



EXECUTIVE SUMMARY

EFI Engineering, on behalf of Smart Homes Ottawa Inc., has prepared this Planning Rationale in support of the proposed Matheson and Rosedale Subdivision, a future residential development planned within Montague Township, Lanark County. The subdivision will occupy approximately 23.5 hectares within the Rosedale Settlement Area, a region earmarked for residential growth due to its established infrastructure, residential character, and proximity to community amenities. The project aims to meet the growing housing demand in Montague Township by offering a variety of single-detached homes designed to align with sustainable development practices and integrate seamlessly with the surrounding community. A key component of this application is a rezoning request to reclassify the land from Rural (RU) to Rural Residential (RR), including a site-specific exception to permit reduced lot frontages on 24 of the proposed 41 lots, with the smallest frontage measuring 46 metres, a minor reduction of 20%. These adjustments are designed to optimize the development's potential while adhering to the broader objectives of provincial and municipal planning policies.

This report evaluates the proposed development's compliance with the Ontario Planning Act, the Provincial Planning Statement (PPS), 2024, the Lanark County Sustainable Communities Official Plan (SCOP), and the Montague Township Official Plan (OP). It also synthesizes findings from several technical studies; Hydrogeological Assessment, Environmental Impact Study (EIS), Traffic Impact Study (TIS), and Archaeological Assessment, to substantiate the planning and design of the subdivision. The Matheson and Rosedale Subdivision is poised to contribute significantly to the sustainable growth of Montague Township by providing essential housing, preserving natural features, enhancing community infrastructure, and incorporating environmental mitigation measures recommended through the peer-reviewed EIS. This Planning Rationale concludes with a recommendation for approval of the rezoning request and proposed subdivision based on the project's adherence to planning principles and its potential to positively impact the region.

TABLE OF CONTENTS

1.0	INTRODUCTION	4
1.1	SUBJECT SITE: LOCATION AND CONTEXT	5
1.2	SITE CONTEXT.....	6
1.3	REGIONAL CONNECTIVITY.....	7
	LOCAL AMENITIES AND EDUCATIONAL FACILITIES	7
	PROXIMITY TO SMITHS FALLS.....	8
	ROAD CONNECTIVITY.....	9
2.0	PROPOSED DEVELOPMENT AND DESIGN BRIEF	10
2.1	SUBDIVISION DESIGN AND LAYOUT.....	10
2.2	INFRASTRUCTURE AND SERVICES.....	11
2.3	PARKLAND AND OPEN SPACE	12
3.0	MARKET NEEDS ANALYSIS	13
3.1	HOUSING DEMAND IN LANARK COUNTY	13
3.2	ADDRESSING HOUSING SUPPLY PRESSURES.....	14
3.3	ECONOMIC IMPACT AND STRATEGIC CONTRIBUTION.....	14
4.0	REGULATORY REVIEW	15
4.1	PLANNING ACT R.S.O. 1990, c. P.13	15
4.2	PROVINCIAL PLANNING STATEMENT (PPS), 2024.....	15
4.3	LANARK COUNTY SUSTAINABLE COMMUNITIES OFFICIAL PLAN (SCOP).....	17
	LAND USE DESIGNATION: SETTLEMENT AREA	17
	IMPLEMENTATION FRAMEWORK.....	18
	NATURAL HERITAGE PROTECTION	19
	SOURCE WATER PROTECTION	19
	INFRASTRUCTURE, STORMWATER, AND CLIMATE RESILIENCE	20
	COMMITMENT TO DUE DILIGENCE	20
4.4	TOWNSHIP OF MONTAGUE OFFICIAL PLAN (2023 CONSOLIDATION)	21
	LAND USE DESIGNATION: SETTLEMENT AREA	21
	CONSTRAINTS AND OPPORTUNITIES: WHPA-C (VULNERABILITY SCORE 4).....	22
	NATURAL HERITAGE SYSTEM	23
	NATURAL HERITAGE POLICIES – SECTIONS 2.21.4 TO 2.21.8.....	23
	GENERAL POLICIES FOR LAND DIVISION	24
	GENERAL POLICIES FOR SUBDIVISIONS.....	25
4.5	TOWNSHIP OF MONTAGUE COMPREHENSIVE ZONING BY-LAW No. 4070-2024	26
	ZONING DESIGNATION	26
	SOURCE WATER PROTECTION OVERLAY ZONE (SECTION 5.8)	26
	COMPLIANCE WITH RURAL RESIDENTIAL (RR) ZONE REQUIREMENTS.....	27
	GENERAL ZONING PROVISIONS COMPLIANCE	27
	PROPOSED ZONING BY-LAW AMENDMENT.....	28
4.6	LAND USE COMPATIBILITY AND AGRICULTURAL ADJACENCY	29
5.0	SUPPORTING STUDIES	31

5.1	HYDROGEOLOGICAL ASSESSMENT REPORT AND SERVICING OPTIONS STATEMENT	31
5.2	STORMWATER MANAGEMENT (SWM)	32
5.3	ENVIRONMENTAL IMPACT STUDY	33
	<i>SITE CONDITIONS AND NATURAL HERITAGE FEATURES</i>	<i>33</i>
	<i>MITIGATION AND ENVIRONMENTAL PROTECTION MEASURES</i>	<i>34</i>
	<i>GROUNDWATER AND HYDROGEOLOGICAL SAFEGUARDS</i>	<i>34</i>
	<i>COMPLIANCE AND ONGOING COORDINATION</i>	<i>35</i>
5.4	ARCHAEOLOGY STAGE ONE AND STAGE TWO	35
	<i>METHODOLOGY</i>	<i>35</i>
	<i>RESULTS</i>	<i>35</i>
	<i>RECOMMENDATIONS</i>	<i>36</i>
5.5	TRAFFIC IMPACT STUDY	36
6.0	CONCLUSION	37
	APPENDIX A: SOURCE WATER PROTECTION CHECKLIST	38

1.0 INTRODUCTION

EFI Engineering, on behalf of Smart Homes Ottawa Inc., has prepared this Planning Rationale in support of a plan of subdivision application for the proposed Matheson and Rosedale Subdivision in Montague Township, Lanark County. The proposed development encompasses approximately 23.5 hectares of land within the Rosedale Settlement Area, which is designated for residential growth in the Montague Township Official Plan.

The development is designed to meet the increasing demand for housing in Montague Township. The project will feature a mix of single-detached dwellings, with a layout and design carefully planned to align with local and provincial planning policies, ensuring sustainable growth and efficient use of land and resources.

In addition to aligning with provincial and municipal planning policies, the project requires a rezoning from Rural (RU) to Rural Residential (RR) with an exception to the minimum lot frontage requirement. This Planning Rationale evaluates the subdivision's compliance with key regulatory frameworks, including the Ontario Planning Act, the Provincial Planning Statement (PPS) 2024, the Lanark County Sustainable Communities Official Plan, and the Montague Township Official Plan, while also synthesizing findings from various technical studies to support the proposed rezoning and subdivision design.

Smart Homes Ottawa Inc., with its experience in prefabricated and modular housing, is committed to delivering a project that not only meets the immediate housing needs of Montague Township but also contributes positively to the community's long-term growth and sustainability. This Planning Rationale provides a detailed justification for the subdivision, demonstrating its alignment with broader planning objectives and its potential to enhance the quality of life for current and future residents.



Figure 1: Smart Homes Ottawa Inc. Models (www.smarthomesottawainc.net)

1.1 Subject Site: Location and Context

The subject property is in Montague Township, Lanark County, Ontario, specifically part of Lot 20, Concession 3, with Property Identification Number (PIN) 05264-0170. The site lies within the boundary of the Rosedale Settlement Area and is primarily bordered by rural residential properties, agricultural lands, and local infrastructure. The immediate surroundings are characterized as follows:

- North: A small field and woodlot provide a natural buffer, with additional rural lands beyond. The woodlot represents a significant environmental feature within the site's immediate context.
- South: A small residential subdivision consisting of single-detached homes reflects the low-density residential character of the area.
- East: Woodlands and open fields under agricultural use define the eastern boundary, consistent with the broader rural landscape.
- West: The western boundary is defined by County Road 23 (Rosedale Road South), which provides the primary access to the site. Beyond the road lies a mix of agricultural lands, rural residential properties, and a developing residential subdivision to the southwest.

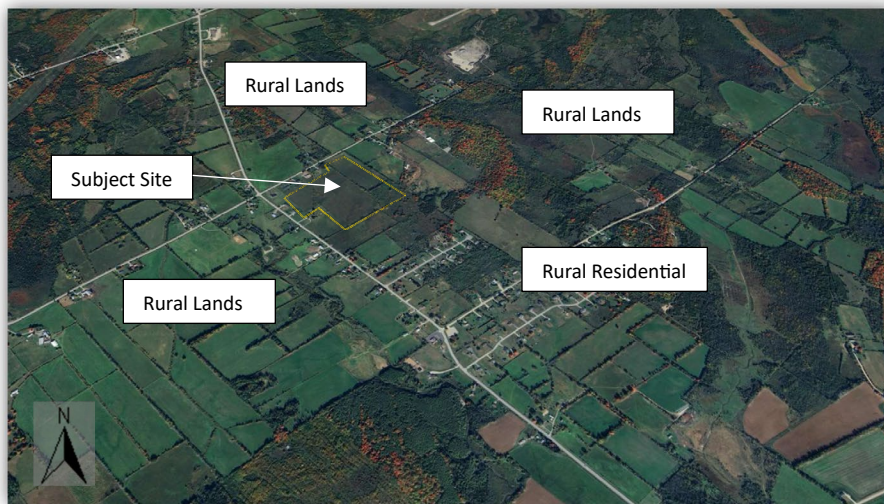


Figure 2: Site Surrounding Context

1.2 Site Context

The subject site comprises approximately 23.5 hectares of primarily vacant land, featuring a mix of naturalized areas, small woodlots, and open fields. The following characteristics define the site:

- Legal Description: Part of Lot 20, Concession 3, Montague Township, Lanark County, Ontario.
- Land Area: ± 23.5 hectares.
- Frontage: The site fronts onto County Road 23 (Rosedale Road South) to the southwest and Matheson Drive to the north.
- Topography: The property is generally flat with minor undulations typical of the regional landscape.

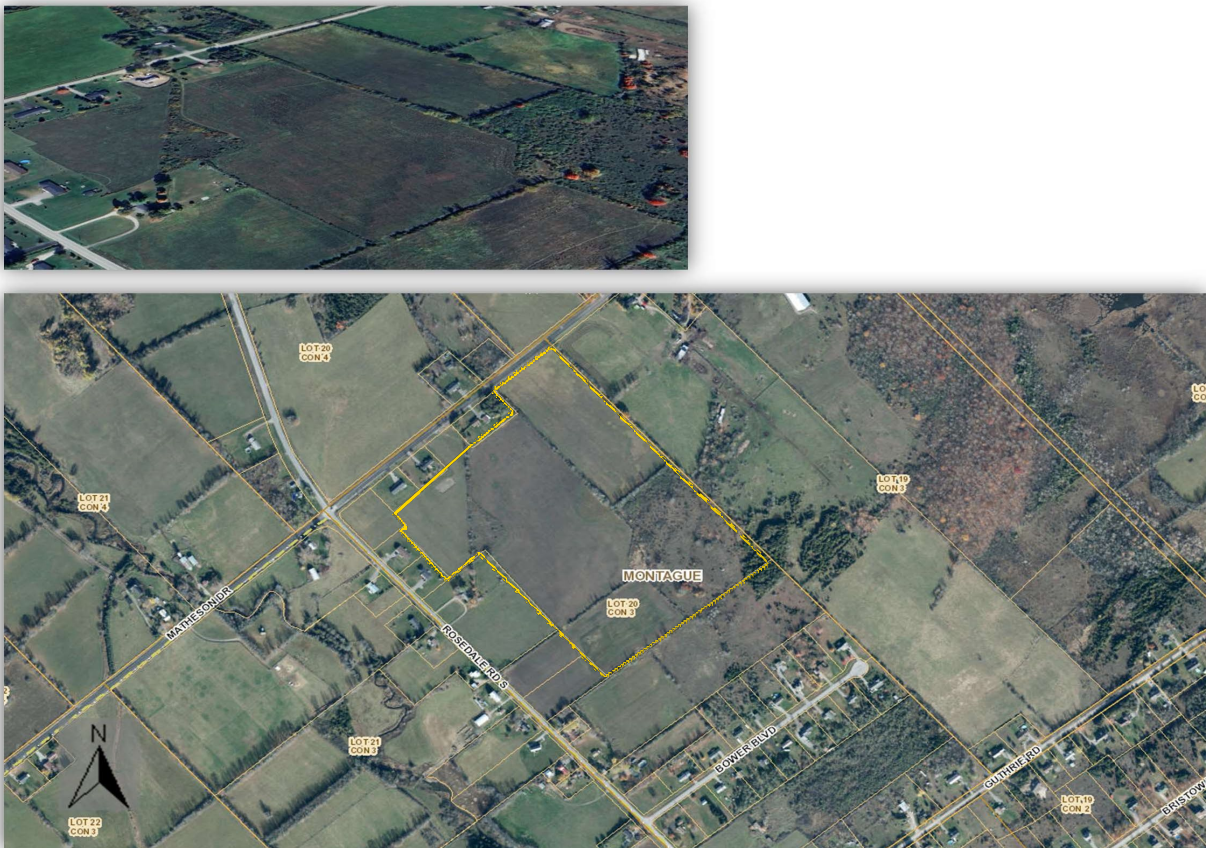


Figure 3: Site Context

1.3 Regional Connectivity

The Matheson and Rosedale Subdivision is well-positioned to offer strong regional connectivity while providing convenient access to key local amenities. The site appeals to residents seeking rural tranquility combined with proximity to essential services.

1.3.1 Local Amenities and Educational Facilities

The immediate area includes several important community amenities:

- Montague Public School — Located at 1200 Rosedale Road South, this elementary school provides education for local children and is a valued asset for families in the area
- Rosedale Hall — Located at 657 Rosedale Road South, this community hall serves as a hub for local events and activities, and features a children's play area that enhances the family-friendly character of the region

These facilities contribute to the subdivision's appeal by providing nearby educational and recreational resources.

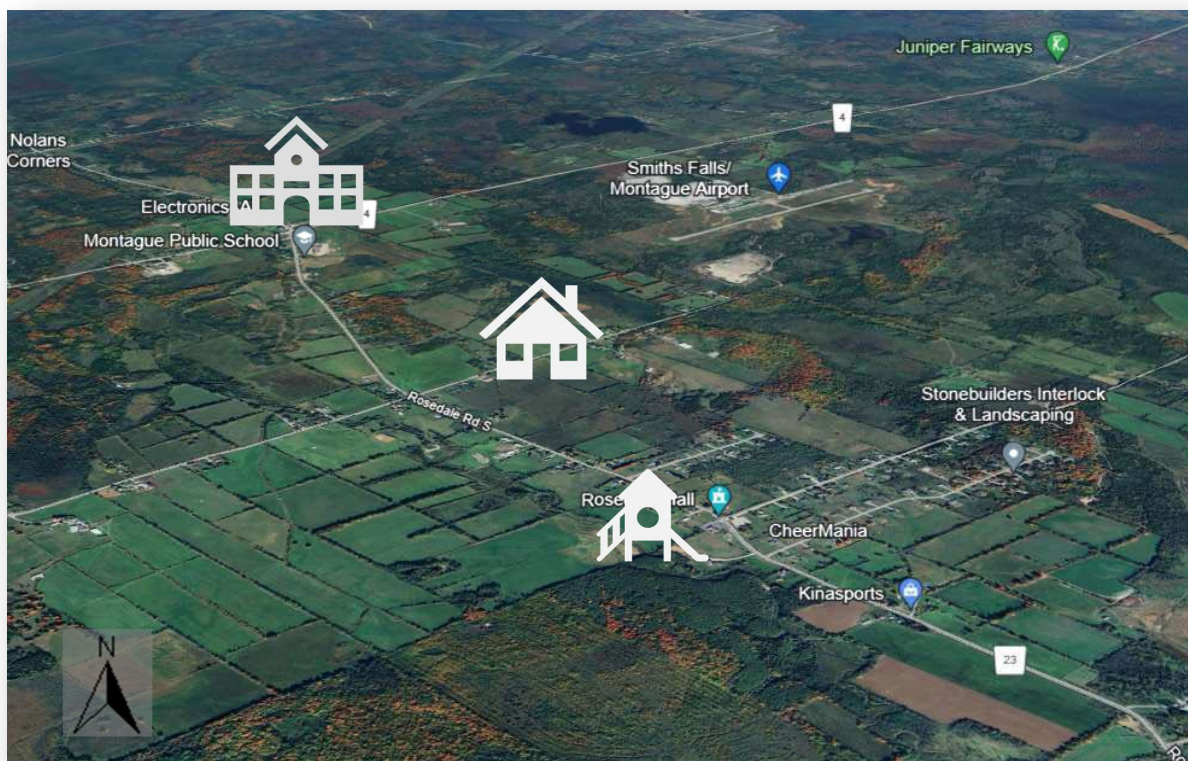


Figure 4: Local Amenities and Educational Facilities

1.3.2 Proximity to Smiths Falls

Smiths Falls is a vibrant town located a short drive from the subdivision and provides a comprehensive range of services and amenities for future residents. The town offers multiple educational options, including public, Catholic, and French-language schools.

Smiths Falls supports a diverse retail sector, featuring both national chains and locally owned businesses. Community amenities include a fully equipped hospital, parks, sports facilities, and an extensive network of trails that encourage year-round outdoor recreation.

Cultural venues, a public library, and community centres host events and programs that foster a strong sense of community. The town's rich history, thriving economy, and welcoming atmosphere make it an attractive destination for families, retirees, and professionals alike.

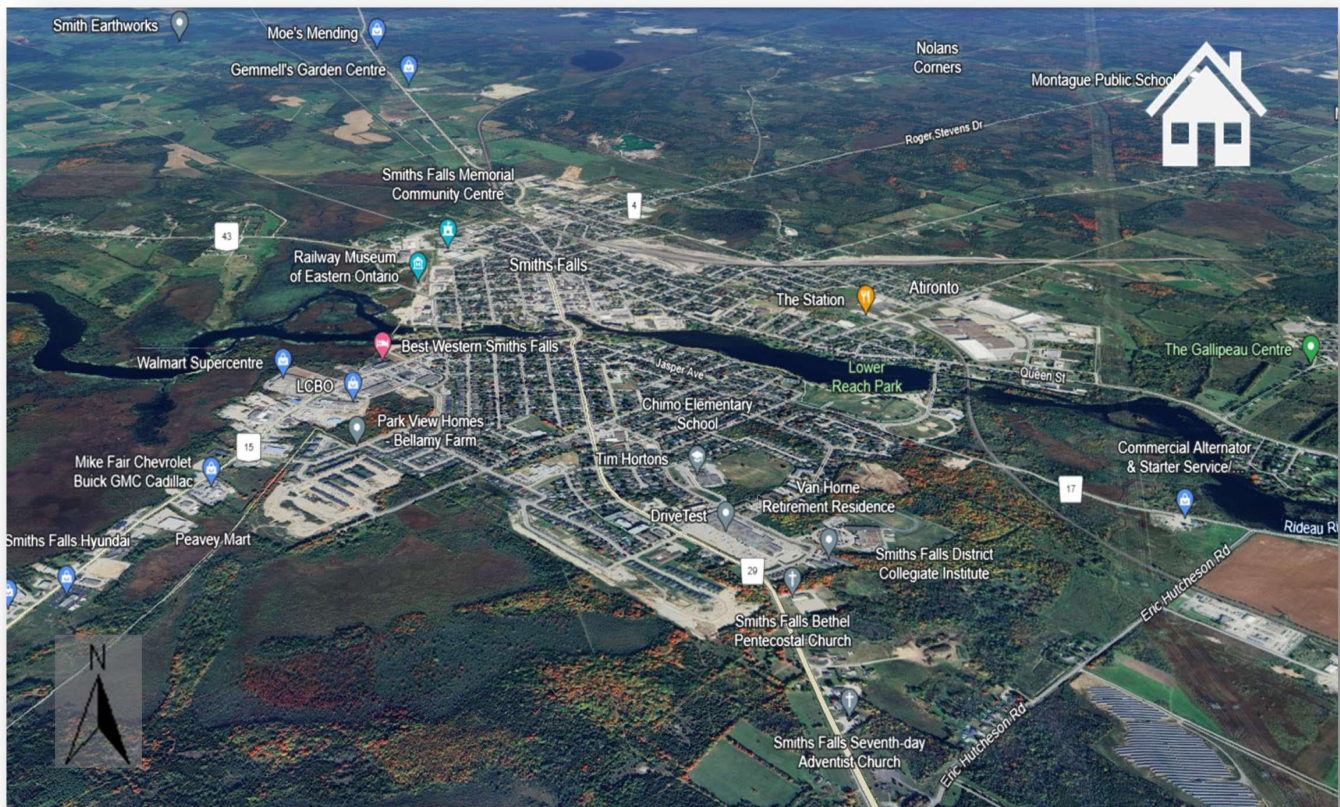


Figure 5: Proximity to Smiths Falls

1.3.3 Road Connectivity

The subdivision benefits from strong road connectivity, providing residents with convenient access to surrounding communities and regional centres:

- County Road 23 (Rosedale Road): Provides direct access to Smiths Falls and its full range of services and amenities.
- Highway 15: Connects residents to Brockville to the southeast and Perth to the west, supporting access to additional employment and service centres.
- Highway 29: Links the area to Carleton Place, which offers further amenities and regional services.
- Highway 416: Accessible via Highway 43, this highway provides a direct route to Ottawa, with a travel time of approximately one hour.
- Highway 401: Proximity via Highway 29 facilitates regional access to Cornwall and destinations across eastern Ontario.

This strategic location allows residents to benefit from a rural living environment while maintaining access to employment, shopping, educational, and recreational opportunities throughout Lanark County and beyond.

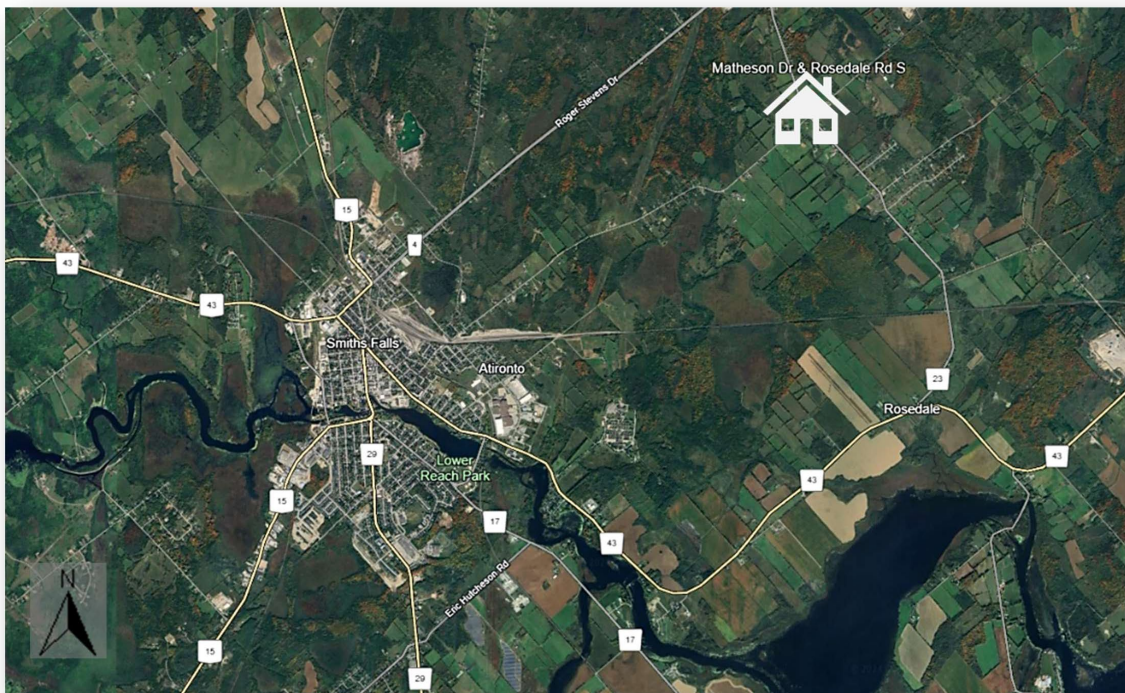


Figure 6: Road Connectivity

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2.0 PROPOSED DEVELOPMENT AND DESIGN BRIEF

The proposed development entails the creation of a residential subdivision on the Matheson and Rosedale property, currently a naturalized area within Montague Township. The subdivision has been carefully designed to complement the rural character of the surrounding community while accommodating the need for new housing within a designated Settlement Area.

2.1 Subdivision design and layout

The proposed subdivision comprises 41 residential lots, with lot sizes ranging from approximately 4,047 m² to 5,193 m² (meeting or exceeding the minimum one-acre requirement). Lot frontages will vary between 46.0 metres and 108.99 metres, with each lot having direct access to internal local roads. The subdivision layout reflects both efficient land use and sensitivity to environmental features, informed by technical studies and site history.

Key components of the design include:

- **Road Network:** The plan includes a 20-metre right-of-way for internal roads, ensuring sufficient space for safe vehicle movement, future municipal services, and pedestrian pathways. A future road connection is reserved along the eastern boundary to allow for potential phased development and improved neighbourhood connectivity.
- **Stormwater Management:** A stormwater management (SWM) pond will be situated in the southwest corner of the site. The facility is designed to attenuate post-development peak flows, incorporate a forebay for sediment capture, and support water quality objectives. Low-impact development (LID) features, including vegetated swales and filter strips, will be integrated where feasible to maintain pre-development hydrological conditions and enhance runoff quality.
- **Green Space:** Smaller green space areas will be located at subdivision entry points to accommodate community mailboxes and enhance the overall streetscape.
- **Open Space:** An 8,109 m² open space block has been designated at the eastern portion of the site for community use, with the potential inclusion of a communal gazebo or similar passive recreational feature.
- **Vegetation and Site Context:** The subdivision layout reflects the existing site conditions, which include areas of prior vegetation clearing that occurred before the 2024 field season, as documented through aerial imagery and site inspections. Remaining natural features have been considered in the placement of lots, roads, and green space to minimize further disturbance.

Table 1: Proposed Subdivision Metrics

Metric	Minimum	Maximum
Number of Lots	-	41
Lot Size	4,047 m ²	5,193 m ²
Lot Frontage	46.00 m	108.99 m
Lot Depth	59.77 m	82.65 m
Green Space	25,223 m ²	-

2.2 Infrastructure and services

The proposed subdivision will integrate with the existing local road network and utility infrastructure, with planning consideration for both current and future service capacity.

- **Electrical Services:** Hydro One will provide electrical servicing through its subdivision development process. Existing three-phase power is available, and service extensions will be coordinated through Hydro One's standard procedures. The developer's electrical consultant will finalize load calculations and design details during detailed design.
- **Water and Sewage:** Site conditions have been confirmed as suitable for private, individual on-site water and septic systems, as established by the peer-reviewed Hydrogeological Assessment and Servicing Options Statement. Nitrate concentrations were measured at 9.97 mg/L, approaching the Ontario Drinking Water Standard of 10 mg/L, underscoring the importance of proposed mitigation measures such as raised filter beds, deep well casings, and enhanced setbacks between wells and septic systems. Municipal servicing has been deemed infeasible, and private individual servicing represents the only practical and policy-compliant solution for this location.
- **Stormwater Management and Drainage:** Stormwater will be managed through a combination of roadside ditches, culverts, and the dedicated SWM pond designed to control both quality and quantity of runoff. Grading will ensure positive drainage toward the pond, with the final grading plan and SWM design submitted at the detailed design stage. Legal drainage easements will secure downstream drainage routes where necessary. The system is designed to comply with County, RVCA, and provincial standards, including MECP's stormwater guidelines.
- **Access and Circulation:** Primary access will be provided via County Road 23 (Rosedale Road South) and Matheson Drive. The internal road network is designed to meet County and Transportation Association of Canada (TAC) standards, with a slope of 5% confirmed as compliant pending final review by the County.
- **Construction Phase Controls:** During construction, temporary erosion and sediment controls (e.g., straw bale flow dams) will prevent sediment transport along open channels. These

3.0 MARKET NEEDS ANALYSIS

3.1 Housing Demand in Lanark County

Lanark County, including Montague Township and nearby Smiths Falls, continues to experience notable growth in housing demand. This trend is driven by the region's rural character, quality of life, and proximity to urban centres such as Ottawa and Kingston. As of August 2024, the average sale price of a home in Smiths Falls reached approximately \$479,340, representing a 14.1% increase over the previous month and a 20.7% increase over the last quarter. The market remains highly competitive, with 49 new listings in the previous 28 days and average days-on-market near zero, reflecting a rapid pace of sales. (Smiths Falls Real Estate Trends: Housing Market Report, August 2024; zolo.com)

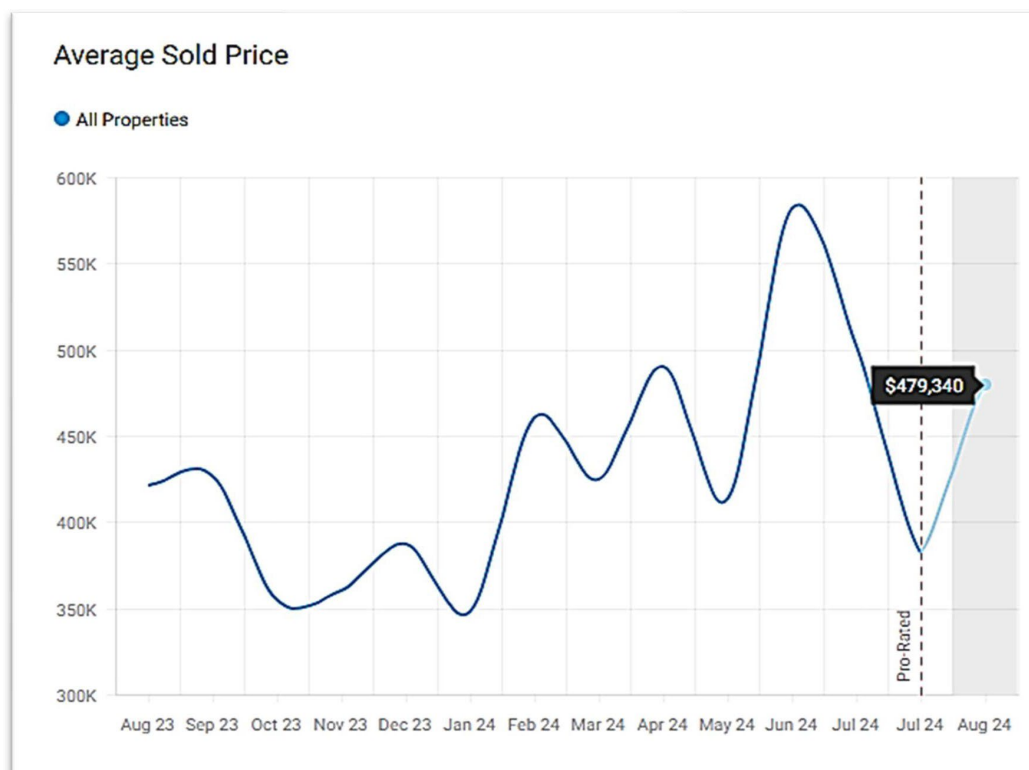


Figure 8: Average Sold Price in Smiths Falls, ON

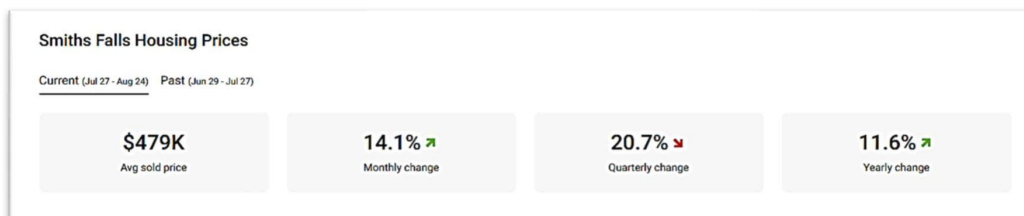


Figure 9: Key Figures in Smiths Falls Housing Market (www.zolo.com)

The median household income in Lanark County is approximately \$97,800, with about 48.5% of Montague Township households earning \$100,000 or more annually. Despite comparatively strong household incomes, rising home prices have placed increasing pressure on housing affordability. The County's homeownership rate of 78%—above the provincial average—underscores the sustained demand for homeownership opportunities. (*Lanark County Economic Development, 2024*)

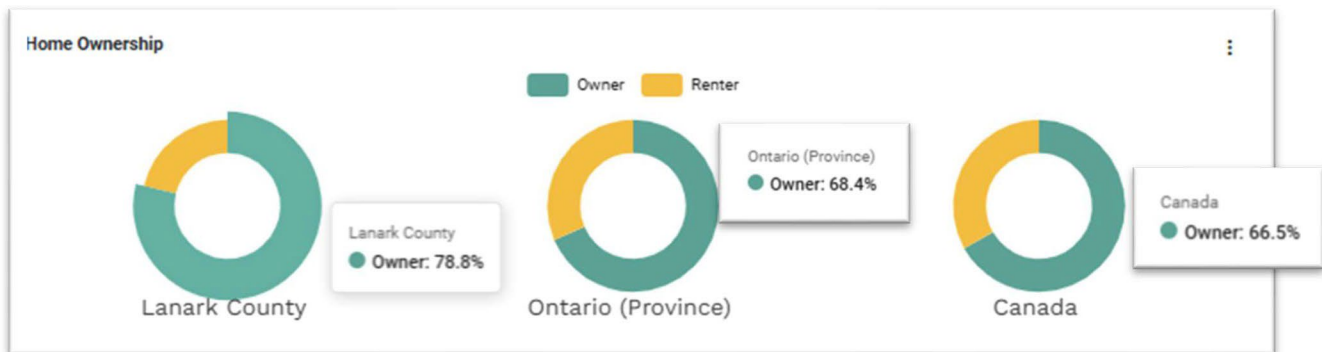


Figure 10: Lanark County Home Ownership Statistics (*Lanark County Economic Development, 2024*)

3.2 Addressing housing supply pressures

The Matheson and Rosedale Subdivision is designed to contribute meaningfully to the region's housing supply through the introduction of 41 rural residential lots. The subdivision offers a mix of lot sizes, accommodating a range of housing preferences that can appeal to first-time buyers, families, retirees, and professionals seeking rural living within commuting distance of Ottawa, Kingston, and Smiths Falls.

While no specific affordable housing commitments are proposed as part of this application, the project will help moderate housing supply constraints in Montague Township and support broader housing objectives set out in County and Township policy frameworks.

3.3 Economic impact and strategic contribution

The proposed subdivision will contribute to the sustainable economic development of Montague Township by increasing the local housing supply, supporting population growth, and providing opportunities for local employment during the construction phase. By expanding housing options, the project aligns with the objectives of Lanark County's 10-Year Housing and Homelessness Plan, which emphasizes the need for a broader and more diverse housing stock to meet current and future demand. (*County of Lanark, 2021*)

4.0 REGULATORY REVIEW

4.1 Planning Act R.S.O. 1990, c. P.13

The proposed Matheson and Rosedale Subdivision has been designed in accordance with the Planning Act, R.S.O. 1990, c. P.13. Section 1.1 of the Act identifies the purposes of land use planning legislation, including *“to promote sustainable economic development in a healthy natural environment within the policy and by the means provided under this Act”* and *“to provide for planning processes that are fair by making them open, accessible, timely and efficient”*. The subdivision promotes these purposes by supporting the orderly expansion of the Rosedale Settlement Area and integrating with existing land uses along Rosedale Road and Matheson Drive.

In keeping with Section 2 of the Planning Act, the development addresses several matters of provincial interest. These include *“the protection of ecological systems, including natural areas, features and functions”* [Section 2(a)]; *“the protection of the agricultural resources of the Province”* [Section 2(b)]; *“the orderly development of safe and healthy communities”* [Section 2(h)]; *“the protection of public health and safety”* [Section 2(o)]; and *“the appropriate location of growth and development”* [Section 2(p)]. The proposal achieves these objectives by directing residential growth to a designated settlement area, avoiding significant natural features, and implementing stormwater and servicing strategies that protect public health and environmental integrity.

Further, the draft plan meets the requirements of Section 51 of the Planning Act concerning subdivision approvals. The subdivision layout supports the *“orderly development of safe and healthy communities”* [Section 2(h)] by ensuring appropriate lot configurations, internal road connections, and integration with surrounding land uses. Parkland requirements under Section 51.1 will be satisfied through cash-in-lieu contributions, enabling the Township to invest in local recreational amenities.

4.2 Provincial Planning Statement (PPS), 2024

The proposed subdivision has been evaluated for consistency with the Provincial Planning Statement (PPS), 2024, as required under Section 3(5)(a) of the Planning Act, which states that *“a decision of the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Tribunal, in respect of the exercise of any authority that affects a planning matter ... shall be consistent with the policy statements issued under subsection (1) that are in effect on the date of the decision.”*

The subdivision supports the PPS’s focus on orderly growth within settlement areas. Section 2.3.1.1 provides that *“settlement areas shall be the focus of growth and development”*, while Section 2.3.1.2 requires that *“land use patterns within settlement areas shall be based on densities and a mix of land uses which efficiently use land and resources, optimize existing and planned infrastructure and public service facilities, support active transportation, are transit-supportive, and are freight-supportive.”* The proposal responds to these directives by accommodating residential development within the designated Rosedale Rural Settlement Area boundary, utilizing existing transportation corridors (Rosedale Road and

Matheson Drive), and integrating a compact lot layout that supports efficient road access and stormwater management.

With respect to servicing policies, the subdivision is consistent with Section 3.6.1(a), which states:

“Planning for sewage and water services shall accommodate forecasted growth in a timely manner that promotes the efficient use and optimization of existing municipal sewage services and municipal water services.” Although municipal servicing is not available in this location, the PPS allows private services where appropriate. Section 3.6.4 provides that *“individual on-site sewage services and individual on-site water services may be used provided that site conditions are suitable for the long-term provision of such services with no negative impacts.”* A peer-reviewed Hydrogeological and Servicing Study (2024) confirmed that site conditions are suitable for long-term private servicing, subject to best practices such as raised septic systems and enhanced setbacks to protect groundwater.

The subdivision demonstrates consistency with the PPS’s stormwater management direction. Section 3.6.8 requires that *“planning for stormwater management shall minimize, or, where possible, prevent or reduce increases in stormwater volumes and contaminant loads.”* A detailed Stormwater Management Plan proposes a wet pond with an extended detention basin and forebay to capture sediments, maintain pre-development flows, and ensure water quality, supported by low-impact development (LID) features such as vegetated swales and filter strips. Erosion and sediment control measures will protect adjacent natural features during construction.

In relation to natural heritage, the proposal aligns with Section 4.1.1, which directs that *“natural features and areas shall be protected for the long term.”* Field studies, including an Environmental Impact Study (EIS) peer-reviewed in 2024, confirm that no Provincially Significant Wetlands, significant woodlands, or confirmed Significant Wildlife Habitat occur on site. The subdivision layout avoids unevaluated wetlands and natural heritage edges where feasible, with buffers incorporated into the design. Section 4.1.4 further states: *“development and site alteration shall demonstrate that there will be no negative impacts on natural features or their ecological functions... through avoidance, mitigation, or restoration measures.”* The EIS outlines mitigation measures including wildlife exclusion fencing, timing restrictions on vegetation clearing to protect nesting birds and bats, bat box installation, native pollinator planting, and restoration of disturbed areas.

The subdivision supports land use compatibility, consistent with Section 3.5.1: *“Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants.”* Compliance with Minimum Distance Separation (MDS) guidelines has been addressed to ensure compatibility with nearby agricultural operations.

Finally, the subdivision complies with PPS hazard policies. Section 5.1.1 requires that *“development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage.”* The site avoids flood-prone areas and steep slopes, and stormwater management measures are designed to prevent downstream impacts.

The proposal also reflects provincial policy interests regarding species at risk and ecological linkages. The EIS incorporated review of federal Species at Risk Act (SARA, 2002) protections and the Endangered Species Act (ESA, 2007), with field surveys and habitat assessments confirming no candidate regulated habitat for listed species. Nevertheless, a precautionary approach has been applied, treating the pond and a 30 m buffer as potential Blanding's Turtle habitat, recommending seasonal exclusion fencing, and committing to submit Information Gathering Forms to the Ministry of Environment, Conservation and Parks (MECP) if Species at Risk are encountered during construction.

4.3 Lanark County Sustainable Communities official plan (scop)

4.3.1 Land Use Designation: Settlement Area

The subject lands are designated as Settlement Area in the Lanark County SCOP Schedule A, which encourages compact, efficient, and orderly growth within defined boundaries. *“Efficient development patterns will be encouraged in Settlement Areas to optimize the use of land, resources, infrastructure and public service facilities”* (SCOP Section 2.3.1(5)). The proposed Matheson and Rosedale Subdivision conforms with this policy by promoting efficient use of land within the Settlement Area, aligning with servicing capacity and community structure objectives.

The subdivision provides for a mix of lot sizes and housing forms consistent with SCOP Section 2.6.1(2), which seeks to *“provide for a range and mix of low, medium and high-density housing types in accordance with servicing capacities.”* The proposed development will optimize land use, support sustainable infrastructure, and contribute to Montague Township's long-term residential growth objectives.

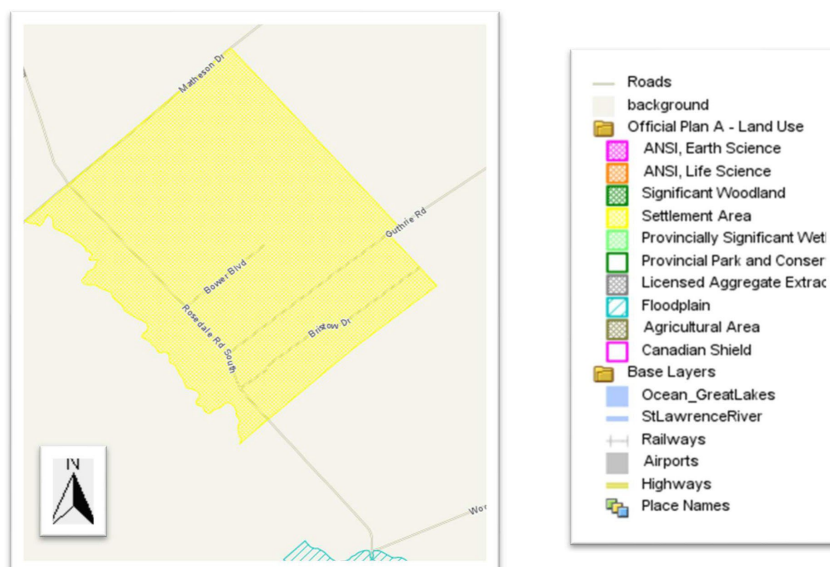


Figure 11: Schedule A - Lanark Official Plan

4.3.2 Implementation Framework

The proposed subdivision aligns with SCOP implementation policies as summarized below:

Criteria	SCOP Quoted Policy	Subdivision Compliance
Definition and Zoning of Settlement Areas	<i>“Settlement Areas shall be defined through local Official Plans and municipal zoning by-laws. Local Councils shall zone land for specific types of residential uses and shall ensure that permitted non-residential uses are appropriately zoned.”</i> (SCOP Section 2.6.2.1)	The subdivision is within a defined Settlement Area and is the subject of a concurrent Zoning By-law Amendment to facilitate residential use.
Regulation through Zoning By-laws and Site Plan Control	<i>“Local Councils through the development of municipal zoning by-laws and the application, where required, of site plan control, shall regulate the development of settlement areas.”</i> (SCOP Section 2.6.2.3)	Development will be regulated through applicable zoning by-laws and site plan control where required.
Permit and Zone Range of Housing Types and Sizes	<i>“Permit and zone a range of residential housing types and sizes.”</i> (SCOP Section 2.6.2.4(1))	The subdivision provides varied lot sizes and supports a range of housing forms.
Ensure Development Proceeds with Appropriate Services	<i>“Ensure development can proceed on appropriate and verified water, wastewater, stormwater, and transportation services.”</i> (SCOP Section 2.6.2.4(2))	The proposal proceeds with verified services, including peer-reviewed hydrogeological, stormwater, and traffic assessments.
Permit Accessory Apartments	<i>“Permit accessory apartments in accordance with section 16(3) of the Planning Act.”</i> (SCOP Section 2.6.2.4(7))	The subdivision allows potential for accessory apartments in accordance with local policy.
Provide Open Space and Parkland	<i>“Provide for open space and parkland and the protection of natural heritage features.”</i> (SCOP Section 2.6.2.4(8))	The development provides designated open space and cash-in-lieu contributions for parkland.
Allow Residential Infill and Redevelopment	<i>“Allow residential infill and redevelopment provided there is sufficient reserve capacity in water and wastewater facilities.”</i> (SCOP Section 2.6.2.4(9))	The subdivision represents a logical extension of existing development patterns within the Settlement Area.

4.3.3 Natural Heritage Protection

The proposed subdivision is consistent with SCOP Section 5.0 (Natural Heritage). The Environmental Impact Study (EIS), peer-reviewed in 2024, confirmed that no Provincially Significant Wetlands, Significant Wildlife Habitat, or significant natural linkages are present within the subject lands or adjacent 120 m study area. The design avoids fragmentation of natural linkages and integrates stormwater and habitat mitigation measures. *“Development and site alteration shall not be permitted in Provincially Significant Wetlands and in significant habitat of endangered or threatened species.”* (SCOP Section 5.5.1, 5.5.2). The subdivision complies through avoidance, buffer zones, and mitigation measures for Species at Risk.

4.3.4 Source Water Protection

The subject property is shown within a Wellhead Protection Area (WHPA) on SCOP Schedule B, with a vulnerability score of less than 8, reflecting natural protective barriers and longer contaminant travel times. This WHPA designation recognizes the County’s obligation under SCOP Section 5.5.8 to consider the impact of development on surface water and groundwater resources to ensure their long-term viability.

It is noted that a discrepancy exists between SCOP Schedule B mapping and the more recent Source Protection Plan mapping from the Mississippi-Rideau Source Protection Region, which indicates the subdivision site is not within a high-risk area requiring a Risk Management Plan under the Clean Water Act. This may be due to differences in mapping methods or data updates.

Regardless of mapping discrepancies, the proposed development applies best management practices consistent with SCOP Section 5.5.8. This includes a Source Water Protection Checklist (Appendix A), stormwater controls designed to protect water quality, and a commitment to collaborate with the County and Source Protection Authority to address any additional requirements.

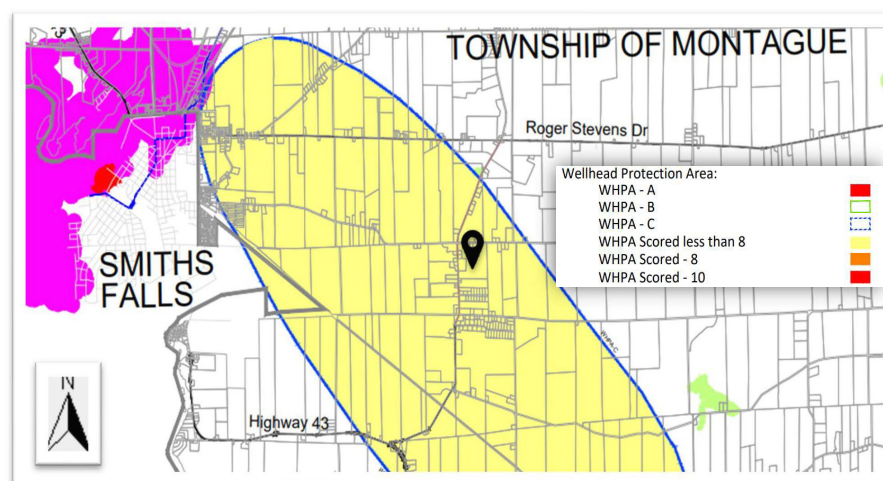


Figure 12: Lanark Official Plan - Schedule B

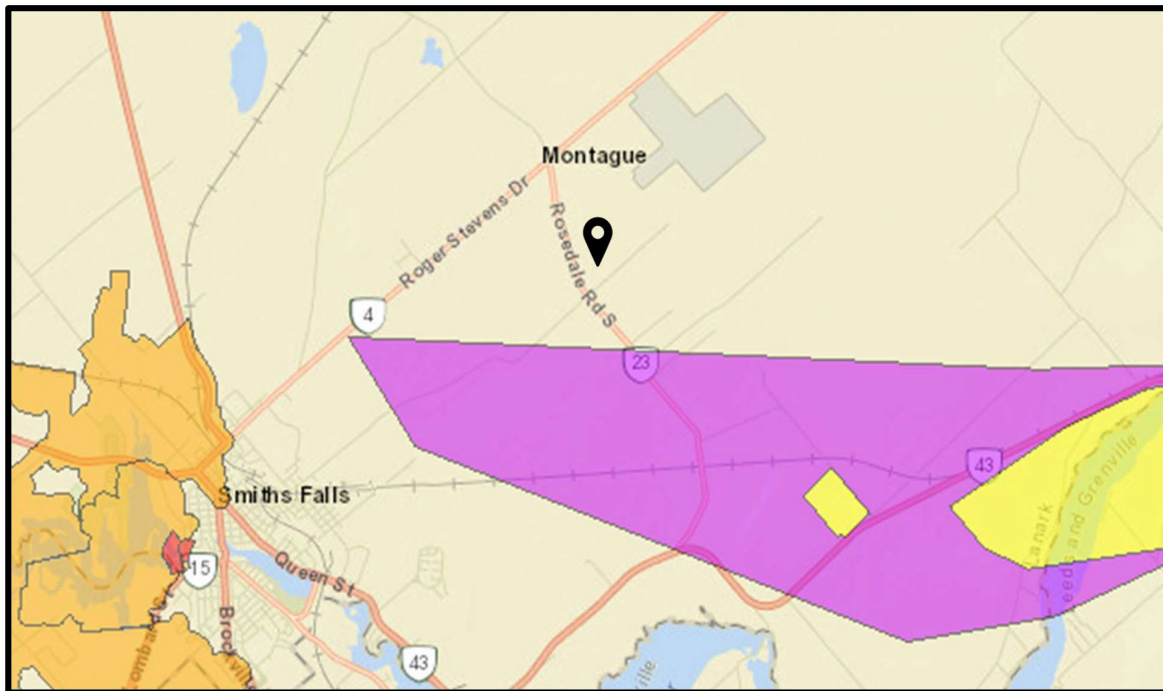


Figure 13: Wellhead Protection Area Mapping from Mississippi-Rideau Source Protection Region

4.3.5 Infrastructure, Stormwater, and Climate Resilience

The proposed stormwater management plan aligns with SCOP Section 4.0 (Infrastructure) and Section 7.0 (Public Health and Safety). The design incorporates a wet pond with sediment forebay, low-impact development features (e.g., swales, filter strips), and erosion control measures. These systems are designed to maintain pre-development hydrology, support climate resilience, and protect downstream properties. *“Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage.”* (SCOP Section 7.0). The proposal achieves these objectives through engineered mitigation.

4.3.6 Commitment to Due Diligence

The subdivision complies with SCOP environmental, servicing, and growth management objectives. It reflects the outcomes of consultation with Montague Township and peer reviewers, incorporates EIS recommendations, and commits to implementing best practices for source water protection, habitat restoration, and sustainable infrastructure. This ensures that the development proceeds responsibly and in the public interest.

4.4 Township of Montague Official Plan (2023 consolidation)

The proposed Matheson and Rosedale Subdivision has been carefully designed to align with the Township of Montague's Official Plan (2023 Consolidation). The subdivision represents a logical and responsible form of residential growth within the Rosedale Settlement Area, contributing to the Township's objectives for sustainable, orderly development. The proposal reflects sound planning principles by integrating with existing community structure, servicing, and natural features while addressing environmental protection and land use compatibility requirements.

4.4.1 Land Use Designation: Settlement Area

The subject lands are designated as Settlement Area on Schedule A of the Montague Official Plan. The Rosedale Settlement Area is identified as having significant capacity to accommodate new growth given its residential character, proximity to amenities, and central location in the Township. As stated in the Official Plan:

"By virtue of its existing residential character, the presence of the community hall, proximity to the public school, and its central location to the Township, Rosedale is viewed as having the greatest potential to accommodate new growth." (Montague OP, Section 1.3.2 – Basis of the Plan)

The proposed subdivision is consistent with these objectives, providing new residential lots that make efficient use of land, support community vitality, and contribute to the Township's long-term growth strategy in accordance with *Section 3.7 Settlement Area Policies*.

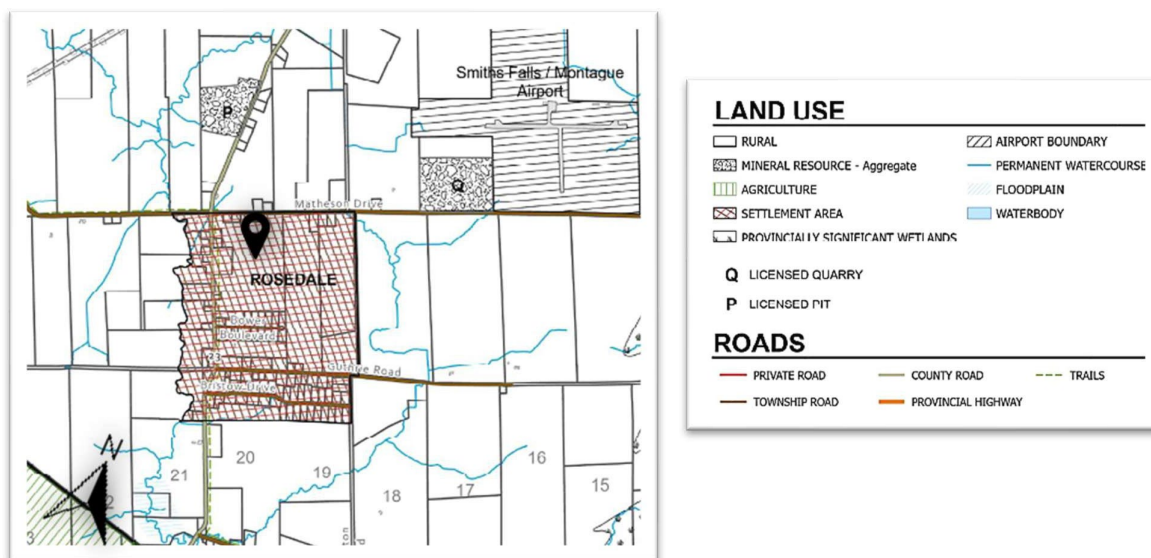


Figure 14: Montague Official Plan, Schedule A: Land Use Designation

4.4.2 Constraints and Opportunities: WHPA-C (Vulnerability Score 4)

The Montague Official Plan designates the site within a *Wellhead Protection Area C* (WHPA-C) with a vulnerability score of 4. As acknowledged in Section 5.3.4 of this report, there is a mapping discrepancy between the Official Plan and the Source Protection Plan, but the subdivision nonetheless demonstrates consistency with the applicable source water protection policies. In accordance with *Section 2.22.2(2)*:

“In the Intake Protection Zone and Wellhead Protection Area, applications under the Planning Act and Building Code Act will require a clearance notice from the Risk Management Official (RMO)... An application may proceed without a notice from the RMO if the applicant demonstrates to the satisfaction of the planning authority or the Chief Building Official that a designated drinking water threat activity will not be engaged in. A Source Water Protection Checklist can be used for this purpose.”

The development includes the completion of a Source Water Protection Checklist (Appendix A) and demonstrates that no drinking water threat activities will occur, ensuring protection of the municipal drinking water supply.

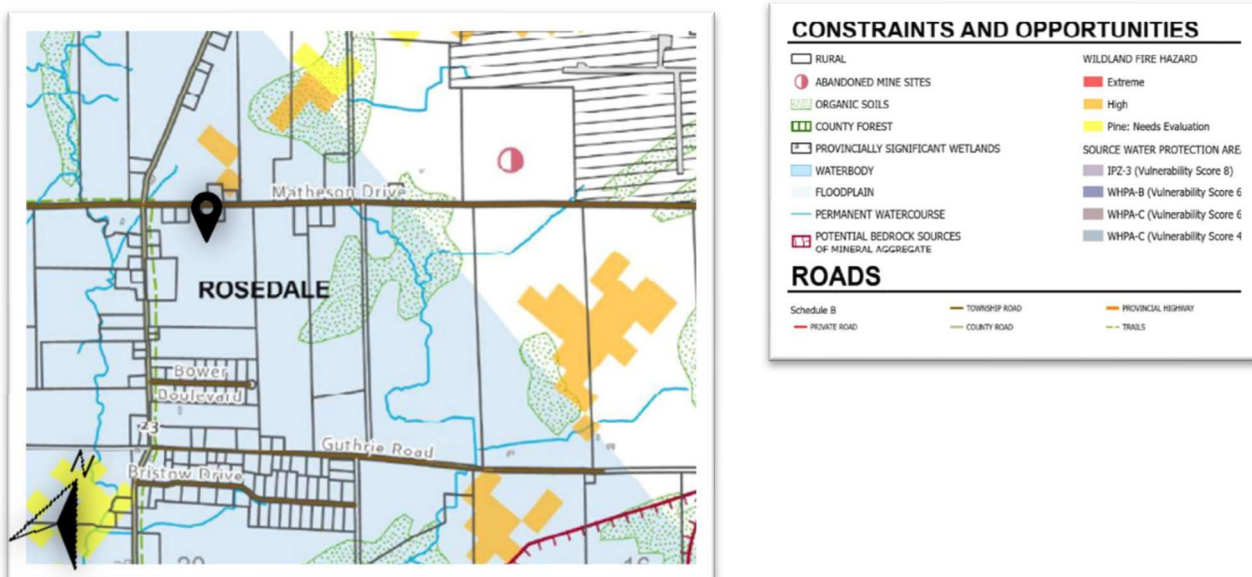


Figure 15: Montague Official Plan, Schedule B: Constraints and Opportunities

4.4.3 Natural Heritage System

The southwest corner of the site is adjacent to lands identified as *Significant Wildlife Habitat* and *Natural Corridor* in the Official Plan. The subdivision was planned to avoid impacts on these features, consistent with Section 2.21.4(5):

“The Township seeks to preserve the function of significant wildlife habitat without unduly restricting development. Accordingly, prior to permitting any development or site alteration [...] the approval authority shall require an environmental impact assessment demonstrating that no negative impacts on the natural features or their ecological functions.”

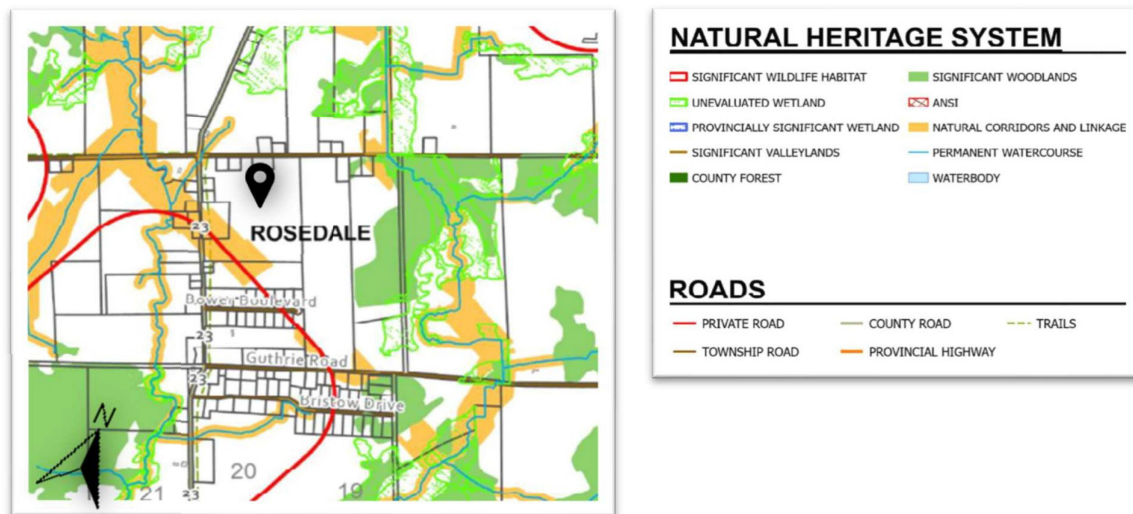


Figure 16: Montague Official Plan, Schedule C: Natural Heritage System

An Environmental Impact Study (EIS) was completed and peer-reviewed. The EIS confirmed:

- No suitable habitat or functional movement corridor exists on the subject lands.
- The small on-site pond does not qualify as significant amphibian wetland breeding habitat (being under 500 m²).
- The subdivision will not negatively affect significant wildlife habitat or natural corridor functions.

4.4.3.1 Natural Heritage Policies – Sections 2.21.4 to 2.21.8

The proposed subdivision has been evaluated for consistency with the Township of Montague’s natural heritage policies as set out in Sections 2.21.4 through 2.21.8 of the Official Plan (2023 Consolidation). These sections provide detailed direction regarding development adjacent to significant wildlife habitat, endangered and threatened species habitat, significant woodlands, and the requirement for Environmental Impact Assessments (EIAs) when development is proposed within 120 metres of such features. The southwest portion of the subject lands lies adjacent to a designated Natural Corridor and lands identified as containing Significant Wildlife Habitat, as shown on Schedule C of the Official Plan.

Accordingly, a scoped Environmental Impact Study (EIS) was completed by a qualified ecological consultant and peer reviewed on behalf of the Township.

The EIS confirmed that the proposed subdivision has been designed to avoid direct impacts on any natural heritage feature. Although adjacent to mapped habitat areas, no significant movement corridors, breeding features, or sensitive species habitats were identified on-site through two-season fieldwork and acoustic monitoring. The study also addressed potential presence of Species at Risk, including turtles and avian species, and found no evidence of critical habitat within the development envelope. Mitigation measures—such as vegetative buffers, timing restrictions, and avoidance of sensitive periods—have been recommended in accordance with best practices and satisfy the requirements of Sections 2.21.4 (Significant Wildlife Habitat), 2.21.5 (Endangered and Threatened Species Habitat), and 2.21.6 (Significant Woodlands), recognizing that no development is proposed within the feature itself and that adjacent land functions are not anticipated to be negatively impacted.

As required under Section 2.21.8, the EIS was prepared to a scope consistent with the scale of the development and nature of the adjacent features. While a formal Terms of Reference was not issued by the Township or RVCA, the scope and methodology of the EIS reflect provincial guidance, and the peer review process has confirmed that the assessment is sufficient. As such, the proposed subdivision satisfies the Official Plan's natural heritage protection policies and demonstrates that no negative impacts will result from the proposed development.

4.4.4 General Policies for Land Division

Criteria	Quoted Policy	Subdivision Compliance
Lot Size & Frontage	<i>"The frontage, size and shape of any lot created shall be appropriate for the proposed use and conform to the provisions of the Zoning By-law..." (5.2.2(1))</i>	Lots are appropriately sized and zoned for residential use.
Avoid Landlocking	<i>"No land division shall result in the landlocking of any parcel of land..." (5.2.2(3))</i>	All lots have adequate road frontage and access.
Vehicular Access	<i>"No land division shall be permitted where safe vehicular access [...] cannot be provided..." (5.2.2(4))</i>	Safe access is provided to all lots.
Financial Impact	<i>"No land division shall create a financial burden on the Township..." (5.2.2(5))</i>	The subdivision integrates with existing services without undue cost.
Parkland Dedication	<i>"All land division shall meet the requirements of this Plan for parkland..." (5.2.2(6))</i>	Cash-in-lieu of parkland will be provided.
Compatibility	<i>"All land division shall address land use separation and compatibility..." (5.2.2(7))</i>	The subdivision includes buffers to ensure compatibility.

Natural Hazards	<i>"No land division shall result in the creation of a lot subject to natural hazards..." (5.2.2(8))</i>	The plan avoids natural hazard areas.
Natural Features	<i>"No land division shall result in a negative effect on natural features..." (5.2.2(10))</i>	Natural features are preserved through design and mitigation.
Heritage / Archaeology	<i>"Regard shall be had to Cultural Heritage and Archaeological Resources..." (5.2.2(11))</i>	An archaeological assessment was completed.
Services	<i>"All land division shall comply with the Ground Water Supply, Sewage Disposal and Other Services section..." (5.2.2(12))</i>	Water and sewage services comply with policy.
Road Widening	<i>"Road widening dedications may be requested..." (5.2.2(14))</i>	The design accommodates potential road widening.
Vegetation	<i>"The preservation of existing vegetation... may be a condition..." (5.2.2(15))</i>	Mature trees and vegetation are preserved where feasible.

4.4.5 General Policies for Subdivisions

Criteria	Quoted Policy	Subdivision Compliance
Permitted Area	<i>"Development by plan of subdivision shall be permitted in the Settlement Area..." (5.2.5(1))</i>	The site is within the Settlement Area.
Public Road Access	<i>"Access shall be from a maintained public road..." (5.2.5(2))</i>	Access is via County Road 23 and Matheson Drive.
Internal Roads	<i>"Access to individual lots [...] shall be by internal public roads..." (5.2.5(3))</i>	Internal roads meet Township standards.
Highway Adjacency	<i>"Lots should back onto highways and front onto internal streets..." (5.2.5(4))</i>	The design respects this guideline.
Road Layout	<i>"Avoid cul-de-sacs where possible..." (5.2.5(5))</i>	Road layout minimizes cul-de-sacs and allows future connections.
Parkland	<i>"Preference for parklands with connections..." (5.2.5(6))</i>	Cash-in-lieu will be provided; linkages to recreation considered.
SWM	<i>"All plans shall comply with SWM policies..." (5.2.5(7))</i>	The plan includes a comprehensive stormwater management system.

Services	<i>"Meet groundwater and sewage requirements..." (5.2.5(8))</i>	The subdivision complies with servicing requirements.
Phasing	<i>"Phasing may be required for orderly, cost-efficient development." (5.2.5(9))</i>	Phasing has been considered and will be finalized with subdivision approval.

4.5 Township of Montague Comprehensive Zoning By-law No. 4070-2024

4.5.1 Zoning Designation

The subject lands are currently zoned Rural (RU) under the Township of Montague Comprehensive Zoning By-law No. 4070-2024 and fall within the Settlement Area designation of the Township's Official Plan. Portions of the site are also subject to the Source Water Protection Overlay Zone (WHPA-C, Vulnerability Score 4) as shown on Schedules A and A1 of the Zoning By-law.

To enable the proposed 41-lot residential subdivision, a Zoning By-law Amendment is required to:

- Rezone the lands from Rural (RU) to Rural Residential (RR) to permit low-density residential development;
- Introduce a site-specific exception to the RR Zone to permit a minimum lot frontage of 46.0 metres on 24 of the proposed lots, representing a 20% reduction from the 50.0 metre standard; and
- Rezone the proposed Green Space blocks and the Stormwater Management Pond block to Open Space (OS) to ensure the zoning reflects the intended passive recreational and infrastructure-support uses permitted within the OS Zone.

These zoning changes are required to ensure full compliance with the By-law and to implement the land use structure envisioned through the subdivision design.

4.5.2 Source Water Protection Overlay Zone (Section 5.8)

In accordance with Section 5.8 and Section 4.29 of Zoning By-law 4070-2024:

"This Section applies to lands within the Source Water Protection Overlay Zone as shown on Schedules A and A1 of this By-law. On these lands, the following provisions shall apply: All applications for development within the Source Water Protection Overlay shall be accompanied by a completed 'Source Water Protection Checklist' unless exempted by the Municipality and/or the Risk Management Official (RMO)."

The completed Source Water Protection Checklist is included in Appendix A. The subdivision does not propose any prohibited or restricted uses within the WHPA-C area and complies with all relevant overlay zone requirements.

4.5.3 Compliance with Rural Residential (RR) Zone Requirements

Provision	Requirement	Compliance
Lot Area (min)	0.4 ha (1.0 acre)	Yes – all proposed lots meet or exceed the minimum lot area
Lot Frontage (min)	50.0 m	No – 24 of 41 lots require a site-specific exception (min. 46.0 m)
Front Yard (min)	3.0 m or match average of adjacent lots	Yes – will comply per Section 4.8
Exterior Side Yard (min)	10.0 m	Yes
Interior Side Yard (min)	6.0 m	Yes
Rear Yard (min)	7.5 m	Yes
Building Height (max)	10.0 m	Yes
Lot Coverage (max)	20%	Yes

4.5.4 General Zoning Provisions Compliance

Zoning Criteria	By-law Reference	Compliance
Frontage on an Improved Street	<i>“No lot shall be used, and no building or structure shall be erected on a lot in any zone unless such lot has sufficient frontage on an improved street to provide driveway access directly onto the street. Notwithstanding the foregoing, this provision shall not apply to: A lot on a registered plan of subdivision with frontage on a street which will become an improved street pursuant to provisions in, and financial security associated with, a subdivision agreement that is registered on the title to the lot.” (Section 4.9)</i>	Subdivision plan ensures all lots front on improved streets or streets secured by subdivision agreement.
Sight Triangles	<i>“Notwithstanding any provisions of this By-law to the contrary, within any area defined as a sight triangle, the following uses shall be prohibited: A building, structure or use which would obstruct the vision of</i>	Site design prevents obstruction of sight triangles; no buildings or

	<i>motorists; A fence or any vegetation of a height which is more than 1 m above the elevation of the centrelines of abutting streets; A parking or loading area.” (Section 4.27)</i>	vegetation will impede motorist visibility.
Site Plan Control	<i>“No development shall take place on any parcel of land designated as a Site Plan Control Area in the Site Plan Control By-Law passed under the Planning Act, unless the Corporation has approved such plans and drawings required under the provisions of the Site Plan Control By- Law.” (Section 4.28)</i>	Development will be subject to Site Plan Control as required; detailed design to be submitted at appropriate stage.
Street Setbacks	<i>“The following setbacks shall be required: County Street - 13 m from the center line of the street plus the minimum required yard for the appropriate zone.” (Section 4.30)</i>	All street setbacks conform: 13.0 m from centreline of County Road + minimum required yard.
Separation Distances	<i>“Notwithstanding any other provisions of this By-law, any new sensitive land use shall be located minimum distances from certain zones or land uses on other lots as follows: From a quarry or asphalt plant: 500 m” (Section 4.24)</i>	Sensitive land uses (dwellings) are located >1000 m from quarry, exceeding 500 m minimum.
Parking Requirements	<i>“One and two-unit dwellings: 1 parking space per dwelling unit; Minimum dimensions: 2.75 m x 6 m (3.7 m x 6 m for accessible spaces); Max width: 9 m; Min width: 6 m for two-way traffic; 3 m for one-way traffic. Parking areas shall have a stable surface such as concrete, asphalt, or crushed stone.” (Section 4.22)</i>	1 parking space per dwelling unit provided; spaces meet or exceed size standards; stable surface (asphalt, concrete, or crushed stone) provided.

4.5.5 Proposed Zoning By-law Amendment

The subject lands are currently zoned Rural (RU) under the Township of Montague Comprehensive Zoning By-law No. 4070-2024. To permit the proposed 41-lot residential subdivision within the Rosedale Settlement Area, a Zoning By-law Amendment is required to rezone the developable portion of the lands to the Rural Residential (RR) Zone. In addition, site-specific exceptions are proposed to accommodate minor frontage deficiencies on a subset of lots, and the green space and stormwater management components of the subdivision are proposed to be rezoned to the Open Space (OS) Zone.

While the technical reports submitted in support of the proposed subdivision, including the Functional Servicing and Stormwater Management Report, are premised on the development of single detached dwellings, it is noted that the Rural Residential (RR) Zone under Zoning By-law No. 4070-2024 permits

Additional Residential Units (ARUs) subject to the provisions of Section 4.3. On page 12 of the supporting Hydrogeology report, Cambium notes that the imperviousness calculations for the post-development water balance included an *“impervious area buffer”* to allow for *“larger house footprints and outbuildings such as additional residential units, detached garages, or sheds that may be considered at full build-out.”* An extra 95 m² per lot was added to represent that possibility. The later nitrate impact analysis (Section 5.2–5.4) confirms that, even with that expanded impervious area, predicted nitrate concentrations remain below the 10 mg/L ODWQS limit, demonstrating that ARUs can be supported within the current servicing and hydrogeological constraints.

The Rural Residential (RR) Zone establishes a minimum lot area of 0.4 hectares and a minimum lot frontage of 50.0 metres. While all proposed lots comply with the minimum area requirement, 24 of the 41 lots have lot frontages less than 50.0 metres due to the internal subdivision layout, curvilinear road design, and efforts to balance lot fabric with topographic and environmental constraints. These frontage reductions are modest and reflect good planning practice for low-density rural residential development. To address this, the proposed Zoning By-law Amendment introduces a site-specific exception zone (RR-XX) to permit a minimum lot frontage of 46.0 metres for Lots 2–11, 19, 20, 24, 27–34, and 39–40 on the Draft Plan. This represents a 20% reduction from the standard requirement and allows the subdivision to maintain a consistent and cohesive built form while achieving efficient land utilization.

The amendment also proposes to rezone all lands identified for stormwater management and public green space to the Open Space (OS) Zone. This includes the central stormwater management block and associated green space buffers throughout the subdivision. The OS Zone permits stormwater facilities, open space linkages, trails, and passive recreational uses, which align with the intended function of these blocks as shown on the Draft Plan. Rezoning these areas ensures that future ownership, land use permissions, and long-term maintenance responsibilities are clearly established in the implementing by-law and consistent with the subdivision agreement.

The proposed Zoning By-law Amendment and associated site-specific exception are consistent with the purpose and intent of the Township’s Zoning By-law and conform with the land use policies of the 2024 Provincial Planning Statement and the 2023 Township of Montague Official Plan. The amendment enables responsible, well-designed residential development within a designated Settlement Area while incorporating appropriate environmental protection measures, compatibility with surrounding rural lands, and implementation of subdivision servicing and stormwater management infrastructure.

4.6 Land Use Compatibility and Agricultural Adjacency

While the proposed subdivision is located within the Rosedale Settlement Area and is therefore exempt from the requirement to conduct Minimum Distance Separation (MDS) calculations under OMAFRA’s MDS I Guidelines, the proximity of active agricultural operations to the subject lands cannot be disregarded. In response to peer review comments from the Township of Montague and Lanark County, this application provides a detailed acknowledgment of surrounding agricultural uses and associated compatibility considerations.

Aerial imagery confirms the presence of multiple agricultural operations in close proximity to the development site, particularly to the south, west, and east. These operations include farm structures such as barns and outbuildings, visible manure storage areas, fenced paddocks, and open pastureland, indicative of active livestock activity. These uses may give rise to typical farm-related impacts such as odour, noise, equipment traffic, and seasonal nutrient application. While no intensive livestock operations were identified within the MDS I influence area (i.e., 300 m for Class II operations), the normal farm practices associated with these rural properties are protected under the Farming and Food Production Protection Act, 1998 and must be anticipated in the design and community expectations for the subdivision.

Although formal MDS setbacks do not apply within designated Settlement Areas, the proposed subdivision integrates compatibility measures in alignment with the broader intent of land use compatibility principles under the Provincial Planning Statement (PPS), 2024. Section 3.5.1 of the PPS provides that:

“Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants.”

While agricultural uses are not formally classified as "major facilities," the spirit of this policy supports proactive planning to address potential interface conflicts. In this case, the subdivision incorporates the following compatibility measures:

- Physical separation: County Road 23 (Rosedale Road South) and Matheson Drive provide natural separation between residential lots and adjacent agricultural lands to the west and north.
- Vegetative buffering and setbacks: Where natural treelines or hedgerows exist, these features are retained to provide a visual and sensory buffer.
- Open space allocation: Internal design includes open space blocks and lot setbacks that further reduce the interface between homes and adjacent farmland.

These measures reflect good planning practice and demonstrate a reasonable effort to respect the established agricultural character of the area. In addition, it is anticipated that future homeowners will be informed of the site's rural context as part of the subdivision approval and lot sales process. Disclosure of adjacent farm activity can be facilitated through builder materials, subdivision agreements, or sales documentation, in order to manage expectations and reduce the potential for nuisance-related complaints.

In conclusion, while MDS calculations are not required, the Applicant has demonstrated awareness of and responsiveness to the surrounding agricultural landscape. The subdivision design integrates practical land use compatibility measures and supports a balanced approach that promotes rural housing growth while preserving the viability of agricultural operations in Montague Township.

5.0 SUPPORTING STUDIES

5.1 Hydrogeological Assessment Report and Servicing Options Statement

This section provides a detailed summary of the Hydrogeological Assessment Report prepared by Cambium Inc., integrated with a Servicing Options Statement in accordance with the Ministry of the Environment, Conservation and Parks (MECP) *D-5-3 Guidelines*. The purpose is to demonstrate the feasibility and appropriateness of private servicing for the proposed Matheson and Rosedale Subdivision, comprising 41 residential lots within the Rosedale Settlement Area of Montague Township. The assessment addresses compliance with applicable planning policies, including the *Provincial Policy Statement (PPS 2024)*, the *Lanark County Sustainable Communities Official Plan (SCOP)*, the *Montague Township Official Plan*, and applicable Source Water Protection requirements.

The Hydrogeological Assessment confirms that the site conditions are suitable to support individual private wells and raised filter bed septic systems. Site investigations—including test well drilling and percolation testing—found shallow overburden soils with bedrock encountered between 0.8 and 1.5 metres below grade. Cambium’s nitrate attenuation modelling predicts nitrate concentrations at the downgradient property boundary will remain below the *Ontario Drinking Water Quality Standard* of 10 mg/L, with a projected concentration of 9.97 mg/L. Although this value approaches the limit, the implementation of best management practices (BMPs)—including raised filter beds, enhanced separation distances, and strategic placement of systems—will safeguard groundwater quality over the long term.

Groundwater yield testing confirmed that the aquifer can adequately support the subdivision, with test wells producing sustained yields above the MECP *D-5-5 Guidelines* minimum of 18.8 litres per minute. Water quality testing found the groundwater suitable for potable use, apart from elevated hardness typical of the region; water softeners are recommended. No significant concerns regarding sulphates, iron, or manganese were identified. The report further confirms that groundwater flow follows topography toward Rosedale Creek and that no karst features are present, ruling out geotechnical risks associated with subsurface dissolution.

Given that the site lies within a Highly Vulnerable Aquifer (HVA) and a Wellhead Protection Area (WHPA-D), Cambium emphasizes strict adherence to BMPs, including deep well casings (6 to 18 metres), minimum 30-metre setbacks between wells and septic systems, and ongoing groundwater monitoring.

The Servicing Options Statement confirms that all higher-order servicing alternatives have been reasonably examined and ruled out in accordance with MECP *D-5-3 Guidelines*:

- Full municipal services: Not available in the Rosedale Settlement Area; extension from Smiths Falls (approx. 5 km away) is neither economically nor technically feasible for a subdivision of this scale.
- Partial municipal/communal services: Not viable due to the absence of supporting municipal infrastructure and rural development context.

- Private communal systems: Deemed impractical given the high capital and maintenance costs, ownership complexities, and rural settlement character.

Accordingly, private individual on-site sewage and water systems remain the only appropriate servicing solution. This conclusion is consistent with *PPS 2024* Section 3.6.4, which permits individual on-site systems where site conditions are suitable and negative impacts are not anticipated. The *SCOP* (Section 3.3.2(c)) and the *Montague Township Official Plan* (Section 5.2.5(8)) similarly support private servicing in such contexts, provided long-term viability is demonstrated. The Cambium report, together with stormwater and grading strategies identified in the Environmental Impact Study (EIS)—including a wet pond, vegetated swales, and filter strips—demonstrate that the proposed servicing approach meets these criteria while protecting surface and groundwater resources.

The development will comply with Source Water Protection requirements, including completion of the Source Water Protection Checklist and adherence to Risk Management Official (RMO) directives. Ongoing coordination with the Township, County, Rideau Valley Conservation Authority, and other approval authorities will ensure best practices are maintained throughout detailed design and construction.

5.2 Stormwater Management (SWM)

The stormwater management system for the Matheson and Rosedale Subdivision is designed to satisfy the requirements of the Ministry of the Environment, Conservation and Parks *Stormwater Management Planning and Design Manual (2003)*, the *Rideau Valley Conservation Authority (RVCA)*, and the *County of Lanark*. The system is anchored by a wet detention pond with an active storage volume of 7,656 cubic metres, designed to attenuate post-development peak flows so that outflows do not exceed pre-development rates for storm events up to and including the 100-year return period.

Water quality objectives are addressed through a combination of structural and non-structural Low Impact Development (LID) features. The pond integrates a sediment forebay, permanent pool, and extended detention basin. LID measures such as vegetated filter strips, grass swales, and distributed infiltration areas supplement the pond's performance, collectively targeting 80% removal of Total Suspended Solids (TSS), in accordance with provincial and RVCA water quality standards.

Roadside ditches, driveway culverts, and outlet structures have been dimensioned to convey minor (5-year) and major (100-year) storm flows. The outlet infrastructure includes a 400 mm corrugated steel pipe (CSP) at OF-3, subject to final hydraulic modelling confirmation at the detailed design stage to ensure capacity is sufficient under the approved stormwater regime.

Site grading directs overland flows toward the stormwater pond (OF-1), with design grades established to ensure positive drainage away from developed areas and roads, while minimizing ponding. The slope of the proposed access to County Road 23 (Rosedale Road South) has been designed at 5%, consistent with *Transportation Association of Canada (TAC)* guidelines for rural residential roadways; however, final acceptance is pending County review.

Temporary erosion and sediment controls include the installation of seven straw bale flow check dams at designated channel locations. These are specified per *Ontario Provincial Standard Drawing (OPSD) 219.180* and are to be maintained and replaced at 45-day intervals or as required by site conditions throughout construction. These features are temporary and will not form part of the permanent stormwater infrastructure.

Stormwater discharged from OF-1 is conveyed via an existing ditch network toward Rosedale Creek. The downstream pathway currently crosses private property without a registered drainage easement. EFI Engineering, in collaboration with Monument Engineering and municipal staff, will be designing a new runoff pathway westward through Matheson to the natural drainage path of Rosedale Creek in order to ensure no runoff crosses private property.

Additional measures, including potential re-ditching and enhancement of the roadside swale on the west side of Rosedale Road South near OF-1, are under consideration to address historic seasonal overflow issues and accommodate increased post-development flows. Any such works will be undertaken in compliance with the *Conservation Authorities Act* and subject to RVCA permitting.

The subdivision servicing plan also includes fire protection measures appropriate to its rural context. Two water storage tanks equipped with dry hydrants are proposed, designed to provide a combined capacity of 8,571 gallons per fire event. This system will be supported by mobile tanker supply as required by local fire service protocols.

The stormwater and servicing design has been prepared in coordination with Monument Engineering, EFI Engineering, and reviewed through pre-consultation with County and RVCA staff. The design will continue to be refined through the detailed engineering stage to ensure full regulatory compliance, robust environmental protection, and legally secured drainage solutions.

5.3 Environmental Impact Study

The Environmental Impact Study (EIS) for the Matheson and Rosedale Subdivision was prepared by EFI Engineering to assess the potential environmental impacts associated with the proposed residential development and to ensure consistency with applicable environmental policies and legislation. The EIS complies with the *Provincial Planning Statement (2024)*, *Endangered Species Act (2007)*, *Species at Risk Act (SARA, 2002)*, and the *Montague Township Official Plan (2023)*. The scope of the study included desktop review, field surveys, acoustic monitoring, and consultation with municipal authorities.

5.3.1 Site Conditions and Natural Heritage Features

Field surveys conducted during the 2024 field season confirmed that the subject property does not contain significant wetlands, woodlands, valleylands, or designated Significant Wildlife Habitat (SWH) as per the *OMNRF Significant Wildlife Habitat Criteria Schedules (2015)*. A small pond, approximately 300 m² in area, is located in the southeast portion of the site. The pond was assessed as having limited ecological function: it is shallow, lacks complex structure, and does not provide suitable conditions for overwintering or breeding habitat for Blanding's Turtle (*Emydoidea blandingii*). No wetland community types were identified through the Ecological Land Classification (ELC).

Black Ash (*Fraxinus nigra*), a threatened species under *O. Reg. 6/24*, was observed on site in moist fencerows and disturbed areas. However, no individuals met the minimum diameter-at-breast-height (DBH) or condition criteria for regulated protection. No other Species at Risk (SAR) plants were detected during multi-season botanical inventories.

Passive acoustic monitoring and visual surveys did not identify any bat maternity roosts or breeding evidence for species of concern. Bobolink (*Dolichonyx oryzivorus*), Eastern Meadowlark (*Sturnella magna*), and Loggerhead Shrike (*Lanius ludovicianus*) were not recorded during point counts or call-playback surveys. Incidental visual surveys recorded common amphibian species (e.g., Green Frog, Leopard Frog) but no SAR amphibians.

5.3.2 Mitigation and Environmental Protection Measures

To protect regional wildlife values and comply with environmental legislation:

- Exclusion fencing will be installed prior to May 1 around the pond and any potential turtle access points to prevent ingress of Blanding's Turtle during active seasons. Fencing design will follow *MECP guidelines* and be maintained until construction completion.
- Vegetation clearing restrictions will apply, clearing will be avoided between April 1 and August 31 to protect nesting birds, and between June 1 and July 31 to protect maternity bats. Any tree removals will require pre-clearing surveys for bat roost features and nesting activity.
- Erosion and sediment control measures will include straw bale flow dams, silt fencing, and check dams installed and maintained in accordance with *OPSD 219.180* and municipal standards. These measures will be inspected regularly and after major storm events.
- Contractor training will be required to ensure all site workers are aware of SAR protocols, mitigation measures, and emergency response procedures should a SAR individual be encountered.

5.3.3 Groundwater and Hydrogeological Safeguards

The site is located within a *Highly Vulnerable Aquifer (HVA)* and *Wellhead Protection Area D (WHPA-D)*, reflecting sensitivity to potential contamination. The Hydrogeological Assessment (Cambium Inc.) identifies:

- Raised filter bed septic systems to enhance nitrate attenuation.
- Increased minimum setbacks between wells and septic systems beyond provincial standards.
- Deep well casing for private wells to reduce risk of surface contamination pathways.

Cambium's report is being refined to address peer review comments on nitrate modeling, with a focus on validating assumptions for contaminant transport and mitigation effectiveness.

5.3.4 Compliance and Ongoing Coordination

The EIS demonstrates alignment with:

- *PPS 2024* policies on natural heritage (Sections 2.1, 3.1).
- *Montague OP* policies regarding habitat protection, groundwater safeguarding, and stormwater integration.
- *ESA 2007* and *SARA 2002* regarding species protection and habitat mitigation.

Coordination with the Rideau Valley Conservation Authority (RVCA), the Township of Montague, peer reviewers, and affected landowners is ongoing to formalize drainage easements, refine mitigation, and secure necessary approvals. The project will proceed with an adaptive management approach, updating mitigation as new information becomes available through detailed design and regulatory review.

5.4 Archaeology Stage One and Stage Two

The Stage 1 and Stage 2 Archaeological Assessments for the Matheson and Rosedale Subdivision were conducted by True North Archaeological Services Inc. to fulfill the requirements of the *Planning Act* and ensure compliance with the *Ontario Heritage Act* and the *Ministry of Citizenship and Multiculturalism (MCM) 2011 Standards and Guidelines for Consultant Archaeologists*. The purpose of these assessments was to identify and evaluate the archaeological potential of the 23.5-hectare study area prior to land development activities associated with the subdivision.

5.4.1 Methodology

- Stage 1: Desktop background research confirmed archaeological potential due to proximity to historic transportation routes (e.g., Rosedale Road South), 19th-century farmsteads, and water sources. Previous land use mapping and archival records indicated the area formed part of Lot 20, Concession 3, historically associated with agricultural use since the mid-1800s.
- Stage 2: The field survey took place between September 6 and 11, 2024.
 - Survey coverage: The study area was systematically assessed through pedestrian survey at 5-metre transect intervals in ploughed or exposed areas, and test pit survey at 5-metre intervals in grassed or wooded areas.
 - Disturbance exemptions: Areas of modern disturbance (e.g., existing road allowances, utility corridors) and permanently wet zones were excluded as per Stage 1 recommendations and MCM guidelines.

5.4.2 Results

- No archaeological artifacts, features, or deposits of cultural heritage value or interest were identified during Stage 2 assessment.
- The absence of finds confirms the low archaeological potential of the site, despite the initial desktop identification of potential based on landscape features and historical land use.

5.4.3 Recommendations

- No further archaeological work is recommended within the limits of the approved development area, as no resources were found that would require preservation or additional study.
- Future land use changes: Should any alterations to the approved development footprint occur (e.g., additional access routes, construction staging areas outside assessed limits), supplementary Stage 1 and/or Stage 2 assessment may be required, consistent with *Ontario Heritage Act* obligations.
- Compliance: All archaeological fieldwork and reporting have been reviewed and accepted by MCM. The Stage 2 report is registered in the Ontario Public Register of Archaeological Reports, satisfying the archaeological conditions for subdivision draft plan approval.

5.5 Traffic Impact Study

The Traffic Impact Study (TIS) for the Matheson and Rosedale Subdivision was prepared to evaluate the potential impacts of the proposed development on the surrounding road network in Montague Township. The study was conducted in accordance with municipal requirements and industry-standard methodologies, including reference to the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition*. The primary purpose of the TIS was to quantify the volume of traffic anticipated from the proposed subdivision, assess the operational performance of key intersections, and determine whether the existing transportation infrastructure can adequately support the development without compromising safety or efficiency.

Based on the proposed subdivision design, the TIS estimated that the development would generate approximately 39 two-way vehicle trips during the AM peak hour and 40 two-way trips during the PM peak hour. These volumes are consistent with typical low-density residential developments of this scale. The distribution of these trips is expected to primarily impact Matheson Drive and Rosedale Road South, with traffic ultimately funnelling toward Roger Stevens Drive. The study assigned trips based on existing traffic patterns, road hierarchy, and logical travel behaviour, ensuring that projected volumes reflected realistic conditions.

The operational performance of two critical intersections—Matheson Drive at Rosedale Road and Rosedale Road at Roger Stevens Drive—was analyzed under existing, background growth, and future conditions including the proposed development, with a design horizon extending to 2039. The analysis, conducted using Synchro traffic modelling software, found that both intersections are expected to maintain acceptable levels of service (LOS C or better) during peak periods, even with the additional traffic generated by the subdivision. The study concluded that no capacity deficiencies or significant delays are anticipated, and that no intersection modifications or road widening are warranted to accommodate the projected traffic demand.

In addition to assessing vehicular traffic impacts, the TIS considered potential implications for active transportation and road safety. While the existing local road network is capable of absorbing the additional traffic volumes without major upgrades, the study noted the opportunity to enhance

pedestrian connectivity through the inclusion of sidewalks or multi-use pathways, particularly along internal subdivision roads and at connections to Matheson Drive. Although not required to address traffic capacity concerns, these enhancements would align with broader planning objectives related to Complete Streets and active transportation promotion.

Overall, the Traffic Impact Study confirms that the proposed Matheson and Rosedale Subdivision can be integrated into Montague Township's existing transportation network with minimal disruption. The additional traffic volumes are modest and can be accommodated within the planned function of the surrounding road system as established under the Township's Official Plan. The development will not necessitate major infrastructure upgrades, but final design stages may provide an opportunity to incorporate active transportation features in keeping with municipal policy and best practices.

6.0 CONCLUSION

This Planning Rationale supports the proposed Matheson and Rosedale Subdivision within the Rosedale Settlement Area of Montague Township, a development intended to provide much-needed residential housing opportunities, to meet the growing demand within the community. The proposed plan of subdivision, together with the accompanying Zoning By-law Amendment to rezone the lands from Rural (RU) to Rural Residential (RR) and provide a site-specific exception for a 20% reduction in lot frontage for 24 lots, represents a thoughtful and efficient use of the land that balances housing supply objectives with community character considerations.

The proposal is consistent with the Provincial Planning Statement (2024) and conforms to the policies of the Montague Township Official Plan. It integrates sustainable planning practices, including stormwater management, low-impact development measures, and mitigation strategies to protect natural heritage and groundwater resources. The supporting technical studies — encompassing hydrogeological, environmental, archaeological, traffic, and servicing assessments — collectively demonstrate that the subdivision is feasible, appropriate, and compatible with its surroundings. The project will contribute to the orderly and sustainable growth of the Rosedale Settlement Area and enhance the overall quality of life for both current and future residents.

Given the proposal's alignment with applicable planning policies and its demonstrated ability to address technical, environmental, and infrastructure considerations, it is respectfully recommended that Montague Township approve the requested Zoning By-law Amendment and Draft Plan of Subdivision.

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APPENDIX A: SOURCE WATER PROTECTION CHECKLIST

M. APPENDIX E: Source Water Protection Development Application



SOURCE WATER PROTECTION PLANNING APPLICATION CHECKLIST

SOURCE WATER PROTECTION INFORMATION

Is the subject property within a Wellhead Protection Area (WHPA)²? ☒ YES ☐ NO

IF YES, please complete the rest of the Screening Checklist and email, mail or fax it to the address below. Municipal staff will respond to you in 2-3 business days.

Mail checklist to: ATTN: Mr. Planner, Planning Department, Example Municipality, #1 Municipal Street, City, Ontario, A1B 2CD
 Email checklist to: mrplanner@example.ca
 Fax checklist to: (555) 555 - 5555

WELLHEAD PROTECTION AREA³:
☐ WHPA-A

☐ WHPA-B

☒ WHPA-C

PROPERTY & CONTACT INFORMATION

Source Protection Area⁴:

Date: Aug 21, 2024

Name of Applicant: Pat Lambert

Contact Information: Address: 6610 Fourth Line Road

Telephone/Cellular Number: 613-223-9886

Email Address: pat@smarthomesottawa-inc.net

Municipal Address of Subject Property: Rosedale Road South

Legal Description of Subject Property: Lot 20, Conc 3, Township of Montague, County of Lanark

Lot/Part No.: 20 Registered Plan No.: Draft R Plan Stage.

Lot & Concession: 3

² This form could be modified to include "intake protection zone", "issue contributing area" or other vulnerable areas where land use planning policies apply

³ Additional WHPAs may need to be added.

⁴ This field is only required if municipality is located in two or more source protection areas

PROPOSAL

<input type="checkbox"/>	New Structure	<input type="checkbox"/>	Geothermal System ⁵ (Transport Pathway)
<input checked="" type="checkbox"/>	New Land Use/Change of Use	<input type="checkbox"/>	New or Replacement Septic System
<input type="checkbox"/>	Expansion OR Conversion of an Existing or Previous Approved Land Use or Structure	<input type="checkbox"/>	New Well ⁵ (Transport Pathway)

Classification

<input type="checkbox"/>	Single Residential	<input type="checkbox"/>	Industrial
<input checked="" type="checkbox"/>	Multi – residential (incl. subdivision)	<input type="checkbox"/>	Commercial (incl. mixed use)
<input type="checkbox"/>	Agricultural	<input type="checkbox"/>	Institutional

Brief Description of Proposal and/or Activity

A propose Subdivision with Approximately 42 Residential Lots. These will be serviced by private wells and Septic Systems. The development will contain on site Storm water management, Roadways + green spaces.

PLANNING INFORMATION

OFFICIAL PLAN DESIGNATION: Settlement area.
 OFFICIAL PLAN DOCUMENT NAME: Township of Montague Official Plan
 CURRENT ZONING: R4 (Rural Zone) 2023

⁵Section 27, Ontario General Regulation 287/07 requires the municipality to notify the SPA and SPC when a new transport pathway may be created

POTENTIAL THREATS ASSOCIATED WITH PROPOSED ACTIVITY

A drinking water threat as defined under the *Clean Water Act, 2006* as “an activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water”.

Please note that activities that are, or may be, significant drinking water threats will vary in each vulnerable area.

PLEASE CHECK ALL ACTIVITIES THAT MAY BE ASSOCIATED WITH THE DEVELOPMENT PROPOSAL WITHIN THE VULNERABLE AREA:

<input type="checkbox"/>	1. FUEL HANDLING & STORAGE
<input type="checkbox"/>	a. Includes both liquid fuel and fuel oil
<input type="checkbox"/>	b. Home heating, retail outlets, bulk plant, marina, farm
<input type="checkbox"/>	2. CHEMICAL HANDLING & STORAGE
<input type="checkbox"/>	a. Automotive and automotive related businesses that use paints, degreasers, chemicals etc.
<input type="checkbox"/>	b. Dry cleaning establishments
<input type="checkbox"/>	c. Industrial manufacturing and processing (e.g. using furniture stripping products, paints, chemical processes)
<input type="checkbox"/>	d. Industrial strength cleaning agents
<input type="checkbox"/>	e. De-icing of aircraft
<input type="checkbox"/>	3. APPLICATION, HANDLING & STORAGE OF ROAD SALT
<input type="checkbox"/>	4. SNOW STORAGE
<input type="checkbox"/>	5. WASTE DISPOSAL
<input type="checkbox"/>	a. Raw, untreated liquids and solids that are pumped out of septic systems and holding tanks
<input type="checkbox"/>	b. Disposal of petroleum refining waste; hazardous, liquid and industrial waste; municipal waste, industrial and commercial waste; PCB waste
<input type="checkbox"/>	c. Mine tailings
<input type="checkbox"/>	6. STORMWATER MANAGEMENT
<input type="checkbox"/>	a. Stormwater management facility (treatment, retention, infiltration or control of stormwater)
<input type="checkbox"/>	b. Car or truck washing facility
<input type="checkbox"/>	c. Sewage treatment plant effluent discharge (e.g. lagoons)
<input type="checkbox"/>	d. Sewer systems and related pipes
<input checked="" type="checkbox"/>	7. SEPTIC SYSTEMS
<input type="checkbox"/>	a. Small septic for residential or small-scale commercial/industrial/institutional
<input type="checkbox"/>	b. Large septic system (>10,000 L/day) for commercial/industrial/institutional
<input type="checkbox"/>	8. AGRICULTURAL
<input type="checkbox"/>	a. Application, handling and storage of fertilizers and pesticides
<input type="checkbox"/>	b. Application, handling and storage of agricultural and non-agricultural source material (e.g. biosolids)
<input type="checkbox"/>	c. Grazing and pasturing of livestock