie. This area contains lands recently proposed to be annexed by Barrie.

It is important to note that Springwater (including Midhurst) and Barrie are part of the same regional market area as recognized by the Canadian Housing and Mortgage Corporation (CMHC) and reiterated in the Joint Land Needs Analysis and Study prepared by Hemson Consulting dated December 2024.

Springwater and Barrie are part of the Barrie Subregion. Regional market areas are defined as larger geographic regions that encompass multiple municipalities and reflect how housing markets, employment patterns, and population growth function at a broader scale. They exhibit a high degree of economic and social integration. This interconnectedness underscores the strategic advantage of coordinating growth across municipal boundaries. Given this regional interconnection, **the PPS requires planning authorities to provide an appropriate range and mix of housing to meet projected needs within the regional market area.**

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Figure 1: Site Location and Surrounding Context



The Subject Lands benefit from proximity to key planned infrastructure investments, including the new state of the art water and wastewater treatment facilities associated with the master planned Midhurst Community which are able to be efficiently and effectively expanded to support the proposed growth. The Midhurst Secondary Plan is a master planned community for approximately 9,000 new households with associated community uses such as parks, a network of trails, open greenspace, and acres of environmentally protected areas.

Additionally, portions of the Subject Lands have been the focus of Minister's Zoning Order (MZO) requests that have been endorsed by Springwater Council. These requests, which pertain to two parcels—742 Bayfield Street North (Paul Sadlon Communities) and 727 Bayfield Street North (Remington Group)—reflect the Township's recognition of the strategic location of these lands and their potential role in supporting future community development. The MZO request for 742 Bayfield Street North proposes a community subdivision featuring 2,000 residential units in multiple housing forms, along with recreational spaces, mixed-use medical and commercial opportunities, and attainable housing options. The MZO request for

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727 Bayfield Street North envisions a seniors-focused medical campus, including long-term care facilities, retirement residences, and associated medical and retail uses. Springwater Council's endorsement of these proposals underscores the municipality's proactive acknowledgment that these lands are well-suited for urban expansion and can contribute to a complete community that meets a range of residential and employment needs in Springwater.

The Subject Lands to the east of Midhurst are strategically located along the Highway 400 corridor. These lands present a significant opportunity to accommodate employment growth within Springwater while serving the broader regional market area. Highway 400 is a critical goods movement corridor that provides easy access to the Greater Toronto Area market to the south ,the Ring of Fire Special Economic Zone to the north and many critical economic zones in between, making it an ideal location for logistics, warehousing, advanced manufacturing, and other employment-generating industries that rely on efficient transportation access.

The corridor's direct highway access enhances connectivity for businesses, allowing for the seamless movement of goods and services while attracting a broad range of employers seeking high-visibility, well-connected locations. The Subject Lands also benefit from their proximity to existing and planned infrastructure investments, including water and wastewater servicing and transportation improvements, which will ensure the timely and cost-effective delivery of employment uses. Additionally, retaining these employment lands within Springwater supports a balanced approach to growth, ensuring that new job opportunities are developed in conjunction with residential expansion, thereby reducing the need for long commutes and supporting economic self-sufficiency within the Township.

By retaining these employment lands within Springwater, the Township can ensure that job growth is aligned with planned infrastructure investments, supporting economic development in a key regional employment corridor. Collectively, these factors emphasize the readiness of the Subject Lands to support efficient, orderly, and sustainable growth within the Township's urban boundary, while providing much-needed family-oriented housing in the Province.

The Subject Lands have been analyzed to estimate their development potential, demonstrating the feasibility of their inclusion within the urban boundary. It is envisioned that the Community Area lands can accommodate approximately 10,400 dwelling units, consisting of 7,200 ground-oriented units (single-detached, semi-detached homes, and townhomes), and 3,200 high-density units. Over time, this development would support a population of approximately 27,000 people, generate 2,450 population-related jobs, include schools and more than 45 hectares of parkland. In addition, it is anticipated that the Employment Area lands along Highway 400 will generate a job yield of approximately 22,380 jobs (as determined in the Midhurst Area Boundary Expansion – Economic Benefits Memo prepared by KPEC dated May 12, 2025).

The development will be planned to protect the natural heritage features, and implement appropriate stormwater management controls, and opportunities for trail connections, and open spaces, ensuring a sustainable and balanced approach to growth that assists with providing a complete community.

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2.0 Midhurst Community and Planned Servicing Infrastructure

The master-planned Midhurst community underscores the rationale for expanding the urban boundary to include the Subject Lands, as it capitalizes on the substantial public and private infrastructure investments of over $500 million that have been made and are planned. As a designated settlement area, Midhurst has benefited from significant investments in municipal servicing infrastructure and this new development can be serviced utilizing the existing Midhurst Water Treatment Plant and Wastewater Treatment Plant through an expansion, as confirmed through the Water and Wastewater Servicing Memos prepared by TYLin dated May 2025.

In addition, the existing and planned linear servicing and stormwater management systems can be relied upon and/or be expanded upon to effectively convey the additional water, wastewater and stormwater demands, as identified in the SCS Consulting Group memo dated May 2025.

As indicated in the BA Group letter dated May 2025, transportation improvements are also already contemplated for the key corridors beyond the Midhurst Settlement Area and therefore these planned improvements and potential additional improvements are able to support the additional growth generated from the Subject Lands.

These initial infrastructure investments provide a strong foundation that can support development on the Subject Lands, as described above. By leveraging this existing and planned capacity, Springwater can optimize its infrastructure investments, enabling cost-effective and efficient service delivery while avoiding the need for substantial new infrastructure.

Furthermore, the Subject Lands' location within Springwater, adjacent to planned development and the existing built-up area (both in Midhurst and Barrie), ensures logical and contiguous development patterns, aligning with objectives of sustainable, logical, and orderly land use planning.

3.0 Land Needs Assessment

In 2018, Barrie initiated a Municipal Comprehensive Review and New Official Plan project in order to determine their conformity to the former A Place to Grow: A Growth Plan for the Greater Golden Horseshoe ("Growth Plan") and to develop Official Plan policies to guide the City's development to the 2041 planning horizon. As part of this, Watson & Associates Economists Ltd., on behalf of Barrie, prepared a Land Needs Assessment (LNA) to 2041, which was eventually updated to 2051 with the "Made-in-Barrie" memo by Dillon Consulting in May 2021. Collectively, these documents outline the strategy to accommodate growth to the 2051 horizon under the former Provincial Growth Plan.

The assessment assumes a high reliance on intensification, aiming for 50% of new housing within the Built-Up Area (BUA) and a density of 62 people and jobs per hectare in Designated Greenfield Areas (DGAs). The approach significantly exceeded the former Growth Plan's minimum density targets and was heavily dependent on high-density housing forms (i.e. apartments). This included an expectation that a substantial portion of families—adults aged

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30-54 years old with children—will need to reside in high-density units. This assumption was carried forward even though it was acknowledged that this would be challenging given the relatively higher price and carrying costs associated with larger apartments (i.e. apartments with greater than two bedrooms) compared to more compact and cost-effective ground-oriented housing forms with relatively comparable livable space (i.e. townhouses, stacked townhouses/back-to-back townhouses, and other low-rise hybrid buildings).

This reliance on high-density housing represents a significant shift from the projected housing needs identified in previous Provincial forecasts. The Provincial Planning Statement 2024 (PPS 2024) states that municipalities can rely on previously issued Provincial forecasts to determine housing needs. The most recent of these forecasts is the Technical Backgrounder to the Growth Plan, prepared by Hemson Consulting in August 2020 ("Hemson's Technical Backgrounder"), which provides a baseline for understanding anticipated housing need and represents the minimum amount of housing that must be planned for.

Hemson's Technical Backgrounder, which informed long-term growth planning across the Greater Golden Horseshoe, is based on detailed demographic and economic analyses that consider long-term trends in household formation, migration, and housing preferences. The forecasts account for the shifting demand for housing types across different age cohorts, recognizing that **while urban centers have seen increasing demand for high-density housing, suburban areas continue to experience strong demand for ground-oriented units, including single-detached, semi-detached, and row housing.** As these forecasts establish the minimum required housing supply, municipalities must ensure that their land use planning decisions do not constrain the ability to meet or exceed these projections. Hemson's forecasts reflect these trends by incorporating a balanced housing mix that includes single-detached, semi-detached, row houses, and apartments to align with demographic shifts and market preferences.

As summarized in Table 1, there is a projected housing need in Barrie for ~89,000 ground-oriented homes (singles/semis/rows), as per Hemson's Technical Backgrounder forecast, while Barrie has only planned for ~70,000. This creates a shortfall of ~19,000 ground-oriented homes, which could lead to significant housing challenges for the region, further exacerbating the housing crisis in Southern Ontario, including the displacement of families to other regions in Ontario and Canada due to an insufficient supply of family-oriented housing.

Table 1: Comparison of Housing Forecasts to 2051

	Singles/Semis	Rows	Apartments	Total
Hemson (2020)	72,200	16,700	22,100	111,000
Barrie LNA (2021)	45,039	25,068	47,642	117,749
Difference	**-27,161**	**8,368**	**25,542**	**6,749**

While it is appropriate to aspire to increase the supply of apartment dwellings, a land needs assessment must ensure that there is sufficient land available to accommodate the full range of projected housing needs based on household type. In this case, that means planning for more ground-oriented housing (in the amount of ~89,000) to reflect actual housing need. It is inappropriate to assume that a significantly higher number of apartment units will be

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realized and relied upon to meet required housing and population targets, particularly given historical trends.

The additional 25,540 apartments over and above the projected needs may not actually be realized, and while it can be planned for, it should not be used to assist in realizing the population target. Combined with the undersupply of land to accommodate approximately 19,000 ground-oriented units, Barrie may undersupply the anticipated housing mix by 44,500 homes (i.e. not building the additional 25,540 apartment units and not planning for enough land supply to accommodate the ~19,000 ground-oriented units). This misalignment will undermine Barrie's ability to meet its minimum population targets, as an insufficient supply of housing options is likely to drive families to relocate outside the municipality, impacting overall growth and economic stability.

Moreover, the methodology in Barrie's LNA also did not analyze the housing demand on a unit-type basis, and instead blends the densities of multiple unit types. This does not accurately assess the land needs and warps the required unit mix. Blending densities in a LNA can distort results by misrepresenting the relationship between housing demand and land supply for specific unit types. If the remaining supply of certain housing types (e.g., single-detached homes) is limited, blending assumes an average density that doesn't reflect actual market conditions or preferences. This approach risks underestimating land needs for low-density housing or overestimating for high-density types like apartments, leading to mismatched planning outcomes. By assessing housing demand by unit type, the assessment ensures a more accurate alignment between supply and the housing mix required to meet the housing projections, resulting in balanced growth and sustainable community development.

Given that Barrie cannot accommodate the required ground-oriented housing within its boundaries, it is necessary to consider options within the regional market area, including the Subject Lands in Springwater.

The Province has made housing supply a priority, and leveraging additional land in Springwater aligns with this mandate by ensuring sufficient land for a diverse range of housing options.

Expanding the Midhurst Settlement Area urban boundary to include the Subject Lands provides a logical and efficient solution to help address this housing shortfall while supporting regional growth objectives. The Subject Lands present an opportunity to accommodate ground-oriented housing in a strategic location while leveraging existing and planned infrastructure investments. Given Ontario's critical housing shortage, a proactive approach to urban expansion is necessary to meet long-term housing needs, ensuring that growth is distributed appropriately within the regional market area.

3.1 Response to Settlement Area Boundary Expansion Evaluation Criteria

It is our opinion that the Subject Lands represent an appropriate location for a settlement expansion as they can achieve the County's criteria for settlement area boundary expansion and are consistent with the Provincial Planning Statement, 2024 ("PPS").

The following Section addresses the key policy considerations as they relate to settlement boundary expansions

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We have reviewed the settlement expansion criteria established in the PPS 2024 and the County of Simcoe Official Plan including additional criteria for settlement area boundary expansions developed by MGP that ensure good planning and appropriate expansions. Through our review, **it is our opinion that the Subject Lands represent an excellent opportunity for the Township and County to accommodate growth through the creation of innovative and complete communities and to do so in a manner that can be serviced in a fiscally sustainable manner.**

The assessment of the evaluation criteria shows that the requested expansion is appropriate and consistent with/conforms to (as the case may be) the applicable policies for the following reasons:

- Based on the Barrie LNA, there is a clear shortfall in ground-oriented housing due to an overreliance on high-density apartment units to accommodate future growth. The methodology used in Barrie's LNA distorts the true land need by blending densities across housing types instead of directly comparing unit demand to available land supply. As a result, based on the MGP Analysis, there is an estimated deficit of 19,000 ground-oriented units, requiring approximately 1,250 hectares of additional Community Area land to meet projected growth demands to 2051. **Given that Barrie does not have sufficient land within its boundaries to accommodate this shortfall, it is necessary to consider other opportunities to accommodate the growth within the regional market area.**
- Given the accelerated growth of the Midhurst Secondary Plan area, over the planning horizon, there is a need and opportunity to designate additional Employment Areas as noted in the Joint Land Needs Analysis and Study prepared by Hemson Consulting dated December 2024. The Subject Lands represents a prime opportunity for the Midhurst area to develop as a complete community with a balanced mix of residential and employment opportunities.
- The Subject Lands represent a logical area for urban expansion as they include both Community Area and Employment Area lands with the following characteristics:
    - The Subject Lands can be planned as a complete community, integrating residential, employment, and community uses to accommodate the projected housing and job growth needs in the regional market area. These areas will provide additional and diverse housing supply abutting the existing settlement area, or a potential future employment area. Moreover, they can be comprehensively developed to provide for opportunities to address climate change goals, including promoting compact and energy-saving designs, developments with greater densities, and transit-supportive and walkable communities to lower GHG emissions stemming from buildings and transportation.
    - The Subject Lands include a portion planned for employment uses. By proposing these lands for employment, the Township can ensure the timely delivery of employment opportunities in a strategic location along the Highway 400 corridor while benefiting from planned servicing infrastructure. This employment area will contribute to job growth in the broader regional market area, reinforcing economic development objectives.
    - The Subject Lands are located immediately adjacent to the Midhurst

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Settlement Area and are strategically located to provide a portion of the required Community Area land needs that are required in Barrie. Servicing infrastructure in Midhurst either exists or can be extended to the lands in a timely and efficient manner as outlined in the analyses by TYLin and SCS Consulting Group dated May 2025

- The new and expanded transportation infrastructure already planned for Midhurst through the Secondary Plan and Transportation Master Plan process, have made allowances to accommodate increases in traffic volume associated with the additional residential development, as demonstrated in the Transportation Analysis by BA Group, dated May 2025. Any further improvements that are identified to accommodate growth can be seamlessly added to the already contemplated improvements.
- The development of the Subject Lands will continue the orderly development pattern of the Midhurst Settlement Area and as such, will help utilize existing public facilities including a variety of schools, a Community Centre, public parks, and servicing infrastructure
- The proposed expansion lands, as well as any required infrastructure and services, will be planned in a financially and environmentally sustainable manner over their full life cycle through robust technical studies in accordance with Provincial and local planning policies. The Subject Lands benefit from the location of existing infrastructure.
- There are no specialty crop areas in the proposed expansion areas.
- The proposed expansions are located outside of the Greenbelt.

The proposed settlement area expansion represents an opportunity to create a complete community that accommodates both residential and employment growth, ensuring a balanced mix of housing and jobs in the Barrie regional market area. We believe that the Subject Lands are representative of a logical and optimal location to accommodate a portion of the required settlement area expansion needed to achieve the growth forecasted in Barrie to 2051.

4.0 Conclusion

In reviewing Barrie's LNA, it is evident that Barrie's current growth strategy relies too heavily on high-density housing and does not adequately account for the housing need for ground-oriented housing. This approach has resulted in a shortfall of approximately 19,000 units, necessitating 1,250 hectares of additional Community Area land. Given that Barrie lacks sufficient land within its boundaries to accommodate this need, it is appropriate to consider urban expansion elsewhere in the regional market area.

The Subject Lands represent a logical and viable option for settlement expansion. They are strategically positioned adjacent to existing and planned infrastructure in Midhurst, ensuring cost-effective and efficient servicing. Their location allows for a logical extension of planned urban development while supporting orderly and sustainable growth. Moreover, the expansion of the Midhurst Settlement Area urban boundary would allow for the creation of a complete community that integrates residential, employment, and community uses while addressing the region's housing needs.

140 Renfrew Drive, Suite 201 | Markham | Ontario | L3R 6B3 | T: 905 513 0170 | F: 905 513 0177 | mgp.ca

It is our opinion that the inclusion of the Subject Lands within the urban boundary aligns with Provincial, County and local municipal planning policies and represents an optimal solution to address regional housing challenges and facilitates the achievement of provincial priorities to deliver more critically needed housing and advance strategic economic development.

Please contact the undersigned to discuss these applications and the contents of this package.

Yours very truly,
Malone Given Parsons Ltd.

Matthew Cory, MCIP, RPP, PLE, PMP
Principal, Planner, Land Economist, Project Manager

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May 12, 2025

Memorandum to: Daniel Steinberg
Trustee, Midhurst Landowners Group
130 Adelaide Street West, Suite 2800, Toronto ON, M5H 3P5

From: Daryl Keleher, MCIP, RPP, Principal
Keleher Planning & Economic Consulting Inc.

Re: Midhurst Area Boundary Expansion – Economic Benefits
Our File: P1210

Keleher Planning & Economic Consulting Inc. was retained by the Midhurst Landowners Group ("Landowners") to assess and estimate the impacts that the development of the proposed expansion to the Midhurst Settlement Area including the establishment of a Special Economic Zone on Highway 400 ("subject lands") would generate (at build-out) on the finances and economy of the Township of Springwater and Simcoe County.

The table below summarizes the economic benefits generated by the development of the subject lands:

Summary of Economic Impacts

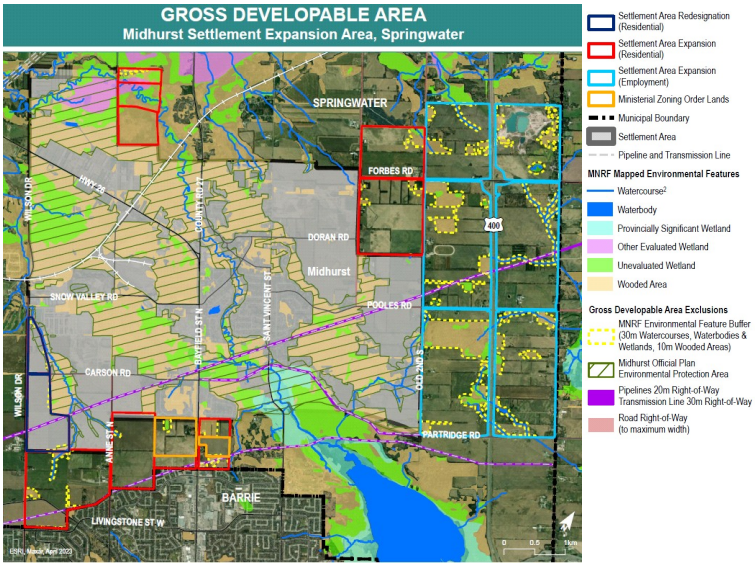
Property Assessment		
Residential	$	6,120,075,000
Non-Residential	$	4,818,464,759
Total	$	10,938,539,759
Annual Property Tax Revenues		
Residential	$	54,442,106
Non-Residential	$	85,783,369
Total	$	140,225,475
Development Charges / EDCs		
Residential	$	382,930,899
Non-Residential	$	332,955,915
Total	$	715,886,814
Job Generation		
Special Economic Zone		22,383
Community Lands		2,047
Total		24,430
Annual Retail Spending	$	347,074,614
Construction-Related Impacts		
Output ($m)	$	15,520
GDP ($m)	$	8,211
Labour Income ($m)	$	5,015
Jobs (Person Years)		72,385

Overview of Proposed Development

The figure below shows the location of the subject lands. The lands consist of a total of 1,870.9 hectares, including an estimated 402.7 hectares of environmentally constrained lands, 517.6 hectares of community lands and 895.3 hectares of employment lands. The development lands would include an estimated 77.22 hectares of SWM ponds, 45.55 hectares for parkland and recreation facilities, and 27.95 hectares for schools.

Figure 1

Location and Boundaries of Subject Lands



The subject lands are estimated to be developed, at build-out, with 10,392 housing units (including 5,172 single/semi-detached units, 1,981 townhouse units and 3,239 apartment units), and would generate a population of approximately 27,186 persons.

The non-residential lands, assumed to be developed at a density of 25 jobs per hectare[1], would generate approximately 22,383 jobs. At an average assumed Floor Space per Worker (FSW) Factor of 100m2/job typical of industrial and employment land uses, it is estimated for the purposes of modelling economic benefits that the subject employment lands would accommodate 2.24 million square metres of non-residential construction area.

[1] Generally meant to reflect typical employment land density, based on Employment Land Needs Assessments in the Greater Golden Horseshoe area including Halton Hills (16 jobs per hectare in Newly Developing Employment Areas), Hamilton (33.8 jobs per hectare in Airport Employment Growth District), the City of Guelph (35 jobs per hectare), and Durham Region (27 jobs per hectare)

Figure 2

Summary of Development, Midhurst Settlement Area Expansion Lands

Residential Units by Type	Share of Units by Type	Units	Persons Per Unit	Persons
Singles/Semis	40%	5,172	3.31	17,119
Townhouse	45%	1,981	2.40	4,754
Apartments	15%	3,239	1.64	5,312
Total		10,392		27,186

Non-Residential	Hectares	Density (gross)	Jobs	GFA (note 1) (m2)
Land Area	895.3	25	22,383	2,238,250

Note (1): FSW Factor assumed to be 70m2/job
Source: Plans provided by client

CONSTRUCTION-RELATED BENEFITS

Development Charge Revenues

Based on the proposed redevelopment, and the DC/EDC rates in effect as of the writing of this memorandum, the development would generate a total of $716 million, including $378 million for the Township of Springwater, $257 million for Simcoe County, and $81 million for local school boards through the EDC.

Figure 3

Estimated DC Revenues, Midhurst Settlement Area Expansion

		DC Rates ($ / Unit)			
Residential Units by Type	Units	Township	County	Education	Total
Singles/Semis	5,172	$ 24,282	$ 14,372	$ 5,483	$ 44,137
Townhouse	1,981	$ 17,575	$ 11,344	$ 5,483	$ 34,402
Apartments	3,239	$ 13,519	$ 7,705	$ 5,483	$ 26,707

		DC Rates ($ / m2)			
Non-Residential	Gross Floor Area	Township	County	Education	Total
Gross Floor Area	2,238,250	$ 77.50	$ 60.49	$ 10.76	$ 148.76

	DC Revenues			
Revenues by Unit Type	Township	County	Education	Total
Singles/Semis	$ 125,586,504	$ 74,331,984	$ 28,358,076	$ 228,276,564
Townhouse	$ 34,816,075	$ 22,472,464	$ 10,861,823	$ 68,150,362
Apartments	$ 43,788,041	$ 24,956,495	$ 17,759,437	$ 86,503,973
Total	$ 204,190,620	$ 121,760,943	$ 56,979,336	$ 382,930,899
Non-Residential	$ 173,464,731	$ 135,398,860	$ 24,092,324	$ 332,955,915
TOTAL	$ 377,655,351	$ 257,159,803	$ 81,071,660	$ 715,886,814

Source: Keleher Planning & Economic Consulting Inc. based on DC rates effective January 1, 2025

Construction-Related Benefits

The construction of the residential and non-residential buildings within the proposed development will generate substantial activity in the construction sector, as well as sectors that provide services and materials to the construction sector.

Using Statistics Canada Input-Output multipliers that converts dollars of input into estimated output, including directly in the construction of the development, indirectly in businesses that provide materials and services to the construction industry, and induced within the broader economy via spent wages and income, in total, the development would generate through the construction of the proposed development:

- $15.5 billion in Gross Output;
- $8.2 billion in GDP;
- $5.0 billion in income and wages;
- 72,400 person-years of employment.

Figure 4

Estimated Economic Benefits and Impacts of Construction, Midhurst Settlement Area Expansion

	Direct	Indirect	Induced	Total
Residential				
Output ($m)	$ 5,649	$ 2,779	$ 1,655	$ 10,084
GDP ($m)	$ 2,717	$ 1,367	$ 1,130	$ 5,214
Labour Income ($m)	$ 1,785	$ 893	$ 458	$ 3,135
Jobs (Person Years)	24,574	13,400	8,598	$ 46,573
Non-Residential				
Output ($m)	$ 3,012	$ 1,361	$ 1,063	$ 5,436
GDP ($m)	$ 1,563	$ 708	$ 726	$ 2,996
Labour Income ($m)	$ 1,120	$ 464	$ 295	$ 1,879
Jobs (Person Years)	13,564	6,719	5,529	$ 25,812
Total				
Output ($m)	$ 8,661	$ 4,141	$ 2,718	$ 15,520
GDP ($m)	$ 4,280	$ 2,075	$ 1,856	$ 8,211
Labour Income ($m)	$ 2,905	$ 1,356	$ 753	$ 5,015
Jobs (Person Years)	38,138	20,119	14,127	$ 72,385

Source: Keleher Planning & Economic Consulting Inc. based on Statistics Canada Input-Output Multipliers

ON-GOING IMPACTS

Property Tax Revenues

The figure below shows the estimated amount of assessment value that the proposed residential and non-residential elements of the development would generate, which will generate property tax revenue for the Township, County and public education system and publicly-funded schools. Assessment values are

based on roughly estimated hard construction costs for each type, as reported by the Altus Group Cost Guide 2023, and assumed unit sizes for each unit type.

Figure 5

Estimated Assessment Value Generated, Midhurst Settlement Area Expansion

Residential	Units	Assumed Unit Size (SF)	Assumed Assessment (per Unit)	Assessment
Singles/Semis	5,172	2,200	$ 715,000	$ 3,697,980,000
Townhouse	1,981	1,800	$ 585,000	$ 1,158,885,000
Apartments	3,239	1,200	$ 390,000	$ 1,263,210,000
Total	10,392			$ 6,120,075,000

Non-Residential	Square Metres	Square Footage	Assumed Assessment (per SF)	Assessment
Gross Floor Area	2,238,250	24,092,324	$ 200	$ 4,818,464,759
			Total	$ 10,938,539,759

Source: Keleher Planning & Economic Consulting Inc.

In total, it is estimated that the residential and non-residential uses would generate approximately $11 billion in assessment value, and the proposed development is expected to generate $52.5 million per year in property taxes for the Township, as well as $36 million per year for the County and $51.8 million for education.

Figure 6

Estimated Annual Property Tax Revenue Generated, Midhurst Settlement Area Expansion

		Tax Rates (2023) - RT			
Residential	Assessment	Town	County	Education	Total
Singles/Semis	$ 3,697,980,000	0.437067%	0.299499%	0.153000%	0.889566%
Townhouse	$ 1,158,885,000	0.437067%	0.299499%	0.153000%	0.889566%
Apartments	$ 1,263,210,000	0.437067%	0.299499%	0.153000%	0.889566%
	$ 6,120,075,000				

		Tax Rates (2023) - CT			
Non-Residential	Assessment	Town	County	Education	Total
Gross Floor Area	$ 4,818,464,759	0.534227%	0.366078%	0.880000%	1.780305%

Total Non-Residential

	Tax Revenues (2023)			
Sector	Town	County	Education	Total
Residential	$ 26,748,828	$ 18,329,563	$ 9,363,715	$ 54,442,106
Non-Residential	$ 25,741,540	$ 17,639,339	$ 42,402,490	$ 85,783,369
Total	$ 52,490,368	$ 35,968,903	$ 51,766,205	$ 140,225,475

Source: Keleher Planning & Economic Consulting Inc.

Permanent Jobs

Based on assumed employment density of 25 jobs per hectare, it is estimated that the development of the employment lands would generate 22,383 jobs. In addition, the community area lands would generate another 2,047 jobs on uses directly serving the population in those areas of the Township.

Figure 7

Estimated Jobs to be Generated in Midhurst Settlement Area Expansion

Sector	Gross Floor Area (m2)	FSW Factor (m2/job)	Estimated Jobs
Non-Residential GFA	2,238,250	100	22,383
Community Lands			2,047
Total			24,430

Source: Keleher Planning & Economic Consulting Inc.

Retail Spending

The residents living in the proposed development would spend money at local stores, service-providers and businesses. Based on Statistics Canada Survey of Household Spending and making adjustments to reflect the anticipated share of spending within each category of spending likely to be spent at local businesses, it is estimated that each household would spend an average of $33,400 per year at local establishments. In total, the proposed development and those occupying the units would generate $347 million per year in retail spending for the local community.

Figure 8

Estimated Amount of Annual Retail Spending by Residents of Midhurst Settlement Area Expansion

Spending Category	Total Spending by Category	Expected Share at Local Retail	Estimated Local Retail Spending
Food expenditures	$ 10,418	75%	$ 7,814
Shelter	$ 22,364	n.a.	$ -
Household operations	$ 5,649	50%	$ 2,825
Household furnishings and equipment	$ 2,763	50%	$ 1,382
Clothing and accessories	$ 3,552	75%	$ 2,664
Transportation	$ 12,828	75%	$ 9,621
Health care	$ 2,399	75%	$ 1,799
Personal care	$ 1,476	75%	$ 1,107
Recreation	$ 4,560	75%	$ 3,420
Education	$ 2,059	25%	$ 515
Reading materials and other printed matter	$ 172	50%	$ 86
Tobacco products, alcoholic beverages and cannabis for non-medical use	$ 1,588	75%	$ 1,191
Games of chance	$ 193	25%	$ 48
Miscellaneous expenditures	$ 1,855	50%	$ 928
Income taxes 10	$ 17,911	n.a.	$ -
Personal insurance payments and pension contributions	$ 5,346	n.a.	$ -
Gifts of money, support payments and charitable contributions	$ 2,252	n.a.	$ -
Total expenditure	$ 97,385		$ 33,398
Number of Households in Proposed Development			10,392
Estimated Annual Increase to Local Retail Spending			$ 347,074,614

Source: Keleher Planning & Economic Consulting Inc. based on Statistics Canada, Survey of Household Spending, Table 11-10-0222-01

MEMORANDUM

DATE	May 14, 2025
TO	**Daniel Steinberg, Trustee, Midhurst Landowners Group, 130 Adelaide Street West, Suite 2800, Toronto, ON Canada M5H 3P5**
CC	
SUBJECT	**Midhurst Settlement Area Boundary Expansion - Wastewater Servicing**
FROM	TYLin
PROJECT NUMBER	18207

The purpose of this memo is to provide a wastewater servicing approach for the lands within the proposed Midhurst Settlement Area expansion as shown in Figure 1. The Township of Springwater completed a Class EA - Midhurst Water, Wastewater and Transportation ESR (March 2020) for the Midhurst Secondary Plan (MSP) area and concluded that the preferred solution was the construction of a wastewater treatment plant (WWTP) to service the Midhurst Secondary Plan area.

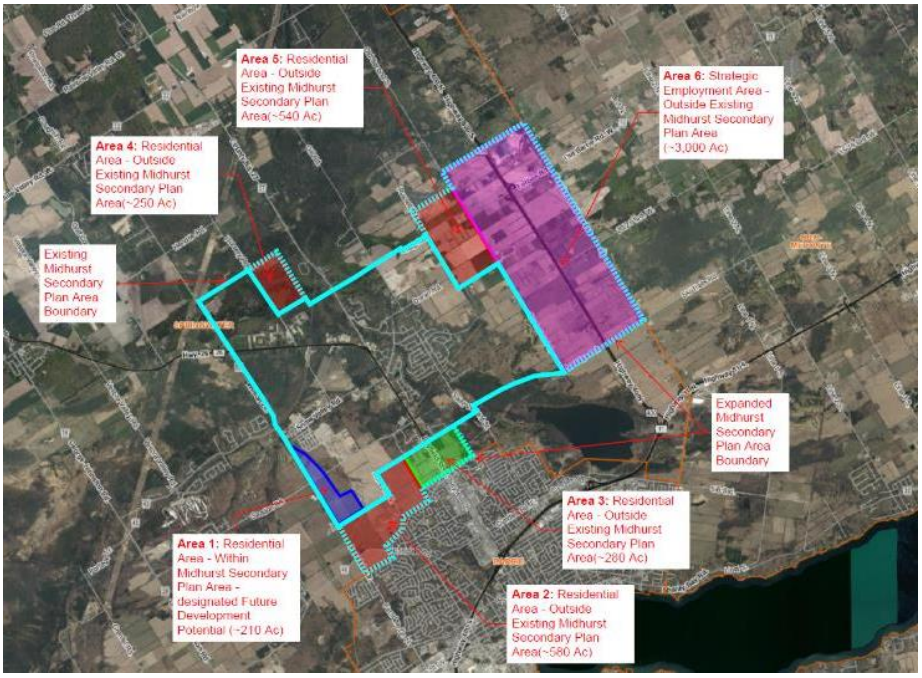


Figure 1 - Proposed MSP Expansion Areas

The proposed MSP expansion areas include approximately 3,540 acres north and east of the planned Doran neighbourhood (73% of new development lands), and 1,320 acres south and west of the planned Carson neighbourhood (27% of new development lands).

1. OUTCOMES OF CLASS EA

The approved Class EA (March 2020) recommended the following for wastewater servicing the MSP:

- One (1) WWTP to be located in the former gravel pit, northeast of Snow Valley Road and Wilson Drive;
- Forcemain from Doran Road Area to WWTP;
- Effluent discharge to Willow Creek with outfall at crossing of Hwy 26.

A plan based on the recommended solution for wastewater collection, treatment, disinfection, biosolids management, and effluent disposal as per the Class EA is shown in Figure 2.

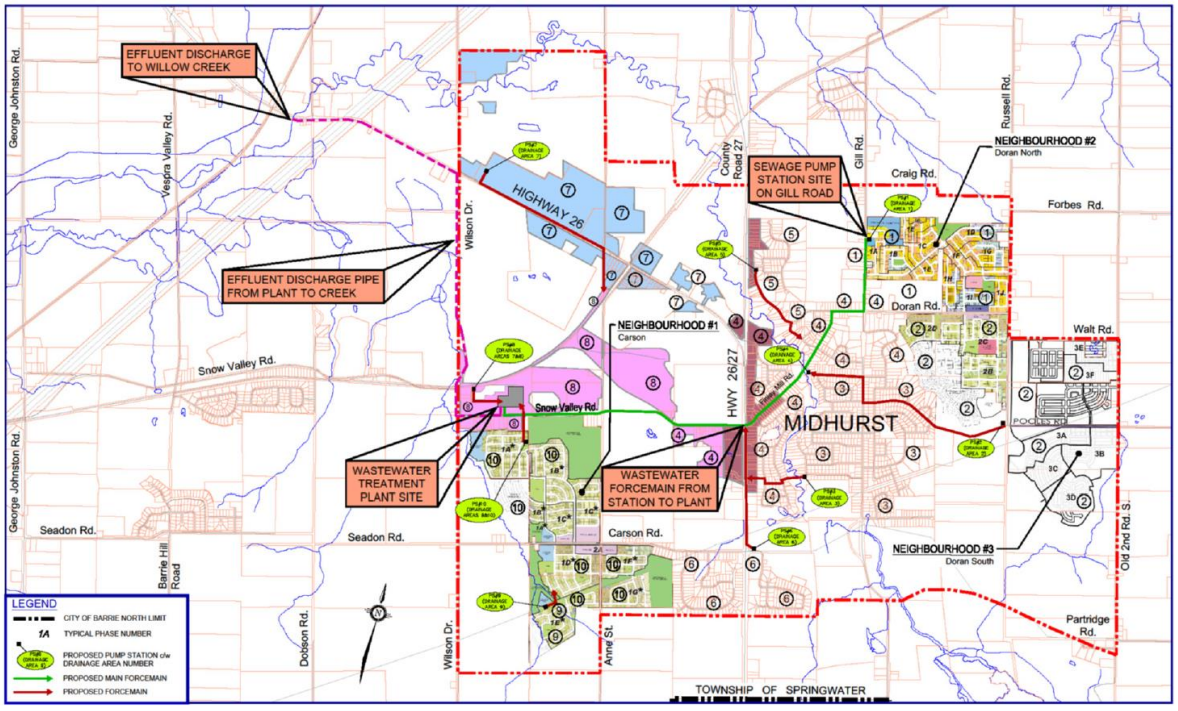


Figure 2 – Wastewater Solution Recommended by Class EA

The Barrie Servicing Alternative

Among the alternatives considered in the Class EA for the Midhurst Secondary Plan was the option of servicing via the City of Barrie. The City of Barrie option was rejected as its cost exceeded the Midhurst option due largely to the fact that the linear infrastructure at the north end of Barrie was not sized to accommodate the planned development. A new twinned forcemain to the plant would have been required. In 2009, the cost to service Midhurst via Barrie was calculated to be $119 million for water and wastewater (in 2025 dollars, that figure would amount to approximately $170 million).

2 EXISTING WASTEWATER SYSTEM

The existing and planned wastewater infrastructure for the MSP includes all items listed above. As construction of the new communities proceed, the associated wastewater infrastructure has been implemented in stages to accommodate partial demands.

In total, the ultimate design based on the approved Class EA provides accommodation for a total of 9,546 equivalent new residential units with an average daily flowrate of 12,314 m^3/day. The approved Class EA (March 2020) used an average daily per capita wastewater flowrate of 430 L/(cap*day), which was the basis for infrastructure designed and constructed to-date. Monitoring of actual flows has indicated flows are much lower than the designed flowrate. As such, in March of 2025, the Township approved an average daily per capita wastewater flowrate of 225 L/(cap*day) for the initial Phase 1A/B of the WWTP and 315 L/(cap*day) for the rest of the design, which would include expansion beyond the MSP. Flow monitoring will continue to further refine the flowrate as the WWTP continues to be expanded.

Raw wastewater from the planned Carson and Doran communities is received through a network of gravity sewer infrastructure and collected at pumping station(s) as required, which convey the wastewater via forcemain to the planned Midhurst WWTP.

The WWTP's liquid treatment train features preliminary treatment including screening and degritting, primary and secondary treatment using step-feed biological nitrogen removal (BNR), tertiary treatment via membrane filtration, and UV disinfection. The liquid effluent is then pumped to the discharge point at Willow Creek.

The WWTP's biosolids treatment train produces biologically stabilized liquid sludge and is made up of the following process units: biosolids storage, polymer-assisted mechanical thickening and dewatering, thickened sludge storage, auto-thermal thermophilic aerobic digestion, and liquid digested biosolids storage. The stabilized sludge is then hauled away for beneficial re-use.

A basic process flow diagram for the planned WWTP is provided in Figure 3.

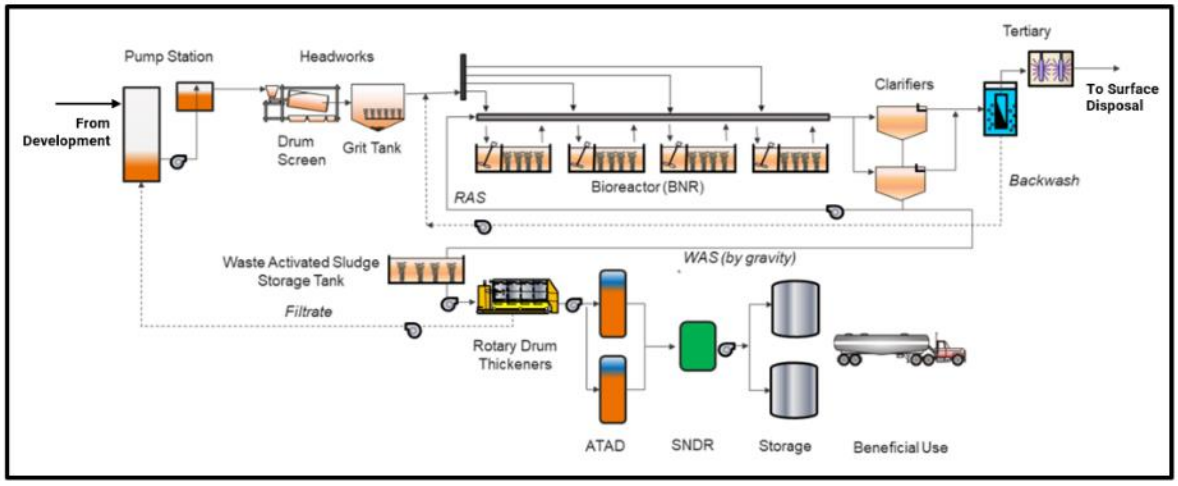


Figure 3 – Midhurst WWTP Process Flow Diagram

3 SEWAGE GENERATION FROM PROPOSED MSP EXPANSION

The proposed MSP expansion areas will create additional wastewater treatment demand from the new residential, employment, and mixed-use areas. The wastewater treatment demand of the proposed MSP expansion areas is calculated based on utilization of the existing WWTP to serve the adjacent new developments.

Table 3.1 summarizes the additional and cumulative units which may potentially be served by the existing Midhurst WWTP.

Table 3.1: Midhurst WWTP Equivalent Residential Unit Counts

Phase	Additional Units	Cumulative Units
Planned Carson and Doran Developments	-	9,546
Potential Development Areas South and West of Carson Development (Areas 1-4)	7,522	17,068
Potential Development Areas North and East of Doran Development (Areas 5-6)	2,869	19,937

The equivalent residential units from the proposed employment area are excluded with the assumption that the total population serviced by the Midhurst WWTP remains the same. This means the residents from Midhurst will be employed to the proposed employment area and as such, the sanitary servicing demand would be for the same total population.

Table 3.2 summarizes the preliminary wastewater treatment requirements for the WWTP to accommodate the potential developments. These calculations are based on the approved Class EA, the MECP Design Guidelines for Sewage Works (2008) and revised per capita wastewater flowrate.

Table 3.2: Midhurst WWTP Expansion Design Parameters

Parameter	Unit	Existing MSP	Existing MSP+ Potential Expansions
Equivalent Units	Units	**9,546**	**19,937**
Population	#	28,638	59,811
Peak Dry Weather Flow Factor	-	2.50	2.19
Average Daily Dry Weather Flow (ADDF)	m^3/d	6,444	13,457
Average Daily Flow (ADF)	m^3/d	9,021	18,840
Peak Hourly Flow (PHF)	m^3/d	18,668	34,897

4 WASTEWATER SERVICING SOLUTION FOR PROPOSED MSP EXPANSION

The proposed expansion will require construction of new wastewater infrastructure and/or upgrades to existing wastewater infrastructure to service the new community.

An alternative to treat the wastewater within the Settlement Area expansion lands would be to utilize the existing Midhurst WWTP to serve the proposed MSP expansion. The benefits of utilizing the existing WWTP are that it is generally more efficient and cost-effective to upgrade and expand the capacity of the WWTP than to construct an entirely new facility from both capital as well as operations and maintenance perspective.

The existing WWTP has the ability to be further expanded within the Utility Campus lands to accommodate the additional units. An Assimilative Capacity Study (ACS) and Phosphorus Budget Assessment for Willow Creek will need to be updated to confirm whether the creek is able to accommodate additional treated effluent. If required, additional treatment processes can be implemented via upgrades to the existing Midhurst WWTP and/or phosphorus offsetting projects to ensure discharge requirements are met. The Midhurst Landowners Group (MLG), in partnership with the

NVCA, recently completed a phosphorus offsetting project on the Napoleon site in Oro-Medonte. This project consisted of bank stabilization and floodplain lowering along Willow Creek which exists adjacent to an agricultural field. In this one project alone, the MLG and NVCA were able to offset 62-71 kg/year of the total 93 kg/year reduction target required to be offset during Phase 1 of the Midhurst Secondary Plan build out and 66 kg/year at full-build out of the Midhurst Secondary Plan Area. This will significantly improve the health/quality of the creek and indicates that phosphorus offsetting projects can be extremely effective and should be utilized during detailed design of the WWTP expansion projects as part solutions utilized to improve water quality.

5 CONCLUSIONS

The proposed expansion to the Midhurst Settlement Area can be serviced through expansion and/or improvement to the existing wastewater treatment facility and infrastructure in the Midhurst Settlement Area. There is additional lands available at the Midhurst Utility Campus to accommodate facility expansions.

Hutchinson
Environmental Sciences Ltd.

93 Kimberley Avenue, Bracebridge, ON P1L 1Z8 | 705-645-0021
www.environmentalsciences.ca

May 15, 2025 Project No. 250076

Daniel Steinberg
Trustee
Midhurst Landowners Group
130 Adelaide Street West, Suite 2800
Toronto, ON M5H 3P5

Dear Mr. Steinberg:

Re: **Midhurst Expansion Lands Preliminary Assimilative Capacity Study and Phosphorus Budget Concepts**

Development of residential communities, commercial, industrial, mixed use and employment lands in Midhurst has been approved through the Midhurst Secondary Plan (MSP; OPA 38). Approximately 300 hectares of development lands within the Secondary Plan Area has received draft plan approval and are subject to zoning by-law amendments. The MSP has also undergone a Class Environmental Assessment Planning Process which was completed and approved in March of 2020. An expansion area (1468 ha of developable area) is currently being considered outside of the Midhurst Settlement Area which includes settlement area redesignation, residential settlement area expansion, employment settlement area expansion, and Ministerial Zoning Order lands (Figure 1).

Hutchinson Environmental Sciences Limited completed *Willow Creek Assimilative Capacity Study Final Report* (ACS; HESL 2018a[1]) and *Midhurst Secondary Plan Area Phosphorus Budget* (P Budget; HESL 2018b[2]). The ACS was completed to determine effluent treatment limits based on assimilation modelling under different development phases and related effluent flows. The P Budget was completed to determine the cumulative loading of phosphorus from storm and wastewater discharges associated with Phase 1 and Full Build Out of the Midhurst Secondary Plan Area (MSPA). Development of the MSPA was subject to several conditions of draft plan approval, including a nutrient management plan and related offsetting strategies to ensure that there will be no net increase in nutrients of key concern (phosphorous).

Hutchinson Environmental Sciences Ltd. (HESL) has been retained by the Midhurst Landowners Group to describe preliminary concepts associated with two studies required in connection with the Midhurst Expansion Lands: 1) Assimilative Capacity Study, and 2) P Budget.

[1] *HESL. 2018a. Willow Creek Assimilative Capacity Study – Final Report. Prepared for the Township of Springwater c/o Ainley Group.*
[2] *HESL. 2018b. Midhurst Secondary Plan Area Phosphorus Budget. Prepared for the Township of Springwater c/o Ainley Group.*

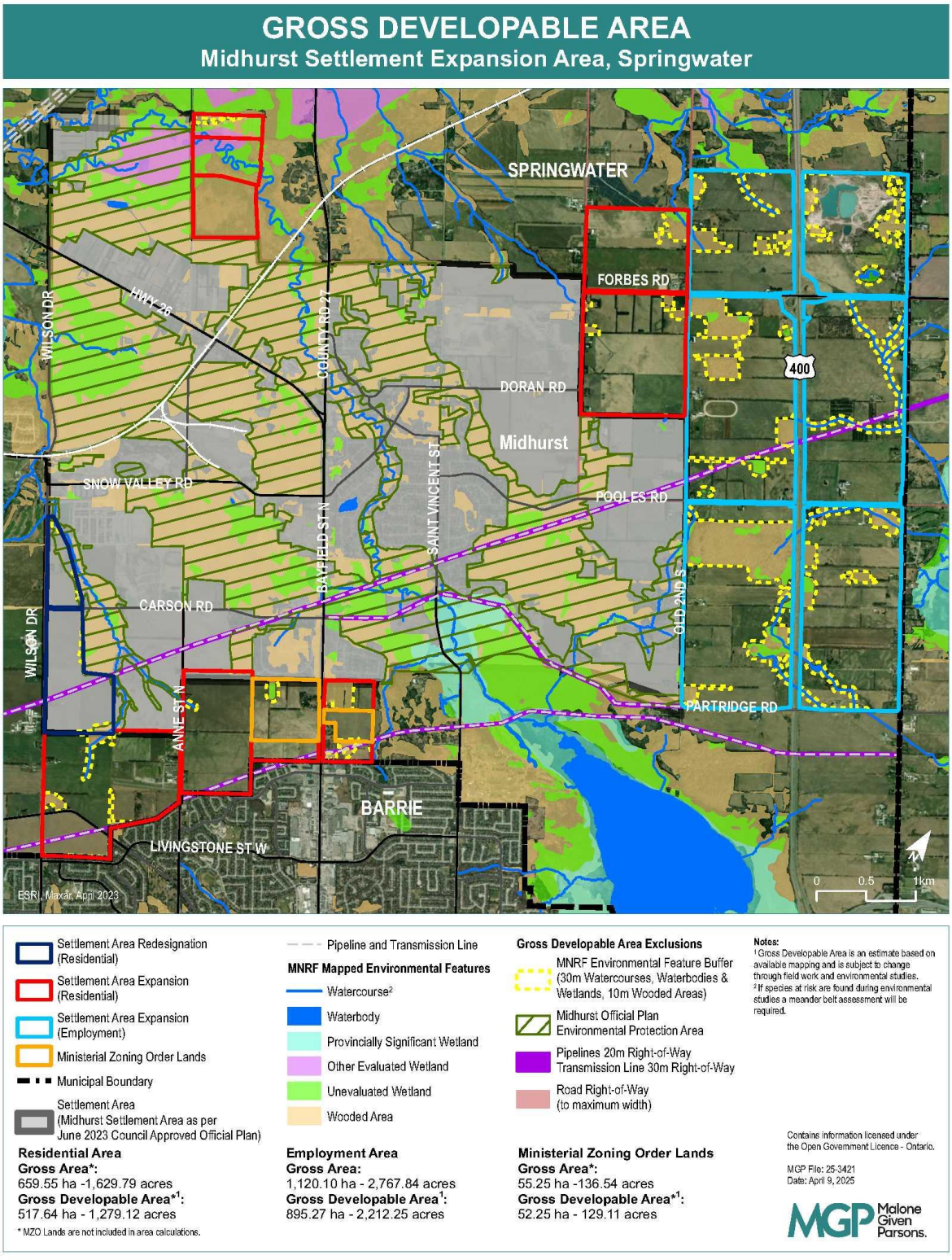


Figure 1. Gross Developable Area, Midhurst Settlement Expansion Area, Springwater

1. Assimilative Capacity Study Concepts

The discharge of treated effluent to a surface water receiver requires an Assimilative Capacity Study (ACS) in Ontario to determine suitable effluent quality limits and to assess the effects of effluent discharge on downstream water quality. The Midhurst WWTP discharges treated to Willow Creek at Highway 26. An ACS will be completed for the upgrades to the existing Midhurst WWTP to 18,840 m^3/d[3] (218 L/s) to support the MSP expansion.

In *Deriving Receiving Water Based, Point-Source Effluent Requirements for Ontario Waters* (MOE 1994[4]), the Ministry of Environment Conservation and Parks (MECP) provides guidance for the requirements for point-source discharges and the procedures for determining effluent limits. For continuous discharges to streams and rivers, the 7Q20 low-flow statistic is used as a basic design flow to determine the assimilative capacity of the receiver. The 75th percentile concentration is used to determine background water quality when developing receiver-based effluent limits and is used to reflect the existing conditions of the receiver. The 75th percentile background concentrations are also used to determine the Policy status for each of the contaminants expected in the effluent.

1.1 2018 Willow Creek ACS

The Willow Creek ACS (HESL 2018[5]) was completed in support of the Class EA for the MSP. The ACS considered two effluent flow scenarios for the WWTP: Phase 1 of 6,454 m^3/d (74.7L/s) and Full Build Out of 12,314 m^3/d (143L/s).

Water quality data from MECP's Provincial Water Quality Monitoring Network (PWQMN) station on Willow Creek at George Johnson Road (2002-2014) was summarized to determine the Policy status and as inputs to the water quality models. The data determined that Willow Creek was a Policy 1 receiver for un-ionized ammonia, dissolved oxygen, and nitrate in that their 75th percentile[6] concentrations were below their PWQOs. MECP Policy 1 states that *"In areas which have water quality better than the objectives, water quality shall be maintained at or above the objectives. Although some lowering of water quality is permissible in these areas, degradation below the Provincial Water Quality Objectives will not be allowed, ensuring continuing protection of aquatic communities and recreational uses."* Alternatively, Willow Creek was a Policy 2 receiver for total phosphorus, in that the 75th percentile total phosphorus concentration of 0.031 mg/L was above the PWQO of 0.03 mg/L. MECP Policy 2 states that "*Water quality which presently does not meet the Provincial Water Quality Objectives shall not be degraded further and all practical measures shall be taken to upgrade the water quality to the objectives*." Deviations from Policy 2 may be considered, however, under the regulation of a "Director's Deviation" from the MECP. The ACS did find that the enriched TP concentrations in Willow Creek were due to high TSS concentrations from erosion, sedimentation and land use practices in the watershed; and at TSS concentrations less than 20 mg/L Willow Creek was a Policy 1 receiver for total phosphorus.

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[3] *TYLin, 2025. Midhurst Settlement Area Boundary Expansion – Wastewater Servicing. Memorandum from TYLin to Daniel Steinberg, Trustee, Midhurst Landowners Group. May 14, 2025.*

[4] *Ministry of Environment. 1994. Procedure B-1-5 Deriving receiving water based point source effluent requirements for Ontario waters.*

[5] *HESL. 2018. Willow Creek Assimilative Capacity Study – Final Report.*

[6] *For dissolved oxygen the 25th percentile concentration is used.*

A 7Q20 statistic of 430 L/s for modelling was calculated, and accepted by the MECP,based on 10 years of flow data collected from the Water Survey of Canada gauging station on Willow Creek at Highway 26, and modified to account for potential baseflow loses due to groundwater takings.

The ACS used mass balance modelling to predict total phosphorus (TP), total suspended solids (TSS) and nitrate (as N) concentrations in Willow Creek after complete mixing of the effluent with the receiver. CORMIX, a model that predicts how effluent will initially mix with a receiver, was used to model the nearfield mixing of ammonia after discharge. QUAL2K, a model that considers assimilation by the physical, chemical and biological processes in a river system, was used to predict far field dissolved oxygen and the nitrification of ammonia.

The ACS, approved by the MECP through the Class EA process, concluded that discharge at effluent concentrations for Phase 1/Full Build Out of 0.05/ 0.03 mg/L for TP, 15/10 mg/L for TSS, 15.4 mg/L for Total Inorganic Nitrogen, 15 mg/L for cBOD, and 1.5/1 mg/L summer and 3/2 mg/L winter for TAN would meet MECP policies. A TP effluent limit of 0.03 mg/L for Full Build out would result in a load of 135 kg/yr of phosphorus entering Willow Creek.

1.2 ACS Considerations for Expansion of MSP

The expansion of the WWTP will require an update of the 2018 ACS. This will require mass-balance, mixing zone (CORMIX), and assimilation (Qual2K) modelling using updated water quality and flow characterization of Willow Creek.

The 75th percentile concentration is used to define background water quality when developing receiver-based effluent limits and to determine the Policy status for each of the contaminants expected in the effluent. 75th percentile concentrations are compared to PWQOs and Canadian Water Quality Guidelines (CWQGs) to determine policy status of the river, and as inputs into the water quality models. Preliminary review (Table 1) of recent (2002-2022) water quality for the Willow Creek at the PWQMN station (and 2013-2023 monitoring completed by HESL) confirms that the policy statuses determined during the 2018 ACS remain the same.

Table 1. 75th percentile Willow Creek water quality data (2002-2023).

Parameter	PWQO/ CWQG	75th Percentile	Policy
# data (range)	–	*168–321*	
Dissolved Oxygen – 25th%	4–8	11.07	1
pH	6.5-8.5	8.27	1
Total Suspended Solids	Bkg+5	16.5	–
Total Phosphorus	0.03	**0.030**	2
Total Ammonia (as N)	–	0.034	–
Un-ionized ammonia (as N)	0.0164	0.0015	1
Nitrate (as N)	3	0.07	1

Notes: All concentrations in mg/L except pH (dimensionless). Guideline exceedances are in boldface text. DO guideline (PWQO) varies from 4 mg/L for warmwater biota at 20–25°C to 8 mg/L for coldwater biota at 0°C. The number of data available for each parameter varied.

The updated 75th percentile concentration of total phosphorus meets the PWQO of 0.03 mg/L. This concentration is slightly less than the 75th percentile concentration of 0.031 mg/L used in the 2018 ACS; potentially due to the additional data collection since the 2018 ACS (2018 ACS was based on 2002-2016 data). Although the concentration is not above the PWQO of 0.030 mg/L; the value is at the PWQO indicating no additional capacity for inputs. Monthly 75th percentile TP concentrations (Table 2) are above (December, February, March, April, June) and below (June, July, August, September, October, and November) the PWQO; supporting the seasonality of phosphorus concentrations, and that enriched TP concentrations in Willow Creek coincide with high TSS events (from runoff or erosion) as discussed in the 2018 ACS. Additional winter phosphorus data (e.g. December to March) is needed to confirm these seasonal observations.

Table 2. Monthly 75th Percentile Total Phosphorus Concentrations (2002-2023).

Month	75th Percentile	# data
Feb	**0.056**	4
Mar	**0.220**	2
Apr	**0.053**	14
May	0.026	19
Jun	**0.031**	26
Jul	0.028	25
Aug	0.024	31
Sep	0.026	23
Oct	0.021	34
Nov	0.028	23
Dec	**0.035**	2

Notes: All concentrations in mg/L. Guideline exceedances are in boldface text.

Given the enriched total phosphorus concentrations in Willow Creek from December to June, it is expected that the MECP will want no further degradation of Willow Creek and require that all practical measures be taken to improve water quality – meeting Policy 2 requirements. This will require maintaining a low TP effluent limit that meets current best available technology standards. The effluent concentration of 0.03 mg/L (as determined for Full Build for the 2018 ACS) will improve Willow Creek water quality when upstream concentrations are above the PWQO (e.g. December through April and June). In July through November concentrations will increase slightly; but likely will not exceed PWQO downstream. At an effluent concentration of 0.03 mg/L and rated capacity of 18,840 m^3/d[7] (218 L/s) the total annual load to Willow Creek from the MSP and expansion areas is 206 kg/yr; a 71 kg/yr increase from the load calculated for Full Build Out (12,314 m^3/d or 143L/s) of 135 kg/yr. The additional phosphorus load from the expansion will need to be offset as discussed in Section 2.

[7] *TYLin, 2025. Midhurst Settlement Area Boundary Expansion – Wastewater Servicing. Memorandum from TYLin to Daniel Steinberg, Trustee, Midhurst Landowners Group. May 14, 2025.*

The updated 75th percentile TSS concentration for Willow Creek is 16.5 mg/L. The CWQG for TSS is "background + 5 mg/L" for clear flow/low flow conditions. The Full Build Out effluent limit of 10 mg/L is less than the 75th percentile TSS concentration and will therefore improve downstream concentrations and meet MECP policies for a Policy 2 receiver to improve water quality.

The updated 75th percentile concentrations of for un-ionized ammonia, dissolved oxygen[8], and nitrate were still all below or within their respective PWQO or CWQG (Table 1). Willow Creek is therefore Policy 1 for these parameters. MECP will therefore permit lowering of water quality but degradation below the PWQOs will not be permitted. For these parameters capacity is therefore available in Willow Creek to accept WWTP effluent. For ammonia the seasonal Full Build Out effluent limits of 1.0 mg/L for summer and 2.0 mg/L for winter determined through the 2018 ACS will need to be evaluated for the expanded WWTP through mixing zone (CORMIX) modelling. Limits will potentially need to be refined to meet MECP Policy 5: mixing zones should be "as small as possible". For nitrate, the effluent Total Inorganic Nitrogen (TIN) effluent limit for Full Build Out is to be determined based on effluent nitrogen concentrations during Phase 1. The ACS will use the measured effluent nitrate concentrations to assess the impact and potential need for denitrification for an expanded WWTP. Consistent with the 2018 ACS, assimilation models that consider instream processes (e.g. Qual2k) will be used to predict downstream dissolved oxygen concentrations to confirm that Full Build Out effluent limits of 15 mg/L cBOD maintain dissolved oxygen concentrations within PWQOs.

If the Full Build Out effluent limits do not meet treatment requirements for the expanded WWTP; additional treatment technology can be implement or holding a portion of effluent discharge during low flow period and discharging slightly higher volumes during high flow periods is a potential alternative to enhanced treatment for some parameters.

2. Phosphorus Budget Concepts

2.1 Phosphorus Budget Tool

The phosphorus budget for the MSPA was developed using the approach described in the *Phosphorus Budget Tool and Guidance for Managing New Urban Development in Phosphorus-Sensitive Watersheds* (HESL 2014b). This 'Tool' was adapted from the Lake Simcoe Phosphorus Budget Tool (HESL 2012[9]) for the NVCA to estimate phosphorus loads and phosphorus reduction with implementation of BMPs and LID techniques in Ontario outside of the Lake Simcoe watershed. The Tool is the accepted and approved model to estimate phosphorus export from development in NVCA's jurisdiction.

The Tool uses established phosphorus export coefficients for natural heritage land uses in Ontario (forest, transition, wetland, open water, turf/sod, low intensity residential, unpaved roads) and derivation techniques for estimating phosphorus loads from urban and agricultural lands based on site-specific soil and runoff characteristics (Table 3).

[8] *25th percentile concentration is used for dissolved oxygen*

[9] *HESL. 2012. Phosphorus Budget Tool in Support of Sustainable Development for the Lake Simcoe Watershed. Report prepared for the Ontario Ministry of the Environment.*

Phosphorus export coefficients for cropland were derived from the relationship between CANWET-derived phosphorus export for Lake Simcoe subwatersheds and soil loss (A) as estimated using the Universal Soil Loss Equation (USLE):

$$\text{Phosphorus Export (kg/ha/yr)} = (0.16 \times A) + 0.16$$

The factors used in the USLE were developed for use in Ontario by the Ministry of Agriculture, Food and Rural Affairs (Stone and Hilborn 2012[10]).

Table 3. Phosphorus Export Coefficients Used in the NVCA Tool (HESL 2014b)

Land Use	Export Coefficient (kg/ha/yr)	Notes
Forest	0.06	Mean phosphorus export for all 'monitored' Lake Simcoe subwatersheds (n = 7) derived using phosphorus loads from CANWET modeling. Monitored subwatersheds were those with sufficient measured data to validate and calibrate the model.
Transition	0.07	
Wetland	0.05	
Turf/Sod	0.11	
Hay/Pasture	0.08	
Low Intensity Residential	0.13	
Unpaved Roads	0.83	
Open Water	0.26	Calculated from the mean measured atmospheric load of 19 tonnes/yr averaged over 5 years from 2002 to 2007 to the surface of Lake Simcoe (surface area = 722 km^2).
Cropland	0.16 x A +0.16	Developed from the relationship between CANWET derived phosphorus export for Lake Simcoe subwatersheds and soil loss. Where: A = soil loss determined using the Universal Soil Loss Equation (USLE)
Residential	TP_i x Precip x P_j x R_V x 10^{-2}	Where: • TP_i is total phosphorus concentration (mg/L) in runoff measured from urban land uses: 0.41 mg/L for residential, 0.20 mg/L for commercial, 0.41 mg/L for industrial and 0.50 mg/L for transportation, • Precip is the annual precipitation (mm/yr), • P_j is the fraction of Precip that produces runoff, and • R_V is the runoff coefficient.
Commercial		
Industrial		
Transportation		

Phosphorus export coefficients for urban land use classes (high intensity residential, commercial, industrial, and transportation) were derived using an approach to account for site-specific variation in runoff conditions in urban settings. The equation used a standard value for phosphorus concentrations in urban runoff (TP_i), annual depth of precipitation (Precip), that fraction of precipitation producing runoff (Pi) and a runoff coefficient derived for impervious surfaces (Rv):

[10] *Stone, R.P. and Hilborn, D. 2012. Universal Soil Loss Equation (USLE) Factsheet, Ministry of Agriculture, Food and Rural Affairs, Ontario.*

$$\text{Phosphorus Export (kg/ha/yr)} = TP_i \times \text{Precip} \times P_j \times R_V \times 10^{-2}$$

The NVCA Tool calculates P loads from urban lands as a function of the volume of runoff produced and the concentration of P in that runoff. The Tool is based on a comprehensive literature review of the documented effectiveness of SWM and LID techniques (Table 4), which was incorporated into the phosphorus modelling for the MSPA. The Tool provides for a 100% reduction in P load for all runoff that is infiltrated.

Table 4. Phosphorus Removal Efficiencies of BMP/LID Classes (HESL 2014b)

BMP/LID Class	% Phosphorus Removal Efficiency
Bioretention Systems	**100***
Constructed Wetlands	77
Dry Detention Ponds	10
Dry Swales	none
Enhanced Grass/Water Quality Swales	**100***
Flow Balancing Systems	77
Green Roofs	**100***
Hydrodynamic Devices	none
Perforated Pipe Infiltration/Exfiltration Systems	87
Permeable Pavement	**100***
Sand or Media Filters	45
Soakaways - Infiltration Trenches	60 (**100***)
Sorbtive Media Interceptors	79
Underground Storage	25
Vegetated Filter Strips/Stream Buffers	65
Wet Detention Ponds	63

** infiltration techniques are credited with 100% removal efficiency if their effectiveness is verified in the SWM plan.*

2.2 Midhurst Secondary Plan Phosphorus Budget

The phosphorus budget completed for the Midhurst Secondary Plan Area calculated average annual phosphorus loadings, including winter and spring loadings from precipitation and runoff. Pre-development land uses were delineated using satellite imagery and ground truthed to ascertain crop types and tillage practices and cross checked with Ecological Land Classification from Beacon Environmental for the *Midhurst Secondary Plan Area Phosphorus Budget* (HESL 2018b). The dominant pre-development land type was cropland as it constituted 93% of the predevelopment land in Phase 1 and 71% of the predevelopment land in Full Build Out.

Development of the MSPA was approved with the with the highest-level LID techniques and BMPs for minimizing potential effects on the aquatic environment. On site controls, LID techniques and BMPs have been implemented to maximize infiltration and reduce stormwater volumes, improve quality and reduce temperature. *Midhurst Secondary Plan Area Phosphorus Budget* (HESL 2018b) utilized infiltration and SWMP to substantially reduce post-development phosphorus loads. Phosphorus loads were reduced by 63% for enhanced stormwater management, and a further 90% through 23 mm of infiltration (Table 55).

Table 5. Phosphorus Budget Reductions Associated with Stormwater Management and Infiltration in HESL 2018a.

Scenario	Phase 1	Reduction	Full Build Out	Reduction
Post Development P Load (kg/yr)	576	n/a	1792	n/a
Post Development P Load (kg/yr) with 63% Reduction from SWMP	213	63%	663	63%
Post Development P Load (kg/yr) with 63% Reduction and 23 mm infiltration	21	+90%	66	+90%

The annual phosphorus loading to Willow Creek from the proposed Midhurst WWTP was added to the post-development storm water phosphorus budgets for Phase 1 and Full Build Out to determine the cumulative phosphorus loads from both stormwater and sanitary sources (Table 66). The change in phosphorus export for Phase 1 and Full Build out was 93 kg/yr and 66 kg/yr, respectively.

Table 6. Summary of Phosphorus Loadings (kg/yr) from the Redevelopment of the MSPA.

	Phase 1	Full Build Out
Pre-Development	46	134
Runoff	21	66
WWTP Load	118	134
Total Post Development	139	200
Change in P Export	93	66

Note: Post-development loads incorporate 63% reduction from Stormwater Management Ponds and calculations are based on 23 mm of infiltration.

2.3 Midhurst Expansion Lands Preliminary Phosphorus Budget

The preliminary phosphorus budget for the Midhurst Expansion Lands discussed here-in is presented to describe concepts with the phosphorus budgeting and offsetting process; the phosphorus budget will continue to evolve as more detailed land use (pre-and post-development) descriptions and stormwater management techniques are developed. Midhurst Expansion Land areas were provided in the Land Budget prepared by Malone Given Parsons and are included on Figure 1 (personal communication, Harte, M., April 28, 2025). Land areas are provided for Existing Ministerial Zoning Lands, Community Lands and Employment Lands (Table 77). Figure 1 also contains Natural Heritage System lands based on Ministry of Natural Resources environmental features such as watercourses and wetlands and associated buffers, and Midhurst Official Plan Environmental Protection Areas; these lands were not considered developable and were therefore not included in the preliminary phosphorus budget.

Table 7. Midhurst Expansion Land Developable Areas.

Land Type	Area (ha)
Existing MZOs	55.3
Community Land	517.6
Employment Land	895.3

Land Type	Area (ha)
Total	1468.2

Pre-development land types within the developable areas for the expansion lands defined in Figure 1 appear to be dominated by cropland with smaller amounts of forest and a quarry. We have estimated the breakdown to be 90% cropland, 5% forest and 5% quarry based on a preliminary review of satellite imagery which roughly aligns with pre-development land allocations utilized during the 2018 P Budget.

Pre-development phosphorus load estimates are provided below in Table 888. Combined phosphorus loads from cropland (212.7 kg/yr), forest (4.40 kg/yr) and the quarry located at the northeastern section of the expansion lands near Highway 400 (7.34 kg/yr) are 224 kg/yr.

Table 88. Pre-Development Phosphorus Load Estimations.

Land Type	Estimated Land Coverage	Estimated Land Area	Export Coefficient (kg/ha/yr)	P Load (kg/yr)
Cropland	90%	1321	0.161[1]	212
Forest	5%	73.4	0.060	4.40
Quarry	5%	73.4	0.100[2]	7.34
			Total	224

[1] *selected following a review of agricultural literature review, observation of site conditions, slopes, soil classes, tilling methods, and soil loss factors as described in HESL (2018b).*

[2] *export coefficient from the Lake Simcoe P Tool (HESL 2012).*

Post-development phosphorus loads are typically based on detailed land use delineations which are not yet available. We have assumed that Existing MZOs and Community Lands will contain residential development and have assigned the Midhurst Low Density Residential Land Use which was the dominant residential land use in the MSPA P Budget. We have assigned the Employment Land Use for Employment Lands.

Post-Development phosphorus loads were calculated for Midhurst Expansion Lands (Table 9). Development areas and land use areas were gathered from the Land Budget prepared by Malone Given Parsons and Figure 1 were used to inform the preliminary phosphorus budget. Export coefficients that are reflective of the land uses and were utilized in HESL (2018b) were selected and phosphorus loads were calculated. The Post-Development Phosphorus load associated with the expansion lands without consideration of stormwater management is 3,812 kg/yr (Table 9). Phosphorus loads were then reduced through assumed infiltration (90% reduction) and SWMP (63% reduction) as was completed for the previously approved phosphorus budget. The resulting total phosphorus load for the Midhurst Expansion Lands is 141 kg/yr, a reduction of 83 kg/yr from pre-development conditions (224 kg/yr; Table 9). The WWTP load adds an additional 71 kg/yr as discussed in Section 1.2, **but ultimately the post-development phosphorus load is 12 kg/yr less than the pre-development load, primarily because of the reductions of phosphorus loading due to the impacts of infiltration and stormwater management (i.e., (224 kg P/yr – 141 kg P/yr) + 71 kg P/yr = -12 kg P/yr).**

Table 9. Post-Development Phosphorus Load Estimations.

Development Area	Land Use	Area (ha)	P Budget Land Use	Export Coefficient	P Load (kg/yr)	P Load (kg/yr) after 23 mm Infiltration (90% reduction)	P Load (kg/yr) after SWMP (63% reduction)
Existing MZOs	Residential Development	55.3	Low/Medium Density Residential	2.214	122	12.2	4.5
Community Lands	Residential Development	387.17	Low/Medium Density Residential	2.214	857	85.7	31.7
	SWM Ponds	41.4	Open Water	0.26	10.8	1.1	0.4
	Parklands and Recreational Facilities	45.55	Low Intensity Residential	0.13	5.9	0.6	0.2
	Schools	27.95	Commercial	1.028	28.7	2.9	1.1
	Commercial	15.53	Commercial	1.028	16.0	1.6	0.6
Employment Lands	Employment	859.5	Industrial Employment	3.214	2762	276	102
	SWM Ponds	35.8	Open Water	0.26	9.3	0.9	0.3
Total		1468			3812	381	141

Table 9. Predicted Changes in Phosphorus Loads.

	P Load (kg/yr)
Pre-Development P Load	224
Post Development P Load	141
WWTP P Load	71
Change	-12

2.4 Phosphorus Offsetting

Phosphorus offsetting projects are completed in Ontario to offset phosphorus loads from various activities and developments, most commonly to offset phosphorus loads from WWTPs. A stream restoration project was completed along Willow Creek to offset phosphorus loading associated with Phase 1 Midhurst Secondary Plan development. The restoration of Willow Creek focused on bank stabilization and floodplain lowering to reduce lateral erosion induced phosphorus loading (GEO Morphix 2025[11]). The pre-and post-restoration conditions of Willow Creek were compared via changes in the volume of soil eroded from the bank per year and the phosphorus concentration of the soil. GEO Morphix (2025) determined that the stream restoration will reduce phosphorus by 246 kg/yr – 285 kg/yr, or 62 kg/yr – 71 kg/yr following the conservative offsetting ratio of 4:1 as specified by NVCA.

As the Class EA previously concluded, the preliminary phosphorus budget indicates that phosphorus offsetting will not be required. However, offsetting can be implemented as an alternative if required. Projects such as the restoration of Willow Creek can be identified and completed. Other common phosphorus offsetting projects include agricultural BMPs (e.g., clean water diversion, manure management, watercourse access fencing, riparian buffer planting, cover crops, conservative tillage, crop nutrient plans, nutrient management plans), septic upgrades, and stormwater or infiltration improvements such as rain gardens and manufactured treatment devices (e.g., Oil Grit Separators). Many phosphorus offsetting projects contain a variety of tertiary environmental benefits beyond phosphorus reduction, such as decreases in stormwater runoff volumes, prevention of flooding and erosion, source water protection, and improvement to thermal regulation.

3.0 Conclusion

The effluent limits for the expanded WWTP can be managed/treated to meet discharge requirements. If required, additional treatment technology can be implemented or holding a portion of effluent discharge during low flow period and discharging slightly higher volumes during high flow periods is a potential alternative to enhanced treatment for some parameters. This will be determined though the detailed ACS.

Lastly, the preliminary P budget demonstrated that the development of the Midhurst Expansion Lands may result in a post development phosphorus load that is 12 kg/year less than the pre-development (current) load. A more detailed P Budget will be completed when more precise land use areas and stormwater management techniques are available to verify these findings.

Sincerely,
per. Hutchinson Environmental Sciences Ltd.



Deborah Sinclair, M.A.Sc.
Senior Aquatic Scientist



Brent Parsons, M.Sc.
Senior Aquatic Scientist

[11] *GEOMorphix. 2025. Midhurst Landowners Group Phosphorus Offsetting Program – Willow Creek, Napoleon Properties.*

MEMORANDUM

DATE	May 14, 2025
TO	**Daniel Steinberg, Trustee, Midhurst Landowners Group, 130 Adelaide Street West, Suite 2800, Toronto, ON Canada M5H 3P5**
CC	
SUBJECT	**Midhurst Settlement Area Boundary Expansion - Water Servicing**
FROM	TYLin
PROJECT NUMBER	18207

The purpose of this memo is to provide a water servicing approach for the lands within the proposed Midhurst Settlement Area expansion as shown in Figure 1. The Township of Springwater completed a Class EA - Midhurst Water, Wastewater and Transportation ESR (March 2020) for the Midhurst Secondary Plan (MSP) area and concluded that construction of two water treatment plants (WTP), namely Carson WTP and Doran WTP, would be required to service the Carson Road neighbourhood and Doran Road neighbourhood, respectively.

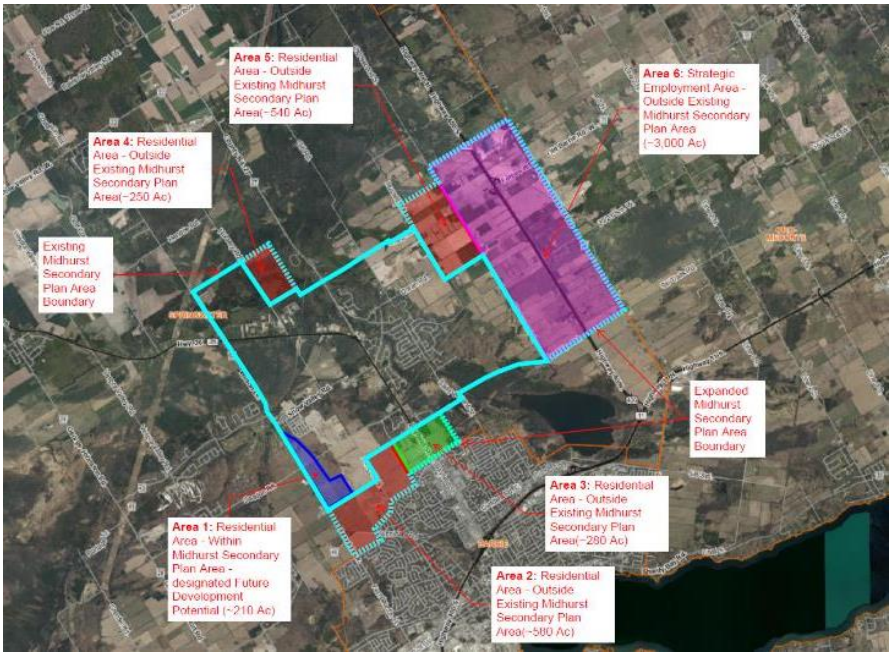


Figure 1 - Proposed MSP Expansion Areas

The proposed MSP expansion areas include approximately 3,540 acres north and east of the planned Doran neighbourhood (73% of new development lands), and 1,320 acres south of the planned Carson neighbourhood (27% of new development lands). Existing residential units are excluded in this calculation.

1. OUTCOMES OF CLASS EA

The approved Class EA (March 2020) recommended the following for water servicing the MSP:

- Eleven (11) new municipal wells – Six (6) in Doran and five (5) in Carson – to supply raw water to their respective WTP's;
- One (1) WTP, with an in-ground reservoir, to be located within the Doran Road North Neighborhood, south of Craig Rd and east of Gill Rd, complete with raw water mains to convey influent from the wells to the WTP, and treated water mains to convey effluent to the Doran community;
- One (1) WTP, with an in-ground reservoir, to be located within the abandoned gravel pit, north of Snow Valley Road, east of Wilson Drive, complete with raw water mains to convey influent from the wells to the WTP and treated water mains to convey effluent to the Carson community.

A plan based on the recommended solution for water supply, treatment, storage, and distribution as per the Class EA is shown in Figure 2.

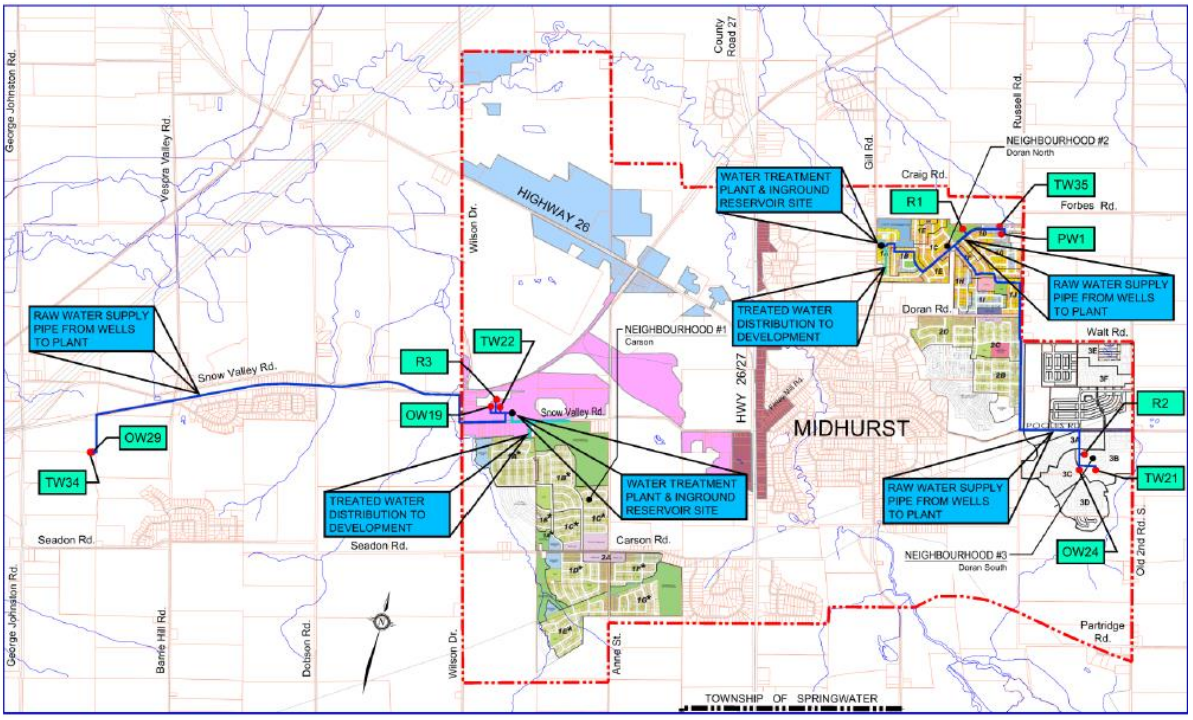


Figure 2 – Water Solution Recommended by Class EA

2 EXISTING WATER SUPPLY SYSTEM

The existing and planned water infrastructure for the MSP includes all items listed above. As construction of the new communities proceeds, the associated water infrastructure has been implemented in stages to accommodate partial demands.

In total, the ultimate WTP design based on the approved Class EA provides accommodation for 7,858 new residential units plus 350 equivalent units for employment, for a total of 8,208 equivalent new units,

based on a per capita water demand of 380 L/day and a fire flow of 133 L/s for 3 hours which will be used for the new development.

The Carson Road Water Supply System is planned to feature five (5) well sites, each supporting twin wells for a combined capacity of 113 L/s. Based on the quality of the raw water from these wells, the planned Carson Road WTP utilizes oxidation and filtration to remove iron and manganese, aeration to strip methane, disinfection via chlorination, and ion exchange to remove nitrates. Four treated water reservoirs averaging 1,327 m^3 in volume are to provide storage for up to 5,309 m^3 of treated water.

The Doran Road Water Supply System is planned to feature six (6) well sites, each supporting twin wells for a combined capacity of 140 L/s. Based on the quality of the raw water from these wells, the planned Doran Road WTP utilizes oxidation and filtration to remove iron and manganese and disinfection via chlorination. Four treated water reservoirs averaging 1,350 m^3 in volume are to provide storage for up to 5,400 m^3 of treated water.

A summary of the major design parameters for each of these WTPs at their ultimate capacity is provided in Table 2.1.

Table 2.1: Carson WTP and Doran WTP Design Summary

Parameter	Units	Carson WTP	Doran WTP
Population Served	#	8,727	15,897
Average Day Demand (ADD)	L/s	38.4	69.9
Maximum Day Demand (MDD)	L/s	**76.8**	**132.8**
Number of Wells	#	5	6
Total Well Capacity	L/s	**113**	**140**
Total Storage Required	m^3	3,868	5,382
Number of Reservoirs	#	4	4
Total Reservoir Volume	m^3	**5,309**	**5,400**

3 DEMAND OF PROPOSED MSP EXPANSION

The proposed MSP expansion areas will create additional water demand from the new residential, employment, and mixed-use areas. The water treatment demand of the proposed MSP Expansion areas is calculated based on utilization of the existing Carson Road and Doran Road WTPs to serve the adjacent new developments.

Table 3.1 summarizes the additional and cumulative units which may potentially be served by the existing Carson WTP and Doran WTP.

Table 3.1: Carson WTP and Doran WTP Equivalent Residential Unit Counts

Phase	Additional Units	Cumulative Units
Carson Development	-	2,909
Potential Development Areas South and West of Carson Development (Areas 1-4)	7,522	**10,431**
Doran Development	-	5,299
Potential Development Areas North and East of Doran Development (Areas 5-6)	2,869	**8,168**

The equivalent residential units from the proposed employment area are excluded with the assumption that the total population serviced by the Carson WTP and Doran WTP remain the same. This means the residents from Midhurst will be employed to the proposed employment area and as such, the water servicing would be for the same total population.

Table 3.2 summarizes the preliminary water supply and storage requirements for each WTP to accommodate the potential developments. These calculations are based on the approved Class EA and the MECP Design Guidelines for Drinking Water Systems (2008).

Table 3.2: Carson WTP and Doran WTP Design Parameters

Carson Road WTP			
Parameter	**Unit**	**Existing Carson Development**	**+ Potential Expansion**
No. of Units	Units	**2,909**	**10,431**
Population	#	8,727	31,293
Minimum Hour Demand (MHD)	L/s	19.2	89.5
Average Day Demand (ADD)	L/s	38.4	137.6
Maximum Day Demand (MDD)	L/s	**76.8**	**247.7**
Peak Hour Demand (PHD)	L/s	115.1	371.6
Fire Flow (Class EA)	L/s	133	133
Fire duration	hrs	3	3
A = 25% of MDD	m^3	1,658	5,351
B = Fire Flow	m^3	1,436	1,436
C = 25% of (A + B)	m^3	774	1,697
Required Storage Volume = A + B + C	m^3	**3,868**	**8,484**

Doran Road WTP			
Parameter	**Unit**	**Existing Doran Development**	**+ Potential Expansion**
No. of Units	Units	**5,299**	**8,168**
Population	#	15,897	24,504
Minimum Hour Demand (MHD)	L/s	42.0	64.7
Average Day Demand (ADD)	L/s	69.9	107.8
Maximum Day Demand (MDD)	L/s	**132.8**	**204.8**
Peak Hour Demand (PHD)	L/s	199.3	307.2
Fire Flow (Class EA)	L/s	133	133
Fire duration	hrs	3	3
A = 25% of MDD	m^3	2,869	4,423
B = Fire Flow	m^3	1,436	1,436
C = 25% of (A + B)	m^3	1,076	1,465
Required Storage Volume = A + B + C	m^3	**5,382**	**7,324**

4 WATER SERVICING SOLUTION FOR PROPOSED MSP EXPANSION

The proposed expansion will require construction of new water infrastructure and/or upgrades to existing water infrastructure to meet the demand of each new community.

The existing well capacities will be insufficient to meet the new demand associated with the new communities, and therefore new wells will need to be constructed to supply raw water to meet the potential expansion's demand. Hydrogeological and geotechnical studies will be required within the existing well locations to determine the optimal locations for these new wells. One or more new raw watermains will need to be constructed to facilitate transport of the raw water to treatment. The route for these new raw watermains will be determined based on the new well locations.

An alternative to treat the raw water would be to utilize the existing Carson Road and Doran Road WTPs to serve the proposed MSP Expansion. The benefit of utilizing the existing WTPs are more efficient and cost-effective to upgrade and expand the capacities of these WTPs than to construct entirely new facilities, from a capital as well as operations and maintenance perspective. Depending upon the quality of the raw water from the potential new wells, additional treatment measures may need to be implemented at each treatment plant in order to meet provincial treated water quality standards.

If the locations of the new raw water wells are far enough away from one or more of the existing WTPs that it renders its utilization unfeasible for treatment of the new demand, one or more new WTPs must be constructed.

Design for the necessary plant and reservoir new constructions and/or upgrades will proceed once the well locations are selected, feasibility assessment is complete, and the optimal approach determined.

Whether existing or new WTPs are used, a new treated watermain and distribution system will be required to deliver the treated water to the new communities. The exact routing of the piping comprising these systems will be determined based on the location of wells and treatment.

5 CONCLUSIONS

As identified in this memo above,, the proposed Midhurst Settlement Area can be appropriately serviced through requisite expansions and/or improvements to existing water infrastructure that is planned, or built, to service the existing Midhurst Settlement Area.

File #:	**1194M**
Date:	**May 12, 2025**

Mr. Daniel Steinberg
Trustee, Midhurst Landowners Group
130 Adelaide Street West, Suite 2800
Toronto, Ontario, M5H 3P5

Dear Mr. Steinberg:

Re:	**Midhurst Settlement Area Boundary Expansion – Linear Servicing Considerations** **Midhurst, Township of Springwater, Ontario**

The purpose of this memo is to provide an overview of the required linear servicing extensions required to provide municipal water and sanitary servicing from the existing and planned infrastructure within the existing Midhurst Secondary Plan (MSP) area boundary to the proposed settlement area boundary expansion lands. The proposed settlement area boundary expansion is being assessed in response to the February 5, 2025 resolution unanimously passed at Township of Springwater Council to review the opportunity to expand the Midhurst Settlement Area boundaries.

The proposed expansion area consists of five (5) distinct areas as shown on the Context Map, **Figure 1** (**Attachment A**). These areas are described as:

- Area 1 – Residential Lands within the MSP, designated future development potential west of Wilson Drive (Blue);
- Area 2 – Residential Lands outside and adjacent to the MSP, which extend from the existing MSP to the City of Barrie from east of Wilson Drive to east of Anne Street (Red);
- Area 3 – Residential Mixed-Use lands outside existing MSP (Carson Neighbourhood), which extend from the existing settlement boundary to the City of Barrie on either side of Highway 26 (Green);
- Area 4 – Residential Lands outside existing MSP, east of Nursery Road, north of Highway 26 (Red);
- Area 5 – Residential Lands outside and adjacent to the MSP (Doran Neighbourhood) between Russel Road and Old Second Road South, north of Walt Road (Red); and,

- Area 6 – Strategic Employment Area outside and adjacent to the MSP (Doran Neighbourhood) on both sides of the 400 Highway formed by Old Second Road on the west, Partridge Road on the south, Penetanguishene Road to the east and north of Forbes Road.

These six (6) areas provide opportunities within Midhurst for approximately 1,860 ac (~750 ha) of additional gross developable residential area and approximately 3,000 ac (~1,200 ha) of strategic employment lands. These lands are intended to be serviced via the existing and proposed infrastructure, approved through the Midhurst Class EA, within the MSP. This memo will outline the feasibility of how to extend linear infrastructure to the proposed expansion areas. It is noted that the capacity and treatment feasibility of the sanitary pump stations, wastewater treatment plant, water treatment plants and associated infrastructure are assessed by TYLin under separate cover.

Water Servicing

As outlined in the Township of Springwater Midhurst Water, Wastewater & Transportation (Phase 3 & 4) Environmental Study Report (EA), there are two water treatment plants (WTP) within the MSP, one in the Carson Neighbourhood and one in the Doran Neighbourhood (**Figure 2**, **Attachment A**). The distribution of water through these neighbourhoods is achieved via the proposed internal road network within the approved draft plans in each neighbourhood. The following is a summary of how these networks can further extend to the proposed expansion areas, highlighting potential external watermain looping requirements (refer to **Figure 2**, **Attachment A**)

Area 1 – Residential Lands

Adjacent to Wilson Road, Area 1 would be serviced by the Carson Neighbourhood WTP via an extension of the watermain within Snow Valley Road, connecting to Wilson Drive which would present looping opportunities within the proposed Area 1 via Carson Road and Anne Street via expansion Area 2 to the south.

Area 2 – Residential Lands

As Area 2 is adjacent to expansion Area 1 and the existing approved Carson Road Neighbourhood lands. The extension of water services to this area would therefore be via the adjacent draft plans. As there are multiple points of connection to existing and future municipal roads, it is not anticipated additional looping would be required.

Area 3 – Residential Mixed-Use Lands

Area 3 is assumed to be serviced via an extension of the services proposed with expansion Area 2. As the lands east of Highway 26 fall to the east, a local booster pump station may be required, to be confirmed through future studies. Similar to expansion Area 2, no additional external looping is assumed to be required at this time.

Area 4 – Residential Lands

Area 4 is assumed to be serviced via an extension of the distribution system proposed along Snow Valley Road, via an extension north on Nursery Road. There may be opportunities for looping within the Midhurst Station area, Area 4 is likely to be serviced via a single feed. In addition Area 4 consists of elevations at or below the bottom of the range for the Water Treatment Plan service zone and therefore a pressure reducing valve would need to be incorporated into the system.

Area 5 – Residential Lands

As Area 5 is adjacent to Walt Road and Russel Road which form the existing boundary roads of the MSP in this area, it is assumed that all required water services would be extended via the adjacent draft plans. As there are multiple points of connection to existing and future municipal roads, it is not anticipated additional looping would be required.

Area 6 – Strategic Employment Lands

Adjacent to expansion Area 5 as well as the eastern limit of the MSP, Area 6 is anticipated to be serviced via an extension of water servicing from these areas. Further assessment on the overall potential for Area 6 to remain within the pressure district associated with the Doran Neighbourhood WTP is to be assessed under separate cover. Assuming these lands can fall within the same pressure district, a watermain loop along Old Second Road South, from Partridge Road to Forbes Road, along Forbes Road to the east and south via a future internal collector road or Penetanguishene Road is anticipated to service this area. Further opportunities for connection via Pooles Road and Walt Road exist as well to improve redundancy.

As described, there is a feasible approach to extending the Midhurst Water System to all proposed expansion areas.

Sanitary Servicing

As outlined in the Township of Springwater Midhurst EA, there is a wastewater treatment plant (WWTP) within the MSP, located north of the Carson Neighbourhood at the northeast corner of Wilson Drive and Snow Valley Road (**Figure 3**, **Attachment A**). The distribution of wastewater through the MSP is achieved via a network of gravity sanitary sewers and associated sanitary

pump stations and forcemains. The following is a summary of how these existing and proposed networks can further extend to, and/or be expanded on to service the proposed expansion areas. The proposed solutions are also shown on **Figure 4** in **Attachment A**. It is noted that all drainage boundaries shown on **Figure 4** have been estimated based on existing topographic information and will need to be studied further based on anticipated future road networks and elevations.

Area 1 – Residential Lands

Adjacent to Wilson Road, Area 1 requires a sanitary pump station (PS#11, **Figure 4**) as sanitary flows are unable to be conveyed to the WWTP via gravity due to the Black Creek crossing at Wilson Drive to the northwest. As shown on **Figure 4**, additional drainage from expansion Area 2 via future municipal roads is anticipated as well.

Area 2 – Residential Lands

As Area 2 is adjacent to expansion Area 1 and the existing approved Carson Road Neighbourhood lands, the extension of sanitary servicing to this area would be via the adjacent draft plans. As there are multiple points of connection to future municipal roads, these lands are proposed to be serviced via three systems: 9, 10 and 11 as shown on **Figure 4**.

System 9 provides sanitary conveyance via a proposed pump station (PS#9) which ultimately pumps flows to System 10 which conveys sanitary drainage via gravity to the WWTP via the existing Phase 1B and Phase 1A areas within the Carson Neighbourhood.

As noted previously, System 10 conveys sanitary flows via gravity to the WWTP. Area 2 would be serviced via an extension of sanitary gravity sewers from the adjacent development.

As noted in the expansion Area 1 summary, Area 2 will convey a portion of the proposed sanitary drainage via an extension of sanitary sewers from System 11 and ultimately to PS #11.

Area 3 – Residential Mixed-Use Lands

Area 3 is split on either side of existing Highway 26 with respect to sanitary drainage boundaries. The western portion of Area 3 is proposed to be conveyed to the WWTP via an extension of gravity sanitary sewers from System 6, and ultimately PS#6. The eastern portion has lower elevations that require it be conveyed either via a local pump solution, or gravity to future PS #6 (**Figure 4**). As shown on **Figure 4**, future PS#6 conveys sanitary flows via a proposed forcemain along Highway 26, connecting into the main sanitary forcemain from the Doran Neighbourhood along Snow Valley Road, ultimately to the WWTP.

Area 4 – Residential Lands

Area 4, located north of Area 7, is proposed to be serviced by a proposed Area 7A which will drain to a proposed PS #7A located adjacent to Willow Creek. PS #7A will pump into the gravity system within Area 7 to be pumped via PS #7. Alternatively, a manifold chamber that combines the PS #7A and PS#7 effluence discharge may be proposed. PS #7 conveys effluent to PS #8 associated with the WWTP Utility Campus and ultimately to the WWTP.

Area 5 – Residential Lands

Based on existing topographic information, Area 5 is proposed to be serviced via three systems: 1, 2 and 2A.

System 1 is proposed to be extended into expansion Area 5 which ultimately provides sanitary conveyance to the WWTP via pump station PS#1 (**Figure 4**) which is currently under construction. PS#1 pumps flows to the WWTP via a forcemain through the existing Midhurst community and Snow Valley Road.

System 2 is proposed to be extended to expansion Area 5 via future sanitary sewers to the east and south of Area 2. System 2 ultimately provides sanitary conveyance to the WWTP via future pump station PS#2 (**Figure 4**). PS#2 pumps flows to the WWTP via a forcemain through the future municipal roads, to Doran Road where it is combined into a distribution forcemain with the effluent flows from PS#1.

System 2A is proposed to be created via the expansion Areas 5 and 6 with a proposed pump station (PS#2A, **Figure 4**) located adjacent to Highway 400, north of Forbes Road. It is proposed to have PS#2A convey sanitary flows via a proposed forcemain that would outlet to the gravity sewer system proposed within System 2, within expansion Area 5.

Area 6 – Strategic Employment Lands

The strategic employment lands are proposed to be serviced via four service areas: 2, 2A, 2B and 2C, which all ultimately convey sanitary flows to System 2 and the associated PS#2.

A portion of Area 6 can be conveyed directly to System 2 via gravity as shown on **Figure 4** (**Attachment A**).

The following three systems: 2A, 2B and 2C are proposed to each be serviced via a proposed sanitary pump station and associated forcemain system. It is noted that the locations for PS#2A, PS#2B and PS#2C are shown schematically on **Figure 4** based on existing topographical information available. These pump station locations will be further refined based on the proposed road networks and proposed elevations. These systems are all proposed to convey sanitary flows via forcemain to the System 2 gravity sewer network and ultimately PS#2 prior to discharging to the WWTP.

Re:	**Midhurst Settlement Area Boundary Expansion – Linear Servicing Considerations** **Midhurst, Township of Springwater, Ontario**	File #: 1194M May 12, 2025

As described, there is a feasible approach to extending the existing and proposed Midhurst sanitary sewer, pump station and associated forcemain network to all proposed expansion areas.

Conclusion

As the proposed expansion areas are adjacent to the existing Midhurst Secondary Plan, and the majority of the communal infrastructure is yet to be constructed, there is a feasible natural extension of the proposed water and sanitary sewer networks available to service the proposed expansion areas as shown in greater detail for both water and sanitary on **Figure 5**.

Please contact the undersigned if you have any questions or require any additional information.

Sincerely,

SCS Consulting Group Ltd.

John Priamo, P.Eng.
jpriamo@scsconsultinggroup.com

Attachments

Attachment A - Figures

P:\1194 Midhurst Carson Road\Correspondence\Reports\Secondary Plan Expansion\2025 05(May) 12 - MSP Expansion Linear Servicing Memo.docx

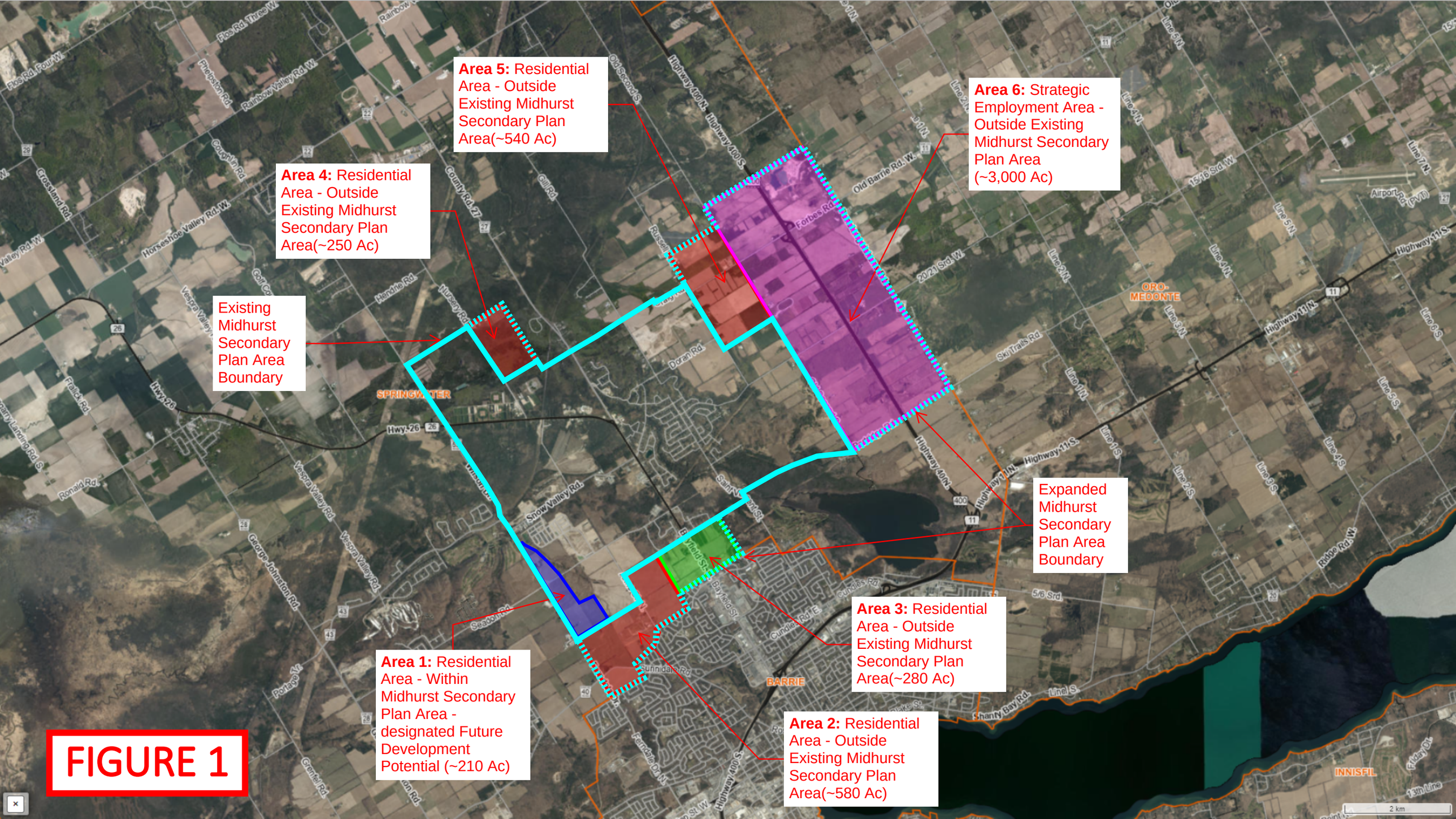

Area 5: Residential Area - Outside Existing Midhurst Secondary Plan Area(~540 Ac)
Area 6: Strategic Employment Area - Outside Existing Midhurst Secondary Plan Area (~3,000 Ac)
Area 4: Residential Area - Outside Existing Midhurst Secondary Plan Area(~250 Ac)
Existing Midhurst Secondary Plan Area Boundary
Expanded Midhurst Secondary Plan Area Boundary
Area 3: Residential Area - Outside Existing Midhurst Secondary Plan Area(~280 Ac)
Area 1: Residential Area - Within Midhurst Secondary Plan Area - designated Future Development Potential (~210 Ac)
Area 2: Residential Area - Outside Existing Midhurst Secondary Plan Area(~580 Ac)
SPRINGWATER
ORO-MEDONTE
BARRIE
INNISFIL
Hwy 26
Highway 400 N
Highway 400 S
Highway 11 N
Highway 11 S
Forbes Rd
Doran Rd
Snow Valley Rd
Vespra Valley Rd
Horseshoe Valley Rd W
Ski Trails Rd
Sunnidale Rd
Bayfield St
Shanty Bay Rd
Old Barrie Rd W
Gill Rd
Nursery Rd
Hendrie Rd
Seadon Rd
Ronald Rd
George Johnston Rd
Portage Rd
Fairgrounds Rd
Ridge Rd W
Airport Rd (PVT)
2 km

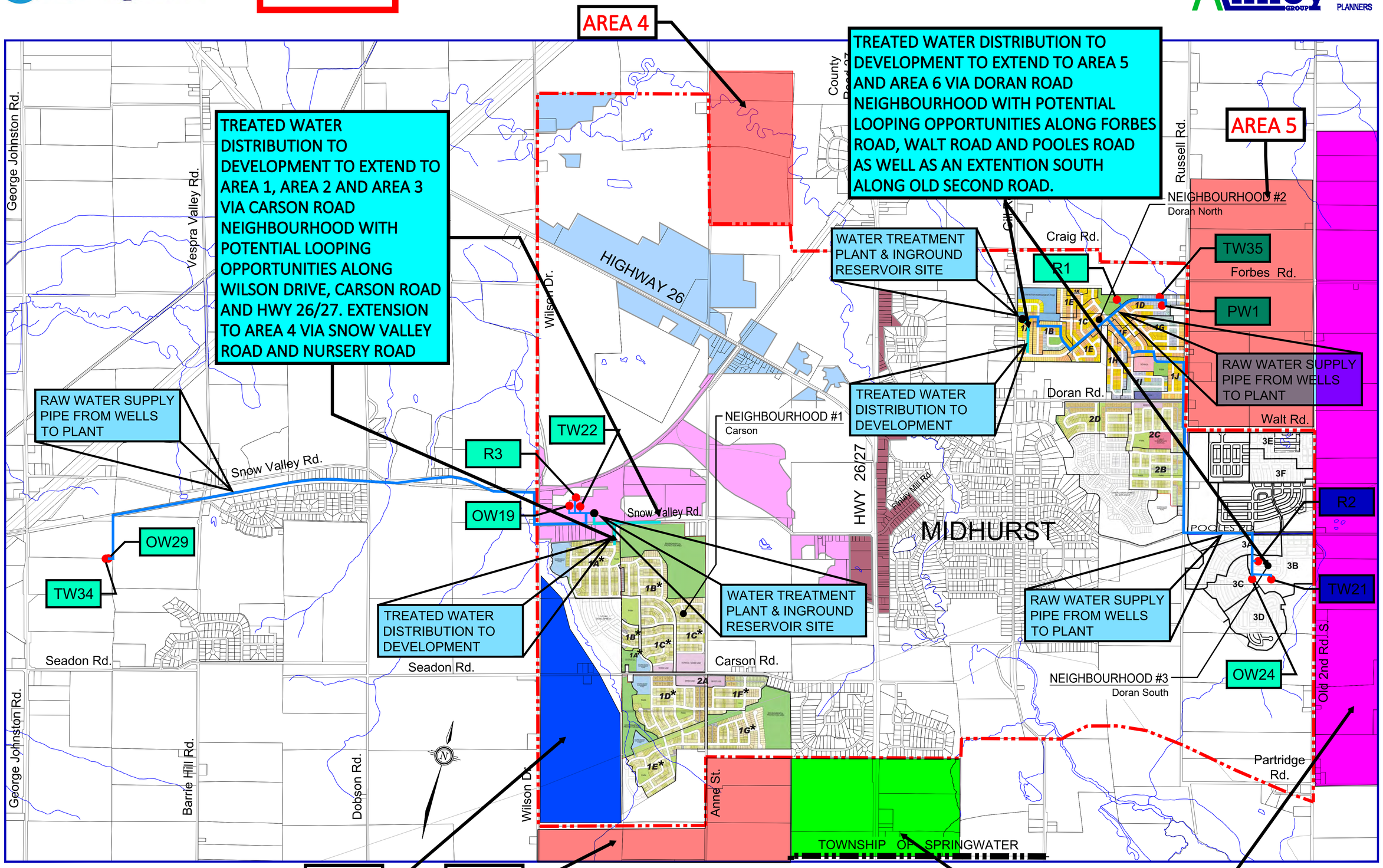
FIGURE 1

TOWNSHIP OF SPRINGWATER

Township of Springwater

FIGURE 2

Ainley GROUP — CONSULTING ENGINEERS PLANNERS



OVERALL PLAN
PROPOSED WATER SUPPLY AND DISTRIBUTION SYSTEM

AINLEYGROUP FILE No. 113027
JUNE 2016

DWG. 113027-OP3

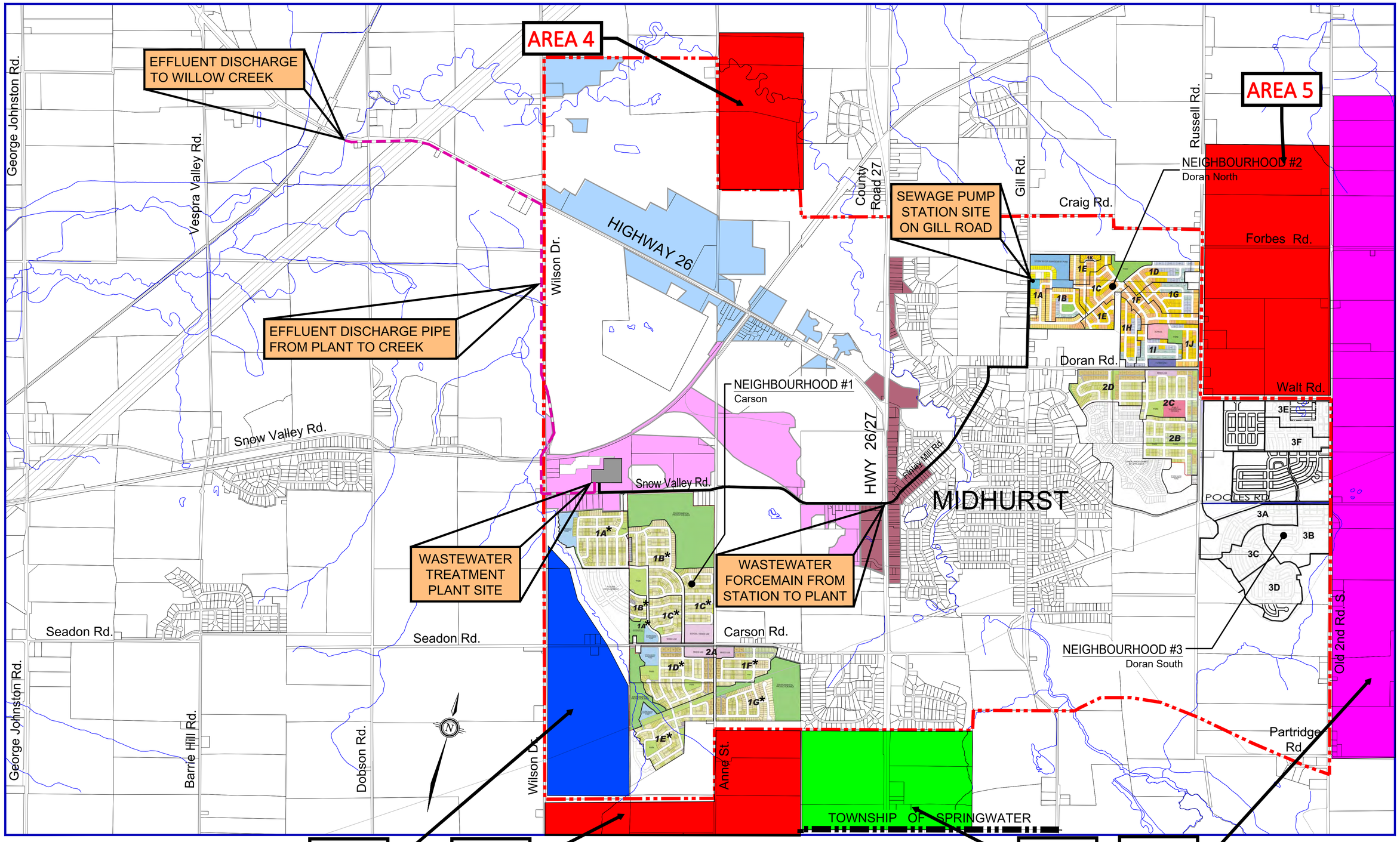
PLOT 1=1

Township of Springwater

FIGURE 3

TOWNSHIP OF SPRINGWATER

Ainley GROUP CONSULTING ENGINEERS PLANNERS



OVERALL PLAN

PROPOSED WASTEWATER COLLECTION AND TREATMENT SYSTEM

AINLEYGROUP FILE No. 113027

JUNE 2016

DWG. 113027-OP4

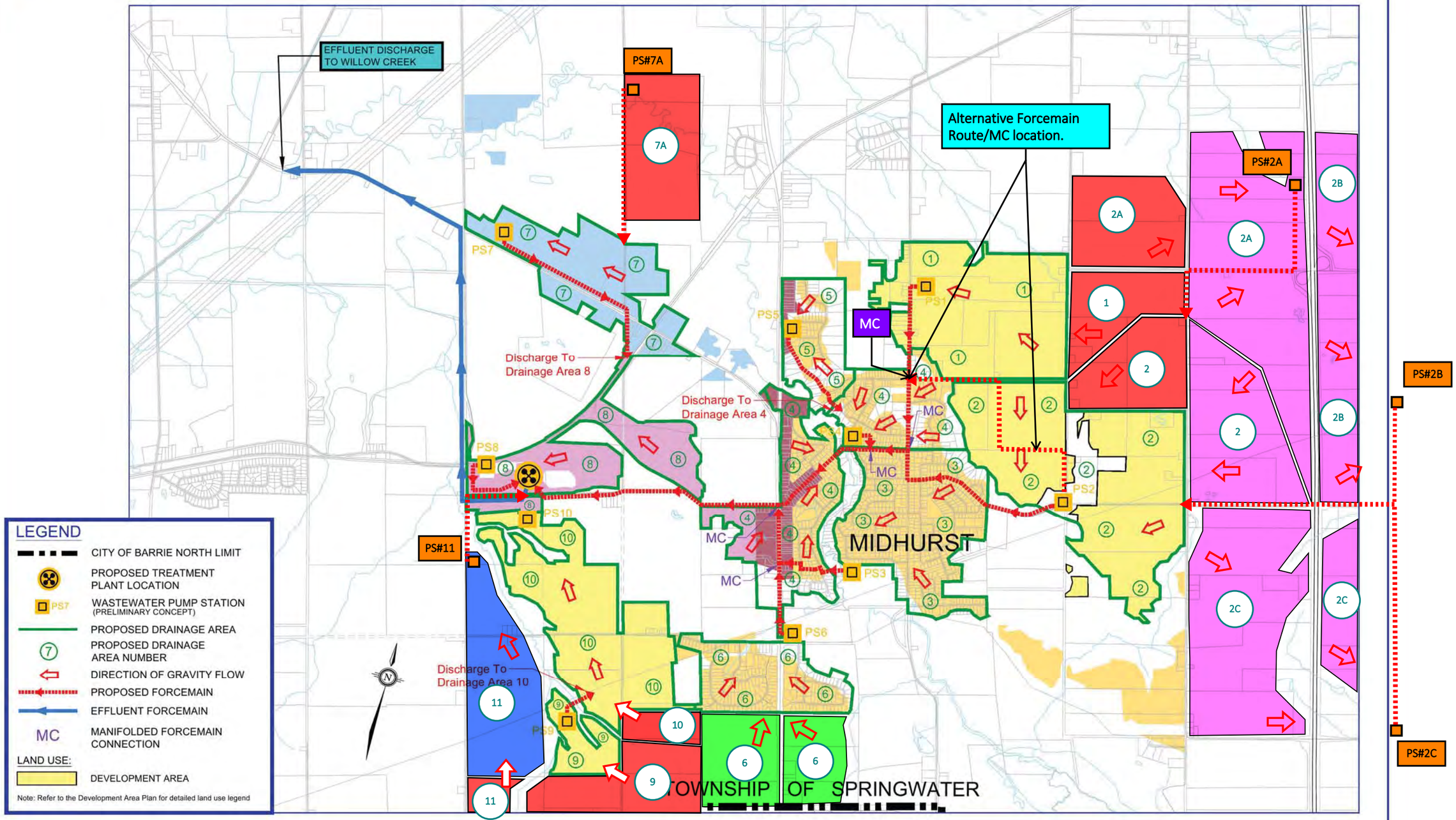
PLOT 1=1

Township of Springwater

FIGURE 4

TOWNSHIP OF SPRINGWATER

Ainley GROUP CONSULTING ENGINEERS PLANNERS

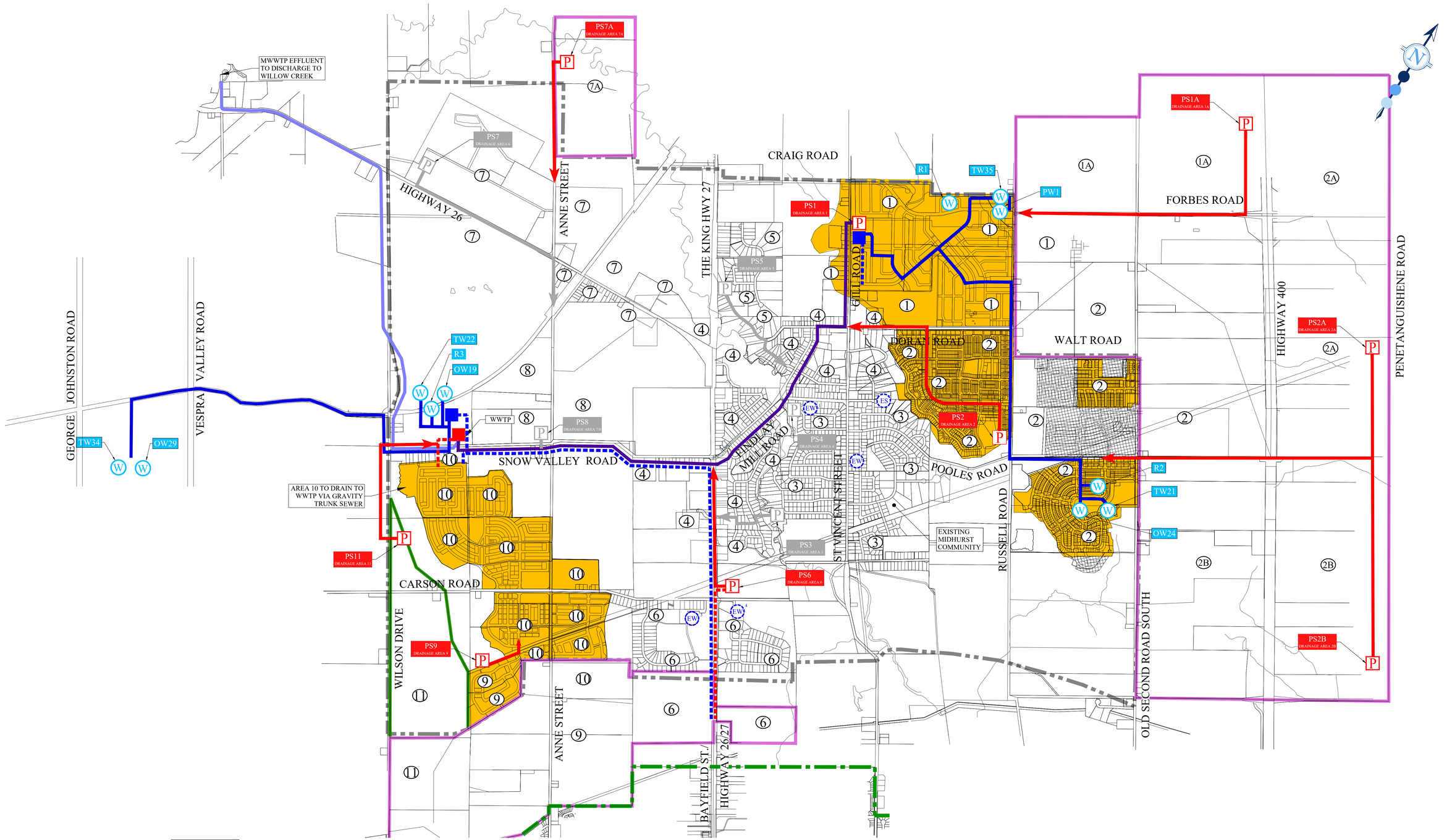


OVERALL PLAN
PREFERRED - WASTEWATER COLLECTION, TREATMENT & DISPOSAL SOLUTION

SCALE: 1: 20000

AINLEYGROUP FILE No. 113027
JUNE 2016

DWG. 113027-OP5



LEGEND:

SANITARY

- WASTEWATER TREATMENT PLANT
- PUMPING STATION IN SUPPORT OF DEVELOPMENT
- PUMPING STATION IN SUPPORT OF EXISTING COMMUNITY
- SANITARY FORCEMAIN
- SANITARY GRAVITY TRUNK
- TRUNK FORCEMAIN
- TREATED EFFLUENT MAIN
- (1) PROPOSED PUMPING STATION DRAINAGE AREA NUMBER

WATER

- WELLS
- EXISTING WELL
  1 - GREENPINE WELL
  2 - IDLEWOOD WELLS (2)
  3 - CARSON ROAD WELL
  4 - DEL TREND WELLS (3) AND INGROUND STORAGE
- EXISTING STORAGE TANK
- WATER TREATMENT PLANT AND IN GROUND RESERVOIR
- RAW WATERMAIN FORCEMAIN
- TRUNK WATERMAIN TRANSMISSION MAINS

DEVELOPMENT

- PARTICIPATING LANDS
- NON-PARTICIPATING LANDS
- EXTERNAL AREA TO BE SERVICED
- FUTURE DEVELOPMENT LANDS WITHIN SECONDARY PLAN AREA
- SECONDARY PLAN BOUNDARY
- SPRINGWATER/BARRIE MUNICIPAL BOUNDARY

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SCS consulting group ltd
30 CENTURIAN DRIVE, SUITE 100
MARKHAM, ONTARIO L3R 8B8
TEL: (905) 475-1900
FAX: (905) 475-8335

GERANIUM

EXTERNAL SERVICING PLAN

DRAWN BY:	L.K.N.	CHECKED BY:	J.M.P.
SCALE:	1:15,000	DATE:	MAY 2025
PROJECT No:	1212	FIGURE No:	5.0

File: P:\1212 Midhurst Growth Study\Drawings\FSP\Figs\Report Figures\1212P-SERV-5.0.dwg – Revised by <JNELLAS> : Mon, May 12 2025 – 1:47pm

Memorandum

TO: Daniel Steinberg
Trustee
Midhurst Landowners Group
130 Adelaide Street West, Suite 2800, Toronto, ON. M5H 3P5

FROM:
Ian F. Clark, R.P.P., M.C.I.P.

PROJECT:
6860-10 Midhurst

DATE:
May 12, 2025.

SUBJECT: MIDHURST SETTLEMENT AREA EXPANSION: TRANSPORTATION CONSIDERATIONS

Introduction

This memorandum has been prepared to assess the transportation considerations to accommodate additional growth within the boundaries of the Township of Springwater through an expansion of lands incorporated into the Midhurst Settlement Area. The intent is to accommodate demands for residential and employment development within the Settlement Area, where substantial infrastructure upgrades are already planned.

Additional lands contemplated to be incorporated into the Midhurst Settlement Area are illustrated in the **Attachment A**.

Additional lands being considered for inclusion in the Settlement Area comprise 1,070 acres of residential subdivision in southern portions of the Township – generally south of the Carson Road development area (identified as Areas #1, #2, and #3 in Attachment A); 540 acres of residential subdivision east of the Doran Road development area – generally east of Russell Road (identified as Area #5 in Attachment A); 250 acres of residential subdivision north of Highway 26 (north of the Barrie Community Sports Complex) (identified as Area #4 in Attachment A); and a 3,000 acre "Strategic Employment Area" along the Highway 400 corridor between Partridge Road and approximately 1.25km north of Forbes Road (identified as Area #6 in Attachment A).

Infrastructure Planning

The Midhurst Secondary Plan and Township of Springwater Transportation Master Plan have made allowances for new and expanded transportation infrastructure to accommodate increases in traffic volumes associated with planned build-out of the Settlement Area. This includes the introduction of new roadways, roadway widenings, and capacity upgrades to existing intersections. These investments are planned to be undertaken by the Township, County, Midhurst Landowners Group, and / or other developers.

The Township of Springwater is currently undertaking a Transportation Master Plan (TMP) Update with the intention of incorporating the transportation improvements, directions and policies of the Midhurst Secondary Plan and Town of Springwater Water, Wastewater & Transportation Environmental Service Report (ESR, dated March 2020). Most population and employment growth in Springwater is intended to be within the Midhurst Settlement area, hence most transportation improvements in the Township would be captured through planning for this growth. These improvements, identified as part of the Midhurst ESR include (not an exhaustive list):

1) Craig Road extension
2) St. Vincent Street extension to Park Trail
3) Carson Road widening
4) Wilson Drive widening
5) Finaly Mill Road centre turn lane
6) Forbes Road widening
7) Russell Road widening

A full list of transportation improvements is provided in Section 7.6 of the Midhurst ESR. An excerpt figure is included in **Attachment B.**

The TMP Update identifies several other improvement "opportunities" to be considered within the 2051 Planning Horizon to accommodate growth in the Township more broadly, including:

1) Phelpston By-pass Road
2) Carson Road Extension from Hwy. 26 to St. Vincent Street.
3) Forbes Road transfer to the County (including future Craig Road extension).
4) Widening of Snow Valley Road to 4 lanes from Hwy. 26 to Wilson Road (included in previous TMP).
5) Widening of Wilson Drive from Snow Valley Road to Hwy. 26.

Additionally, various intersection "studies" are proposed in addition to those identified in the Midhurst ESR, which are intended to detail whether future improvements (if any) should be advanced at specific intersections. In the vicinity of the Midhurst Settlement Area, these intersections include:

1) Hwy. 26 / Wilson Drive
2) Hwy. 26 / Hwy. 27
3) Hwy. 26 / Glen Echo Drive / Currie Drive
4) Doran Road / Russell Road.
5) (Future) Carson Road / St. Vincent Street

Investments in new roadway infrastructure will enhance the Township's road network to support planned growth and regional connectivity.

Craig Road Extension

The Craig Road extension represents a key investment in the regional road network that will provide a direct, convenient, connection between several Provincial highways that are regionally significant north-south traffic corridors. These include:

- Highway 400;
- Highway 26/County Road 27; and
- Highway 93 / Penetanguishine Road.

Because of its connections to the above corridors, Craig Road will become a key link in the area transportation system and will provide an important distributor function for regional traffic. As such the Craig Road extension will assist in accommodating future planned growth in regional traffic volumes.

Traffic Considerations

Road network investments are planned to accommodate traffic volume growth associated with typical regional growth, as well as specific growth planned within the Settlement Area. The Midhurst Settlement Area contemplated traffic volumes associated with approximately 8,200 residential units and 3,150 jobs, and subsequently analyzed traffic impacts on the Township's road network and recommended mitigation measures and road infrastructure investments. Development planned within the Settlement Area is assumed to result in approximately 6,200 and 7,840 two-way vehicle trips during the weekday morning and weekday afternoon peak hours, respectively.

Conceptually, the additional lands to be brought into the Midhurst Settlement Area could potentially accommodate in the order of 11,000 residential units (approximately 29,400 residents) and approximately 24,430 new jobs.

It should be noted that additional employment development can include several types of commercial and industrial development, but it is currently thought to be substantially made-up of distribution, warehousing, data, storage, and other industrial uses that have larger land requirements but relatively low traffic generation potential. Future transportation planning in support of a "Strategic Employment Area" would need to consider a more defined employment projection and land use planning scenario within the allocated area, and the strategic introduction or improvement of key transportation corridors to facilitate goods movement. These transportation considerations can include improvements to Provincial highway facilities and specifically to Highway 400.

In advance of more detailed development planning, traffic forecasts for potential employment uses are undertaken assuming typical trip generation rates for Industrial Park uses derived from the Institute of Transportation Engineers Trip Generation Manual (11th Edition, ITE code #130) for approximately 24,430 jobs. A range of trip forecasts are provided understanding the preliminary nature of this assessment. It is anticipated that the expected additional employment development could result in approximately 6,000 to 10,750 additional two-way vehicle trips during the weekday morning peak hour and approximately 4,500 to 10,250 additional two-way vehicle trips during the weekday afternoon peak hour.

For the purposes of estimating traffic demands resulting from additional residential development contemplated with an expanded Midhurst Settlement Area, traffic generation rates previously applied to development already approved within the Midhurst Settlement Area are carried forward. It is anticipated that an additional 11,000 residential could result in approximately 6,500 to 7,000 additional two-way vehicle trips during the weekday morning peak hour and approximately 7,250 to 7,750 additional two-way vehicle trips during the weekday afternoon peak hour.

Additional traffic volumes - summarized above - would be anticipated to result in a 100 to 185 percent increase in Settlement Area traffic volumes during the weekday morning peak hour, and a 50 to 130 percent increase in Settlement Area traffic volumes during the weekday afternoon peak hour, relative to the approved plan currently in development. Given the location of additional lands to be incorporated into the Midhurst Settlement Area, traffic impacts are anticipated to be most evident in specific areas. Potential traffic impacts are further discussed in the following.

Future Traffic Studies

Traffic volumes associated with additional residential and employment land development beyond what has been estimated within the Midhurst Settlement Area to date, will be somewhat accommodated by the existing and planned area road network – particularly given roadway widenings planned for Wilson Drive, Anne Street, St. Vincent Road, Forbes Road, Pooles Road, and the introduction of key new roadways including the Craig Road extension and contemplated Carson Road extension. However, additional transportation studies will be best positioned to summarize required transportation network improvements to accommodate detailed development plans.

Of specific consideration will be whether traffic capacity upgrades are required for roadways or intersections south of Carson Road, within northern areas of the City of Barrie, and along the Highway 400 corridor north of Highway 11. In advance of more detailed development planning and transportation analyses, roadway capacity improvements may be anticipated in the following areas:

1) Along the Wilson Drive / Ferndale Drive corridor between Snow Valley Road and Dunlop Street;
2) Along the Anne Street corridor between Carson Road and Dunlop Street;
3) Along the Highway 26 / Bayfield Street corridor between Carson Road and Highway 400;
4) Along the St. Vincent Street corridor between Carson Road and Cundles Road;
5) Along the Old Second Road corridor from north of Forbes Road to Partridge Road;
6) Along the Pooles Road corridor east of Russell Road. and
7) Along the Forbes Road corridor east of Russell Road.

Further road network considerations may be explored in order to accommodate the contemplated development, including:

1) Strategic roadway corridor improvements to facilitate a substantial new employment area along the Highway 400 corridor;
2) Introduction of a new interchange with Highway 400 between Forbes Road and Highway 11;
3) Collector road extensions northwards from the City of Barrie into the Township (i.e. Kozlov Street);
4) Collector road extensions eastwards from the planned Doran North neighbourhood; and
5) New collector streets to support access and circulation to new development areas.

Transit and Active Transportation Considerations

The absence of substantial transit service provision, and limited existing active transportation infrastructure in the Township, highlights a considerable opportunity to improve non-automobile modal split and reduce roadway capacity investments that may otherwise be required to accommodate additional development within the Settlement Area.

The introduction of more employment uses within the Settlement Area, as well as residential development in proximity to built-up sections of the City of Barrie, provides opportunities for transit service provision and for planning local transit and active transportation routes between residential and employment / commercial areas.

Additional development within the Settlement Area, particularly in the introduction of more employment and commercial or community uses, provides opportunities to internalize trips within the Township thereby reducing average vehicle travel kilometres and traffic impacts to road networks outside of the Township.

Providing a more substantial mix and density of land uses within the Settlement Area would be anticipated to replace some longer vehicle trips external to the Township with shorter internal trips that offer more opportunities for active transportation modes to be utilized, more opportunities for link trip and trip-chaining, and an overall reduction in vehicle travel kilometres.

Summary

- Significant transportation improvements are planned for the Midhurst Settlement Area (and adjacent areas within the Township), as determined through the Class EA completed for the Midhurst Secondary Plan. These works are captured in cost sharing obligations within the existing Midhurst Landowners Group.

- The proposal is to accommodate additional growth within the boundaries of the Township through an expansion of lands incorporated into the Midhurst Settlement Area. Additional lands being considered for inclusion in the Settlement Area comprise 1,860 acres of residential subdivision and a 3,000 acre “Strategic Employment Area” along the Highway 400 corridor.

- Additional traffic volumes associated with the build-out of these additional lands may result in a 50 to 200 percent increase in Settlement Area weekday peak hour traffic volumes relative to the approved Settlement Area currently in development.

- Given the location of additional lands contemplated to be incorporated into the Midhurst Settlement Area traffic impacts are anticipated to be most evident in specific areas.

- The Midhurst Secondary Plan and Township of Springwater Transportation Master Plan have made allowances for new and expanded transportation infrastructure to accommodate increases in traffic volumes associated with planned build-out of the Settlement Area. Substantial planned investments in new roadway infrastructure will enhance the Township's road network to support planned growth and regional connectivity.

- Traffic volumes associated with additional development beyond what has been estimated within the Midhurst Settlement Area to date, will be somewhat accommodated by the existing and planned area road network – particularly given roadway widenings and new roadways planned within the Township, such as the Craig Road extension. However, transportation studies will be required to illustrate necessary transportation network improvements to accommodate detailed development plans.

  Future transportation planning in support of a "Strategic Employment Area" would need to consider a more defined employment projection and land use planning scenario, and the strategic introduction or improvement of key transportation corridors to facilitate goods movement.

  Transportation improvements may include, but are not limited to:

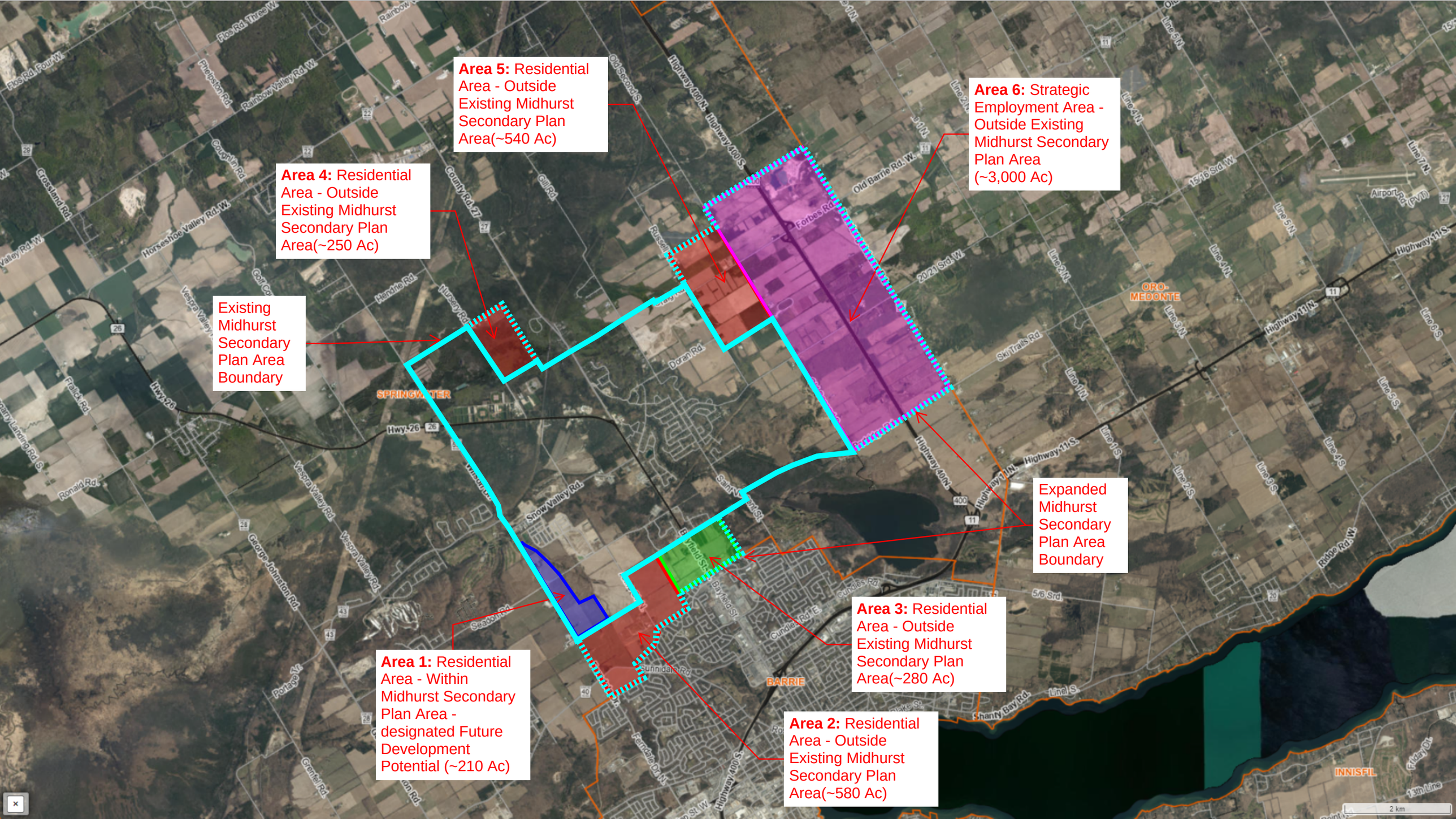
  - Road widenings,
  - Intersection improvements,
  - The introduction of new arterial or collector road segments,
  - Provincial highway enhancements (widenings, new and / or improved interchanges),
  - Transit service provision,
  - Active transportation network improvements, and
  - Transportation demand management measures.

- Considerable opportunity exists to improve non-automobile modal split by way of investment in transit service provision, active transportation infrastructure, and transportation demand management measures, to reduce roadway capacity investments that may otherwise be required to accommodate additional development within the Settlement Area.

- Providing a more substantial mix and density of land uses within the Settlement Area, particularly in the introduction of more employment and commercial or community uses, provides opportunities to internalize trips within the Township thereby reducing average vehicle travel kilometres and traffic impacts to road networks outside of the Township

Attachment A:

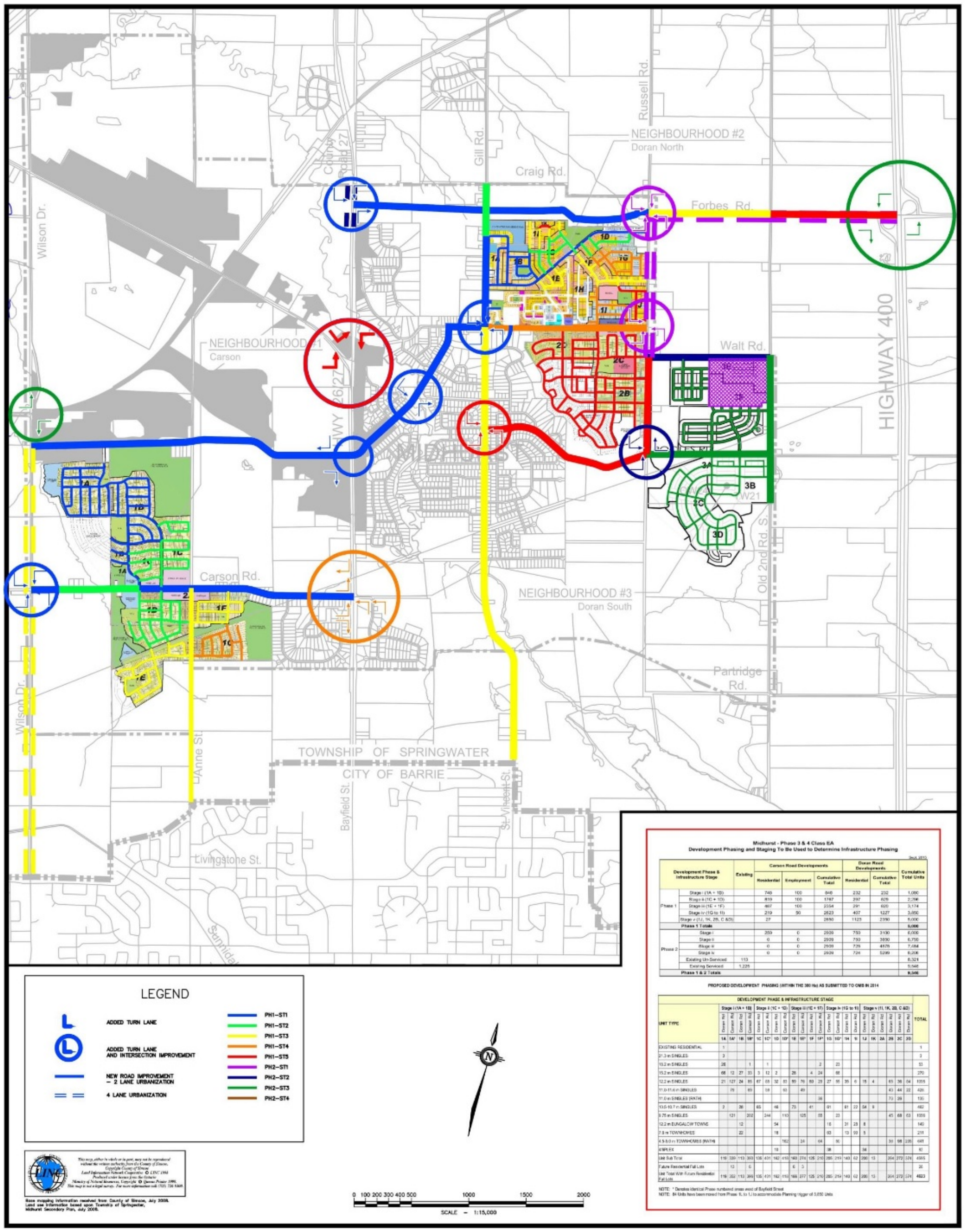
Additional Lands Considered to be included within the Midhurst Settlement Area


Area 5: Residential Area - Outside Existing Midhurst Secondary Plan Area(~540 Ac)
Area 6: Strategic Employment Area - Outside Existing Midhurst Secondary Plan Area (~3,000 Ac)
Area 4: Residential Area - Outside Existing Midhurst Secondary Plan Area(~250 Ac)
Existing Midhurst Secondary Plan Area Boundary
Expanded Midhurst Secondary Plan Area Boundary
Area 3: Residential Area - Outside Existing Midhurst Secondary Plan Area(~280 Ac)
Area 1: Residential Area - Within Midhurst Secondary Plan Area - designated Future Development Potential (~210 Ac)
Area 2: Residential Area - Outside Existing Midhurst Secondary Plan Area(~580 Ac)
SPRINGWATER
ORO-MEDONTE
BARRIE
INNISFIL
Hwy 26
Highway 400 N
Highway 400 S
Highway 11 N
Highway 11 S
Forbes Rd
Doran Rd
Snow Valley Rd
Vespra Valley Rd
Horseshoe Valley Rd W
Ronald Rd
Fralick Rd
Hendrie Rd
Nursery Rd
Gill Rd
Old Barrie Rd W
Ski Trails Rd
Shanty Bay Rd
Sunnidale Rd
Seadon Rd
Bayfield St
Cundles Rd E
5/6 Sdrd
Ridge Rd W
George Johnston Rd
Portage Rd
Granite Rd
Fairgrounds Rd
Line 1 N
Line 2 N
Line 3 N
Line 4 N
Line 5 N
Line 7 N
Line 1 S
Line 2 S
Line 3 S
Line 4 S
Line 5 S
Line 6 S
2 km

Attachment B:

Planned Roadway Improvements within the Midhurst Settlement Area

FIGURE 7.6.2. PHASING SCHEMATIC



AGRICULTURAL CHARACTERIZATION REPORT
FOR
MIDHURST EXPANSION

PREPARED FOR:

MIDHURST LANDOWNERS GROUP INC.

PREPARED BY:

COLVILLE CONSULTING INC.

432 NIAGARA STREET, UNIT 2
ST. CATHARINES, ONTARIO L2M 4W3

C25035
MAY 2025

COLVILLE CONSULTING INC.

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1. INTRODUCTION

1.1 Retainer

Colville Consulting Inc. was retained by the Midhurst Landowners Group Inc. to complete an Agricultural Characterization Report (ACR) for the proposed Midhurst Expansion lands in the Township of Springwater, County of Simcoe. These lands, herein referred to as the Subject Lands, are comprised of numerous parcels south and east of the Midhurst *settlement area*, which combined are approximately 1,849.74 ha (4,570.81 acres) in size. The Subject Lands include areas designated Agricultural, Rural, and Greenlands, in the County of Simcoe Official Plan, and Agricultural, Rural, and Open Space, in the Township of Springwater Official Plan.

1.2 Development in Ontario

1.2.1 Planning Framework

The *Provincial Planning Statement 2024 (PPS*) provides the framework for land use planning and *development* in Ontario. It provides policy direction on matters of provincial interest related to land use planning and *development*. The intent of the planning statement is to ensure "Ontario's vibrant agricultural sector and sensitive areas will continue to form part of the province's economic prosperity and overall identity. Growth and development will be prioritized within urban and rural settlements that will, in turn, support and protect the long-term viability of rural areas, local food production, and the agri-food network. In addition, resources, including natural areas, water, aggregates and agricultural lands will be protected."

1.2.2 Defined Terms and Meanings

Italicized terms throughout this ACR are often consistent with terms and definitions contained in the *Provincial Planning Statement* and provincial guidance documents. The definitions of these italicized terms are provided in the Glossary of Terms section of this report.

1.2.3 Guidance Documents

This ACR refers to several provincial guidance documents, materials, and technical criteria that are frequently considered when preparing an Agricultural Impact Assessment (AIA). Although an AIA is not being completed at this time, the scope of this ACR aligns closely with the scope of an AIA. These guidance documents are meant to inform and assist planning authorities and decision-makers when implementing the policies of the *Provincial Planning Statement.* As stated in the *PPS,* "Information, technical criteria and approaches outlined in provincial guidance are meant to support implementation but not add to or detract from the policies of this Provincial Planning Statement."

1.3 Qualified Professionals

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) prepared the draft Agricultural Impact Assessment Guidance Document and published it in 2018[1]. This document provides guidance on how to prepare an AIA and the qualifications practitioners must have in order to prepare an AIA. As stated above, an AIA is not being completed at this time. However, an AIA will likely be required for the proposed *development* and this ACR aligns closely with the scope of an AIA, as outlined in OMAFRA's AIA guidance document. The AIA guidance document states that qualified persons should have knowledge in:

- Agri-businesses, agricultural supply chain linkages, rural/agricultural economic *development* in Ontario, and within the Greater Golden Horseshoe (GGH), the *agri-food network*, where relevant;
- Rural and agricultural land use planning;
- Canada Land Inventory (CLI) classifications of capability for agriculture assessment and, where relevant a practical understanding of soil science, including the ability to review technical information from non-agricultural disciplines and assess its relevance and utility in identifying potential agricultural impacts; and,
- Assessment and evaluation of the potential effectiveness of agricultural impact mitigation measures to reduce impacts.

The guidance document goes on to say that Qualified Persons (QPs) "should have demonstrable experience evaluating and assessing agricultural impacts and university or college degree(s) in one or more of the following: agriculture, soil science, geoscience, landscape architecture, resource management-related disciplines, environmental-related disciplines, agricultural engineering, or land use planning."

The guidance document states that the authors of the AIA, and those contributing to it, should have a "relevant academic base, Ontario experience, and preferably membership in a professional organization with a code of ethics and ongoing professional development requirements". As an example of such a professional organization, it specifically refers to the Ontario Institute of Agrologists (OAI) and registered professional agrologists (P.Ag.). All QPs should have demonstrated experience providing objective, professional judgment, advice, and testimony as an expert witness.

Colville Consulting Inc. was established in 2003 and provides agricultural and environmental consulting services to both private and public sector clients throughout Ontario. Colville Consulting Inc. has extensive experience preparing Agricultural Impact Assessments for proposed *developments* related to *settlement area* boundary expansion applications across the province of Ontario.

This study was led by Sean Colville, B.Sc., P.Ag., has over 35 years of experience preparing Agricultural Impact Assessments in Ontario, and assisted with the preparation of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) draft Agricultural Impact Assessment Guidance Document (2018).

[1] The Ontario Ministry of Agriculture, Food and Rural Affairs is now two separate ministries. They are the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFA) and the Ministry of Rural Affairs (MRA).

John Liotta, B.Sc., P.Ag., was responsible for completing the field investigations and preparation of the ACR. John has over seven combined years of formal education in Environmental and Agricultural Planning and work experience preparing Agricultural Impact Assessments with Colville Consulting Inc.

Colville Consulting Inc. staff meet the guidance documents qualifications for QPs. The curriculum vitae (CV) of Sean Colville and John Liotta can be found in Appendix A.

1.4 Description of Proposed Development

It is understood that the Township of Springwater Council is considering an expansion of the Midhurst *settlement area* boundary to include the Subject Lands within the urban area for the eventual *development* of residential and employment uses, pursuant to Council resolution unanimously passed on February 5, 2025.

1.5 Purpose of Study

This ACR has been prepared to characterize the agricultural resources and farm operations on the Subject Lands and within the *Study Area*, assess the agricultural priority of the Subject Lands, and provide a preliminary determination of any potential constraints (i.e., Minimum Distance Separation) to future development.

1.6 Study Area

The Subject Lands are partially located within the Township of Springwater and County of Simcoe's *prime agricultural area*. To be consistent with the Draft Agricultural Impact Assessment Guidance Document (2018), the *Study Area* should include both a Primary and *Secondary Study Area*. For this ACR, the *Primary Study Area (PSA)* includes the Subject Lands, while all lands within 1.5 km (1,500 m) of the Subject Lands' boundaries comprise the *Secondary Study Area*. Figure 1 shows the location of both the *Primary* and *Secondary Study Area*.

1.6.1 Primary Study Area – Subject Lands

The Subject Lands are comprised of two non-contiguous areas adjacent to the existing Midhurst *settlement area*. The portion of the Subject Lands located south of the existing boundary, herein referred to as Zone A, is generally located north of the existing City of Barrie *settlement area* boundary, east of Wilson Drive, and west of Saint Vincent Street. Zone A is comprised of several parcels and is approximately 424.34 ha in size. The portion of the Subject Lands located east of the existing boundary, herein referred to as Zone B, are generally located south of Story Road, west of Penetanguishene Road, and north of Partridge Road. Zone B is comprised of several parcels, and is approximately 1,424.35 ha in size. The Subject Lands are primarily in agricultural use, with agricultural infrastructure present on several parcels.

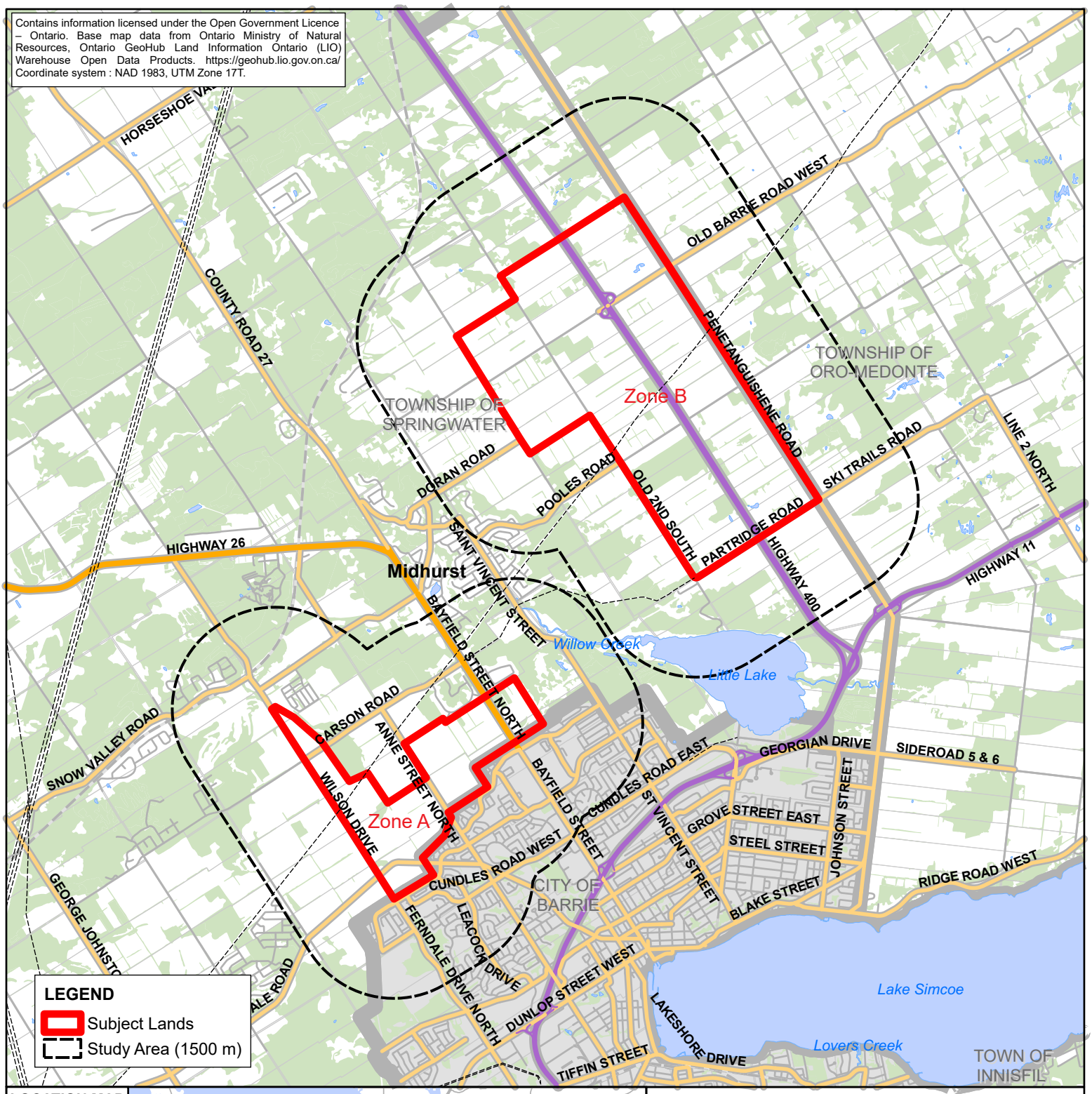


Figure 1
Location of Subject Lands

Agricultural Characterization Reportt
Midhurst Settlement Area Expansion
Township of Springwater, ON

Prepared for: Midhurst Development Landowners Group Inc.

Prepared by: COLVILLE CONSULTING INC.

0 2KM
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FILE: C23015

1.6.2 Secondary Study Area – Study Area

The *Secondary Study Area*, herein referred to as the *Study Area*, includes all lands within 1.5 km of the Subject Lands' boundaries. Zone A's Study Area is generally bounded by Highway 26 to the north, Willow Creek to the east, Highway 11 to the south, and Dobson Road to the west. Zone B's Study Area is generally bounded by Sideroad 30 & 31 West to the north, Line 1 North to the east, Highway 11 to the south, and Saint Vincent Street to the west. Excluding the lands located within the Barrie and Midhurst *settlement areas*, the Study Area is designated Open Space, Natural Heritage, Rural, Agricultural and Estate Residential in the Township of Springwater Official Plan. Excluding the *settlement areas*, the Study Area is designated Greenlands, Rural, and Agricultural in the County of Simcoe Official Plan.

2. SCOPE OF STUDY

Although an AIA is not being completed at this time, the scope of this ACR aligns closely with the scope of an AIA, as outlined in OMAFRA's AIA guidance document. The study scope includes:

- a review of applicable agricultural policies and other background information and land use information for lands within the surrounding area (e.g., aerial photography);
- a review of data sources such as AgMaps, the Agricultural Systems Portal, and OMAFA's digital soil resource database (for soil and CLI information, parcel fabric and land fragmentation, artificial drainage, agri-food components, etc.);
- a desktop land use survey of all lands within one and a half kilometres (1.5 km) of the Subject Lands and a characterization of the area;
- a preliminary assessment of the *Minimum Distance Separation (MDS)* requirements for the proposed *development* using the 2017 *MDS I formula*;
- the identification of agricultural resources and investments in agricultural land improvements;
- the identification of *agricultural uses, agriculture-related uses, on-farm diversified uses*, and *non-agricultural uses*; and,
- an assessment of the relative agricultural priority of the Subject Lands.

The findings of the above scope of work have been summarized in this report.

3. METHODOLOGY

The study methodology for this ACR is similar to the methodology used for the completion of an AIA, as outlined in OMAFA's Draft AIA Guidance Document. An ACR can be considered a precursor to an AIA, and can be used to inform a future AIA, if required. Similar to an AIA, this ACR includes the review of relevant agricultural-related sources of information, the calculation of Minimum Distance Separation setback requirements, and assessment of the agricultural character of the Subject Lands.

3.1 Background Data Collection

Information sources reviewed for this study included:

- Simcoe County Official Plan (February 2023 Consolidation);
- Township of Springwater Official Plan (2018);
- Soil Survey of Simcoe County – Report No. 29 of the Ontario Soil Survey (1962);
- OMAFA's digital Soil Resource Database to obtain soil series and CLI agricultural capability mapping and data;
- OMAFRA's The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks. Publication 853 (2016);
- OMAFA's Artificial Drainage Systems mapping;
- OMAFA's AgriSuite, AgMaps, and Agri-Systems databases;
- OMAFRA's Draft Agricultural Impact Assessment (AIA) Guidance Document (2018); and
- Ortho-rectified, digital aerial photography viewed using Google Earth™.

Aerial photography covering the *Study Area* and the parcel fabric were examined to assess the presence of *non-agricultural uses*, *agricultural uses*, *agriculture-related uses*, *on-farm diversified uses*, and the level of fragmentation based on the lot fabric. The review of aerial photographic imagery provides a general impression of the agricultural activity and level of agricultural investments within the Subject Lands and surrounding S*tudy Area*.

3.2 Desktop Land Use Survey

A desktop land use survey of the Subject Lands and Study Area was completed to identify the number and type of agricultural operations (both active and *retired*), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural uses* in the area. The desktop land use survey utilized historical and the most recent aerial imagery and Google Street View imagery to identify the mix of land uses in the *Study Area*.

3.3 Preliminary MDS Calculations

The *MDS* is a land use planning tool developed by OMAFA to minimize land use conflicts and nuisance complaints arising from odours generated by *livestock operations*. The *MDS* calculates a recommended separation distance between a *livestock facility* or *manure storage* and other land use(s). The most recent

version of the *MDS* guidelines, The Minimum Distance Separation (MDS) Document, Publication 853 (2016), came into effect on March 1st, 2017.

The *MDS* uses two separate formulae depending on the type of land use proposed: the *MDS I formula* and the *MDS II formula*. The *MDS I formula* is used when a proposed new non-agricultural *development* is proposed in proximity to *livestock facilities*. The *MDS II formula* is used to calculate the distance from proposed new, enlarged, or remodeled *livestock facilities* and existing or approved *development*.

The *MDS I formula* is required for the proposed *development*. The Minimum Distance Separation (MDS) Document states that "the preferred method for obtaining information (e.g., livestock and manure type as well as design capacity) to be used in MDS I calculations for a complete planning application is visiting the site and getting information directly from the farm operator(s) or owner(s) of the property where the livestock facilities or anaerobic digesters are located." Given that the ACR is based solely on a desktop evaluation, MDS I setback requirements calculated in this study are preliminary only and should be confirmed through a land use survey.

To determine the *MDS* setback requirements, we used OMAFA's Agricultural Planning Tools Suite (AgriSuite). It provides the most up to date software developed by OMAFA to calculate the *MDS I* requirements for active *livestock facilities* and *unoccupied livestock facilities* that are structurally sound and capable of housing *livestock*. To determine the *MDS I* setback requirements, specific information regarding each *livestock facility* is required. This includes:

- the type of *livestock* housed in the facility;
- the maximum capacity of the barn housing *livestock*;
- the type of *manure storage* facility; and
- the size of the property upon which the *livestock facility* is located.

This information was collected for all *livestock facilities* (active and *unoccupied*), within 1,500m of the Subject Lands using historical and up-to-date aerial imagery through Google Earth, Google Street View, and web mapping tools such as AgMaps. These tools were used to identify potential *livestock facilities,* the most likely type of *livestock* housed, the type of *manure storage* system used, lot size, and the maximum capacity of the *livestock facility* based on barn dimensions.

4. STUDY FINDINGS

4.1 Regional Soils

4.1.1 Soil Series

The *Soil Survey of Simcoe County - No. 29 of the Ontario Soil Survey* (Hoffman, D.W., Wicklund, R.E., & Richards, N.R., 1962) includes a soil map that shows the distribution of the various soil series in Simcoe County. The digital Provincial Soil Resource database is compiled and administered by OMAFA and includes most of the soil surveys completed in Ontario. Much of this information is accessible from the Province's Agricultural Information Atlas. The database was accessed in April 2025.

The *Soil Survey of Simcoe County* mapping shows that the soils within the Subject Lands are comprised of a mix of Vasey Sandy Loam (68.74%), Vasey Sandy Loam – Steep Phase (12.76%), Tioga Loamy Sand (11.94%), and Dundonald Sandy Loam (4.45%) soils, Lyons Loam – Stoney Phase (0.85%), Tioga Sandy Loam (0.62%), Sargent Gravelly Sandy Loam (0.66%), and Urban (0.06%) soils. Regional scale soil mapping is shown in Figure 2.

Tioga Series

The Tioga soil series have developed on calcareous outwash sands and generally have minimal stone content. Tioga is a well drained, highly permeable soil with a low moisture holding capacity. The calcareous sandy parent material is often deep. A clay enriched Bt *horizon* is not always present within the upper 100 cm of the soil profile. In eroded areas the calcareous parent material is much closer to the surface. These soils are inherently low fertility due to their sandy nature and often require applications of fertilisers and organic matter to improve crop yields. Tioga soils have historically been cleared and used for agriculture, however many areas are being reforested because these soils are highly susceptible to both wind and water erosion, particularly on steep slopes.

Vasey Series

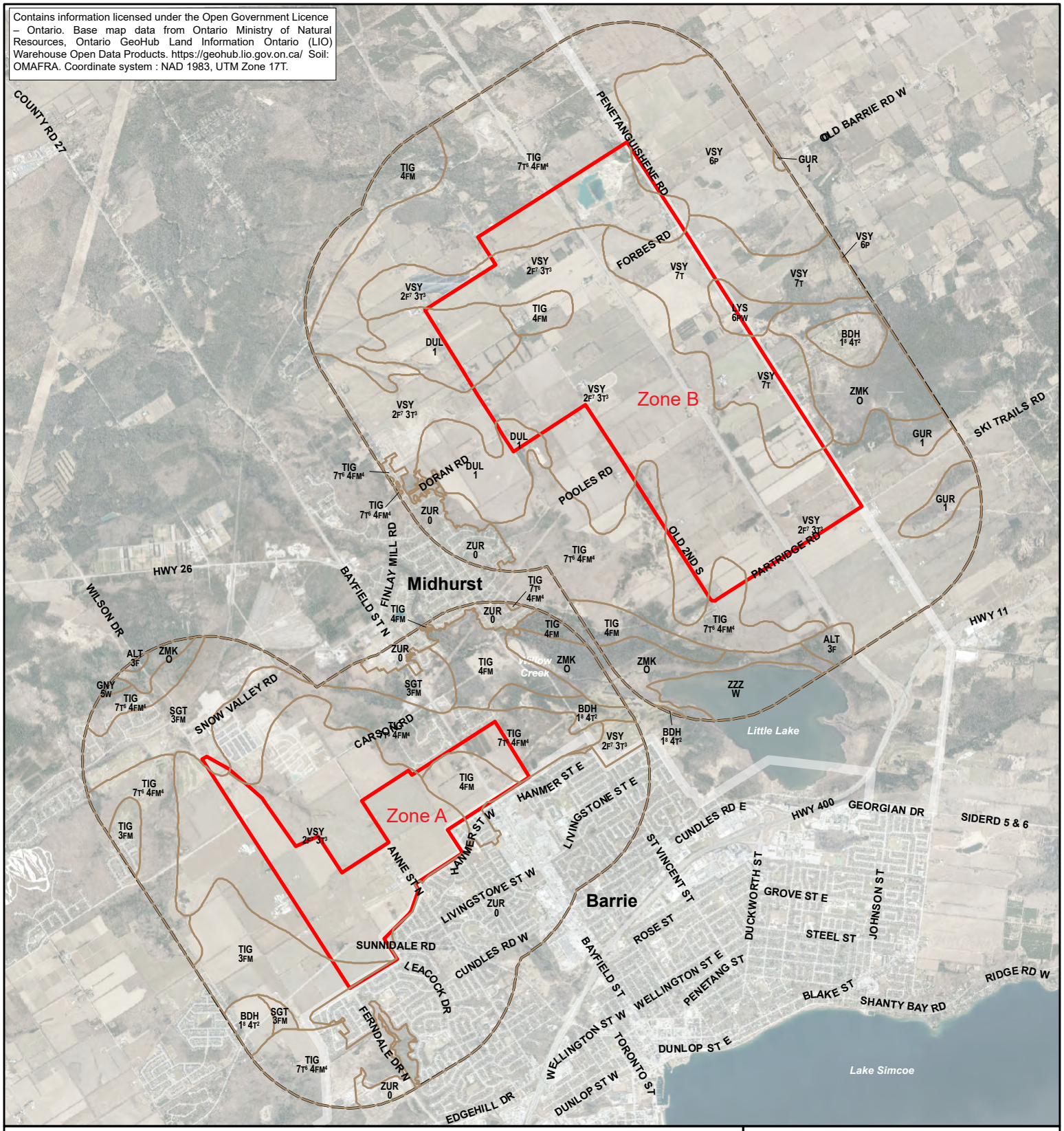
The well drained Vasey soil series have developed from the from a gritty, sandy loam *morainal till*. This till is the dominant *morainal till* found north of Barrie. It differs from till material further south because it contains both limestone and a greater proportion of granitic, Precambrian shield constituents. These soils are often found on steep, undulating slopes and, in some locations, there are a considerable number of stones and boulders present on the surface.

Internal drainage and surface drainage is moderate, although the surface drainage increases as slopes increase. The water-holding capacity of these soils is also moderate. The loamy textured surface *horizon* is 20 to 25 cm deep and overlies roughly 40 cm of sandy loam to loam subsoil (Bm and Bt *horizons*). The weakly calcareous, grey brown, loam to sandy loam parent material is generally encountered at approximately 60 to 65 cm.

Lyons Series

Lyons soils have developed in depressional areas that overlies a calcareous loam or sandy loam till at a depth of about 50 cm. Lyons soils are poorly drained, with very slow surface runoff. The organic matter rich surface *horizon* is approximately 15 cm deep and overlies roughly 35 cm of grey, mottled, subsoil. The grey, calcareous loam to sandy loam till parent material is generally encountered at approximately 50 cm.

Contains information licensed under the Open Government Licence – Ontario. Base map data from Ontario Ministry of Natural Resources, Ontario GeoHub Land Information Ontario (LIO) Warehouse Open Data Products. https://geohub.lio.gov.on.ca/ Soil: OMAFRA. Coordinate system : NAD 1983, UTM Zone 17T.



LEGEND

Subject Lands | Study Area (1500 m) | Soil

Soil Series Name → **JDD**

CLI Class → **3W** ← CLI Subclass

CLI AGRICULTURAL CAPABILITY CLASSES

Class 1 - No significant limitations in use for crops.
Class 2 - Moderate limitations that restrict the choice of crops, or require moderate conservation practices.
Class 3 - Moderately severe limitations that restrict the choice of crops, or require special conservation practices.
Class 4 - Severe limitations that restrict the choice crops, or require special conservation practices.
Class 5 - Very severe limitations that restrict their capability in producing perennial forage crops, and improvement practices are feasible.
Class 6 - Very severe limitations that restrict soil to only producing perennial forage crops, and improvement practices are not feasible.
Class 7 - Soils in this class have no capacity for arable culture or permanent pasture
Class 0 - Not placed in a capability class.
Class O - Organic soils, not placed in capability classes.

CLI AGRICULTURAL CAPABILITY SUBCLASSES

W	Excess Water	– presence of excess soil moisture, other than that brought about by inundation
F	Low Fertility	– limitations due to natural soil fertility
T	Topography	– limitations due to adverse topographic conditions
M	Moisture	– moisture holding capacity is low and soils are prone to droughtiness
P	Stoniness	– limitations due to stoniness of soil

Soil Series

DUL - Dundonald Sandy Loam
VSY - Vasey Sandy Loam
TIG - Tioga Loamy Sand
ALT - Alliston Sandy Loam
GUR - Guerin Sandy Loam
GNY - Granby Sandy Loam
BDH - Bondhead Sandy Loam
SGT - Sargent Gravelly Sandy Loam
LYS - Lyons Loam
ZMK - Muck
ZUR - Urban
ZZZ - Water

Figure 2 Soils and CLI

Agricultural Characterization Report
Midhurst Settlement Area Expansion
Township of Springwater, ON

Prepared for: Midhurst Development Landowners Group Inc.

Prepared by: COLVILLE CONSULTING INC.

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FILE: C23015

Lyons series soils are used primarily for *pasture*, although the carrying capacity of the soil is low, and in many areas the soils have been allowed to go *idle* or returned to *scrub land*. In most instances, the installation of artificial drainage in the Lyons soils in Simcoe County is not feasible due to the relatively small area on which they occur, and lack of suitable outlets.

Dundonald Series

Dundonald soils have developed on a sandy outwash material that overlies a calcareous loam or sandy loam till. The depth of the sandy outwash is variable and generally ranges from 40 to 100 cm in depth. The surface material is generally free of stones. Dundonald soils are well drained and are mapped most commonly on gently to moderately rolling topography. The sandy outwash lightly masks the rolling nature of the underlying *morainal till*. These soils are also considered to be good agricultural soils, suitable for growing a wide range of crops.

4.1.2 CLI Agricultural Land Classification

The Canada Land Inventory (CLI) is an interpretative system for assessing the effects of climate and soil characteristics on the limitations of land for growing *common field crops*. The CLI system has seven soil classes that descend in quality from Class 1, which have no significant limitations, to Class 7 soils which have no agricultural capability for *common field crops*. Class 2 through 7 soils have one or more significant limitations, and each of these are denoted by a capability subclass. There are thirteen subclasses described in CLI Report No. 2 (1971). Eleven of these subclasses have been adapted to Ontario soils. More information regarding the CLI Classification system is provided in Appendix B.

According to the provincial database, the Subject Lands are mapped primarily as CLI Class 2 (44.86%), CLI Class 3 (20.07%), and CLI Class 7 (19.74%) lands, with smaller areas mapped as CLI Class 4 (9.61%), CLI Class 1 (4.45%), CLI Class 6 (1.21%), and CLI Class 0 (0.06%) lands, as shown in Figure 2. CLI Class 1 soils have no or very minor limitations for common field crop production. CLI Class 2F soils have moderate limitations for the production of *common field crops* due to low fertility. CLI Class 3F, 3M, and 3T soils have moderately severe limitations for the production of *common field crops* due to low fertility, moisture deficiencies, and adverse topography, respectively. CLI Class 4F and 4M soils have severe limitations for the production of *common field crops* due to low fertility and moisture deficiencies, respectively. CLI Class 6P and 6W soils are only suitable for the production of forage crops, and improvement practices are not feasible due to stoniness and excess soil moisture, respectively. CLI Class 7T soils have no capability for the production of *common field crops* or for use as permanent *pasture* due to adverse topographic conditions. CLI Class 0 soils are assigned to urban soils, and are not assigned an agricultural capability, as they are intended for non-agricultural purposes. The composition of soils mapped within the Subject Lands and their associated CLI Classes are summarized in Table 1 below.

Table 1. Regional Soil Series for Subject Lands

Soil Series	CLI Class	Area (Ha)	% of Subject Lands
Dundonald Sandy Loam	**1**	82.26	4.45
Vasey Sandy Loam	**2F**	829.84	44.86
	3T	355.65	19.23
	4FM	86.10	4.65
Tioga Sandy Loam	**3FM**	11.55	0.62
Sargent Gravelly Sandy Loam	**3FM**	3.99	0.22
Tioga Loamy Sand	**4FT**	91.73	4.96
	7T	129.15	6.98
Lyons Loam – Stony Phase	**6PW**	15.70	0.85
Vasey Sandy Loam – Stony Phase	**6P**	6.69	0.36
Vasey Sandy Loam – Steep Phase	**7T**	236.00	12.76
Urban	**0**	1.08	0.06
Totals		**1,849.74**	**100.00%**

4.2 Land Use

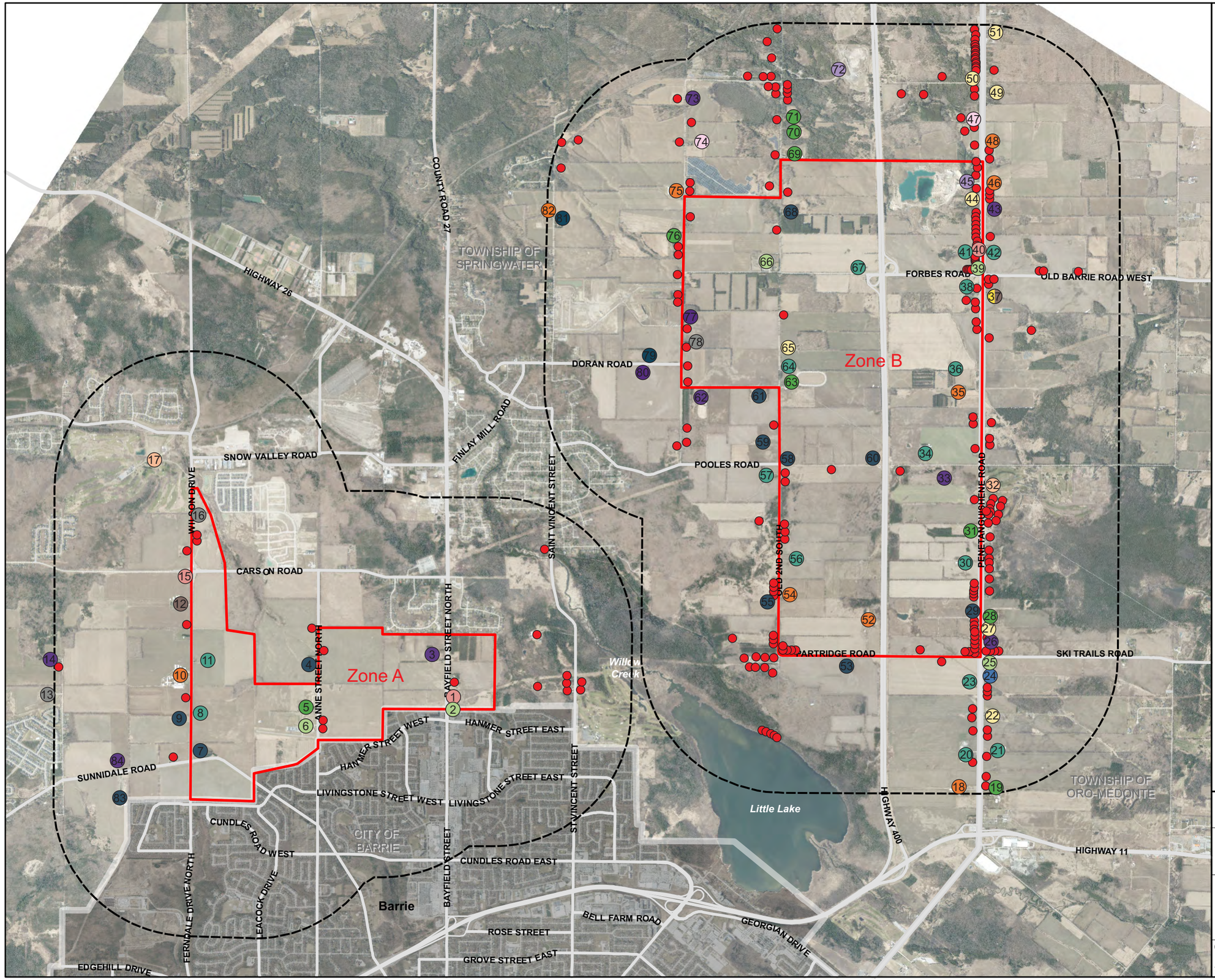
A desktop land use survey was completed in order to identify the number and type of agricultural operations (both active and *retired*), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural uses* within the *Study Area*.

The purpose of the land use survey is to document the mix of *agricultural* and *non-agricultural uses* in the Subject Lands and *Study Area*; identify agricultural operations that may be sensitive to the introduction of new land uses; and identify *livestock facilities* to calculate preliminary *MDS* setback requirements. Figure 3 shows the land uses identified through the desktop land use survey. All identified land uses are numbered, and short descriptions of these operations are included in the land use survey notes in Appendix C. It should be noted that land uses located within the existing *settlement areas* of Barrie and Midhurst were not numbered or described. However, there are a number of non-agricultural land uses located within these portions of the *Study Area*.

Sixty-two *agricultural uses* were identified during the land use survey. The *agricultural uses* include ten *cash crop* operations, ten equestrian operations, eight *beef operations*, two poultry operations, one *dairy operation*, two *hobby farms*, sixteen *unoccupied livestock operations*, and thirteen *remnant* farms.

One *agriculture-related use*, an agricultural equipment dealership, was identified within the *Study Area*. No *on-farm diversified uses* were identified during the desktop review.

In addition to the approximately 222 *non-farm residences* identified, twenty-two *non-agricultural uses* were identified within the *Study Area*. These uses include three institutional uses, five commercial uses, three utility uses, two recreational uses, seven industrial uses, and two aggregate operations.



LEGEND

- Subject Lands
- Study Area (1500 m)

Agricultural Land Uses

- Poultry Operation
- Beef Operation
- Dairy Operation
- Equestrian Operation
- Unoccupied Livestock Operation
- Remnant Farm
- Cash Crop Operation
- Hobby Farm

Non-Agricultural Land Uses

- Institutional
- Recreational
- Industrial
- Commercial
- Utility
- Aggregate Pit
- Non-Farm Residential

Agriculture-Related Uses

- Agricultural Equipment Dealership

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Figure 3 Land Use

Agricultural Characterization Report
Midhurst Settlement Area Expansion
Township of Springwater, ON

Prepared for: Midhurst Development Landowners Group Inc.

Prepared by: COLVILLE CONSULTING INC.

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4.2.1 Agricultural Uses

The *PPS* defines *agricultural uses* as: "the growing of crops, including nursery, biomass and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities and accommodation for full-time farm labour when the size and nature of the operation requires additional employment."

Farm types were noted and identified as either active or *retired livestock facilities* (e.g., *unoccupied livestock facilities*), *cash crop* operations, or *hobby farms*. *Retired farm operations* were evaluated to determine whether they should be considered an *unoccupied livestock facility* or as a *remnant* farm. *Remnant* farms have no infrastructure that is suitable for housing *livestock* and the *MDS formulae* is not applied. The infrastructure for an *unoccupied livestock facility* is suitable for housing *livestock* and as such, the *MDS formulae* applies to these facilities.

Subject Lands

Twenty-four *agricultural uses* were identified within the Subject Lands. These include three *cash crop* operations (#3, #33, and #77), three equestrian operations (#5, #31, and #63), three *beef operations* (#35, #52, and #54), ten *unoccupied livestock operations* (#8, #11, #30, #34, #36, #38, #41, #56, #64, and #67), and five *remnant* farms (#7, #29, #58, #60, and #68).

Study Area

Thirty-eight *agricultural uses* were identified within the *Study Area.* These include seven *cash crop* operations (#14, #26, #43, #62, #73, #80, and #84), seven equestrian operations (#19, #28, #69, #70, #71, #76, and #82), five *beef operations* (#10, #18, #46, #48, and #75), two poultry operations (#12 and #37), one *dairy operation* (#37), two *hobby farms* (#47 and #74), six *unoccupied livestock operations* (#9, #20, #21, #23, and #57), and eight *remnant* farms (#4, #53, #55, #59, #61, #79, #81, and #83).

4.2.2 Agriculture-Related Uses

Agriculture-related uses are farm-related commercial and industrial uses. As defined in the *PPS*, these are uses "that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity". These uses may include uses such as:

- retailing of agriculture-related products (e.g., farm supply co-ops, farmers' markets, and retailers of value-added products like wine or cider made from produce grown in the area);
- *livestock* assembly yards;
- farm equipment repair shops;
- industrial operations that process farm commodities from the area such as abattoirs, feed mills, grain dryers, cold/dry storage facilities and fertilizer storage facilities, which service agricultural area;
- distribution facilities;
- food and beverage processors (e.g., wineries and cheese factories); and
- agricultural biomass pelletizers.

One *agriculture-related use*, an agricultural equipment dealership (#24), was identified within the *Study Area*.

No *agriculture-related uses* were identified within the Subject Lands during the land use survey.

4.2.3 On-Farm Diversified Uses

The *PPS* defines *on-farm diversified uses* as "uses that are secondary to the principal agricultural use of the property and are limited in area. On-farm diversified uses include, but are not limited to, home occupations, home industries, Agri-tourism uses, uses that produce value-added agricultural products, and electricity generation facilities and transmission systems, and energy storage systems."

No *on-farm diversified uses* were identified within the Subject Lands nor *Study Area*.

4.2.4 Non-Agricultural Uses

Non-agricultural uses include *non-farm residences*, residential clusters, hamlets and *settlement areas*, municipal utilities, commercial and industrial operations, recreational uses, and institutional uses. Approximately 222 *non-farm residences* were identified throughout the Subject Lands and *Study Area*.

Subject Lands

In addition to 68 *non-farm residences*, eleven *non-agricultural uses* were identified within the Subject Lands. These *non-agricultural uses* include two institutional uses (#1 and #40), four commercial uses (#2, #6, #39, and #66), two utility uses (#16 and #78), two industrial uses (#44 and #65), and one aggregate operation (#45).

Study Area

In addition to approximately 154 *non-farm residences,* eleven *non-agricultural* uses were identified within the *Study Area.* These include one institutional use (#15), one commercial use (#25), one utility use (#13), two recreational uses (#17 and #32), five industrial uses (#22, #27, #49, #50 and #51), and one aggregate operation (#72).

4.2.5 Land Use Summary

Table 2 below summarizes the types of land uses identified within the Subject Lands and *Study Area*.

Table 2. Summary of Identified Land Uses			
	Total Number	**Active**	**Unoccupied or Remnant**
Agricultural	61	10 – Cash Crop Operation 10 – Equestrian Operation 9 – Beef Operation 3 – Chicken Operation 1 – Dairy Operation 2 – Hobby Farm	16 – Unoccupied Livestock Operation 13 – Remnant Farm
Agriculture-Related	1	1 – Agricultural Equipment Dealership	0
On-farm Diversified	0	0	0
	Total Number	**Type**	
Non-Agricultural	244	3 – Institutional 5 – Commercial 3 – Utility 2 – Recreational 7 – Industrial 2 – Aggregate Operation 222 – Non-farm Residences	

4.3 Land Improvements

OMAFA's Agricultural Information Atlas (AgMaps) provides artificial drainage mapping for the province. This online tool was accessed to obtain drainage mapping for the *Study Area*. Figure 4 below shows the drainage improvements within the Subject Lands and *Study Area*.

4.3.1 Drainage Improvements in Subject Lands

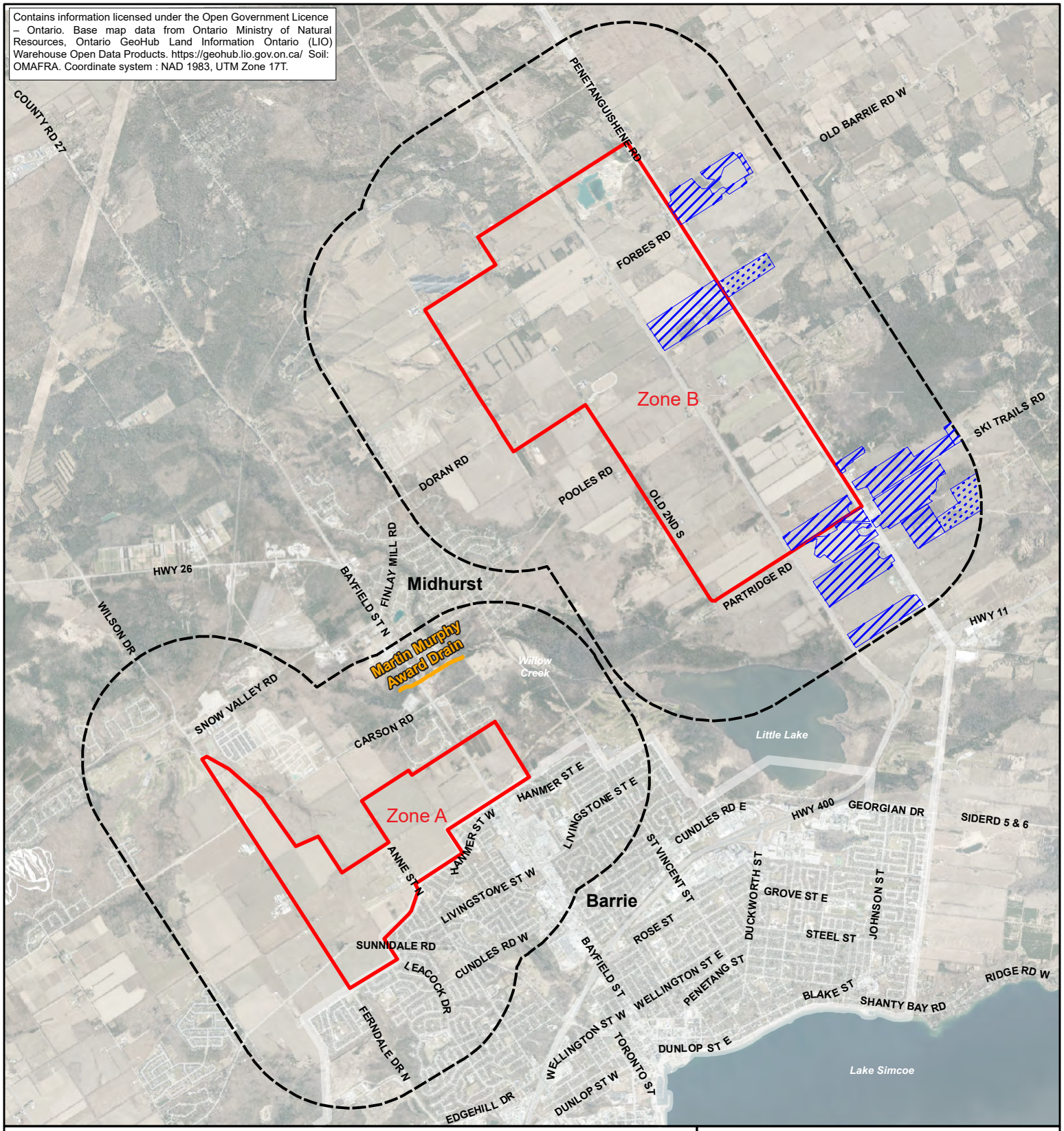
According to OMAFA's online mapping tool, AgMaps, there is systemic tile drainage present in the northeastern and southeastern corners of Zone B of the Subject Lands, totalling approximately 60.22 ha. The tile drainage present in the southeastern corner of Zone B was installed in 2017. No installation date was available for remaining tile drainage.

According to AgMaps, there are no tile drainage installations within Zone A of the Subject Lands. Additionally, there are no constructed drains present within the Zone A or Zone B of the Subject Lands.

4.3.2 Drainage Improvements in Study Area

Systemic and random tile drainage are present in two areas within the *Study Area* of Zone B. According to AgMaps, there are installations of both systematic and random tile drainage located in the southeastern corner and northeastern portions of the *Study Area.* Installation dates for the northeastern portion of the *Study Area* were not available, however the installation dates for the tile drainage in the southeastern corner of the *Study Area* included 2019, 2022, and 2023.

According to AgMaps, there is one constructed drain present in the northeastern portion of the Zone A *Study Area*, the Martin Murphy Award Drain.



LEGEND

- Subject Lands
- Study Area (1500 m)
- Constructed Drain
- Tile Drainage - Random
- Tile Drainage - Systematic

Figure 4 Land Improvements

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Township of Springwater, ON

Prepared for: Midhurst Development Landowners Group Inc.

Prepared by: COLVILLE CONSULTING INC.

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4.4 Fragmentation of Agricultural Lands

Fragmentation of agricultural lands can have a negative impact on the viability of agricultural lands and its long-term preservation for agricultural purposes. Fragmentation of farmlands can diminish the economic viability of the agricultural area by reducing farming efficiency and increasing operating costs for farmers who must manage multiple small, separated parcels. Larger farm parcels can accommodate a wider range of agricultural activities and ensure long-term viability of the property. In contrast, smaller farm parcels do not offer the same flexibility and may not be viable as standalone parcels. Generally, smaller farm parcels alone cannot sustain a family farm without a secondary source of income (off farm) to maintain the agricultural operation.

Additionally, agricultural areas which have been highly fragmented often have a much higher occurrence of *non-agricultural uses*, which in turn can result in more frequent occurrences of conflict arising between agricultural and *non-agricultural uses*. Agricultural areas with lower levels of fragmentation are considered to be more viable economically for *agricultural uses* and generally have fewer sources of non-agricultural land use conflicts. In most cases, these areas have a higher priority for protection. High levels of fragmentation in an agricultural area lowers the area's agricultural priority.

The agricultural policies of the *PPS* recognize the impact of fragmentation on agricultural lands and try to minimize the fragmentation of agricultural lands for *non-agricultural uses*. For example, the *PPS* policies do not permit lot creation in *prime agricultural areas* for residential purposes. New permitted *development* in *prime agricultural areas* should avoid further fragmentation of the agricultural land base whenever possible.

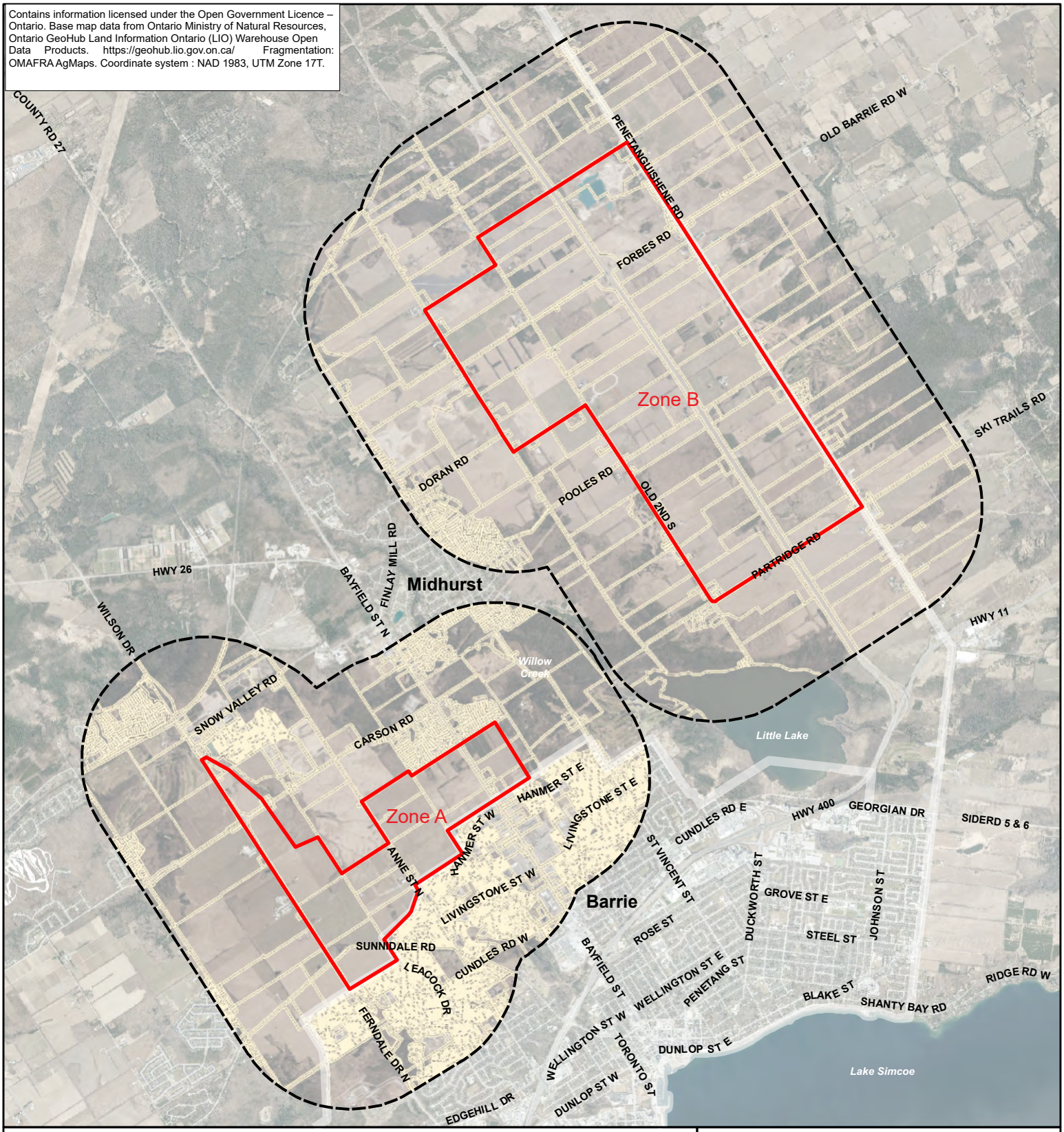
Based on our review of the lot fabric in the *Study Area* using AgMaps, there is a mix of parcel sizes ranging from single residential (< 1 ha) to large agricultural sized parcels (>40 ha). While some fragmentation of the agricultural land base has occurred, the majority of the parcels within the *Study Area* are suitability sized for a variety of *agricultural uses*. The *Study Area* is not considered to be highly fragmented. Fragmentation of the *Study Area* is shown in Figure 5 below.

4.5 Minimum Distance Separation

4.5.1 Requirement for MDS and Settlement Area Boundary Expansion

The *Minimum Distance Separation* is a tool used to minimize potential impacts and conflicts between *non-agricultural* and *agricultural land uses.* In areas outside of approved *settlement areas,* new *non-agricultural land uses* are required to meet the *Minimum Distance Separation I formula* as contained in OMAFRA's The Minimum Distance Separation Implementation Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks, Publication 853 (2016) document. It is applied to all farm operations that have infrastructure in a condition that is capable of housing *livestock* and/or have an *anaerobic digester* on-site.

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LEGEND

- Subject Lands
- Study Area (1500 m)
- Fragmentation

Figure 5 Fragmentation

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The *MDS I formula* provides the *minimum distance separation* between existing *livestock facilities* (including *unoccupied livestock facilities*) and new *non-agricultural land uses* proposed in a rural or agricultural land use designation. It deals specifically with odour and does not account for noise, dust, or other farm-generated products. The *MDS* is not applied to *remnant* farms with barns that are in poor condition and not suitable for housing *livestock.*

Section 2.3.2.1 of the *PPS* outlines the requirements for the application of *MDS* for *settlement area* boundary expansion and states in part that "In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

e) whether the new or expanded settlement area complies with the minimum distance separation formulae."

4.5.2 MDS Guidelines

OMAFRA's The Minimum Distance Separation Implementation Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks, Publication 8533 (2016) document contains a set of guidelines which outline how the *MDS I formula* is to be applied. The following are the relevant *MDS* guidelines for *settlement area* boundary expansion.

#1. Referencing MDS in Municipal Planning Documents
In accordance with the Provincial Policy Statement, 2014, this MDS Document shall apply in prime agricultural areas and on rural lands. Consequently, the appropriate parts of this MDS Document shall be referenced in municipal official plans, and detailed provisions included in municipal comprehensive zoning by-laws such that, at the very least, MDS setbacks are required in all designations and zones where livestock facilities and anaerobic digesters are permitted.

The Township of Springwater recognizes the Subject Lands as being part of a *prime agricultural area* through the approved official plan. As such, the *MDS formulae* must be applied for the proposed *settlement area* boundary expansion.

#2. For What, and When is an MDS Setback Required?
The MDS I setback distances shall be met prior to the approval of: proposed lot creation in accordance with Implementation Guidelines #8 and #9; rezonings or re-designations in accordance with Implementation Guideline #10; building permits on a lot which exists prior to March 1, 2017 in accordance with Implementation Guideline #7; and as directed by municipalities for local approvals for agriculture-related uses or on-farm diversified uses in accordance with Implementation Guideline #35. The information used to carry out an MDS I calculation must reflect the circumstances at the time that the municipality deems the planning or building permit application to be complete.

The proposed *development* will require the Subject Lands to be redesignated for *non-agricultural land uses*. Therefore, the calculation of *MDS I* setback distances is required.

#6. Required Investigation Distances for MDS
A separate MDS I setback shall be required to be measured from all existing livestock facilities and anaerobic digesters on lots in the surrounding area that are reasonably expected by an approval authority to be impacted by the proposed application. As part of municipal consideration of planning or building permit applications, all existing livestock facilities or anaerobic digesters within a 750 m distance of a proposed Type A land use and within a 1,500 m distance of a proposed Type B land use shall be investigated and MDS I setback calculations undertaken where warranted. In circumstances where large livestock facilities (e.g., >1,200 Nutrient Units) exist beyond the 750 m or 1,500 m study area, MDS I setbacks from these facilities should also be calculated.

As discussed further below, the proposed *development* is considered to be a Type B land use. Therefore, all existing *livestock facilities* or *anaerobic digesters* with 1,500 m of the Subject Lands have been investigated and *MDS I* setback calculations completed, where warranted.

#10. MDS I Setbacks for Zoning By-Law Amendments and Official Plan Amendments
An MDS I setback is required for all proposed amendments to rezone or redesignate land to permit development in prime agricultural areas and rural lands presently zoned or designated for agricultural use. This shall include amendments to allow site-specific exceptions which add non-agricultural uses or residential uses to the list of agricultural uses already permitted on a lot, but shall exclude applications to rezone a lot for a residence surplus to a farming operation (e.g., to a rural residential zone) in accordance with Implementation Guideline #9 above. Amendments to rezone or redesignate land already zoned or designated for a non-agricultural use, shall only need to meet the MDS I setbacks if the amendment(s) will permit a more sensitive land use than existed before. In other words, if the proposal is to change an existing Type A land use (e.g., industrial use outside of a settlement area) to a Type B land use (e.g., commercial) in accordance with Implementation Guidelines #33 and #34, then an MDS I setback shall be required.

The Subject Lands must be redesignated in the Township of Springwater Official Plan to permit the proposed *development*. Guideline #10 of the MDS Document requires the application of the *MDS formulae* to redesignate land in a *prime agricultural area* for *development*.

#14. Uses Located on the Same Lot
An MDS I setback is not required to be met for proposed development, dwelling, agriculture-related use, or on-farm diversified use from an existing livestock facility or anaerobic digester located on the same lot as the proposal.

Sixteen *livestock facilities* were identified on the Subject Lands (#5, #8, #11, #30, #31, #34, #35, #36, #38, #41, #52, #54, #56, #63, #64, and #67). Based on guideline #14, the *MDS I formula* was not applied to operations identified on the Subject Lands.

#19. Cumulative Design Capacity of Livestock Facilities on a Lot
MDS calculations shall be based on the combined design capacity for all livestock barns on a lot, even if they are unoccupied livestock barns or separated by a substantial distance on the lot. Where there are no livestock barns on a lot, MDS calculations shall be based on the combined design capacity for all manure storages on a lot, even if they are unused manure storages or separated by a substantial distance on the lot.

Within the *Study Area*, there are multiple farm operations with more than one barn located on the same property. Therefore, *MDS I* setbacks have been calculated on the combined design capacity of all *livestock* barns on a lot and applied to the *livestock facility* nearest to the Subject Lands.

#34. Type B Land Uses (More Sensitive)
For the purposes of MDS I, proposed Type B land uses are characterized by a higher density of human occupancy, habitation or activity including, but not limited to: • new or expanded settlement area boundaries; • an official plan amendment to permit development, excluding industrial uses, on land outside a settlement area; • a zoning by-law amendment to permit development, excluding industrial uses or dwellings, on land outside a settlement area; and • the creation of one or more lots for development on land outside a settlement area, that results in four or more lots for development, which are in immediate proximity to one another (e.g., sharing a common contiguous boundary, across the road from one another, etc.), regardless of whether any of the lots are vacant. Because of the increased sensitivity of these uses, a new or expanding Type B land use will generate an MDS I setback that is twice the distance as the MDS I setback for a Type A land use. This is reflected in the value of Factor E which is 2.2 for Type B versus 1.1 for Type A.

Settlement area boundary expansion is considered a Type B land use. Therefore, *MDS I* setbacks have been calculated for a Type B land use, which generates an *MDS I* setback that is twice that of a Type A land use.

#36. Non-Application of MDS Within Settlement Areas
MDS I setbacks are NOT required for proposed land use changes (e.g., consents, rezonings, redesignations, etc.) within approved settlement areas, as it is generally understood that the long-term use of the land is intended to be for non-agricultural purposes.

Operation #57 is located within existing *settlement area* of the Township of Springwater. Therefore, the proposed development is not required to comply with the calculated setback from Operation #57 as it is understood that the long-term use of these lands is for non-agricultural land uses.

#40. Measurement of MDS Setbacks for Development and Dwellings
For proposed development, MDS I setbacks are measured as the shortest distance between the area proposed to be rezoned or redesignated to permit development and either: the surrounding livestock occupied portions of livestock barns, manure storages or anaerobic digesters. Refer to Figure 7 in Section 7 of this MDS Document. This shall include areas proposed to be rezoned or redesignated with site-specific exceptions that add non-agricultural uses or residential uses to the list of agricultural uses already permitted on a lot. For building permit applications for proposed dwellings, where required in accordance with Implementation Guideline #7, MDS I setbacks are measured as the shortest distance between the proposed dwelling and either the surrounding manure storages, anaerobic digesters or the livestock occupied portions of the livestock barns.

MDS I setback distances shall be applied to the shortest distance between the Subject Lands and the *manure storages* or *livestock* occupied portions of the *livestock facility*.

4.5.3 MDS Results

The *MDS I formula* was applied to twenty-two *livestock facilities* within 1,500 m of the Subject Lands. The *MDS I formula* was not applied to farm operations with barns that did not appear to be structurally sound and capable housing *livestock*, nor *livestock facilities* located outside of the 1.5 km Study Area, or within the Subject Lands. As previously stated, MDS setbacks were calculated through a desktop review and the calculated setbacks are preliminary in nature. A land use survey, including contacting the respective

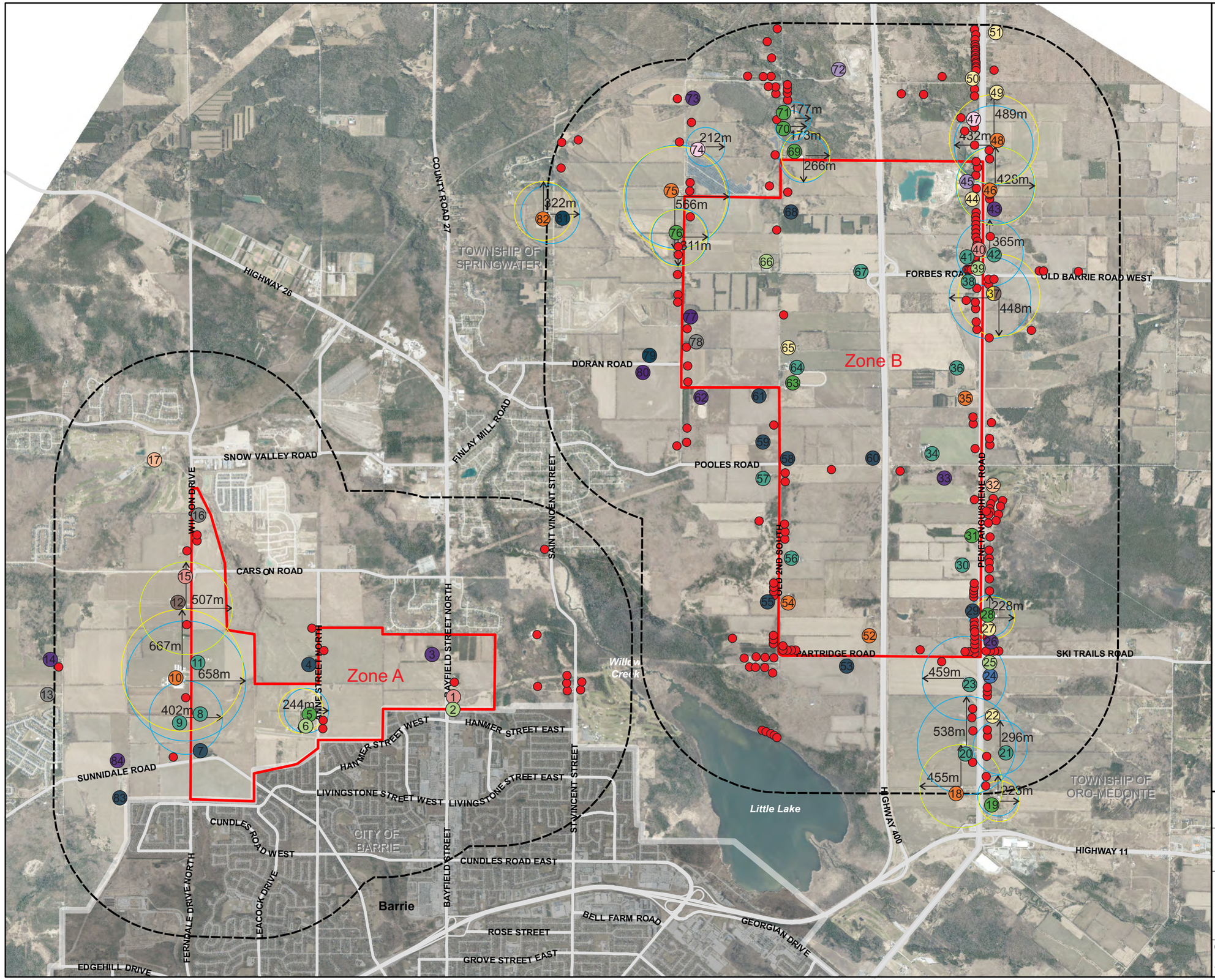
landowners/farm operators, should be completed to confirm the condition of identified *livestock facilities*, the type of livestock housed at each operation, the maximum capacity of the *livestock facilities*, and the type of *manure storage* system used.

Figure 6 shows the *MDS I* setback requirements for each of the identified *livestock facilities.* As shown in Figure 6, the *MDS I* setbacks for Operations #9, #10, #12, #23, #37, #42, #46, #48, #57, #69, #75, and #76, encroach into the Subject Lands, with a total encroachment area of approximately 221.49 ha. Of that, approximately 88.94 ha encroach into Zone A, while the remaining 132.55 ha encroach into Zone B.

The Township of Springwater may choose to reduce the *MDS I* setbacks which encroach into the Subject Lands through the use of a minor variance to the zoning by-law provisions, or through a site-specific policy area, which is permissible in the MDS Guidance Document, if reduction meets the intent of the MDS Document. These encroachment areas provide opportunities for the *development* of infrastructure, open space uses, or other land use types to which the *MDS I formula* does not apply. The future SABE will comply with the *MDS I* setback requirements for all other *livestock facilities* and *manure storage* systems identified within the *Study Area.*

It should be noted that Operation #57 is within the existing *settlement area* boundary of Midhurst. As a result, the proposed SABE is not required to comply with the calculated *MDS I* setback through MDS Guideline #36, as it is understood that the long-term use of these lands will be for non-agricultural land uses. Additionally, Operations #10 and #12 are within the *settlement area* boundary of the June 2023 Updated Draft Official Plan and Land Use Schedules. If the Updated Official Plan is approved in its current form, the inclusion of these operations in the *settlement area* would similarly result in the removal the *MDS I* setbacks which encroach into the Subject Lands.

Table 3 below summarizes the results of the calculations and the level of compliance with the *MDS* setback achievable. As shown in Table 3, the proposed SABE complies with only nine of twenty-one required *MDS I* setback requirements. The AgriSuite MDS Reports for each of the livestock operations can be found in Appendix D.



LEGEND

- Subject Lands
- Study Area (1500 m)

Agricultural Land Uses

- Poultry Operation
- Beef Operation
- Dairy Operation
- Equestrian Operation
- Unoccupied Livestock Operation
- Remnant Farm
- Cash Crop Operation
- Hobby Farm

Non-Agricultural Land Uses

- Institutional
- Recreational
- Industrial
- Commercial
- Utility
- Aggregate Pit
- Non-Farm Residential

Agriculture-Related Uses

- Agricultural Equipment Dealership

MDS I Setbacks

- Livestock Facility
- Manure Storage

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Coordinate system : NAD 1983, UTM Zone 17T.

Figure 6 MDS

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Prepared for: Midhurst Development Landowners Group Inc.

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Table 3. MDS Setback Requirements for Proposed Development

Site Number	MDS I Setback Requirement – Livestock Facility (m)	MDS I Setback Requirement – Manure Storage (m)	Nearest Distance to Subject Lands (m)	Complies with MDS I Setback?
9	402	N/A	55	No
10	658	677	57	No
12	507	507	56	No
18	455	455	1,415	Yes
19	223	N/A	1,530	Yes
20	538	N/A	965	Yes
21	296	N/A	1,011	Yes
23	459	N/A	235	No
28	228	228	95	No
37	448	448	79	No
42	265	N/A	75	No
46	428	428	135	No
48	432	489	215	No
57	511	560	113	Yes*
69	266	266	19	No
70	173	N/A	365	Yes
71	177	N/A	456	Yes
74	212	N/A	546	Yes
75	566	566	76	No
76	311	311	43	No
82	322	322	1,466	Yes

*Complies with MDS I setback due to application of Guideline #36.

5. ASSESSMENT OF AGRICULTURAL PRIORITY

The Subject Lands are partially located within the *prime agricultural area* of the County of Simcoe and Township of Springwater Official Plans; therefore, an assessment of the agricultural priority of the Subject Lands is required to be consistent with OMAFRA's draft Agricultural Impact Assessment Guidance Document. This analysis involves an assessment of whether the lands are part of a *specialty crop area*, the soil capability relative to other lands within the *Study Area*, the level of investment in agricultural infrastructure and land improvements, the parcel size, the presence of existing *non-agricultural uses*, ability to minimize potential conflict (e.g., meeting the *MDS I* setback requirements), and the designation of the parcel.

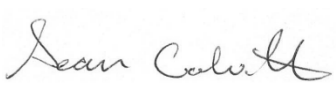
The Subject Lands are primarily comprised of prime agricultural lands (i.e., CLI Class 1-3), they contain agricultural infrastructure associated with a number of agricultural operations, they are primarily in agricultural production, there is minimal fragmentation of the agricultural land base, and there are developmental constraints related to MDS I setback requirements. Notwithstanding this, the Subject Lands are situated immediately adjacent to the settlement areas of Barrie and. This proximity introduces interface pressures from urban land uses that may influence the long-term viability of agricultural operations and can be considered a factor that lowers agricultural priority when compared to more isolated agricultural areas.

A large portion of the Subject Lands are designated Rural or Greenlands, and settlement area boundary expansion would avoid prime agricultural areas in these locations. Additionally, the majority of lands surrounding the existing settlement area boundary of Midhurst are designated Agricultural, making it difficult for settlement area boundary expansion to avoid prime agricultural areas elsewhere in the Midhurst area. Although the Subject Lands are not considered to be low priority agricultural lands, the proposed expansion utilizes the remaining Rural designated lands surrounding Midhurst, as mapped in Schedule 5.1 of the County of Simcoe Official Plan.

6. SUMMARY & CONCLUSION

This Agricultural Characterization Report (ACR) has been prepared to document the agricultural resources and farm operations present on the Subject Lands and within the surrounding Study Area, to assess the agricultural priority of the Subject Lands, and to provide a preliminary determination of any constraints (i.e., Minimum Distance Separation) to future *development*. The Subject Lands are partially located within the Prime Agricultural Area as designated in the Township of Springwater and County of Simcoe Official Plans, with the balance designated Rural and Greenlands/Open Space. Approximately 69.38% of the Subject Lands are comprised of prime agricultural lands (CLI Class 1–3) and are actively used for agricultural production. The lands support agricultural infrastructure associated with 18 agricultural operations and contain small areas of tile drainage. MDS I setbacks were calculated through a desktop review, which identified 12 livestock operations that generate MDS I-related development constraints for future development.

Respectfully submitted by:



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John Liotta, B.Sc.Env, P.Ag.
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7. GLOSSARY OF TERMS

Agricultural uses:* - the growing of crops, including nursery, biomass, and horticultural crops; raising of *livestock*; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities, and housing for farm workers, when the size and nature of the operation requires additional employment.

Agriculture-related uses:* - those farm-related commercial and farm-related industrial uses that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity.

Agricultural system: - means a system comprised of a group of inter-connected elements that collectively create a viable, thriving agri-food sector. It has two components:

- An agricultural land base comprised of *prime agricultural areas*, including *specialty crop* areas. It may also include *rural lands* that help to create a continuous productive land base for agriculture.
- An *agri-food network* which includes agricultural operations, *infrastructure*, services, and assets important to the viability of the agri-food sector.

Agri-food network:* - a network within the *agricultural system* that includes elements important to the viability of the agri-food sector such as regional *infrastructure* and transportation networks; agricultural operations including on-farm buildings and primary processing; infrastructure; agricultural services, farm markets, and distributors; and vibrant, agriculture-supportive communities.

Agri-tourism uses:* - means those farm-related tourism uses, including limited accommodation such as a bed and breakfast, that promote the enjoyment, education or activities related to the farm operation.

Anaerobic digester:* - A permanent structure designed for the decomposition of organic matter by bacteria in an oxygen-limiting environment.

Beef operation: a farm operation whose predominant livestock is beef cattle, including cow-calf operations.

Cash crop: - means a crop being produced for income purposes and not to supplement a livestock operation by contributing to feed requirements.

Common Field Crops: - Common field crops in Ontario include corn; soybeans; small grains and perennial forages (e.g., hay & pasture).

Dairy operation: - a farm whose primary livestock is dairy cattle, including dairy heifers.

Development: - means the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the Planning Act; but does not include activities that create or maintain infrastructure authorized under an environmental assessment process; or works subject to the Drainage Act.

Dwelling:* - Any permanent building that is used, or intended to be used, continuously or seasonally, as a domicile by one or more persons and usually containing cooking, eating, living, sleeping, and sanitary facilities.

Forage/Pasture: - means a crop that consists of either pastureland, including rough grazing, or hay crops including silage and haylage.

Hobby farm: - A residential dwelling, with or without accessory buildings, which may include some crop production for personal consumption or limited sale; and/or small numbers of livestock raised for personal consumption, pleasure, or limited sale. A hobby farm normally will generate little or no income and as such may not have a Farm Business Registration Number.

Idle agricultural lands: - means lands that have not been used for agricultural production for at least five years (estimated).

Livestock:* - includes dairy, beef, swine, poultry, horses, goats, sheep, ratites, fur-bearing animals, deer & elk, game animals, birds, and other animals.

Livestock facility:* - means one or more barns or permanent structures with livestock-occupied portions, intended for keeping or housing livestock. A livestock facility also includes all manure or material storages and anaerobic digesters.

Manure Storage*: - A permanent storage which is structurally sound and reasonable capable of storing manure and which typically contains liquid manure (<18% dry matter) or solid manure ((≥18% dry matter), and may exist in a variety of:

- Locations (under, within, nearby, or remote from barn);
- Materials (concrete, earthen, steel, wood);
- Coverings (open top, roof, tarp, or other materials);
- Configurations (rectangle, circular); and,
- Elevations (above, below, or partially above grade).

Minimum Distance Separation (MDS) formulae: - formulae and guidelines developed by the province, as amended rom time to time, to separate uses so as to reduce incompatibility concerns about odour from livestock facilities.

Minimum Distance Separation (MDS) I formulae: - used to determine the minimum distance separation for new development from any existing and some former livestock facilities.

Minimum Distance Separation (MDS) II formulae: - used to determine the minimum distance separation for new or expanding livestock facilities from existing non-farm land uses.

Morainal till: - generally a compact, poorly sorted, poorly stratified material deposited by glacial action.

Non-agricultural uses:* - Buildings designed or intended for a purpose other than an *agricultural use*; as well as land, vacant or otherwise not yet fully developed, which is zoned or designated such that the principal or long-term use is not intended to be an *agricultural use*, including, but not limited to: commercial, future urban development, industrial, institutional, *open space uses*, *recreational uses*, *settlement area*, *urban reserve*, etc.

Non-farm residential (NFR): - means residential buildings and lots not associated with a farm operation such as farm retirement lots/severances and/or other residences in the Agricultural and Rural Area. Second farm residences for farm help would be considered a farm residence if it is on an existing farm operation.

Prime agricultural area:* - means an area where *prime agricultural land* predominates. Prime agricultural areas may also be identified through an alternative agricultural land evaluation system approved by the Province.

Prime agricultural land:* - means land that includes *specialty crop lands* and/or Canada Land Inventory Class 1, 2 and 3 soils, in this order of priority for protection.

Provincial Planning Statement, 2024: - the Provincial Planning Statement (PPS), 2024 is a streamlined province-wide land use planning policy framework that replaces both the *Provincial Policy Statement, 2020* and *A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019* while building upon housing-supportive policies from both documents. The PPS 2024 provides municipalities with the tools and flexibility they need to build more homes. It enables municipalities to:

- plan for support development, and increase the housing supply across the province;
- align development with infrastructure to build a strong and competitive economy that is investment-ready;
- foster the long-term viability of rural areas; and
- protect agricultural lands, the environment, public health and safety.

Remnant: - means a location where one or more farm buildings once stood. All or some of the buildings have fallen, are severely structurally unsound and/or been removed. No MDS would be applied to a remnant farm operation.

Retired farm operation: - means a former farm operation whose buildings or farm related structures remain; however, it has either been converted to a non-agricultural use; would require significant upgrades and investment to modernize; or it is in poor condition and not suitable for agricultural uses. The MDS may still apply if it is a former livestock facility.

Rural lands:* - means lands which are located outside *settlement areas,* and which are outside *prime agricultural areas*.

Scrub land: - means lands that are no longer farmed and woody species (young trees and shrubs) have begun regenerating and/or sparsely treed areas.

Settlement areas:* - means urban areas and rural settlement areas within municipalities (such as cities, towns, villages, and hamlets). Ontario's *settlement areas* vary significantly in terms of size, density, population, economic activity, diversity and intensity of land uses, service levels, and types of infrastructure available. Settlement areas are:

a) built up areas where development is concentrated, and which have a mix of land uses; and

b) lands which have been designated in an official plan for development over the long term.

Soil horizon: - a layer of soil, approximately parallel to the land surface, which differs from adjacent layers in properties such as texture, colour, structure, etc. As an example, the surface horizon of a mineral soil is recorded as the "A" horizon. If the surface is ploughed then the suffix p is used (i.e., Ap) if the surface has not been ploughed, as in a forest soil, a humic layer generally develops and an eluviated light coloured soil horizon often forms immediately below. These horizons are identified with the suffix h is used (i.e., Ah)

and e (i.e., Ae), respectively. The weathered portion of the profile below the A horizons is identified as the "B" horizon and the unweathered, parent material is the "C" horizon.

Unoccupied livestock facility: - A livestock facility that does not currently house any livestock, but that housed livestock in the past and continues to be structurally sound and reasonably capable of housing livestock. The MDS formula is applied to these facilities.

** Indicates that the definition is essentially derived from OMAFRA publications.*

8. REFERENCES

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APPENDIX A

Curriculum Vitae

SEAN M. COLVILLE, B.Sc., P.Ag.

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Tel: (905) 935-2161 | Email: sean@colvilleconsultinginc.com

EDUCATION

B.Sc.Geology, Acadia University, 1986
Soil Science, University of Guelph, 1984

PROFESSIONAL AFFILIATIONS

Ontario Institute of Agrology
Agricultural Institute of Canada

POSITIONS HELD

2003 – Present	**President** - Colville Consulting Inc., St. Catharines, Ontario
2001 – 2003	**Senior Project Manager** - ESG International Inc., St. Catharines, Ontario
1998 – 2001	**Senior Project Manager** - ESG International Inc., Guelph, Ontario
1988 – 1998	**Project Manager** - ESG International Inc., Guelph, Ontario
1984 – 1988	**Soil Scientist –** MacLaren Plansearch Ltd., Halifax, Nova Scotia
1982 – 1983	**Assistant Soil Scientist** – Nova Scotia Department of Agriculture and Marketing

EXPERIENCE

Colville Consulting Inc. (CCI) was established in June of 2003 by Sean Colville. CCI offers agricultural and environmental consulting services to clients across Ontario, catering to both public and private sectors. Sean has over 35 years of agricultural consulting experience, which includes agricultural resource evaluation studies, soil surveys, interpretations of agricultural capability, agricultural impact assessments, alternative site assessments, and soil and microclimatic rehabilitation/restoration projects. Sean has extensive experience interpreting agricultural land use policies for a wide variety of development applications.

Sean is a Professional Agrologist (P.Ag.), and a member of both the Ontario Institute of Agrology and the Agricultural Institute of Canada. Sean has been recognized by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) as an expert in the identification of Prime Agricultural Areas and in the interpretation of the Minimum Distance Separation requirements for livestock operations.

Sean has presented expert testimony before the Ontario Land Tribunal (formerly OMB, LPAT), Consolidated Joint Board, Assessment Review Board, Ontario Superior Court, and the Normal Farm Practices Protection Board. Sean's testimonies have involved land use planning matters as they relate to agriculture, impact assessments, resource evaluations, soil science, and normal farm practices.

Agricultural Impact Assessments and Alternative Site Studies

Colville Consulting Inc. specializes in agricultural impact assessment and alternative site studies for development applications in Prime Agricultural Areas. Sean has prepared over 200 agricultural impact assessments for a wide variety of development projects, including settlement area boundary expansions, linear facilities (Class EAs), new and expanding aggregate operations, and residential, commercial, recreational, industrial, and institutional developments. The majority of these projects required the interpretation of agricultural land use policies, an inventory and assessment of the agricultural resources,

land use, land tenure, an assessment of conflict potential including determination of minimum distance separation requirements, interpretation of the agricultural priority, and development of mitigation measures to avoid or minimize potential impacts. Justification of the location for development proposals in agricultural areas is required by the Provincial Policy Statement and can often be addressed by an alternative site study.

Recent examples of Sean Colville's agricultural work include:

- Agricultural Impact Assessment for Stubbes New Durham Precast Plant (2021)
- Agricultural Impact Assessment for New Tecumseth Community Builders Inc., County of Simcoe (2021)
- Agricultural Impact Assessment for Caledon Costco (2021)
- Agricultural Impact Assessment for Walker Industries' Redford Pit Expansion, West Grey (2022)
- Agricultural Impact Assessment for Milton Business Park (2022)
- Minimum Distance Separation for Mono Hills Corporation (2022)
- Land Evaluation and Area Review for Norfolk County (2022)

Publications

Rees, H.W.; Duff, J.P.; Colville, S.; Soley, T and Chow T.L. 1995. Soils of selected agricultural areas of Moncton Parish, Westmoreland County, New Brunswick. New Brunswick. Soil Survey Report No. 15. CLBRR Contribution No. 95-13, Research Branch, Agriculture AND Agri-Food Canada, Ottawa, Ontario

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EDUCATION

Bachelor of Science in Environmental Sciences, University of Guelph, 2018
Environmental Management and Assessment Graduate Certificate, Niagara College, 2022

PROFESSIONAL AFFILIATIONS

Eco Canada – Environmental Professional in Training
Ontario Institute of Agrologists – Professional Agrologist

POSITIONS HELD

2022 – Present – Colville Consulting Inc., St. Catharines, Agrologist/Ecologist

EXPERIENCE

John Liotta, Agrologist and Ecologist at Colville Consulting Inc., has over 5 years of formal educational training and experience in Environmental and Agricultural Planning. John has completed Agricultural Impact Assessments, Minimum Distance Separation (MDS) Requirements, and Agricultural Characterization Reports in his role as at Colville Consulting Inc.

Through his education at the University of Guelph and Niagara College, John has gained a broad base knowledge of Environmental and Agricultural Planning and Management, which he has applied in his current role at Colville Consulting Inc. His work at Colville Consulting Inc. includes the interpretation of provincial, regional, and local land use policies, creation and interpretation of land use maps, regional soils mapping, and agricultural protection policies. He has participated in the completion of Agricultural Impact Assessments, Minimum Distance Separation Assessments, and Agricultural Characterization Reports. His field work activities include land use surveys and post-construction avian and bat mortality monitoring for wind turbines in the County of Haldimand, Ontario.

A selection of projects John has been involved with at Colville Consulting Inc. include:

- Post-Construction Avian and Bat Mortality Monitoring for Pattern Energy, Korea Electric Power Corporation, and Samsung Renewable Energy Inc., Grand Renewable Energy Park, County of Haldimand, Ontario
- Agricultural Impact Assessment for landowner group, City of Pickering
- Agricultural Impact Assessment for landowner, Township of North Dumfries, Ontario
- Agricultural Characterization Report for landowner, Township of Beckwith, Ontario
- Agricultural Characterization Report for landowner, Town of Carleton Place, Ontario
- Minimum Distance Separation Report for landowner, Town of Caledon, Ontario
- Agricultural and Rural Lands Discussion Paper for municipality, Town of Blue Mountain, Ontario
- Agricultural Impact Assessment for Wildfield Village, Town of Caledon
- Agricultural Impact Assessment for Redford Pit Expansion, West Grey

ADDITIONAL TRAINING AND WORKSHOPS

Standard First Aid, CPR C, AED – St. John's Ambulance (2023)
Workplace Hazardous Materials Information System
Natural Gas Pipeline Safety Training – TC Energy (2022)
Excavation Safety Training – TC Energy (2022)
Supervisor (Level 2) Ground Disturbance Training (2022)

APPENDIX B

Canada Land Inventory Information

Canada Land Inventory Soil Capability Classification for Agriculture

The Canada Land Inventory (CLI) classification system was developed to classifying soil capability for agricultural use for use across Canada. CLI is an interpretative system which assesses the effects of climate and soil characteristics on the limitations of land for growing common field crops. It classifies soils into one of seven capability classes based on the severity of their inherent limitations to field crop production. Soils descend in quality from Class 1, which is highest, to Class 7 soils which have no agricultural capability for the common field crops. Class 1 soils have no significant limitations. Class 2 through 7 soils have one or more significant limitations, and each of these are denoted by a capability subclass.

In Ontario the document, "Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario" (OMAFRA, 2008) provides a Provincial interpretation of the CLI classification system. These guidelines are based on the "Canada Land Inventory, Soil Capability Classification for Agriculture" (ARDA Report No. 2, 1965) and have been modified for use in Ontario. In Ontario, CLI Classes 1 to 4 lands are generally considered to be arable lands and Classes 1 to 3 soils and specialty crop lands are considered to be prime agricultural lands.

The following definitions were taken from Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario (2008).

Definitions of the Capability Classes

Class 1 - Soils in this class have no significant limitations in use for crops. Soils in Class 1 are level to nearly level, deep, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity for the full range of common field crops

Class 2 - Soils in this class have moderate limitations that reduce the choice of crops, or require moderate conservation practices. These soils are deep and may not hold moisture and nutrients as well as Class 1 soils. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately-high to high in productivity for a wide range of common field crops.

Class 3 - Soils in this class have moderately severe limitations that reduce the choice of crops or require special conservation practices. The limitations are more severe than for Class 2 soils. They affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. Under good management these soils are fair to moderately high in productivity for a wide range of common field crops.

Class 4 - Soils in this class have severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both. The severe limitations seriously affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. These soils are low to medium in productivity for a narrow to wide range of common field crops, but may have higher productivity for a specially adapted crop.

Class 5 - Soils in this class have very severe limitations that restrict their capability to producing perennial forage crops, and improvement practices are feasible. The limitations are so severe that the soils are not capable of use for sustained production of annual field crops. The soils are capable of producing native or tame species of perennial forage plants and may be improved through the use of farm machinery. Feasible improvement practices may include clearing of bush, cultivation, seeding, fertilizing or water control.

Class 6 - Soils in this class are unsuited for cultivation, but are capable of use for unimproved permanent pasture. These soils may provide some sustained grazing for farm animals, but the limitations are so severe that improvement through the use of farm machinery is impractical. The terrain may be unsuitable for the use of farm machinery, or the soils may not respond to improvement, or the grazing season may be very short.

Class 7 - Soils in this class have no capability for arable culture or permanent pasture. This class includes marsh, rockland and soil on very steep slopes.

Definitions of the Prime and Non-prime Agricultural Lands

In Ontario, CLI Classes 1, 2 and 3 and specialty crop lands are considered prime agricultural lands. Non-prime agricultural lands are comprised of CLI Class 4-7 lands.

Organic soils (Muck) are not classified under the CLI system but are mapped and identified as O in the provincial mapping.

Definitions of the Capability Subclasses

Capability Subclasses indicate the kinds of limitations present for agricultural use. Thirteen Subclasses were described in CLI Report No. 2. Eleven of these Subclasses have been adapted to Ontario soils.

Subclass Definitions:

Subclass C - Adverse climate: This subclass denotes a significant adverse climate for crop production as compared to the "median" climate which is defined as one with sufficiently high growing-season temperatures to bring common field crops to maturity, and with sufficient precipitation to permit crops to be grown each year on the same land without a serious risk of partial or total crop failures. In Ontario this subclass is applied to land averaging less than 2300 Crop Heat Units.

Class	Crop Heat Units
1	>2300
2C	1900-2300
3C	1700-1900
4C	<1700

Subclass D - Undesirable soil structure and/or low permeability*:* This subclass is used for soils which are difficult to till, or which absorb or release water very slowly, or in which the depth of rooting zone is restricted by conditions other than a high water table or consolidated bedrock. In Ontario this subclass is based on the existence of critical clay contents in the upper soil profile.

Class	Soil Characteristics
2D	The top of a clayey horizon >15 cm thick occurs within 40 cm of the soil surface. Clayey materials in this case must have >35% clay content.
3D	The top of a very fine clayey (clay content >60%) horizon >15 cm thick occurs within 40 cm of the soil surface

Subclass E - Erosion*:* Loss of topsoil and subsoil by erosion has reduced productivity and may in some cases cause difficulties in farming the land e.g. land with gullies.

Class	Soil Characteristics
2E	Loss of the original plough layer, incorporation of original B horizon material into the present plough layer, and general organic matter losses have resulted in moderate losses to soil productivity.
3E	Loss of original solum (A and B horizons) has resulted in a plough layer consisting mostly of

	Loamy or Clayey parent material. Organic matter content of the cultivated surface is less than 2%.
4E	Loss of original solum (A and B horizons) has resulted in a cultivated layer consisting mainly of Sandy parent material with an organic matter content of less than 2%; shallow gullies and occasionally deep gullies which cannot be crossed by machinery may also be present.
5E	The original solum (A and B horizons) has been removed exposing very gravelly material and/or frequent deep gullies are present which cannot be crossed by machinery.

Subclass F - Low natural fertility*:* This subclass is made up of soils having low fertility that is either correctable with careful management in the use of fertilizers and soil amendments or is difficult to correct in a feasible way. The limitation may be due to a lack of available plant nutrients, high acidity, low exchange capacity, or presence of toxic compounds.

Class	Upper Texture Group (>40 and <100 cm from surface)	Lower Texture Group (remaining materials to 100 cm depth)	Drainage Class	Additional Soil Characteristics[1]
2F	Sandy	Sandy or very gravelly	Rapid to imperfect	Neutral or alkaline parent material with a Bt horizon within 100 cm of the surface
3F	Sandy	Sandy or very gravelly	Any drainage class	Neutral or alkaline parent material with no Bt horizon present within 100 cm of surface
3F	Sandy	Loamy or Clayey	Any drainage class	Acid parent material
3F	Loamy or clayey	Any Texture Group	Any drainage class	Acid parent material
4F	Sandy	Sandy or very gravelly	Any drainage class	Acid parent material
4F	Very gravelly	Any texture	Rapid to imperfect	Neutral to alkaline parent material
5F	Very Gravelly	Any texture	All drainage classes	Acid parent material

[1] "Acid" means pH<5.5; "Neutral" pH 5.5 to 7.4; "Alkaline" pH>7.4 as measured in 0.01 M CaCl2 (CSSC, 1998). PH 's measured in distilled water tend to be slightly higher (up to 0.5 units).

Bt horizon should be fairly continuous and average more than 10cm thickness

Subclass I - Inundation by streams or lakes: Flooding by streams and lakes causes crop damage or restricts agricultural use.

Class	Soil Characteristics
3I	Frequent inundation with some crop damage; estimated frequency of flooding is less than once every 5 years (Floodplain); includes higher floodplain-terraces on which cultivated field crops can be grown.
5I	Very frequent inundation with some crop damage; estimated frequency of flooding is at least once every 5 years (Floodplain); includes active floodplain areas on which forage crops can be grown primarily for pasture.
7I	Land is inundated for most of the growing season; often permanently flooded (Marsh)

Subclass M – Moisture deficiency: Soils in this subclass have lower moisture holding capacities and are more prone to droughtiness.

Class	Soil Texture Groups		Drainage	Additional Soil Characteristics
	Upper materials1	Lower materials2		
2M	15 to 40 cm of loamy or finer materials	Sandy to Very Gravelly	Well	
2M	40 to < 100 cm of sandy to very gravelly material.	Loamy to Very Fine Clayey	Well	
2M	Sandy		Rapid to well	Well developed Bt3 horizon occurs within 100 cm of surface
3M	Sandy material to > 100cm		Rapid	Bt horizon absent within 100 cm of surface
4M	Very Gravelly to > 100 cm		Rapid	Bt horizon present within 100 cm of surface
5M	Very gravelly to > 100cm		Very rapid	Bt horizon absent within 100cm

Subclass P - Stoniness: This subclass indicates soils sufficiently stony to hinder tillage, planting, and harvesting operations.

Class	Soil Characteristics
2P	Surface stones cause some interference with tillage, planting and harvesting; stones are 15-60 cm in diameter, and occur in a range of 1-20 m apart, and occupy <3% of the surface area. Some stone removal is required to bring the land into production.
3P	Surface stones are a serious handicap to tillage, planting, and harvesting; stones are 15-60 cm in diameter, occur 0.5-1m apart (20-75 stones/100 m^2), and occupy 3-15% of the surface area. The occasional boulder >60 cm in diameter may also occur. Considerable stone removal is required to bring the land into production. Some annual removal is also required.
4P	Surface stones and many boulders occupy 3-15% of the surface. Considerable stone and boulder removal is needed to bring the land into tillable production. Considerable annual removal is also required for tillage and planting to take place.
5P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy 15-50% of the surface area (>75 stones and/or boulders/100 m2).
6P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy >50% of the surface area.

Subclass R - Shallowness to Consolidated Bedrock: This subclass is applied to soils where the depth of the rooting zone is restricted by consolidated bedrock. Consolidated bedrock, if it occurs within 100 cm of the surface, reduces available water holding capacity and rooting depth. Where physical soil data were available, the water retention model of McBride and Mackintosh was used to assist in developing the subclass criteria.

Class	Soil Characteristics
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.
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.
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.

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.
7R	Consolidated bedrock occurs at < 10cm from the surface.

Subclass S - Adverse soil characteristics: This subclass denotes a combination of limitations of equal severity. In Ontario it has often been used to denote a combination of F and M when these are present with a third limitation such as T, E or P.

Subclass T - Topography

The steepness of the surface slope and the pattern or frequency of slopes in different directions are considered topographic limitations if they: 1) increase the cost of farming the land over that of level or less sloping land; 2) decrease the uniformity of growth and maturity of crops; and 3) increase the potential of water and tillage erosion.

Determination of Subclass T for Very Gravelly and Sandy Soils

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	2T	3T	3T	4T	5T	5T	6T	6T	7T	7T

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	3T	3T	4T	4T	5T	5T	6T	6T	7T	7T

S = Simple Slopes >50 m in length

C =Complex Slopes <50 m in length

Subclass W - Excess water:

The presence of excess soil moisture, other than that brought about by inundation, is a limitation to field crop agriculture. Excess water may result from inadequate soil drainage, a high water table, seepage or runoff from surrounding areas.

Soil Textures and Depths	**Depth to Bedrock** (cm)	**Soil Class** (Drainage in place or feasible)	**Soil Class** (Drainage not feasible)
Very gravelly, sandy, or loamy extending >40 cm from the surface, or, <40 cm of any other textures overlying very gravelly, sandy or loamy textures	>100	2W	4W, 5W
>40 cm depth of clayey or very fine clayey textures, or, <40 cm of any other texture overlying clayey or very fine clayey textures	>100	3W	5W
<40 cm of peaty material overlying any texture	>100	3W	5W
All textures	50-100	4W	5W
All textures	0-50	NA	5W

APPENDIX C

Land Use Notes

Land Use Survey Notes – AIA Midhurst Expansion			
Weather		**Date (s)**	April 16, 2025
Temperature		**File**	C25035

Site No.	Type of Use	Type of Operation	MDS Calculation Required?	Description of Operation
1	Non-Agricultural	Institutional	No	Town of Springwater Paramedic Station – Permanently closed.
2	Non-Agricultural	Commercial	No	Ultramar – Gas station.
3	Agricultural	Cash Crop Operation	No	2 grain bins, large implement shed. Small barn in poor condition, holes in roof. No structures capable of housing livestock.
4	Agricultural	Remnant Farm	No	Barn partially collapsed, very overgrown. No residence associated with property.
5	Agricultural	Equestrian Operation	Yes	Barns in good condition. Large paddocks, outdoor manure storage. Horses observed in Google Street View.
6	Non-Agricultural	Commercial	No	Springwater Park - Outdoor Storage Barrie, Dave's Auto, Bell Insurance & Financial Services, Fence Source, Fox Den's Driving Range.
7	Agricultural	Remnant Farm	No	Wooden bank barn with fieldstone foundation in good condition, implement shed.
8	Agricultural	Unoccupied Livestock Operation	Yes	2 wooden bank barn with fieldstone foundation in good condition. Implement shed, 1 capped silo, 1 uncapped silo.
9	Agricultural	Unoccupied Livestock Operation	Yes	Barn in poor condition, 2 grain bins, implement shed. Associated residence appears to have been demolished in 2022. Rear portion of barn demolished in 2019, 3 silos demolished in 2020. M1 manure storage behind implement shed.

10	Agricultural	Beef Operation	Yes	Three large beef barns, two chicken barns. L1 manure storage, multiple implement sheds. OFA member, member of the Canadian Cattlemen's Association. New pasture at roadside with manure storage and field shelter. Secondary barn in good condition, pasture fencing. Cattle observed in Google Street View.
11	Agricultural	Unoccupied Livestock Operation	Yes	Wooden bank barn in good condition, uncapped silo, implement shed. No sign of livestock.
12	Agricultural	Poultry Operation	Yes	3 2-storey chicken barns, 3 grain bins, 2 implement sheds. Third barn was constructed in 2019 based on historical images.
13	Non-Agricultural	Utility	No	Centre Vespra Booster & Re-cholination Facility. Water storage, re-chlorination, and pumping station serving the Cantre Vespra Community.
14	Agricultural	Cash Crop Operation	No	2 implement sheds, barn in fair condition. Appears to be used for storage. Agricultural equipment observed outside implement shed in historical images.
15	Non-Agricultural	Institutional	No	Christ Church Anglican Cemetery.
16	Non-Agricultural	Utility	No	Electrical transformer station.
17	Non-Agricultural	Recreational	No	Vespra Hills Golf Club.
18	Agricultural	Beef Operation	Yes	3 barns in good condition, newest constructed in 2016. Cattle observed in pasture in Google Street View.
19	Agricultural	Equestrian Operation	Yes	The 1819 Drury Farm. Former equestrian entertainment and education operation, historical farm. Barn in good condition, implement shed, indoor riding ring, capped silo. Drury Horse Park

20	Agricultural	Unoccupied Livestock Operation	Yes	4 barns in good condition, several implement sheds, 2 Harvestores. Vehicles stored outdoors in several locations on property, no signs of livestock.
21	Agricultural	Unoccupied Livestock Operation	Yes	Wooden bank barn in good condition, large implement shed. Horse trailers observed outside.
22	Non-Agricultural	Industrial	No	Drumax Construction – Bulldozing, Grading, Trucking, Lot Clearing, Excavating, Septic Beds, Top Soil. Remnant farm converted to industrial storage. 3 silos, one uncapped two capped. M2 manure storage system used for equipment and soil storage.
23	Agricultural	Unoccupied Livestock Operation	Yes	2 steel sided barns in good condition, capped cement silo. Several RVs stored outside. No signs of livestock.
24	Agriculture-Related	Agricultural Equipment Dealership	No	Richards Equipment Inc. Sale, service, and parts, for new and used agricultural and landscaping equipment.
25	Non-Agricultural	Commercial	No	Liquidation Wholesalers. Ontario Laser Health & Rehabilitation Centre.
26	Agricultural	Cash Crop Operation	No	Steel sided implement shed in good condition. Historical photos show horses in front pasture, however no structures appearing capable of housing livestock present on the property.
27	Non-Agricultural	Industrial	No	Vehicle and equipment storage and garage.
28	Agricultural	Equestrian Operation	Yes	Lindsay Beer Equestrian. Barn with 18 stalls, indoor riding arena, several fenced paddocks. https://lindsaybeerequestrian.com/
29	Agricultural	Remnant Farm	No	Small barn in poor condition, very overgrown. Fromer farm market and greenhouses at roadside.

30	Agricultural	Unoccupied Livestock Operation	Yes	Barn in rear of property appears in good condition, no signs of livestock.
31	Agricultural	Equestrian Operation	Yes	Wooden bank barn in good condition, pasture fencing, field shelters.
32	Non-Agricultural	Recreational	No	Simro Golf Links.
33	Agricultural	Cash Crop Operation	No	Implement shed in good condition. No structures capable of housing livestock.
34	Agricultural	Unoccupied Livestock Operation	Yes	Barn appears in good condition, cattle observed in 2015 aerial photographs. Large implement shed, 6 grain bins.
35	Agricultural	Beef Operation	Yes	Wooden bank barn in good condition, outdoor manure storage. Beuck's Farm.
36	Agricultural	Unoccupied Livestock Operation	Yes	Wooden bank barn in fair condition, boards missing from loft. Appears to be used for storage.
37	Agricultural	Poultry Operation/ Dairy Operation	Yes	Single storey barn, manure storage at rear. Constructed in 2018 based on aerial photographs. Cadilac Holstiens. Wooden bank barn in good condition, outdoor manure storage, two capped silos. Pasture fencing in good condition.
38	Agricultural	Unoccupied Livestock Operation	Yes	Wooden bank barn in good condition, likely being used for storage. Pedal for the People Barrie, bicycle repair and education.
39	Non-Agricultural	Commercial	No	Dalston General Store.
40	Non-Agricultural	Institutional	No	Dalston Crown Hill United Church
41	Agricultural	Unoccupied Livestock Operation	Yes	2 wooden bank barns in fair condition, capped silo. No evidence of livestock present on property.
42	Agricultural	Unoccupied Livestock Operation	Yes	Wooden bank barn in good condition. Cattle present in 2016 aerial photographs.

43	Agricultural	Cash Crop Operation	No	Farm gate sale of fresh produce, seasonal pick-your-own pumpkins. Wooden barn in good condition.
44	Non-Agricultural	Industrial	No	Binnie GE Haulage & Excavation.
45	Non-Agricultural	Aggregate Pit	No	Springwater Pit – CBM Aggregates.
46	Agricultural	Beef Operation	Yes	1876 Heritage Farms. Regenerative agriculture angus beef operation. On-farm sales and delivery. Wooden bank barn in good condition, capped silo, implement shed. https://ourfarmstore.ca/ Secondary barn in fair condition, pasture fencing. Outdoor manure storage present in southern corner of barn.
47	Agricultural	Hobby Farm	No	Paddock and field shelter, no structures capable of housing livestock.
48	Agricultural	Beef Operation	Yes	Wooden bank barn in good condition, fenced pastures, M1 manure storage, Quonset hut.
49	Non-Agricultural	Industrial	No	Heritage Metal Restoration. Glassblasting, sandblasting, paint, and rust removal. Workshop, Quonset hut, outdoor vehicle storage. https://www.heritagemetalrestoration.ca/
50	Non-Agricultural	Industrial	No	Lackie Welding.
51	Non-Agricultural	Industrial	No	Drake Industries – Landscaping.
52	Agricultural	Beef Operation	Yes	Barn in good condition, fenced pasture, outdoor manure storage. Cattle observed in aerial photographs.
53	Agricultural	Remnant Farm	No	Barn in poor condition, large holes in roof. 3 grain bins, implement shed, steel Quonset hut. No structures capable of housing livestock.

54	Agricultural	Beef Operation	Yes	Wooden bank barn in fair condition, missing boards, outdoor manure storage, fenced pasture. Cattle observed in aerial photographs.
55	Agricultural	Remnant Farm	No	Barn demolished in 2016 based on aerial photographs, 2 uncapped silos and associated residence remaining.
56	Agricultural	Unoccupied Livestock Operation	Yes	Wooden bank barn in poor condition, implement shed, fenced pasture appears idle. Cattle present in historical Google Street View.
57	Agricultural	Unoccupied Livestock Operation	Yes	2 barns in fair condition, overgrown, M1 manure storage.
58	Agricultural	Remnant Farm	No	2 wooden bank barns, one in poor condition, one partially collapsed. No structures capable of housing livestock.
59	Agricultural	Remnant Farm	No	2 implement sheds, 2 capped silos, barn in poor condition. No structures capable of housing livestock.
60	Agricultural	Remnant Farm	No	Barn in poor condition, appears to be used for equipment storage. No structures capable of housing livestock.
61	Agricultural	Remnant Farm	No	Barn appears collapsed, uncapped silo.
62	Agricultural	Cash Crop Operation	No	Implement shed in good condition, 3 grain bins.
63	Agricultural	Equestrian Operation	Yes	3 barns in good condition, several fenced paddocks with field shelters, riding ring in rear, outdoor manure storage. 10+ horses observed in Google Street View.
64	Agricultural	Unoccupied Livestock Operation	Yes	2 barns in good condition, V3 manure storage system used for storage based on aerial photographs. 3 Quonset huts, Harvestore, grain bin, capped silo.
65	Non-Agricultural	Industrial	No	Treescapes Corp. Arborist. Logs stored outdoors, small garage/workshop. https://www.treescapes.ca/

66	Non-Agricultural	Commercial	No	Midhurst Landscape Supply. http://midhurstlandscape.com/
67	Agricultural	Unoccupied Livestock Operation	Yes	2 wooden bank barns in good condition, uncapped silo. No signs of livestock.
68	Agricultural	Remnant Farm	No	Barn in fair condition, appears very overgrown.
69	Agricultural	Equestrian Operation	Yes	Barn in good condition, several paddocks with field shelters, outdoor manure storage.
70	Agricultural	Equestrian Operation	Yes	Small barn in good condition, multiple paddocks.
71	Agricultural	Equestrian Operation	Yes	Small barn in good condition, multiple fenced paddocks.
72	Non-Agricultural	Aggregate Operation	No	Highway Vespra Pit – Universal Sand & Gravel Limited.
73	Agricultural	Cash Crop Operation	No	Barn and manure storage converted to equipment storage, uncapped silo.
74	Agricultural	Hobby Farm	Yes	Small barn in good condition, likely housing horses, fenced paddocks.
75	Agricultural	Beef Operation	Yes	Large barn in good condition, 5 Harvestores, 1 grain bin, implement shed, wrapped hay stored outside in aerial photographs. V3 outdoor manure storage.
76	Agricultural	Equestrian Operation	Yes	Barn and Quonset hut in fair condition, multiple paddocks, 1 capped silo, 1 uncapped silo.
77	Agricultural	Cash Crop Operation	No	Implement shed in good condition, agricultural equipment outside.
78	Non-Agricultural	Utility	No	Communications tower.
79	Agricultural	Remnant Farm	No	Barn and associated house demolished in 2022.
80	Agricultural	Cash Crop Operation	No	Small implement shed in fair condition, silo demolished in 2022.
81	Agricultural	Remnant Farm	No	Barn in poor condition, very overgrown, uncapped silo, missing sections of pasture fencing.

82	Agricultural	Equestrian Operation	Yes	Hope Equestrian Team. Barn in good condition, several large fenced paddocks, round pen. Outdoor manure storage at rear of property behind treeline.
83	Agricultural	Remnant Farm	No	Barn demolished in 2018, implement shed appears to be use for vehicle storage.
84	Agricultural	Cash Crop Operation	No	Barn demolished in 2021, implement shed remaining.

	Total Number	**Active**	**Retired or Remnant**
Agricultural	62	10 – Cash Crop Operation 10 – Equestrian Operation 8 – Beef Operation 2 – Poultry Operation 1 – Dairy Operation 2 – Hobby Farm	16 – Unoccupied Livestock Operation 13 – Remnant Farm
Agriculture-related	1	1 – Agricultural Equipment Dealership	0
On-farm Diversified	0	0	0
	Total Number	**Type**	
Non-Agricultural	22	3 – Institutional 5 – Commercial 3 – Utility 2 – Recreational 7 – Industrial 2 – Aggregate Operation	

APPENDIX D

AgriSuite MDS Report

Ontario

AgriSuite

C25035

General information

Application date
Apr 16, 2025

Municipal file number

Proposed application
New or expanding settlement area boundary

Applicant contact information

ON

Location of subject lands

County of Simcoe
Township of Springwater

Calculations

Operation 10

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size

130.84 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Confinement	1202	400.7 NU	5584 m²
Solid	Chickens, Broiler breeder growers (males/females transferred out to layer barn)	18906	63 NU	2986 m²

Confirm Livestock/Manure Information (Operation 10)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage: **L1. Solid, outside, no cover, 18-30% DM, with uncovered liquid runoff storage**

Design capacity: **463.7 NU**

Potential design capacity: **463.7 NU**

Factor A (odour potential) 0.79
Factor B (design capacity) 540.16
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn): **658 m (2159 ft)**

Actual distance from livestock barn: **NA**

Storage base distance 'S' (minimum distance from manure storage): **667 m (2188 ft)**

Actual distance from manure storage: **NA**

Operation 12

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
83.19 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broiler breeder growers (males/females transferred out to layer barn)	63705	212.3 NU	10062 m²
Solid	Unoccupied Livestock Barn	878 m²	43.9 NU	878 m²

Confirm Livestock/Manure Information (Operation 12)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation 12)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage: **V1. Solid, inside, bedded pack**

Design capacity: **256.3 NU**

Potential design capacity: **256.3 NU**

Factor A (odour potential) **0.75**
Factor B (design capacity) **438.91**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn): **507 m (1663 ft)**

Actual distance from livestock barn: **NA**

Storage base distance 'S' (minimum distance from manure storage): **507 m (1663 ft)**

Actual distance from manure storage: **NA**

Operation 18

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
40.55 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	468	156 NU	2174 m²

Confirm Livestock/Manure Information (Operation 18)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	V1. Solid, inside, bedded pack
Design capacity	156 NU
Potential design capacity	156 NU

Factor A (odour potential) 0.8
Factor B (design capacity) 368.92
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	455 m (1493 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	455 m (1493 ft)
Actual distance from manure storage	NA

Operation 19

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
58.08 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	23	23 NU	534 m²

Confirm Livestock/Manure Information (Operation 19)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	23 NU
Potential design capacity	23 NU

Factor A (odour potential)	0.7	Factor B (design capacity)	206
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	223 m (732 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Operation 20

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
40.56 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	2666 m²	133.3 NU	2666 m²

Confirm Livestock/Manure Information (Operation 20)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation 20)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
Design capacity	133.3 NU
Potential design capacity	133.3 NU

Factor A (odour potential)	1	Factor B (design capacity)	349.17
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	538 m (1765 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Operation 21

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
41.92 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	353 m²	17.6 NU	353 m²

Confirm Livestock/Manure Information (Operation 21)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation 21)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	17.6 NU
Potential design capacity	17.6 NU

Factor A (odour potential)	1	Factor B (design capacity)	192.16
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	296 m (971 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Operation 23

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
40.32 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	1594 m²	79.7 NU	1594 m²

Confirm Livestock/Manure Information (Operation 23)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation 23)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	79.7 NU
Potential design capacity	79.7 NU

Factor A (odour potential) 1
Factor B (design capacity) 297.61
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	459 m (1506 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Operation 28

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
64.76 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	18	25.7 NU	543 m²

Confirm Livestock/Manure Information (Operation 28)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
Design capacity	25.7 NU
Potential design capacity	25.7 NU

Factor A (odour potential) 0.7
Factor B (design capacity) 211.42
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	228 m (748 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	228 m (748 ft)
Actual distance from manure storage	NA

Operation 37

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
81.85 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broilers	4128 m²	166.5 NU	4128 m²
Solid	Dairy, Calves Large Frame (45 - 182 kg) (eg. Holsteins)	312	52 NU	1015 m²

Confirm Livestock/Manure Information (Operation 37)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**218.4 NU**
Potential design capacity	**218.4 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **415.06**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**448 m (1470 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**448 m (1470 ft)**
Actual distance from manure storage	**NA**

Operation 42

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
45.26 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	231 m²	11.6 NU	231 m²

Confirm Livestock/Manure Information (Operation 42)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation 42)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	11.6 NU
Potential design capacity	11.6 NU

Factor A (odour potential)	1	Factor B (design capacity)	171.83
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	265 m (869 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Operation 46

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
42.49 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	392	130.7 NU	1457 m²

Confirm Livestock/Manure Information (Operation 46)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
Design capacity	130.7 NU
Potential design capacity	130.7 NU

Factor A (odour potential) 0.8
Factor D (manure type) 0.7
Factor B (design capacity) 346.74
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	428 m (1404 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	428 m (1404 ft)
Actual distance from manure storage	NA

Operation 48

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
41.85 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Beef, Backgrounders (7 - 12.5 months), Confinement	269	89.7 NU	1250 m²

Confirm Livestock/Manure Information (Operation 48)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**M1. Liquid, outside, no cover, straight-walled storage**
Design capacity	**89.7 NU**
Potential design capacity	**89.7 NU**

Factor A (odour potential) **0.8**
Factor D (manure type) **0.8**
Factor B (design capacity) **306.52**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**432 m (1417 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**489 m (1604 ft)**
Actual distance from manure storage	**NA**

Operation 57

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
43.82 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Unoccupied Livestock Barn	1427 m²	71.3 NU	1427 m²

Confirm Livestock/Manure Information (Operation 57)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation 57)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**M1. Liquid, outside, no cover, straight-walled storage**
Design capacity	**71.3 NU**
Potential design capacity	**71.3 NU**

Factor A (odour potential)	**1**	Factor B (design capacity)	**290.14**
Factor D (manure type)	**0.8**	Factor E (encroaching land use)	**2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**511 m (1676 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**560 m (1837 ft)**
Actual distance from manure storage	**NA**

Operation 69

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
21.29 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	43	43 NU	999 m²

Confirm Livestock/Manure Information (Operation 69)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
Design capacity	43 NU
Potential design capacity	43 NU

Factor A (odour potential)	0.7	Factor B (design capacity)	246
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	266 m (873 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	266 m (873 ft)
Actual distance from manure storage	NA

Operation 70

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
19.76 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	8	8 NU	186 m²

Confirm Livestock/Manure Information (Operation 70)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	8 NU
Potential design capacity	8 NU

Factor A (odour potential)	0.7	Factor B (design capacity)	160
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	173 m (568 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Operation 71

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
18.25 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	9	9 NU	209 m²

Confirm Livestock/Manure Information (Operation 71)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	9 NU
Potential design capacity	9 NU

Factor A (odour potential)	0.7	Factor B (design capacity)	163.33
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	177 m (581 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Operation 74

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
38.12 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	19	19 NU	441 m²

Confirm Livestock/Manure Information (Operation 74)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage - Not Specified -

Design capacity 19 NU

Potential design capacity 19 NU

Factor A (odour potential) 0.7
Factor B (design capacity) 196.66
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn) 212 m (696 ft)

Actual distance from livestock barn NA

Storage base distance 'S' (minimum distance from manure storage) No existing manure storage

Actual distance from manure storage NA

Operation 75

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
53.73 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Confinement	875	291.7 NU	4065 m²

Confirm Livestock/Manure Information (Operation 75)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
Design capacity	291.7 NU
Potential design capacity	291.7 NU

Factor A (odour potential) 0.8
Factor D (manure type) 0.7

Factor B (design capacity) 459.25
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	566 m (1857 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	566 m (1857 ft)
Actual distance from manure storage	NA

Operation 76

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
36.06 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	69	69 NU	1603 m²

Confirm Livestock/Manure Information (Operation 76)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
Design capacity	69 NU
Potential design capacity	69 NU

Factor A (odour potential) 0.7
Factor B (design capacity) 288.04
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	311 m (1020 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	311 m (1020 ft)
Actual distance from manure storage	NA

Operation 82

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
35.22 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	80	80 NU	1858 m²

Confirm Livestock/Manure Information (Operation 82)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
Design capacity	80 NU
Potential design capacity	80 NU

Factor A (odour potential) 0.7
Factor B (design capacity) 297.87
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	322 m (1056 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	322 m (1056 ft)
Actual distance from manure storage	NA

Operation 9

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor

County of Simcoe
Township of Springwater
Roll number 4341

Total lot size
41.8 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	1010 m²	50.5 NU	1010 m²

Confirm Livestock/Manure Information (Operation 9)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation 9)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	50.5 NU
Potential design capacity	50.5 NU

Factor A (odour potential) 1
Factor B (design capacity) 261
Factor D (manure type) 0.7
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	402 m (1319 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage
Actual distance from manure storage	NA

Preparer signoff & disclaimer

Preparer contact information
ON

Signature of preparer



05-14-2025

Date (mmm-dd-yyyy)

Note to the user

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