

**Affected Stakeholder Response in Consideration of:
Draft Plan of Subdivision & Zoning By-Law Amendment
submitted by 2873633 Ontario Inc. (the “Applicant”)
Orchards of River Bend Estates
Submitted May 20, 2025**

Delivered to the following Recipients:

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1. Executive Summary

The undersigned stakeholders from who are adjacent landowners within the Merrickville community hereby submit this comprehensive report in strong opposition to the Draft Plan of Subdivision and Zoning By-Law Amendment application for the property at 819 County Road 23—the “Orchards of River Bend Estates.” Despite the Applicant’s attempts to portray the project as a reasonable intensification of rural residential uses, our detailed review has identified critical deficiencies in procedural integrity, substantial environmental risks, significant cultural heritage losses, and fundamental incompatibilities with local land use policies. Approval of this subdivision would not only contravene the Provincial Policy Statement (PPS 2024) and Official Plans at both the village and county levels but would also set a precedent that may encourage uncontrolled and ecologically destructive sprawl along one of our region’s most sensitive corridors.

Key points include:

- **Procedural Irregularities:** A conflict of interest is evident in the heavy reliance on reports produced by Kollaard Associates, whose principal also has direct ownership in the Applicant 2873633 Ontario Inc. Kollaard has also collaborated on previous projects with the current Merrickville Planner, which leads to an apprehension of bias which should be mitigated by careful review. Finally, consultations—with Indigenous communities and conservation agencies especially given previous archeological findings of significance on the subject property—were not properly conducted. (See Appendix E) All of the above threaten to undermine public confidence in planning governance and decision-making.
- **Land Use Incompatibility and Precedent:** Permitting the proposed development - by allowing such development outside of designated Rural Settlement Areas - would be fundamentally at odds with the Merrickville and County Official Plans that designate the area as Rural Lands or as a Special Heritage Policy Area, thereby setting a dangerous precedent for further unsustainable intensification and land fragmentation in rural and agricultural areas. (See Appendix B) Given the value of the properties to be developed, it is not credible or defensible to assert that such development is undertaken to provide lower cost housing, which is doubly clear given the lack of accessible local services and amenities.
- **Environmental Deterioration:** The subdivision would cause the loss of critical endangered and threatened species habitats, degrade established woodlands and wetlands, and disrupt hydrology, leading to serious flood and erosion risks. Further, the Kollaard studies have not considered the impact on adjacent lands through which

the streams and wetlands traverse on their course into the Rideau River. Our engineer’s peer review of the Kollaard hydrology reports indicate the likelihood of septic effluent “daylighting” into ditches and seeping into the Rideau River. (See Appendix C and Appendix D Peer Reviews)

- **Cultural Heritage at Risk:** The site lies in the traditional, unceded territory of multiple Indigenous Nations and forms part of a centuries’ old historic corridor for, amongst others, the Algonquin Nation. Development would undermine both Indigenous and settler heritage values, as well as the integrity of nearby UNESCO-designated features through destruction of a particularly picturesque and natural stretch of the Rideau Canal system. (See Appendix E)

Based on these findings, we respectfully request that the Municipal Council and the United Counties of Leeds and Grenville reject the application in its present form.

Also attached at Appendix A is a petition signed by 183 individuals lodging their additional strenuous objections to the Application for Subdivision and By-Law Amendment.

Also attached at Appendix F are links to referenced plans, procedures, regulation and legislation.

Also attached at Appendix G are photos that will assist in an understanding of the facts described below.

2. Introduction and Background

This report is submitted on behalf of a broad coalition of affected stakeholders residing along County Road 23 (aka Rideau Trail or Burritt’s Rapids Road) in Merrickville-Wolford. In mid-April 2025, notice was received that the Applicant, 2873633 Ontario Inc., had proposed a Draft Plan of Subdivision alongside a Zoning By-Law Amendment application. The proposal envisions 29 privately serviced lots—potentially encompassing up to 58 residential units—on property currently zoned RU (Rural), designated in the Official Plans as Rural Lands (United Counties) and as a “Special Heritage Policy Area 1” (Village of Merrickville-Wolford).

Over the course of our review, we have commissioned independent technical reports and planning assessments at personal expense to counterbalance the biased and flawed assessments that underpin the Applicant’s documentation. These documents reveal a range of deep-rooted issues, from environmental hazards to cultural and heritage errors and conflicts, which together render the proposed subdivision both inappropriate and unsustainable.

This introduction outlines the proposal, its context, and the purpose of our detailed objections. In the following sections, we provide a thorough analysis of each aspect of the proposal in direct relation to statutory and policy obligations.

3. Procedural Objections

3.1. Conflict of Interest in Technical Reporting

The Applicant has heavily relied on technical and environmental reports prepared by Kollaard Associates—the same engineering firm owned and controlled by the principal who is also a director of 2873633 Ontario Inc. This dual role creates an inherent conflict of interest, thereby undermining the credibility, objectivity, and independence of these key studies. Fundamental technical reports—including those addressing hydrogeology, stormwater management, and grading—should be subject to independent validation and not merely peer review. The lack of such impartial factual research and analysis is a serious procedural deficiency that calls into question the integrity of the application and compliance with the mandates of the Ontario Planning Act. Consequently, decision makers must critically disregard these biased findings until fresh third-party reports can confirm or refute the Applicant’s assertions.

3.2. Lack of Meaningful Stakeholder and Indigenous Consultations

The application process has failed to include mandatory early-stage consultations with:

- **Indigenous Communities:** The site is within the traditional, unceded territories of the Algonquin Anishinaabe Nation, the Haudenosaunee Confederacy, and the Mississauga of the Anishinaabe Nation. Such consultations are pivotal in ensuring that Indigenous heritage and rights are respected. The Applicant’s Archeological Report cites South-Western (rather than South-Eastern) Ontario history and does not consider the previous significant archeological findings on the land which had necessitated Stage 3 investigations at that time, calling the entire Archeological Report into question. The Algonquins of Ontario have been contacted by the undersigned to become involved in the process and have confirmed they had not been consulted in any way regarding the proposed subdivision.
- **Conservation Authorities and Parks Canada:** Given the environmental sensitivity of the location—including its proximity to the Rideau Canal (a UNESCO-designated heritage site)—the absence of rigorous comprehensive engagement with the Rideau Valley Conservation Authority, the UNESCO World Heritage Centre and Parks Canada is procedurally indefensible.

Without these essential comprehensive consultations, the proposed development not only violates due process requirements of the Planning Act but also compromises the community’s right to informed decision-making.

4. Environmental Impact Assessment

A detailed review has yielded serious concerns regarding the ecological effects of the proposed subdivision.

4.1. Impact on Species at Risk and Habitat Loss

The subject property hosts critical habitats for several endangered and threatened species. Notable at-risk species include:

- **Spotted Turtle (Endangered) & Blanding’s Turtle (Threatened):** These species require both aquatic and upland nesting habitats that are at risk from lot grading, tree removal, and increased human activity. The subject area is a recognised turtle habitat.
- **Small-Mouthed Salamander (Endangered) and Eastern Musk Turtle (Special Concern):** Their habitats, reliant on moist and stable environments, would be irreparably impaired by invasive development. Sightings of these species are frequent in the subject area.
- **Avian Species such as Eastern Meadowlark, Bobolink, and other birds and bats of special concern:** Nesting and foraging habitats would be disturbed by the construction and increased traffic. Follow-on effects are significant.

The Applicant’s Environmental Impact Study (EIS) fails to propose any credible, species-specific mitigation or long-term monitoring strategies. Removal of forest cover and alteration of riparian zones would directly contravene the conservation mandates under the PPS 2024 and the Environmental Protection Act.

4.2. Degradation of Woodlands and Wetlands

The property includes expansive woodlands and sensitive wetlands, mapped as significant in local Natural Heritage inventories. These areas are critical for:

- **Biodiversity:** Acting as corridors for wildlife, they preserve the genetic diversity of native species.
- **Hydrologic Functions:** The wetlands and headwater drainage play an essential role in groundwater recharge and water purification for the Rideau River.

The Applicant’s proposals to clear nearly all trees—except a narrow shoreline buffer—effectively negate any realistic chance of maintaining the ecological integrity of these habitats. The Tree Conservation Plan offered is inadequate, merely aspirational and lacks enforceable legal mechanisms (such as conservation easements), leaving these natural features exposed to irreversible degradation.

4.3. Hydrological Disruption, Stormwater, and Erosion Concerns

The topography of the property, with steep slopes and a shoreline that is visibly and inherently unstable, heightens the risk of:

- **Flooding:** With 100% of the shoreline falling within the Rideau Valley Conservation Authority’s regulated area and proposed development occurring as close as 90 m from the river’s edge, critical flood buffers are eradicated.
- **Erosion:** Removal of vital tree cover and alteration of natural drainage channels will exacerbate bank instability, leading to accelerated erosion and sedimentation.
- **Inadequate Stormwater Management:** The Applicant’s preliminary stormwater management report defers key engineering details and neglects seasonal hydrological variations. Without robust and independently reviewed mitigation strategies, the development will significantly impact adjacent properties and downstream aquatic systems.

Attached at **Appendix B** is a peer review of Applicant’s Planning Justification Report by Kevin M. Duguay Community Planning and Consulting Inc.

Attached at **Appendix C** is a peer review report of the hydrogeology reports submitted by Kollaard Consultants on behalf of the Applicant.

Attached at **Appendix D** is a stormwater management and floodplain analysis review of the civil drawings related to grading, drainage and erosion and sediment controls, the Environmental Impact Study, the Floodplain Analysis Technical Memorandum, and the Stormwater Management Report by Isabelle Hennings, M.A. Sc, P.Eng (ON, BC) of Geosyntec Consultants International Inc.

5. Cultural Heritage and Archaeological Considerations

5.1. Indigenous Heritage and Traditional Territory

The subject property is located within the unceded traditional territories of several Indigenous Nations with longstanding cultural, historical, and ecological ties to the land. Indigenous peoples historically used the area as a travel route and seasonal camp site—a significance that demands respectful preservation and consultation as dictated by the

Ontario Heritage Act. Further, in its September 11, 2023 meeting, Council for Merrickville-Wolford acknowledged the importance of meaningful consultation with the Algonquins of Ontario and committed to engaging in good faith consultations on future developments impacting their rights, land and interests.

5.2. Faulty Archaeological Assessments and Settler History

The Applicant’s archaeological report is riddled with factual errors, including:

- **Misrepresentation of Cultural Chronology:** The report inappropriately applies Southern and Southwestern Ontario timelines and geology to a site in Southeastern Ontario. This is a significant error.
- **Inadequate Fieldwork:** Detailed, site-specific assessments were neglected, resulting in an underassessment of both Indigenous occupation and early settler activity.
- **Erroneous Historical Data:** References to surveys and maps from as early as 1796 are presented with critical omissions and factual inaccuracies. This misrepresentation undermines significant aspects of the local settlement history that demonstrate the rural and cultural importance of the area.

Attached at **Appendix E** is a summary report of concerns that has been compiled in conjunction with the Algonquins of Ontario’s Consultation Office (Jim Meness and Ethan Huner) - Assessment of Archaeological Significance and Impact of Development.

5.3. Impact on UNESCO-Designated Features

The Rideau Canal corridor is designated a UNESCO World Heritage Site. The proposed development will alter scenic vistas from the Rideau waterway and the natural ambiance that contribute to its international significance. Increased artificial lighting and visual intrusion from multi-storey residences would irrevocably degrade the cultural landscape, compromising both historic value and community identity. (See Appendix G Photos)

6. Land Use Compatibility and Municipal Planning Conflicts

6.1. Inconsistencies with the Provincial Policy Statement (PPS 2024)

The PPS 2024 explicitly mandates that:

- **Biodiversity must be conserved**, and natural features should be protected for the long-term.

- **Development in significant wetlands and woodlands**, particularly within ecologically sensitive Ecoregions (e.g., Ecoregion 6E), is prohibited unless no negative impacts can be demonstrated.

The proposed subdivision, by radically altering the natural landscape, directly contravenes these provisions.

6.2. Conflicts with Merrickville-Wolford Strategic Plan (2017-2025) and Official Plan

The Merrickville-Wolford Strategic Plan places a clear priority on:

- Protecting rural and natural environments;
- Ensuring new development is compatible with existing infrastructure; and
- Upholding heritage, cultural and environmental values.

The Merrickville-Wolford Strategic Plan proudly boasts the areas World Class Natural Resources, emphasizing that the community is also blessed with prosperous farms and extensive acreage of fertile farmland which has been preserved by visionary community planning for future generations.

According to the Merrickville-Wolford Official Plan:

- The subject property is designated as “Special Heritage Policy Area 1,” emphasizing the preservation of rural character, uninterrupted scenic vistas along the Rideau Canal, and conservation of cultural heritage.
- Rural character mandates not only the physical preservation of open and agricultural lands but also limitations on the density and scale of development.

The proposed subdivision, with its cluster of large, multi-unit estates, is fundamentally incompatible with all of the above objectives.

6.3. Incompatibility with the United Counties of Leeds and Grenville Official Plan

The Official Plan for the United Counties directs new growth into established settlement areas to ensure:

- Efficient infrastructure usage
- Preservation of agricultural lands and natural heritage.

Since the subject property is classified as Rural Lands rather than a designated Rural Settlement Area, the subdivision is inconsistent with the County’s strategic planning framework, potentially diverting growth away from sustainable, service-equipped areas.

7. Precedent-Setting and Cumulative Effects

7.1. Risks of Approving Sprawl in Vulnerable Rural Areas

Approval of this subdivision would set a dangerous precedent by:

- **Encouraging further high-density, estate-lot developments** in areas, such as active farming and agricultural areas, that are not designed for intense residential use.
- **Fragmenting the rural landscape:** Once intact rural and agricultural lands are subdivided, restoring or preserving their ecological and agricultural value becomes virtually impossible.

7.2. Cumulative Impact on Natural Heritage and Agricultural Lands

The cumulative effect of allowing 29 lots (up to 58 individual units) in a predominantly rural and ecologically sensitive area is profound:

- **Erosion of Natural Barriers:** The loss of contiguous woodlands and wetlands would diminish landscape resilience against natural hazards such as floods and erosion.
- **Degradation of Agricultural Viability:** Fragmentation of land not only disrupts wildlife corridors but also impairs future opportunities for sustainable agriculture or conservation uses. Further, the proposed development would potentially limit future agricultural expansions of existing adjacent and nearby farms and homesteads. The Minimum Distance Separation calculations in support of the application have relied on incorrect and unvalidated data.
- **Strain on Infrastructure:** Increased traffic, municipal service demands, and environmental monitoring burdens would be imposed on a community that is unprepared for such rapid intensification, especially outside of Rural Settlement Areas.

These effects run counter to the strategic objectives set forth in both the Merrickville and United Counties Official Plans, thereby jeopardizing regional growth management efforts.

8. Recommended Conditions

8.1. Proposal for Rejection

Given the extensive procedural, environmental, cultural, and planning issues documented herein, our request is that the Merrickville- Wolford Council and the United Counties of Leed and Grenville Counties’ Council and its Manager of Planning Services reject the Draft Plan of Subdivision and associated Zoning By-Law Amendment application. This action is

necessary to protect the community’s long-term environmental, cultural, and economic interests, and to preserve public trust in the administration of the planning process.

9. Formal Conclusion and Requests

In conclusion, the evidence presented demonstrates that the Applicant’s proposed subdivision is procedurally flawed, environmentally hazardous, culturally insensitive, and fundamentally at odds with established municipal and county planning policies. The cumulative impacts of this development would irreversibly alter the character and ecological function of a uniquely sensitive landscape along the Rideau River.

This report, together with the supporting appendices (which include independent peer reviews, a community petition, and other relevant documentation), forms the basis of our opposition. We trust that the decision-makers will exercise the necessary due diligence and safeguard our community’s environmental, cultural, and social integrity.

Accordingly, we respectfully request that the Merrickville-Wolford Council and United Counties of Leed and Grenville Council reject the Draft Plan of Subdivision and Zoning By-Law Amendment as proposed.

10. Supporting Appendices and References

Appendix A: Community Petition A signed petition by 183 local residents along County Road 23 and adjacent areas outlining additional objections.

Appendix B: Peer review report and independent assessment of the Applicant’s Planning Justification Report by Kevin M. Duguay Community Planning and Consulting Inc.

Appendix C: Peer review report by Berend Jan Velderman, M.Sc., P.Geo (Geosyntec Consultants International Inc.) – Evaluation of the Applicant’s hydrogeological studies.

Appendix D: Peer review report by Isabelle Hennings, M.A.Sc, P.Eng – Analysis of stormwater management, floodplain analysis, and erosion control measures.

Appendix E: Assessment of Archaeological Significance and Impact of Development.

Appendix F: Compilation of sources, citations and relevant links, including:

- Merrickville-Wolford Official Plan, Schedule A-2 – Natural and Cultural Heritage
- Merrickville-Wolford Strategic Plan (2017-2025)
- United Counties of Leeds and Grenville Official Plan
- Ontario Provincial Planning Statement (PPS 2024)
- Ontario Heritage Act and the Environmental Protection Act
- Natural Heritage Information Centre (NHIC) Observation Reporting Form

- Official reports from the Applicant’s documentation (with noted deficiencies)

Appendix G: Photographic evidence documenting the turtle crossing, shoreline conditions, evidence of erosion, and images of adjacent rural landscapes.

11. Submission and Signatures

This report is submitted in good faith by affected community members who are dedicated to preserving the environmental integrity, cultural heritage, and rural character of our region through a transparent, orderly and predictable planning process. We welcome any opportunity to discuss these findings in person and to provide further evidence during the public consultation process.

Yours very truly,

Gina Jelmini

Gina Jelmini LLB- 803 County Road 23, Merrickville

Blair Haddock

Blair Haddock -803 County Road 23, Merrickville

Carl LeBlanc

Carl LeBlanc – 1135 Burritts Rapids Road, Merrickville

Jeannette Froese-LeBlanc

Jeannette Froese-LeBlanc 1135 Burritts Rapids Road, Merrickville

Susanne Dutt-Roth

Susanne Dutt-Roth – 2591 Burritts Rapids Road, Merrickville

Elisabeth Preston

Elisabeth Preston MPA, LLB - 826 lot 1 and 2 County Road 23, Merrickville

Peter Strickland

Peter Strickland - 826 lot 1 County Road 23, Merrickville

Judith H Preston

Judy Preston - 826 lot 2 County Road 23, Merrickville

Michael Harrington

Michael Harrington – 1840 Burritts Rapids Road, Merrickville

Wanda Jamieson

Wanda Jamieson – 1840 Burritts Rapids Road, Merrickville

Appendix A

Petition

A petition signed by 183 individuals lodging their additional strenuous objections to the Application for Subdivision and By-Law Amendment.

PETITION IN STRONG OPPOSITION TO PROPOSED SUBDIVISION AT 819 COUNTY ROAD 23

We the undersigned residents of the United Counties of Leeds and Grenville, petition the Merrickville-Wolford Council and the United Counties of Leeds and Grenville Council and Planning Advisory Committee in strong opposition to the Proposed Plan of Subdivision (File No. 07-T-20252 (MW)) named 'Orchards of River Bend' located at 819 County Road 23, Merrickville-Wolford.

The Proposed Plan of Subdivision, for up to 58 units on 29 lots, is on land directly along the banks of the Rideau Canal waterways, a UNESCO world heritage site, which is the habitat of several threatened and endangered animal and plant species, and that is also subject to damaging and dangerous erosion. The subject land has both cultural and environmental significance, with established turtle nesting grounds, apple orchards and protected butternut trees. Further, the proposal for such an intensive subdivision is out of keeping with the character of our rural community, and will bring with it drastic changes to our safety along a quiet country road that is the route used by bicyclists, horseback riders, trekkers and Sunday drivers enjoying the slow and beautifully pastoral route into the Village of Merrickville.

We respectfully ask that the Councils and Planning Advisory Committees involved in considering such a development know that the undersigned strongly oppose this intensive development which, in addition to the above, is not aligned with attributes of our rural community. We are deeply concerned with the dangers of such a plan and respectfully request that it be denied approval.

	PRINT First and Last Name	Address	Signature
1	Lianna McCann	16 Grenville St Burrill's rapids	<i>Lianna McCann</i>
2	DONNA ROSS	437 CTY RD 23, MERRICKVILLE	<i>Donna Ross</i>
3	PETER SZMIOT	437 CTY RD. 23, MERRICKVILLE	<i>Peter Szmiot</i>
4	CLAIRE SMITH	713 COUNTY RD 23 MERRICKVILLE	<i>Claire Smith</i>
5	Anne Kaulin	373 Craig Rd Ox. Mills	<i>Anne Kaulin</i>
6	Peter Kaulin	" " "	<i>Peter Kaulin</i>
7	Michael Venables	171 Cty Rd 23.	<i>Michael Venables</i>
8	Elena Venables	" "	<i>Elena Venables</i>
9	EST HACKETT DVM		
10	ELLEN HACKETT		
11	RUBY SHERBURY	297 County Rd 23	<i>Ruby Sherburne</i>
12	ROBBIE GILES	120 Aaron Merrick Dr. Merrickville	<i>Robbie Giles</i>
13	RICKY LEE	120 Aaron Merrick Dr. Merrickville	<i>Ricky Lee</i>
14	CAROL SCALES	108 SUNSET LANE Merrickville	<i>Carol Scales</i>
15	ERIN PREISS DVM	748 County Rd 23 Merrickville	<i>Erin Preiss</i>
16	DONNA BEST	430 County Rd 23, Merrickville	<i>Donna Best</i>
17	GREG GRIFFIN	746 CR 23 MERRICKVILLE	<i>Greg Griffin</i>
18	WENDY WATIS	893 Loyal Lods Kville	<i>Wendy Watis</i>
19	DEREK WATIS	893 Loyal Rd Kville	<i>Derek Watis</i>
20	JUDY NYLAND	35 (Oxide St Burrill's rapids)	<i>Judy Nyland</i>
21	ANNE MERKLEY		
22	GILLES PRESSEAU	115 ANDREWSVILLE Road	<i>Gilles Presseau</i>
23	IAN CURBERT	115 ANDREWSVILLE Road	<i>Ian Curbert</i>
24	Ann Martin	520 Main St. E. Merrickville	<i>Ann Martin</i>

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We respectfully ask that the Councils and Planning Advisory Committees involved in considering such a development know that the undersigned **strongly oppose this intensive development which, in addition to the above, is not aligned with attributes of our rural community.** We are deeply concerned with the dangers of such a plan and respectfully request that it be denied approval.

	PRINT First and Last Name	Address	Signature
56	MARK BLAISDELL	1040 RIVER RD, KEMPTVILLE, ON	Mark Blaisdell
57	BRIAN BUSBY	151 GARDINER RD, MERRICKVILLE	Brian Busby
58	John Appleby	629 CR 23 Merrickville	John Appleby
59	Ben Appleby	629 CR 23 Merrickville	Ben Appleby
60	J.B. APPLEBY	629 CR 23 Merrickville	J.B. Appleby
61	JOHN ALBERT	669 CR 23 "	John Albert
62	Donna Albert	669 CR 23 Merrickville	Donna Albert
63	BARRY NESBITT	663 CR 23 MERRICKVILLE	Barry Nesbitt
64	JUDY NESBITT	663 CITY RD 23 MERRICKVILLE	Judy Nesbitt
65	Bonnie Miner	670 CITY RD 23 Merrickville	Bonnie Miner
66	John Miner	670 CITY RD 23 Merrickville	John Miner
67	AL BERGER	13 NICHOLSON LAKE	Al Berger
68	Karen Kavanagh	13 Nicholson Lake	Karen Kavanagh
69	DANA HARGRAVE	377 CR 23 MERRICKVILLE	Dana Hargrave
70	TIM WASE	377 CR 23 MERRICKVILLE	Tim Wase
71	CAITLYN PROCTOR	2931 DRUMMOND CONCESSION 7, PERTH	Caitlyn Proctor
72	William Haddock	803 CR 23 MERRICKVILLE	William Haddock
73	Blair Haddock	803 County Rd 23, Merrickville	Blair Haddock
74	Gina Jelmini	803 CR 23 Merrickville	Gina Jelmini
75	Ed Charrelle	1142 CITY RD 43 MERRICKVILLE	Ed Charrelle
76	PAUL MELNIER	871 HERITAGE DR. MERRICKVILLE	Paul Melnier
77	Orlando Cisneros Romay	223 Main St. W. Merrickville	Orlando Cisneros Romay
78	Cathy Sloan	105 Brock St W. "	Cathy Sloan
79	Koeta Vesela	212 " " E. "	Koeta Vesela

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	PRINT First and Last Name	Address	Signature
109	TONY CAMILLONE	25 D'Arcys Way, Kemptonville	T. Camillone
110	SHERI RICHER	25 D'Arcys Way, Kemptonville	Sheri Richer
111	TOM MESMAN	779 Cty Rd 23 Merrickville	T Mesman
112	Andele Mesman	779 " " "	A Mesman
113	Christa Mesman	745 " " "	C Mesman
114	TRAVIS BIRCH	745 " " "	T Birch
115	Rebecca Duguay	745 " " "	R Duguay
116	Kayla Dubéau	84 Snerway Dr. Ottawa	K Dubéau
117	ROBERT DUBÉAU	84 Snerway Dr. Ottawa	Robert Dubéau
118	Serena McLean	625 Fisher Street	S McLean
119	Paul Mesman	" " "	P Mesman
120	LAWRENCE CRACKEN	1060 SUMMIT RAPIDS ROAD Merrickville Ont	L T Mac Craken
121	GILLES GUIMOND	788 C.R. 23	G Guimond
122	Lise Guimond	788 C.R. 23	L Guimond
123	ALBERT DEWIT	324 Launelle Kemptonville	Albert de Wit
124	PHILIP MESMAN	103-40 OLD MILL RD, ALLENBY ON	P Mesman

PETITION IN STRONG OPPOSITION TO PROPOSED SUBDIVISION AT 819 COUNTY ROAD 23

We the undersigned residents of the United Counties of Leeds and Grenville, petition the Merrickville-Wolford Council and the United Counties of Leeds and Grenville Council and Planning Advisory Committee in strong opposition to the Proposed Plan of Subdivision (File No. 07-T-20252 (MW)) named 'Orchards of River Bend' located at 819 County Road 23, Merrickville-Wolford.

The Proposed Plan of Subdivision, for up to 58 units on 29 lots, is on land directly along the banks of the Rideau Canal waterways, a UNESCO world heritage site, which is the habitat of several threatened and endangered animal and plant species, and that is also subject to damaging and dangerous erosion. The subject land has both cultural and environmental significance, with established turtle nesting grounds, apple orchards and protected butternut trees. Further, the proposal for such an intensive subdivision is out of keeping with the character of our rural community, and will bring with it drastic changes to our safety along a quiet country road that is the route used by bicyclists, horseback riders, trekkers and Sunday drivers enjoying the slow and beautifully pastoral route into the Village of Merrickville.

We respectfully ask that the Councils and Planning Advisory Committees involved in considering such a development know that the undersigned strongly oppose this intensive development which, in addition to the above, is not aligned with attributes of our rural community. We are deeply concerned with the dangers of such a plan and respectfully request that it be denied approval.

	PRINT First and Last Name	Address	Signature
134	WANDA JAMIESON	1840 BURRITTS Rapids Rd Merrickville ON KOGINO	
135	Michael Harrington	1840 Burritts Rapids Rd Merrickville ON KOGINO	
136	Nicolette Linton	2360 Burritts Rapids Rd Merrickville ON KOGINO	
137	Stephen Linton	2360 Burritts Rapids Rd Merrickville ON KOGINO	
138	Jamie Ross	2820 Burritts Rapids Rd	
139	IAN ROSS	" "	
140	Tellet Pelton	3060 " " "	
141	Wagrie Pelton	3060 " " "	
142	Dave Wilson	3780 Burritts Rapids Road	
143	Keith Clarke	4631 Burritts Rapids	
144	MARILYN McFadden	4211 Burritts Rapids Road	
145	Doris McFadden	4211 Burritts Rapids Road	
146	Johnnie McFadden	4105 Burritts Rapids Rd.	
147	Clay McFadden	4105 Burritts Rapids Rd.	
148	JEFFREY MURRAY	3831 Burritts Rapids Road	
149	Eileen Hackett	3651 Burritts Rapids Rd	
150	A. J. Hackett	3651 Burritts Rapids Road	
151	Marcel Tym	3831 Burritts Rapids Road	
152	Marcel Stanton	1580 Burritts Rapids Rd	
153	KEITH STANTON	1580 BURRITTS RAPIDS RD	

PETITION IN STRONG OPPOSITION TO PROPOSED SUBDIVISION AT 819 COUNTY ROAD 23

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	PRINT First and Last Name	Address	Signature
162	Susanne Duff-Roth	2591 Burritts Rapids Rd	[Signature]
163	Douglas Woywitka	2591 Burritts Rapids Rd	[Signature]
164	Yanika Woywitka	2571 Burritts Rapids Rd	[Signature]
165	Tyler Goring	2551 Burritts Rapids Rd	[Signature]
166	Chris Madigan	2531 Burritts Rapid Rd	[Signature]
167	Curtis Hall	2591 Burritts Rapids Rd.	[Signature]
168	Mitchell Evans	2531 Burritts Rapids Rd	[Signature]
169	Dawn Solosky	6646 Suncrest Dr.	[Signature]
170	Joanna Ongianglo	3118 Burritts Rapids Pl.	[Signature]
171	Amie Dunse	2780 Beach Road	[Signature]
172	Celia Bond	2780 2591 Burritts Rapids	[Signature]
173	Lindsay Cooperkelly	2013 Sanderson Dr	[Signature]
174	GEORGE CRAVES	10232 DIXIE RD AARIS	[Signature]
175	MICHELE LEBLANC	1239 STONE RD OXFORD MILSON	[Signature]
176	GAIL WORGAN	390 COUNTY RD 23 MERRICKVILLE	[Signature]
177	SONJA WOODS	116 IRVING AVE RIFAWAY	[Signature]

Appendix B

Peer Review of Applicant’s Planning Justification Report

Appendix D: a peer-review report by Kevin M. Duguay Community Planning and Consulting Inc. of Applicant’s Planning Justification Report



Kevin M. Duguay
Community
Planning and
Consulting Inc.



560 Romaine Street Peterborough, Ontario K9J 2E3
P (705) 749-6710 C (705) 931-0975
kevin@kmdplanning.com www.kmdplanning.com

Memo

To: Gina Jelmini and Blair Haddock

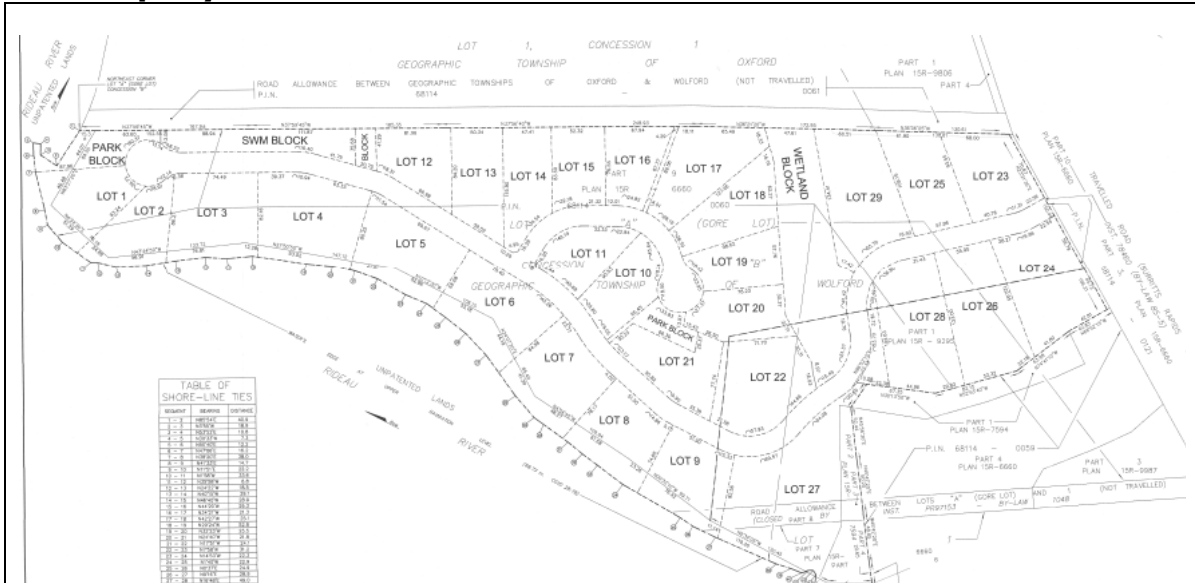
From: Kevin M. Duguay MCIP, RPP

Date: May 11, 2025

Re: **Proposed Draft Plan of Subdivision (DPOS)
And Zoning By-law Amendment (ZBLA) Applications
Orchards of River Bend Estates
819 County Road No. 23, Village of Merrickville-Wolford
(KMD File 2025-23)**

This Memorandum has been prepared in support of your forthcoming delegation – Village of Merrickville-Wolford Council meeting, regarding the above-referenced.

The Property



(Source: Kollard Associates, April 2025)

I have had opportunity to review – consider the following planning documents:

2024 Provincial Planning Statement;

The Provincial Planning Act;

The Village of Merrickville – Wolford Official Plan;

The United Counties of Leeds- Grenville Official Plan;

The Village of Merrickville – Wolford Zoning By-law; and

P.H. Robinson Consulting Planning Justification Report.

The following section of this memorandum provides my preliminary Professional Planning Opinion regarding the Draft Plan of Subdivision Application based upon certain of the aforementioned Planning Documents. The focus of my preliminary review was on the following Planning documents:

2024 Provincial Planning Statement; and

The Provincial Planning Act.

2024 Provincial Planning Statement (2024 PPS)

The PPS came into effect in October 2024, and provides a policy framework addressing land use planning, development and related matters on a provincial – wide basis. I reviewed the entire document for the purpose of preparing this memorandum.

Policy	Detail and Planning Opinion
2.1	<p>Planning for People and Homes</p> <p>4. To provide for an appropriate range and mix of <i>housing options</i> and densities required to meet projected requirements of current and future residents of the <i>regional market area</i>, planning authorities shall:</p> <p>a) maintain at all times the ability to accommodate residential growth for a minimum of 15 years through lands which are <i>designated and available</i> for residential development; and</p> <p>b) maintain at all times where new development is to occur, land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned, including units in draft approved or registered plans.</p> <p>5. Where planning is conducted by an upper-tier municipality, the land and</p>

	<p>unit supply maintained by the lower-tier municipality identified in policy 2.1.4 shall be based on and reflect the allocation of population and units by the upper-tier municipality.</p> <p>6. Planning authorities should support the achievement of <i>complete communities</i> by:</p> <p>a) accommodating an appropriate range and mix of land uses, <i>housing options</i>, transportation options with <i>multimodal</i> access, employment, <i>public service facilities</i> and other institutional uses (including schools and associated child care facilities, longterm care facilities, places of worship and cemeteries), recreation, parks and open space, and other uses to meet long-term needs;</p> <p>Planning Opinion: The proposed development (DPOS) does not constitute, nor does it contribute towards the realization of a complete community. The development lands are geographically remote from any designated rural settlement areas. Moreover, a development comprised solely of residential lots is not representative of a complete community.</p>
2.2	<p>Housing</p> <p>1. Planning authorities shall provide for an appropriate range and mix of <i>housing options</i> and densities to meet projected needs of current and future residents of the <i>regional market area</i> by:</p> <p>c) promoting densities for new housing which efficiently use land, resources, <i>infrastructure</i> and <i>public service facilities</i>, and support the use of <i>active transportation</i>;</p> <p>Planning Opinion: The proposed development is not supportive of active transportation and does not make efficient use of infrastructure and public service facilities. The latter are not geographically close to the development lands.</p>
2.3	<p>Settlement Areas and Settlement Area Boundary Expansions</p>
2.3.1	<p>General Policies for Settlement Areas</p> <p>1. Settlement areas shall be the focus of growth and development. Within <i>settlement areas</i>, growth should be focused in, where applicable, <i>strategic growth areas</i>, including <i>major transit station areas</i>.</p> <p>Planning Opinion: The development lands are not designated by</p>

	<p>either the Local or County Official Plan as “Settlement Area.”</p> <p>6. Planning authorities should establish and implement phasing policies, where appropriate, to ensure that development within <i>designated growth areas</i> is orderly and aligns with the timely provision of the <i>infrastructure</i> and <i>public service facilities</i>.</p> <p>Planning Opinion: The development lands are not designated as “Settlement Area”. For example, two (2) designated areas are in place, being Kemptville and Merrickville, respectively.. These Settlement Areas have established/designated limits, and policy emphasis in support of focussed growth and development.</p>
<p>2.3.2</p>	<p>New Settlement Areas and Settlement Area Boundary Expansions</p> <p>1. In identifying a new <i>settlement area</i> or allowing a <i>settlement area</i> boundary expansion, planning authorities shall consider the following:</p> <ul style="list-style-type: none"> a) the need to designate and plan for additional land to accommodate an appropriate range and mix of land uses; b) if there is sufficient capacity in existing or planned <i>infrastructure</i> and <i>public service facilities</i>; e) whether the new or expanded <i>settlement area</i> complies with the <i>minimum distance separation formulae</i>; g) whether impacts on the <i>agricultural system</i> are avoided, or where avoidance is not possible, minimized and mitigated to the extent feasible as determined through an <i>agricultural impact assessment</i> or equivalent analysis, based on provincial guidance; and the new or expanded <i>settlement area</i> provides for the phased progression of urban development. <p>2. Notwithstanding policy 2.3.2.1.b), planning authorities may identify a new <i>settlement area</i> only where it has been demonstrated that the <i>infrastructure</i> and <i>public service facilities</i> to support development are planned or available.</p> <p>Planning Opinion: The proposed development is representative of a settlement area, but as noted, not a complete community.</p> <p>There has been no evidence offered for the need for additional land to accommodate the proposed residential development.</p> <p>Additionally, the development lands are within proximity to active</p>

	<p>farm properties, and accordingly MDS issues exist. Same have not been properly addressed s part of the current studies prepared in support of the proposed development.</p> <p>Finally, as per policy (g), the development does not allow for nor is in any manner associated with the phased progression of urban development, or any designated settlement area within the general area of the property.</p>
<p>2.5</p>	<p>Rural Areas in Municipalities</p> <p>1. Healthy, integrated and viable <i>rural areas</i> should be supported by:</p> <p>a) building upon rural character, and leveraging rural amenities and assets;</p> <p>c) accommodating an appropriate range and mix of housing in rural <i>settlement areas</i>;</p> <p>d) using rural <i>infrastructure</i> and <i>public service facilities</i> efficiently;</p> <p>g) conserving biodiversity and considering the ecological benefits provided by nature; and</p> <p>2. In <i>rural areas</i>, rural <i>settlement areas</i> shall be the focus of growth and development and their vitality and regeneration shall be promoted.</p> <p>3. When directing development in rural <i>settlement areas</i> in accordance with policy 2.3, planning authorities shall give consideration to locally appropriate rural characteristics, the scale of development and the provision of appropriate service levels.</p> <p>Planning Opinion: “Rural Areas” is defined by the 2024 PPS as follows:</p> <p>“Rural Areas means a system of lands within municipalities that may include rural <i>settlement areas</i>, <i>rural lands</i>, <i>prime agricultural areas</i>, <i>natural heritage features and areas</i>, and resource areas.”</p> <p>The property is not a designated Settlement Area and is appropriately considered as “Rural Land”.</p> <p>Policy 2.5 clearly places emphasis on the role – function of rural settlement areas. The development proposal offers no evidence regarding the impacts of the proposed development upon the planned/existing settlement areas (Kemptonville, Merrickville,</p>

	<p>particularly).</p>
<p>2.6</p>	<p>Rural Lands in Municipalities</p> <p>1. On <i>rural lands</i> located in municipalities, permitted uses are:</p> <p>b) resource-based recreational uses (including recreational dwellings not intended as permanent residences);</p> <p>c) residential development, including lot creation, where site conditions are suitable for the provision of appropriate <i>sewage and water services</i>;</p> <p>2. Development that can be sustained by rural service levels should be promoted.</p> <p>5. New land uses, including the creation of lots, and new or expanding livestock facilities, shall comply with the <i>minimum distance separation formulae</i>.</p> <p>Planning Opinion: Policy 2.6 speaks to resource-based recreational uses, including residential dwellings. Additionally, Policy 2.6.5 speaks to compliance with applicable MDS formula.</p> <p>The proposed development is not indicative of a resource-based recreational use. Additionally, appropriate regard with MDS compliance has not been properly addressed.</p>
<p>3.6</p>	<p>Sewage, Water and Stormwater</p> <p>2. <i>Municipal sewage services</i> and <i>municipal water services</i> are the preferred form of servicing for <i>settlement areas</i> to support protection of the environment and minimize potential risks to human health and safety. For clarity, <i>municipal sewage services</i> and <i>municipal water services</i> include both centralized servicing systems and decentralized servicing systems.</p> <p>Planning Opinion: The proposed development does not employ either municipal sewage or water services.</p> <p>3. Where <i>municipal sewage services</i> and <i>municipal water services</i> are not available, planned or feasible, <i>private communal sewage services</i> and <i>private communal water services</i> are the preferred form of servicing for multi-unit/lot <i>development</i> to support protection of the environment and minimize potential risks to human health and safety.</p> <p>Planning Opinion: The proposed development will rely upon</p>

	<p>private individual water and sewage services (lot by lot basis).</p> <p>4. Where <i>municipal sewage services</i> and <i>municipal water services</i> or <i>private communal sewage services</i> and <i>private communal water services</i> are not available, planned or feasible, <i>individual on-site sewage services</i> and <i>individual on-site water services</i> may be used provided that site conditions are suitable for the long-term provision of such services with no <i>negative impacts</i>.</p> <p>Planning Opinion: The proposed development will rely upon private individual water and sewage services (lot by lot basis). There are concerns regarding the Hydrogeological modelling of the proposed development and the associated negative impacts associated with same.</p> <p>4. At the time of the official plan review or update, planning authorities should assess the long-term impacts of <i>individual on-site sewage services</i> and <i>individual on-site water services</i> on environmental health and the financial viability or feasibility of other forms of servicing set out in policies 3.6.2 and 3.6.3.</p> <p>Planning Opinion: This matter does not appear to have been considered as part of the development studies/reports.</p>
	<p>8. Planning for stormwater management shall:</p> <p>b) minimize, or, where possible, prevent or reduce increases in stormwater volumes and contaminant loads;</p> <p>c) minimize erosion and changes in water balance including through the use of <i>green infrastructure</i>;</p> <p>d) mitigate risks to human health, safety, property and the environment;</p> <p>f) promote best practices, including stormwater attenuation and re-use, water conservation and efficiency, and <i>low impact development</i>;</p> <p>Planning Opinion: The proposed storm-water Management Plan requires further consideration, analysis to demonstrate conformity with Policy 3.6.8 of the 2024 PPS.</p>
<p>4.1</p>	<p>Natural Heritage</p> <p>1. Natural features and areas shall be protected for the long term.</p>

2. The diversity and connectivity of natural features in an area, and the long-term *ecological function* and biodiversity of *natural heritage systems*, should be maintained, restored or, where possible, improved, recognizing linkages between and among *natural heritage features and areas*, *surface water features* and *ground water features*.

3. *Natural heritage systems* shall be identified in Ecoregions 6E & 7E¹, recognizing that *natural heritage systems* will vary in size and form in *settlement areas*, *rural areas*, and *prime agricultural areas*.

Planning Opinion: The development lands are located within Ecoregion 6E.

7. *Development* and *site alteration* shall not be permitted in *habitat of endangered species and threatened species*, except in accordance with *provincial and federal requirements*.

Planning Opinion: There is evidence of endangered species and their habitat, as per the EIS Report prepared in support of the DPOS and ZBLA Applications.

8. *Development* and *site alteration* shall not be permitted on *adjacent lands* to the *natural heritage features and areas* identified in policies 4.1.4, 4.1.5, and 4.1.6 unless the *ecological function* of the *adjacent lands* has been evaluated and it has been demonstrated that there will be no *negative impacts* on the natural features or on their *ecological functions*.

Planning Opinion: This matter has not been appropriately addressed.

The Provincial Planning Act

Section 2 of the Act sets forth a series of policies that must be addressed (matters of Provincial Interest).

Provincial interest

2 The Minister, the council of a municipality, a local board, a planning board and the Tribunal, in carrying out their responsibilities under this Act, shall have regard to, among other matters, matters of provincial interest such as,

(a) the protection of ecological systems, including natural areas, features and functions;

- (b) the protection of the agricultural resources of the Province;
- (c) the conservation and management of natural resources and the mineral resource base;
- (d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;
- (e) the supply, efficient use and conservation of energy and water;
- (f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
- (g) the minimization of waste;
- (h) the orderly development of safe and healthy communities;
- (h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;
- (i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
- (j) the adequate provision of a full range of housing, including affordable housing;
- (k) the adequate provision of employment opportunities;
- (l) the protection of the financial and economic well-being of the Province and its municipalities;
- (m) the co-ordination of planning activities of public bodies;
- (n) the resolution of planning conflicts involving public and private interests;
- (o) the protection of public health and safety;
- (p) the appropriate location of growth and development;
- (q) the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;
- (r) the promotion of built form that,
 - (i) is well-designed,
 - (ii) encourages a sense of place, and
 - (iii) provides for public spaces that are of high quality, safe, accessible, attractive and vibrant;
- (s) the mitigation of greenhouse gas emissions and adaptation to a changing climate. 1994, c. 23, s. 5; 1996, c. 4, s. 2; 2001, c. 32, s. 31 (1); 2006, c. 23, s. 3; 2011, c. 6, Sched. 2, s. 1; 2015, c. 26, s. 12; 2017, c. 10, Sched. 4, s. 11 (1); 2017, c. 23, Sched. 5, s. 80.

The proposed development does not satisfy the policy directives of Section 2 of the Act. Specifically, the proposed development (in the form of a residential plan of subdivision) does not:

Provide for the protection of ecological systems, including natural areas, features and functions;

Encourage a sense of place;

Represent an appropriate location for development;

Provide for active transportation; and

Represent an orderly development.

Village and County Official Plans

As part of my preliminary review of these two Policy documents I could find no policy provision that would permit this form of development (Settlement Area).

It is my professional planning opinion that an Official Plan Amendment (OPA) is required to designate the development lands as “Rural Settlement Area” or some similar equivalent. Even with the OPA provided as part of the land use approval application package, my professional planning opinion would not change.

The OPA would need demonstrate consistency with the 2024 PPS and conformity with Section 2 of the Planning Act.

Village Zoning By-law

My preliminary review of this document confirms that the Village is in the midst of a comprehensive update of same. It is suffice to say that any Zoning By-law Amendment Application to be filed serving to implement the proposed DPOS Application would not be appropriate, for it would permit a form and magnitude of residential development unsuitable for this area of the community.

P.H. Robinson Consulting Planning Justification Report

I completed a preliminary review of the Planning Justification Report.

I arrived at a fundamentally different professional planning opinion than that of the Report writer. The Report does not offer much in the way of the impacts of the development upon the planned function of the designated-planned settlement areas in the Village and County areas both. Typically, this is a matter of significant consideration and analysis at both the lower and upper tier planning levels.

Summary

It is my professional planning opinion that the Draft Plan of Subdivision Application does not represent Good Planning. The contemplated residential development is not respectful of its natural setting and its area land uses, including active farms.

The creation of a multi-lot residential development of this scale is appropriately located in designated settlement areas, which have planned function and policy frameworks in place supportive of same.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "K. M. Duguay", with a stylized flourish at the end.

Kevin M. Duguay, MCIP, RPP



RESUME

PERSONAL DATA

Kevin M. Duguay, MCIP, RPP
560 Romaine Street
PETERBOROUGH, Ontario K9J 2E3
kevin@kmdplanning.com (705) 749 - 6710

EDUCATION

Bachelor of Environmental Studies
Urban and Regional Planning (1981)
University of Waterloo

MEMBERSHIPS

Full Member, Canadian Institute of Planners (MCIP)
Registered Professional Planner Ontario Professional Planners Institute (RPP)
Rotary Club of Peterborough (Since 1998)
Member, Greater Peterborough Chamber of Commerce
Member, CESO

EMPLOYMENT BACKGROUND

**December 2005
to present**

**President
KEVIN M. DUGUAY
COMMUNITY PLANNING AND CONSULTING INC.**

My company (offices in Peterborough and Palmer Rapids (2021 launch) was established in direct response to a growing demand for professional planning services in Central East Area Ontario. Professional services include a full range of community planning services, community accessibility planning, design and solutions and strategic planning. Clients include both private and public sectors. Completed and current projects encompass a range of urban and rural land use initiatives, residential and retail developments, accessibility audits, adaptive re-use projects, long range planning, community planning presentations and work with area non-profit organizations. I am repeatedly called upon by area and provincial organizations and groups to help with accessibility planning projects-initiatives.

I also taught the Urban and Regional Planning Course (3rd Year) Sir Sandford Fleming College-Frost Campus (Lindsay), winter term, from 2009 to 2013.

Summary (partial) of Planning Services

Project- Community	Details
LPAT/Ontario Municipal Board Hearings	Provided expert testimony at a range of LPAT/Ontario Municipal Board Hearings, both urban and rural matters. Also, part of CMC, Settlement and Mediation sessions.
Condominium Conversions	Land use approvals, including detailed housing analysis, for properties in Peterborough and Central East Ontario.
Residential Intensification	Land Use and development approvals for a range of residential intensification projects throughout Central East Ontario. From design inception to construction and occupancy.
Planning Studies	Prepared several Planning -Land use studies for development proponents (private and public sector) - Central East Ontario urban and rural (waterfront-resort based) projects.
Industrial Conversions	Land use and site plan approvals for a range of former industrial facility for residential, public, and commercial uses.
Adaptive Re-use Projects	Adaptive re-use of former school, church, public and industrial sites for residential-commercial land uses.
Medical Clinics, Peterborough and area	Land use and site plan approvals for major expansion and site redevelopment of new and existing medical clinics.
Commercial	Land use/development and site approvals for a range of area commercial properties, both new and existing.
<p>Other projects include (partial list):</p> <p>Town of Brighton Official Plan and Zoning By-Law Update (2019/2020)-with DM Wills Associates</p> <p>Residential Subdivisions</p> <p>Professional Associations Workshops</p> <p>On-Farm Diversification Uses</p> <p>Land Severances- urban and rural</p> <p>Minor variances- urban and rural</p> <p>Restaurant expansions - outdoor patio designs</p>	

<p>Presentations- University, Realtor and other Professional Development and Seminars World Town Planning Day Leader Community strategic planning projects Commercial property designs Mixed-use project designs Parking lot designs</p>	
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Summary (partial) of Accessibility Planning-Design Projects

<p>Township of Havelock-Belmont-Methuen 5 Year Access Plan (2020) Accessibility Audit (2021)</p>	<p>Project Consultant. Carried out both projects including staff-Council training.</p>
<p>Town of Whitby Accessibility Audit Project Whitby, Ontario Summer 2006</p>	<p>Project Leader, developing audit tool, staff training, reporting -recommendations.</p>
<p>Town of Whitby Staff Training Accessibility Planning-Design Fall 2006 and 2007</p>	<p>Workshop leader, trained staff on general principles of accessibility planning and the use of Town Guidelines-audit tools.</p>
<p>City of Oshawa Staff Training Winter 2006</p>	<p>Developed and led one day staff training event, key City staff, including use of audit tools, best practices and resource manual.</p>
<p>City of Oshawa City Council Accessibility Customer Service Training Winter 2007</p>	<p>Workshop leader, trained City Council and senior staff on general principles of accessibility customer service.</p>
<p>Retail Accessibility Project Lindsay Fall 2006</p>	<p>Led workshop and training for Camber of Commerce and Lindsay DBIA, developed retail accessibility audit tool.</p>
<p>City of Kawartha Lakes Community Accessibility Strategy Fall 2007 –on-going</p>	<p>Project leader/consultant. Developing a 5 year community accessibility strategy and related resources.</p>
<p>Scooter Storage Room Project, PHC Peterborough Fall- Winter 2006</p>	<p>Project leader, developing- designing prototype indoor scooter storage room for PHC multi-unit apartment buildings.</p>
<p>City of Burlington Staff Training Accessibility Planning Spring 2007</p>	<p>Workshop leader, trained staff on general principles of accessibility planning and design.</p>
<p>City of Burlington Accessibility Strategy Workshop Winter 2007</p>	<p>Workshop leader. Staff and CAAC members developed a 3-year accessibility strategy plan, objectives-outcomes.</p>
<p>County of Peterborough Township of Smith-Ennismore-Lakefield Retail Accessibility Outreach Program June 2007</p>	<p>Developed Making Your Business Accessible Audit tool, training program and information brochure.</p>

<p>Sample of Presentations- Workshops</p> <ol style="list-style-type: none"> 1. University of Waterloo- Planning School 2. City of Oshawa, Spring 2006 Forum 3. IHM Spring 2007 Conference 4. Belleville – Employment Workshop 5. Lindsay Chamber of Commerce Workshop 6. AMCTO Accessibility Planning - Standards Workshops- Thunder Bay & Brantford 	
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**June 2005
to December 2005**

**Senior Planner,
MHBC PLANNING (Kitchener)**

Joined MHBC Planning at their Kitchener office, and worked on a range of community planning projects (Kitchener, Stratford, Brantford, Ingersoll, Pickering, and Waterloo). Had responsibility to prepare and submit several proposals in response to a wide range of RFP opportunities. Provided planning consulting services to a range of clients and continued with previous community accessibility planning projects, conducting a range of presentations/workshops to private and public-sector groups.

**April 1989
to June 2005**

**Land Use Planner
CITY OF PETERBOROUGH**

This senior position within the City of Peterborough Planning and Development Services was responsible for land use planning approvals (Official Plan and Zoning By-law Amendments). Responsibilities included report writing, presentations, project and staff management, Ontario Municipal Board Hearings and a thorough working knowledge of all relevant planning legislation, policies and related regulations. Expected competencies included effective leadership and facilitation skills, an ability to respond to diverse situations, and exceptional people skills (staff, public and council).

Appointments and engagements arising from this position included presentations to federal, provincial and community-based groups and agencies, membership on several provincial organizations/committees. Served as the City's lead staff member addressing community accessibility, including the preparation of the City's 1992, 1995 and 2002 Accessibility Guidelines and both the 2003/04 and 2005 City Access Plan.

Highlights of Municipal Projects

Accessibility Planning, developed 1992, 1995 and 2002 Access Guidelines and the City's 2003/04 and 2005 Access Plans (various formats and related resource material) as part of creating a Barrier Free Community. Presented at over 40 forums at international, national, provincial (OPPI, OHA, OBOA, OLA, AMCTO, PRO) and community levels. I was also appointed by the Province of Ontario to serve on two provincial accessibility advisory committees.

Land Use Planning, successfully administered over 400 land use approval applications, including residential conversions, major retail developments, and City initiated projects, all contributing to the growth, vitality, and sustainability of the community. In 1997 administered/coordinated a comprehensive update of the City's Zoning By-law.

Home Based Business, administered and managed a comprehensive update of the Zoning By-law Regulations and related municipal policies pertaining to home based businesses.

1992 CMHC Open House Project, project Chair, the duties encompassed overseeing a week- long display of a model accessible dwelling in Peterborough, volunteer training and two community information forums.

International Planning Experience, Selected by CIDA and the Canadian Urban Institute to serve as the consulting planner for the 2003 Treasure Beach, Jamaica, Sustainable Community Planning Project. Continued with the second phase of the project in 2004 and 2009. The Project was successfully completed in the summer of 2014.

Professional Development,

- Served as the OPPI Peterborough and Area Planners Group Chair from 1992-2003;
- Staff member of the City's Corporate Organizational Committee, 2004/05;
- Lead Staff member of Open House Events, City of Peterborough Community Information Forum (2002);
- Conducted planning presentations to Chamber of Commerce, DBIA, Homebuilders, Real Estate Association, Trent University, Brock University, Sir Sandford Fleming College, Secondary and Elementary Schools, area communities;
- Member, Peterborough Regional Health Centre, Standards Committee and Way-finding project team; and
- Member, SSFC Ecosystems Management Curriculum Advisory Committee.

**October 1985
to January 1989**

**Parks and Recreation Director
TOWN OF FERGUS, ONTARIO**

This senior management position encompassed the administration, supervision and management of a full range of all community leisure, culture, recreation, and park and community facilities. A staff roster of 40 employees, full time and part time reported to the Director. Major projects included the community centre expansion (\$ 1.2 million project, including fund-raising, grant administration, capital planning), long range capital planning, staff wage and compensation policy, community development and several important facility upgrades and/or redevelopment initiatives. Served on several community boards and committees and also participated in many federal and provincial professional activities.

**April 1984
to October 1985**

**Parks and Recreation Director
TOWN OF CLINTON, ONTARIO**

Duties and responsibilities were like the above position. This was the first-ever Recreation Director for the Town. Major accomplishments included Recreation Policies and Procedures, the organization and establishment of the Recreation Offices, several new community-based capital projects, community performing arts program, recreation programming and special events and long-range capital planning. Managed and supervised a staff roster of 30 employees, full-time and part-time. I also served on several local and provincial recreational committees, as well as several community-based associations and agencies.

**August 1982
to April 1984**

**Recreation Co-ordinator
TOWNSHIP OF SHREIBER, ONTARIO**

Duties and responsibilities were the above positions. Managed and supervised a staff roster of 20 full-time and part-time employees. Major accomplishments included Winter Carnival and other community festivals/events, Township Heritage Book, Community Centre renovation project, new community-based sport, Departmental policies, procedures, employee training, and certification. Coached the Schreiber North Stars Junior 'B' Hockey Team – 1982/83.

OTHER WORK EXPERIENCE

ANSON HOUSE, Peterborough. Retained by Anson House during 1994-2003 to facilitate long – range planning, policy and procedure and strategic planning projects. In June 2003 prepared a Transitional Plan for the organization, addressing their transition from a Long-Term Care provider to a supportive housing provider, and all attendant organizational implications.

Strategic Planning. Facilitated several Strategic Planning forums for non-profit organizations including, City of Brantford (Accessibility Planning) Kawartha Participation Projects (1993 and 2006-2009), and Ontario Water Polo (1990 and 1991).

Recreation Facility Planning. Retained by Architectural firms as a consultant for various community recreation and sport facility projects.

Accessibility Planning. Presented to over 60 Ontario communities and several provincial professional organizations, Chambers of Commerce and Business Organizations on accessibility planning obligations and projects, including:

- Annual Access Plans;
- Community workshops;
- Organizational Development, structures, policy and procedures;
- Site- Building Audits, Way-finding, urban design solutions; and
- Staff Training, customer service training programs.

Workshops – Presentations. Conducted presentations and lead workshops for the following:

- Elementary Schools, including a community-wide 2004, 2011-2015 World Town Planning Day forum (20 -36 area students per event);
- Secondary Schools, Grade 9 and 12 Geography Classes (2000 to present);
- Trent University, Year Three Urban Geography Class, including participating in the evaluation of year end assignments - group presentations;
- Brock University, Year Three Urban Geography Annual Fall Field Trip (Peterborough), including presentations, student liaison (1999 to 2009);
- Sir Sanford Fleming College, Ecosystems Management, Recreation Leadership, Continuing Education Classes on a variety of community planning and development topics;
- Home Builders & Real Estate Boards, Planning Reform–legislation;
- Peterborough Regional Health Centre, Community Accessibility Planning;
- Design Exchange, full day workshop- Creating an Universally Accessible Community, April 2006;
- Peterborough Realtors Association - Professional Development Seminars -land severances, Community Planning 101;
- Area Chambers of Commerce, Banks-Financial Institutions - Community Planning workshops;
- Youth-young Adult World Town Planning Events (2015 to present);and
- Area Service Clubs and non-profit organizations.

Appendix C

Peer Review of Applicant’s Hydrogeology Report

A peer-review report by Berend Jan Velderman, M.Sc, P.Geo (ON) of Geosyntec Consultants International Inc., of the hydrogeology reports submitted by Kollaard Consultants on behalf of the Applicant

21 April 2025

Elisabeth Preston
826 County Road 23,
Merrickville ON
K0G1N0.

Attention: Ms. Elisabeth Preston

Subject: Peer Review re: Orchards of River Bend Proposed Subdivision Village of Merrickville-Wolford, Ontario

Dear Ms. Preston:

As requested, Geosyntec Consultants International, Inc. (Geosyntec) have completed a peer review of the report on “Hydrogeological Investigation and Terrain Evaluation, 819 Burritts Rapids Road, Merrickville-Wolford, Ontario dated January 20, 2025” prepared by Kollaard Associates (Kollaard). The Site is called the Orchards of River Bend Proposed Subdivision (proposed subdivision). Additional information was available on the Leeds and Grenville County website at [Current Planning Applications](#). We have provided Geosyntec’s comments in italics.

BACKGROUND

In 2024, Kollaard was engaged by 2873633 Ontario Inc. of Merrickville, Ontario, as part of a development application to conduct a hydrogeological investigation and terrain evaluation for a Site on Burritt’s Rapids Road, Village of Merrickville-Wolford. This Site spans approximately 22.7 hectares (56 acres) on the west side of Burritt’s Rapids Road along the Rideau River. The proposal subdivides the Site into 29 lots for single-family dwellings, averaging 0.65 hectares (with a minimum of 0.4 hectares). The Village does allow auxiliary dwellings on the properties along with the main dwelling. In addition, building large homes on such properties in the area is the practice. Private septic systems and wells will service these homes. Currently, the Site is mainly treed (part of a significant woodland). An existing house and detached garage are on part of the property. The west and north sides of the property border the Rideau River, and there is an unevaluated wetland in the southern portion of the property. The Rideau River borders the Site to

the west and north, Burritts Rapids Road to the south, and farmland and forest to the east. Private septic systems and wells also serve existing dwellings in the area.

Geologically, the Site is expected to be underlain by glaciomarine and alluvial deposits of silt, clay, sand, and gravel. In summary, the Kollaard document shows that overburden thickness is about 10 metres of clay based on the water well records of the test wells completed at the Site. Water was found at about 25 to 45 metres below the ground surface in the bedrock in these wells. The bedrock consists of dolostone and sandstone from the Beekmantown Group. Measured groundwater elevations in the test wells were around 94 metres above sea level, corresponding closely to the land surface.

OBJECTIVES

The objectives of this peer review letter are to document Geosyntec’s independent perspective of the Kollaard document and raise items of concern noted by Geosyntec.

PEER REVIEWER QUALIFICATIONS

Mr. Velderman's CV is attached to this letter as attachment A.

AREAS OF CONCERN

Well Assessment and Rationale for Determination of Interference

Kollards work shows the following:

- 1) During the pumping tests of various wells (TW1, TW2, TW3, and TW4), pressure transducer logging was conducted to observe drawdown effects on nearby wells.
 - Pumping at TW1: Logging at TW2 and TW4, located 250 and 500 meters away, showed drawdowns of 0.25 meters and 0.50 meters, respectively. Logging of TW4 experienced significant interference due to its use by the existing residence.
 - Pumping at TW2: Logging at TW1 and the Observation Well (OW1) at the existing residence, located 250 and 650 meters away, showed drawdowns of 0.20 meters and 0.33 meters, respectively.
 - Pumping at TW3: Logging at TW4, located 375 meters away, showed a drawdown of 1.45 meters, with significant interference due to its use by the residence.

- Pumping at TW4: Logging at TW1, TW2, TW3, and OW1, located 500, 660, 375, and 18 meters away, respectively, showed no drawdown at TW1, TW2, and TW3, but a drawdown of 4.74 meters at OW1.

Geosyntec’s opinion. *Although the hydrogeologic formula is not appropriate for fracture flow, as expected in the Oxford formation limestone bedrock fractures. The drawdown test shows good capacity to supply the subdivision.*

Kollaard’s water quality work shows an aquifer with potable water quality requiring treatment for iron and hardness. Sodium levels are elevated but acceptable for a groundwater-based resource for domestic supply in Ontario.

In summary, the Kollaard work shows a good aquifer for groundwater supply below the proposed development.

Lot Size and Septic Systems

Kollaard’s guidance about this is summarized as follows:

1. The test pits and auger holes on the subject property indicate that soils consist of a silty clay deposit at least 3 metres in thickness over most of the site, with one test pit encountering till below the clay at about 0.8 metres. The drilled well logs confirm that the overburden consists of clay and till of greater than 9 metres in thickness. The permeability of the two soil types indicate medium to low permeability soils. The groundwater table was relatively high when measured during spring conditions and lower in late winter. Class IV sewage disposal systems with fully raised leaching beds will likely be used at this Site, and Level IV treatment systems with area beds, depending on lot-specific soil and groundwater conditions and building and lot configurations.
2. The proposed lot sizes vary between 0.40 and 1.8 hectares, with average lot sizes of 0.65 hectares. The theoretical nitrate calculations indicate that the downgradient nitrate concentrations for the development could be 9.7 mg/L as nitrogen. The background conditions at the site indicate that the overburden has very little nitrate and is currently not impacted. Due to planned development setbacks and for sewage systems to be downgradient of wells, some 7 of the 29 lots are proposed to be equipped with Level IV treatment units and reduced sewage leaching beds to service the lots adequately. The sewage impact calculations were predicted assuming nitrate loadings of 40 mg/L for all lots.
3. Future sewage systems on the property will be fully raised conventional Class IV systems with a minimum 15-meter mantles. These systems should

be constructed using imported sand with a percolation time of 6 to 8 minutes per centimeter and less than 5% passing the #200 sieve. Gradation analyses are recommended for any potential sand fill before constructing leaching beds to ensure acceptable percolation times.

4. The lots are designed to accommodate a sewage flow of 2,800 liters per day, suitable for a four-bedroom dwelling with 278 square meters of finished area and 23 fixture units. The general layout shown on the Lot Development Plan should be maintained to maintain proper drainage and maximize separation distances between sewage systems, wells, and adjacent surface water. Most sewage systems will be in front yards with mantles leading to roadside ditches, except for Lots 2 and 22, which will have backyard systems. Any changes to the lot layout require review and approval by a qualified hydrogeologist to ensure compliance with the Lot Development Plan and protection of natural habitats and surface water.
 5. The Lot Development Plan includes fully raised conventional Class IV sewage systems with mantles based on sewage flows of 2,800 L/day for most lots. Seven lots (1, 2, 10, 17, 18, 19, and 20) have development constraints due to limited frontage or proximity to wetlands or slopes. These lots will have OBC Level IV treatment units, alternative leaching beds, or other approved systems. Future owners should be informed of these constraints through the title or deed.
- Geosyntec’s opinion. *The terrain is a low-lying swampy terrain with an elevation difference of about 6 metres and is underlain by a wet, dense clay with a high water table for part of the year, as shown in test pits completed by Kollaard. In addition, the water-bearing formation below the site has hydraulic gradients near the land surface. Based on hydrogeological experience elsewhere in the Ottawa area on similar deposits, it would be more appropriate to have these raised beds on properties of 0.8 ha or larger. The rationale for this is as follows: due to the high water tables, the effluent of the septic system may daylight in ditches as poorly treated discharge due to the inability to infiltrate part of the year. During high precipitation, septage may make it to the river.*
 - *Kollard calculates a nitrate concentration of 9.7 mg/L at property boundaries to justify sufficient dilution on the lots(considering a regulatory limit of 10 mg/l). The reality is that the dilution will follow drainage pathways, and there may not be thorough mixing, further exacerbating the condition that poorly treated septage will be in ditches and drainage areas.*
 - Due to development setbacks and for sewage systems to be downgradient of wells, some 7 of the 29 lots are proposed to be equipped with Level IV treatment units and reduced

sewage leaching beds to service the lots adequately. *This guidance shows that the development could benefit of larger lot sizes to properly accommodate standard septic systems. It is suggested that the Level IV treatment units would be better suited in case of a remedial solution, when standard systems fail to perform.*

- *Beyond scope items:*

- 1) *We have noted that a report entitled “An Environmental Impact Study Headwater Assessment, 819 County Road 23, Merrickville, ON, Part Lot GORE, Concession GORE, Township of Wolford, United Counties of Leeds and Grenville, 2022 was completed by BCH Environmental Consultants in support of the development. Geosyntec suggests that this report could benefit from a peer review, given the importance of the significant woodland adjacent to the Rideau River.*
- 2) *Our review of the file noted that a Stage 1 Archaeological Study had not been completed for the Site. Given its location next to the River, it may be appropriate to complete such a study to consider whether the Site has had historic or indigenous significance.*
- 3) *The development file includes the following report by Kollaard ” Conceptual Stormwater Management Report Proposed Residential Subdivision 819 County Road 23 Merrickville-Wolford, Ontario, dated December 2024”. This report notes that stormwater will be managed by open ditches. It would be appropriate to have this report peer reviewed in light of septic system discharges to the open ditch system, the stream’s crossing the lands and adequacy of performance in light of the noted high groundwater tables and the adjacent wetland, by a qualified hydrologist/civil engineer.*

Should you have questions or need additional information, please do not hesitate to contact Berend Velderman (bvelderman@geosyntec.com) at 613.218.2461. Thank you for the opportunity to be of service.

Sincerely,

Geosyntec Consultants International, Inc.



Berend Jan Velderman, P. Geo. (ON)
Senior Hydrogeologist

Attachments Attachment A: CV – Berend Jan Velderman

Attachment A
CV Berend Jan Velderman



CAREER SUMMARY

Berend Velderman is a Senior hydrogeologist with more than 25 years of experience as a subject matter expert in environmental, health and safety compliance, hydrogeology, water supply, sediment management, and site remediation. Berend is located in Geosyntec’s Ottawa office. He is a qualified person environmental site assessment and risk assessment (QP ESA and RA) under the Ontario Brownfields Regulation O. Reg 153/04.

He led project delivery around the world in these discipline areas for industrial clients. He has also led numerous site assessment and remedial implementation projects for clients in Canada, including developers, landowners, financial institutions, manufacturers, municipalities, the Canadian Federal Government and First Nations.

Mr. Velderman acted as a project director for environmental components of municipal projects, landfill sites, brownfields redevelopment, fuel retail outlets site remediation; led the remediation of a variety of contaminated lands issues ranging up to \$20 million dollars. Past and recent investigation and remediation projects included: cleanup of chlorinated solvents, PCB’s, petroleum hydrocarbons and heavy metals.

Mr. Velderman provided technical direction with a wide variety of environmental projects including: Phase I and Phase II site assessments, landfill site studies, geochemical modelling, hydrocarbon spill investigation and remediation, underground storage tank assessments, groundwater flow modelling, hydrogeological GIS applications, DNAPL studies, hydrogeochemical assessments of aquifers and well head protection studies.

Specialties

- Environmental site investigation/assessment
- Isotope hydrogeology
- Physical hydrogeology
- Environmental remediation
- Environmental management
- Sediment management

Education

M.Sc., Earth Sciences,
Hydrogeology and
Geochemistry, University of
Ottawa, Ottawa, 1994

B.Sc., Geology (Honours),
Queen’s University, Kingston,
1988

Registrations and Certifications

Member of Professional
Geoscientists of Ontario (0284)

KEY PROJECT EXPERIENCE

Senior Hydrogeologist, Peer Reviews and support of legal proceedings for Legal Counsel, Ontario. Pertaining to quarry expansion, quarry siting, contaminated site impacts (retail fuel outlets and past legacy contamination),

groundwater inflow assessments (permit to take water), construction dewatering analysis and regional hydrogeology.

Senior Hydrogeologist, peer review and expert witness, Vaughn, Ontario. Review of dewatering file and supporting legal counsel in building the case. File is in progress.

Senior Hydrogeologist, peer review and expert witness, 1655 Carling Avenue, Ottawa, Ontario. Pertaining to contaminated site impacts (retail fuel outlets and past legacy contamination from adjacent property) from an off-site property and adequacy of remediation. File was settled in favour of the client.

Senior Hydrogeologist, peer review and expert witness, 1315 Prince of Wales Drive, Ottawa, Ontario. Pertaining to remediation of contaminated site impacts (past legacy hydrocarbon contamination) on-Site and off-Site and adequacy of remediation. File was settled in favour of the client.

Senior Hydrogeologist Peer Review and support to legal counsel with regard to C corp. transaction retail fuel outlets. Provide review of consultant reports and commented on adequacy of remediation, remedial technologies included in situ

Senior Hydrogeologist, peer review and support of legal proceedings for Riocan, Merivale Mall, Ottawa, Ontario. Pertaining to remediation of contaminated site impacts (past legacy TCE and hydrocarbon contamination) on Site and adequacy of remediation, using in situ chemical oxidation.

Forensics Study - Arochlor Finger Printing and Mapping of Soil Distribution, New York – Principal investigator responsible for the mapping of Arochlor variations in soil near Ogdensburg, New York at a waste receiving site for a waste operator. Information was used to assign accountability to various stakeholders that had used the site for PCB equipment storage.

Senior Expert Guidance, Operating Ports Facility. Baltimore, Maryland. Guidance with regard to the management of COPR (Chromium Ore Processing Residue) at an operating Ports facility.

Senior Expert Guidance and Direction, TCE Contaminated Sites, Ottawa area, Ontario. Guidance and direction with regard to the vapour intrusion and site remediation of TCE contaminated sites.

Senior Expert Guidance and Direction, TCE and Metals Contaminated Sites, Madrid, Spain and Hof, Germany. Guidance and direction with regard to the vapour intrusion and site remediation.

Client Director, Guidance and Direction, Manufacturing Plant, Cornwall, Ontario. Guidance and direction with regard to a plasticizer spill at a manufacturing plant.

Project Management, Kingston, Ontario, Environmental (Ecology, Archeology, Bioacoustics, Sediment, Water and Air) and Geotechnical Components of the Preliminary Design of the Third Bridge Crossing. Project delivered in association with other partners.

Project Director Hydrogeology and Contaminant Study River Road Storm Water Solution, Storm Sewer Overflow, Ottawa, Ontario.

Project Director, Hydrogeology and Contaminant Study Sandy Hill, Storm Water Reservoir, Ottawa, Ontario.

Project Director, Geotechnical, Hydrogeology and Contaminant Studies Preston Street, Infrastructure Rehabilitation, Ottawa, Ontario.

Project Director, Geotechnical, Hydrogeology, Groundwater inflow forensic study, Federal Government Building, London, Ontario

Project Director, Geotechnical, Hydrogeology and Contaminant Studies Bronson Avenue, Infrastructure Rehabilitation, Ottawa, Ontario.

Project Director, Geotechnical, Hydrogeology South Nepean Collector, Ottawa, Ontario. Project Manager Evaluation of inflows and resultant groundwater management requirements with eductors in a sand deposit, Nepean, Ontario.

Senior Advisor, Phase One and Phase Two Environmental Site Assessment Lakeshore Boulevard property, Toronto, Ontario

Project Manager Various Hydrogeology and Contaminant Studies, Ottawa Transit Way System, Ottawa, Ontario.

Project Manager, Various Hydrogeology and Contaminant Studies, Parliament Hill, Ottawa, Ontario

Project Manager and Hydrogeologist, Regional Hydrogeological Studies, City of Ottawa, City of Kanata, Village of Merrickville. Worked on development of groundwater management plans using a geographical information system (GIS).

Project Manager, Numerous Landfill Sites, Ontario. Hydrogeology and surface water monitoring programs.

Project Manager, Development of Environmental Intranet and Internet Sites, Municipal and Transportation Industry Clients, Ontario and Canada.

Project Director and Manager, Phase I and Phase II Environmental Site Assessments, in Excess of 100. ASTM, Ontario Regulation and other formats. Canada, USA and Europe. Sites have included power plants, pharmaceutical plants, chemical plants, automotive and aerospace plants, institutional facilities and commercial buildings.

Project Director, Regions of Site Conditions and Site Specific Risk Assessment, Ontario Regulation, Ottawa, Ontario. Completed and supported several submissions on behalf of property owners.

Project Manager and Hydrogeologist, Groundwater Under the Direct Influence of Surface Water Studies (GUDI), Numerous Eastern Ontario Water Supplies.

Project Manager, Number of Groundwater Supply Systems Expansions, Ontario

Project Manager and Hydrogeologist, Groundwater Supply Evaluations, Merrickville, Lanark, Kanata, Richmond, Manotick, and Mississippi Valley Conservation Area, Ontario.

Project Manager and Hydrogeologist, Retail Fuel Outlet Investigation and Remediation, Various petroleum distribution companies, Ontario.

Project Director and Client Liaison, Nation and North Dundas Municipalities, Expansion of groundwater supply projects, Eastern Ontario.

Project Contaminant Hydrogeologist, St. Joseph Boulevard Rehabilitation, Contaminant Hydrogeology, Ottawa, Ontario.

Project Hydrogeologist, Green's Creek Collector Remediation, Hydrogeology, Ottawa, Ontario.

Project Manager, Oil Well Abandonment, First Nation Lands, Manitoulin Island, Ontario. Investigation program and remedial action of legacy oil wells.

Project Manager, Communal Well Siting, First Nation community, Quebec. Investigation program to locate a new communal well for First Nation community.

Program Manager, North American Rail Company, USA and Canada. Program manager for a North American wide water quality monitoring, management and maintenance program.

Appendix D

Peer Review of Applicant’s reports on stormwater management and floodplain analysis

Appendix C: a peer-review report by Isabelle Hennings, M.A. Sc, P.Eng (ON, BC) of Geosyntec Consultants International Inc., within the scope of a stormwater management and floodplain analysis review of the civil drawings related to grading, drainage and erosion and sediment controls, the Environmental Impact Study, the Floodplain Analysis Technical Memorandum, and the Stormwater Management Report.

DRAFT

April 30, 2025

Project No. TR1401B

Elisabeth Preston
826 County Road 23
Merrickville, ON
K0G 1N0

**Re: Peer Review: Water Resources review of Orchards
of the River Bend Proposed Subdivision
Village of Merrickville-Wolford, Ontario**

Dear Elisabeth:

As requested, Geosyntec Consultants International, Inc. (Geosyntec) has completed a peer review of the following reports obtained from the Leeds and Greville County website at [Current Planning Applications](#):

- Environmental Impact Study (EIS) and Headwater Assessment 819 Country Road 23, Merrickville, ON, dated July 2022, prepared by BCH Environmental Consulting
- Rideau River Floodplain Analysis Brief Proposed Orchards of River Bend Estates, Residential Subdivision 819 County Road 23, Merrickville-Wolford, Ontario, dated February 5, 2025, prepared by Kollaard Associates
- Conceptual Stormwater Management Report Proposed Residential Subdivision 819 County Road 23, Merrickville-Wolford, Ontario dated December 20, 2024; prepared by Kollaard Associates
- Civil Drawings related to grading, drainage, and erosion and sediment controls, dated December 2024, prepared by Kollaard Associates

The peer review was conducted with a water resources lens, reviewing the details related to drainage, stormwater management, and floodplain hazards for this proposed development.

BACKGROUND

Kollaard Associates Inc. has been retained by 2873633 Ontario Inc. to complete a conceptual stormwater management design, associated drawings and floodplain impact assessment as part of the development application for 819 County Road 23, Merrickville, Ontario (the Site). The Site spans approximately 22.7 ha on the west side of County Road 23 along the Rideau River. The proposal subdivides the Site into 29 lots for single-family dwellings. The west and north sides of the Site border the Rideau River, and there is an unevaluated wetland in the southern portion of the Site, effectively creating two distinct portions of the Site.

DRAFT

The Environmental Impact Statement examines the proposed development's effects on the environment — a significant wood lot, species at risk, and fish habitat in particular. The floodplain assessment reviews the proposed development concerning the Rideau River Floodplain, and the Conceptual Stormwater Management Report and its associated drawings provide the conceptual plan for stormwater management.

OBJECTIVE

The objective of this review is to document Geosyntec's independent perspective of the documents listed above and raise items of concern.

PEER REVIEW QUALIFICATIONS

Ms. Hemmings's CV is attached to this letter in **Attachment A**.

AREAS OF CONCERN

Each document will be reviewed in turn, with the areas of concern noted.

Environmental Impact Statement and Headwaters Analysis

The EIS, by BCH Environmental Consultants, provides a background review of the environmental constraints for the proposed development. Species at risk were identified in or near the proposed development, including two butternut trees with setback limits noted on the Site, and bobolink habitat adjacent to the development. Further, two tributaries of the Rideau River were observed on Site and a rapid headwaters assessment was completed. Further, the two tributaries were evaluated for fish habitat, although no fish sampling was completed. The tributaries, named Tributary 1 and Tributary 2 in the report, were noted to be quite shallow, heavily vegetated, and unlikely to have fish within them. Tributary 1 was hydrologically classified as limited. Tributary 2 was hydrologically classified as contributing. Tributary 1 was considered to have a contributing function for fish habitat having been observed to be dry on at least one site visit and having a poor downstream connection to the Rideau River. Tributary 2 was considered to have valued functions for fish habitat, with water present in all site visits, and connection to the wetland. Conservation of Tributary 2 was recommended, while no management requirements were identified for Tributary 1. Thirty metre (30 m) setbacks are suggested from the wetland and the 100-year flood line of the Rideau River.

Geosyntec Comments: Overall, no concerns or questions were raised in the review of the EIS and rapid headwaters assessment. The development area in the EIS is slightly (less than 1 hectare (ha)) smaller than the development areas noted in the Kollaard documents. This is attributed to the dates of the reports—the EIS was written in 2022, and the Kollaard documents in 2024.

DRAFT**Rideau River Floodplain Analysis Brief**

The Floodplain Analysis Brief, prepared by Kollaard, documents the effects of the Rideau River 100 year floodplain on the proposed development. The 100 year floodplain elevation sits below the top of slope from the proposed development. The regulatory limit is offset by 15 m from this 100 year flood elevation. The development proposes a 30 m no-development setback from the Rideau River, with a further 10 m setback. The analysis concludes that the 100 year floodplain has no effect on the proposed development.

Geosyntec Comments: Geosyntec agrees with the analysis and appreciates the 40 m setback to avoid any concerns about the floodplain and riverbank slope.

Conceptual Stormwater Management Plan

The Conceptual Stormwater Management Plan and associated drawings, developed by Kollaard, present stormwater quantity and quality management for the proposed development. The Site has two stormwater management facilities to manage stormwater on either side of the unevaluated wetland that intersects the Site. Runoff is conveyed to the stormwater management facilities in swales or U-shaped ditches along the roadside. Two large swales function as detention facilities for the runoff. A sand filter is designed before the outlet of each of the swales. Quantity control is achieved by using an orifice and v-notch weir at the outlet of the storage swale. Quality control is provided through a treatment train of vegetated swales or u-shaped ditches, the detention within the storage swale and the sand filter. Controls are in place to meet the Stormwater Management Planning and Design Guidelines (MECP, 2003) requirements, as required by the Village of Merrickville-Wolford.

Design drawings accompany the report and provide the proposed development's stormwater plan, erosion and sediment controls, and grading plans.

Geosyntec Comments: The stormwater management report supports the design's calculations. However, minor inconsistencies exist between the catchment values used in the calculations and those shown on the drawings. These discrepancies would not fundamentally change the approach.

The catchment delineation shown in the figures prompts some questions. Flows from Pre-N are shown to travel both to the Rideau River and to the wetland. A review of the catchment delineations is recommended to confirm that all flows that are collected by the wetland are captured within its catchment. Reviewing the proposed setbacks from the wetland, though, the proposed development does not suggest a change in imperviousness that would affect the wetland, even if the catchment changes. Any development within this revised catchment area has run off directed to the roadside ditches and onto the stormwater management system before discharge to the wetland.

Erosion and sediment control protection drawings and associated notes appear to be consistent with best management practices for this design stage.

Elisabeth Preston

April 30, 2025

Page 4

DRAFT

Note of concern: The grading plan (drawing 210816-GR(1)) indicates septic systems in the front yards have ground elevations greater than 1.5 m above the bottom of the roadside ditch lines. There is no commentary in the reviewed reporting on any mitigation measures to prevent septic effluent from seeping into the roadside ditches.

Note of concern: The grading plan (drawing 210816-GR(1)) indicates a swale is proposed on the western side of the wetland, diverting flows to the south, under the proposed road and into the area marked “No development – unevaluated wetlands”. Based on the existing conditions topographic information, this would change the flow conditions in the wetlands north of the proposed roads. Further review of this flow pattern is recommended.

Note of concern: The grading plan (drawing 210816-GR(2)) indicates an inlet to the SWM Block immediately upstream of the outlet. A review of the inlet locations on this SWM Block is suggested in future stages of design. Geosyntec acknowledges this is a conceptual design only and that future work will include a more detailed review of inlet locations.

Note of concern: Ditches have highly variable longitudinal grades, which could promote localized erosion concerns. In future design stages, a review of longitudinal grades to smooth the overall roadside ditch lines is recommended.

CONCLUSIONS

Geosyntec has reviewed the drainage, stormwater management, and floodplain-related reporting for the proposed development. Overall, the stormwater management plan suggested is sound; however, a review of grading is recommended to mitigate seepage from the septic beds proposed and prevent localized erosion and scour in roadside ditches.

Sincerely,

Geosyntec Consultants International, Inc.

Isabelle Hemmings, M.A.Sc., P.Eng. (ON, BC)
Senior Water Resources Engineer

Encl.

Attachments Attachment A: Ms. Hemmings’s CV

cc: Berend Velderman

OrchardsofRiverBendSWMPeerReview

Attachment A
Ms. Hemmings’s CV



CAREER SUMMARY

Isabelle is a senior water resources engineer with over 20 years of consulting experience in surface and groundwater realms. She has experience in modelling, culvert design, stormwater management design, hydrology, and hydraulics.

PROJECT EXPERIENCE

Stormwater Management

Highway 17-417 Arnprior Patrol Yard, WP 4059-21-01, Ministry of Transportation, Ontario, East Region, Ontario. Drainage lead for the Class Environmental Assessment and preliminary design of the Arnprior Maintenance Patrol yard. Responsible for site selection input from a water resources perspective; storm sewer network design; stormwater management facility design for both quantity and quality controls.

Reconstruction of Ayr Patrol Yard, GWP 2019-3004, Ministry of Transportation, Ontario, West Region, Ontario. Drainage lead for the completion of the Class Environmental Assessment, detail design, and construction of the highway 401/Cedar Creek Road Ayr Maintenance Patrol Yard Reconstruction and related improvements to Water Regional Road 97 (Cedar Creek Road). Responsible for storm sewer network design; stormwater management facility design for both quantity and quality controls.

Hwy 417 Ottawa Patrol Yard, GWP 4018-18-00, Ministry of Transportation, Ontario, East Region, Ontario. Drainage lead for the completion of the Class Environmental Assessment and preliminary design of the Ottawa Patrol Yard. Responsible for site selection input from the water resources perspective, storm sewer network design, and stormwater management facility design for both quantity and quality controls.

Thunder Bay Commercial Vehicle Inspection Facility – GWP 6501-10-00, Ministry of Transportation, Ontario Northwest Region, Thunder Bay, Ontario. Drainage lead for the completion of the Class Environmental Assessment and detail design for a new commercial vehicle inspection facility (CVIF) located along Highway 11/15 in the Municipality of Shuniah. Responsible for the hydrological and hydraulic analysis of existing drainage infrastructure within the highway 11/17 corridor as well as the development of a comprehensive stormwater management design for the site that considers the environmental sensitivity of the receiving water system. Additional works include both temporary and permanent erosion and sediment control measures for all anticipated construction activities. Stormwater management controls included both quantity (post development flows to match predevelopment flows) and quality (meet enhance level criteria) controls.

Mavis Stormwater ECA Amendment, GFL, Mississauga, Ontario. Project manager for storm sewer design and amendment to ECA application for stormwater for a waste transfer facility.

Waste ECA Application SSM, GLF, Sault Ste. Marie, Ontario. Stormwater lead for stormwater management design in support of a waste ECA application for a waste transfer facility.

NE Trail - Rouge National Urban Park, Parks Canada, Scarborough, Ontario. Water resources lead for the detailed trail design, preparation of tender documents, and contract administration during construction of the Northeast trail. Responsible for hydraulic evaluation of existing watercourse crossings and trail drainage design.

Specialties

- ✓ Water resources engineering
- ✓ Hydrogeology
- ✓ Project management

Education

Doctor of Philosophy, Engineering Science (incomplete, all but dissertation), University of Auckland, 2004

Master of Applied Science, Aerospace Engineering, University of Toronto, 1998

Bachelor of Mathematics (Hons, Co-op), Applied Mathematics, University of Waterloo, 1996

Registrations and Certifications

Professional Engineer, Ontario (# 100173826)

Languages

English and French fluent

Hungarian and German basic

51 Breithaupt - Phase 3, Martin Simmons Architects Inc., Waterloo, Ontario. Water resources engineer for the functional servicing design for private development. Responsible for storm sewer design, hydrology, and hydraulics calculations, PCSWMM modelling.

Gardiner East and Lake Shore Blvd Public Realm Design Project, City of Toronto, Ontario. Stormwater management design lead for the analysis, identification, and design of stormwater management solutions for the public realm design of Lake Shore Blvd from Jarvis Street to Logan Avenue. Provided innovative solutions to manage the water quantity on Lake Shore Blvd as a result of the Gardiner infrastructure and the nature of the urban study area. Integrating stormwater management solutions into detailed design of overall public realm for the corridor.

Hospital lands Study, City of Hamilton, Ontario. Reviewed conceptual stormwater management plan for the development of hospital lands.

Confederation GO Station, Metrolinx, Hamilton, Ontario. Oversaw design of a stormwater management system for a proposed GO station. Tasks included providing quality and quantity control, and meeting LEED requirements for stormwater management.

Guildwood GO station, Metrolinx, Toronto, Ontario. Designed stormwater management system for a proposed GO station. Tasks included providing quality and quantity control, and meeting LEED requirements for stormwater management.

3761 Highway 6, n Architecture, Mount Hope, Ontario. Project manager for the design of a stormwater management system for a gas station facility. Tasks included providing quality improvements and quantity controls, meeting MTO, Hamilton Conservation and City of Hamilton requirements for stormwater discharge.

12 Guelph Street, n Architecture, Acton, Ontario. Project manager for the design of a stormwater management system for a gas station facility. Tasks included providing quality improvements and quantity controls, meeting MTO, Halton Conservation and Town of Acton requirements for stormwater discharge.

LaGuardia Airport, Port Authority of New York and New Jersey. Developed Stormwater Pollution Protection Program reporting and coordinated associated drawings for construction at airport.

1046 Highway 6, Unique Restorations, Flamborough, Ontario. Project manager for the design of an onsite stormwater management for a proposed commercial site. Included design of a wet pond, enhanced swales and ensuring that post development flows matched predevelopment flows as well as water quality leaving the site met MECP “enhanced” quality criteria. Compiled the functional servicing report for the site.

1015 Sutton Drive, Liebherr, Burlington, Ontario. Water resources lead for the design of an onsite stormwater management for the proposed expansion of a commercial site. Included in-pipe storage measures to ensure the site met detention time requirements as well as ensuring post development flows matched predevelopment flows.

189 King Street Public Works Yard, City of Hamilton, Ontario. Project manager for the completion of a preliminary on-site stormwater quality improvement design for a public works yard. Included sizing of oil-grit separators and review of site drainage to ensure quality improvements met the MECP criteria of “enhanced”.

349 Jones Road Public Works Yard, City of Hamilton, Ontario. Project manager for the completion of a preliminary on-site stormwater quality improvement design for a public works yard. Included incorporating Low Impact Development measures into the design, sizing of oil-grit separators and minor regarding of the site to ensure that the quality improvements met the MECP criteria of “normal”. LID features included enhanced swales for quality control.

Rock Lake Patrol Yard, GWP 5013-E-0005, Northeast Region, Sudbury, Ministry of Transportation, Ontario. Evaluated stormwater management issues and requirements for environmental compliance approval certificate at MTO patrol yard.

Sundridge Patrol Yard, GWP 5013-E-0005, Northeast Region, Ministry of Transportation, Ontario. Evaluated stormwater management issues and requirements for environmental compliance approval certificate at MTO patrol yard.

Water Resources Studies

Lynhurst Area Subwatershed Study Update, City of St. Thomas, Ontario. Project manager for a Subwatershed Study to facilitate residential development in Area 1 of the City of St. Thomas’ North West Settlement Area Expansion. Responsible for project management, hydrology review, suggestion of Best Management Practices for stormwater management, principal author.

Water Resources Reviewer, Master Drainage Study, Town of Tecumseh, Ontario. Responsible for reviewing the PCSWMM model for accuracy and completeness and providing senior oversight of a comprehensive, long-range remedial solution to reduce the risks and impacts of surface flooding in the urban areas throughout the Town of Tecumseh through the development of a 2-dimensional dual drainage dynamic stormwater management PCSWMM model. The study area was approximately 1,282 hectares in size and has storm drainage outlets to both Lake St. Clair and Pike Creek that are served by 8 storm pump stations.

Little River Floodplain Mapping and Sandwich South Secondary Plan, City of Windsor, Ontario. Water resources lead for updating the Little River Floodplain Mapping from the 1985 limits and developed the stormwater management concept for the Sandwich South secondary plan area in conjunction with newly established floodplain limits. Responsible for leading the water resources team. Verified catchment delineations for entire Little River watershed, reviewing construction of Hec-RAS model for floodplain delineation; reviewing hydrology model for entire watershed; establishing building elevation criteria and stormwater management solutions for new development in the Sandwich South area.

Raisin River Floodplain Mapping Update, South Glengarry, Ontario. Project manager for the update of hydrology and hydraulic models for the Raising River to establish floodplain limits. Reviewed work along the St. Lawrence to establish the flood lines along the St. Lawrence at the mouth of the Raisin River. Established Floodlines within the Township of South Glengarry.

Central Pickering Development Plan Class Environmental Assessment for Regional Services, Regional Municipality of Durham, Ontario. Completed stormwater flow assessment for Regional Roads for the Schedule C Municipal Class EA for Water, Wastewater, Transportation, Transit and Service Facility infrastructure to serve the Seaton community planned for a population of 75,000 and employment for 35,000. Tasks included peak flow calculations, storm sewer pipe sizing and oil-grit separator sizing.

Peer Review

Tottenham Airfield Corporation, New Tecumseth, Ontario. Provided peer review support for both erosion and sediment control plans and stormwater management plans and reports for proposed works at the airfield.

Oak Haven Estates, David Nash, Fonthill, Ontario. Provided peer review of stormwater management plan and sanitary sewer design of neighbouring development to ensure there were no adverse impacts to the client’s property.

71 Pedersen Drive, Newmarket Hydro, Aurora, Ontario. Completed drainage review of site grading to ensure stormwater runoff from site did not adversely affect neighbouring properties. Tasks included review of stormwater management proposal for site and check of drainage patterns.

Low Impact Development

Broadview Avenue Extension Study, City of Toronto, Ontario. Water resources lead for the assessment of low impact development feasibility for the extension of Broadview Avenue from Eastern Avenue to Lake Shore Boulevard East, the extension of a new east-west street in the Unilever Precinct from the Don Roadway to the future Bouchette Street extension, and a for a new/reconfigured connection from Eastern Avenue to the Don Valley Parkway. Suggested best management practices in accordance with the Green Streets Guide.

Billy Bishop Airport Parking and Traffic Management, Toronto Port Authority, Toronto, Ontario. Water resources lead for the assessment of needs and development of detailed designs for updating an outside parking facility and traffic management to complement current operations at the Billy Bishop Toronto City Airport. Due to the proximity of

the Airport to Lake Ontario, a lot of care in treatment train of stormwater had to be included. Completed storm sewer network design using PCSWMM and provided enhanced quality control using Jellyfish filtration unit and permeable pavers.

Churchill Park Redevelopment Phase I, City of Hamilton, Ontario. Designed and received approvals for rain gardens within a municipality’s park environment to meet the brief of improving the drainage of both the park and the surrounding neighbourhood as well as improving the aesthetics of the park while keeping its function intact. Worked with the City to ensure that all aspects of the original Master Plan were adhered to as closely as possible. Construction valued at \$1.2M.

Tsuut’ina Nation and Canderel Development, Taza Development, Calgary, Alberta. Acting as LID expert, secured the stormwater management for a large-scale development with a First Nations component using a more natural stormwater approach in Alberta. Concepts included low impact development design elements in public spaces and commercial space flow restrictions with credits for more sustainable stormwater management design from commercial tenants.

Wutai Shan Buddhist Gardens, Cham Shan Temple, Cavan-Monaghan, Ontario. As project manager and designer, completed preliminary on-site stormwater management design for a proposed Buddhist temple. Included design of an extended detention basin, infiltration trenches, sizing of oil-grit separators, and review of existing ponds for use as extended detention facilities. Coordinated efforts for Functional Servicing Report. Worked with constructor to ensure proper installation of outlets to ensure proper pond retrofit to meet the quality and quantity control requirements of both the Kawartha Region Conservation Authority and the Ministry of Environment Conservation, and Parks (MECP).

30 Anderson Boulevard, Rhino Development, Uxbridge, Ontario. Project manager for the completion of stormwater management design for a commercial property. Included infiltration trench design to allow for groundwater recharge as well as review of pipe sizing for storm sewer design.

AFFILIATIONS

Canadian Water Resources Association (CWRA)

- Ontario Board Member 2019-present
- Past-President, Ontario Board 2023- present
- President, Ontario Board 2021-2022
- Vice President, Ontario Board 2020-2021
- National Board of Directors 2021-2022

PROFESSIONAL EXPERIENCE

Geosyntec Consultants International, Inc., Ontario, 2024-Present

Dillon Consulting, Ontario, 2018-2024

WSP, Ontario, 2007-2018

Conestoga-Rovers & Associates, Ontario, 2004-2007

Appendix E

Assessment of Archaeological Significance and Impact of Development.

(prepared by Michael Harrington in consultation with the Algonquins of Ontario’s Consultation Office
(Jim Meness and Ethan Huner)

**File No. 07-T-20252 (MW) Orchards of River Bend (819 County Road 23) Village of
Merrickville-Wolford**

Assessment of Archaeological Significance and Impact of Development

Prepared by Michael Harrington, resident in the subject property area and former Manager of Treatment and Development for the Canadian Conservation Institute and Senior Conservator, Parks Canada, National Historic Parks, and Sites.

The report was prepared in consultation with the Algonquins of Ontario Consultation Office’s Executive Director, Jim Meness and Ethan Huner Natural and Cultural Resource Strategist.

May 16, 2025

Introduction

This document provides:

1. An overview of the archaeological work that has been undertaken at “Orchards of River Bend” site, Part of Lot 1, Concessions A & B, United Counties of Leeds Grenville (UCLG), Ontario, where, Kollaard Associates have applied to develop an intensive subdivision as per the UCLG April 4, 2025, Notice of Complete Application (Revised).
2. An assessment of the completeness, accuracy, and quality of the Archaeological Consultants of Canada’s (ACC) 2022 Report commissioned by Kollaard Associates in support of their subdivision application.

History of Assessments

The subject property has undergone two archaeological assessments – the first in 2005 commissioned by a previous property owner, and the second in 2022, commissioned by Kollaard Associates.

A summary of each assessment follows:

1. *Kinickinick Heritage Consultants (KHC). 2005 – 2011. Stage 1 & 2 Archeological Assessment of the Proposed McMillan-Dupuis Subdivision on Part of Lot 1, Concession A. Wolford Twp. Grenville County. Report on file MHSTCI, Toronto PIF P039-071.*

KHC undertook, documented, and reported on their excavation of 170 positive test pits producing 286 lithic Indigenous artefacts at three sites on the property. These were registered in the Ontario Archaeological Sites Data Base and the Public Register of Archaeological Reports and are as follows:

- BfFw-4 campsite, modified artefacts retouched flakes, cores, micro-wedge, hammerstone, knife tool fragment, notched fragment, cobble tool, pebble tool found on an elevated site believed to be 11,000. Paleoindian.
- NfFw-5 campsite, Island campsite, 34 positive test pits, 46 lithic artefacts along a relic riverbank channel. Modified artefacts include scrapers, perforators, retouched flake, cores, bifacial edge, graver, hammerstone, blade core. Early Archaic Site.
- BfFw-6 campsite, Peninsula campsite, 136 positive test pits, 240 lithic artefacts from low area of elevation, cores, retouched flakes, scrapers, micro-scrapers, plans, graters, perforator, biface preform. Middle Archaic Site.

KHC photographed, catalogued, and removed the artefacts from the property, which have been transferred to the care of the Algonquins of Ontario.

Based on the significance of the findings, KHC recommended undertaking Stage 3 and 4 assessments. The property owners declined to undertake more archaeological investigation and did not proceed with their development plan.

The KHC Report has been registered in the Ministry of Citizenship and Multiculturalism (MCM) database, but it is currently labeled as "non-compliant." We have reached out to MCM to understand the reasons for this designation and to identify which aspects of the report were considered non-compliant. Additionally, we are unaware of the review process that was undertaken.

In consultation with the Algonquins of Ontario, we express our concerns regarding the review process. There is a recognized lack of understanding within the mainstream archaeological community of Indigenous cultures, practices, and history, particularly concerning this segment of the Rideau Waterway, which is situated on Algonquin territory. This limited knowledge may have led to both historical and cultural biases during the review process and in assessing the significance of the discovered artefacts.

Furthermore, the ongoing archaeological and historical research of the Rideau waterways has predominantly focused on military and engineering achievements related to canal construction, often at the expense of acknowledging Indigenous peoples' use of these waterways. There has been little attention paid to settler disruption of Indigenous trails and pathways leading to the water, the use of these waterways for travel, trade, and harvesting, or the cultural significance of seasonal campsites.

2. *Archaeological Consultants of Canada (ACC), October 3, 2022. Stage 1 & 2 Archaeological Assessment. Rideau Bend Estates Subdivision Development. Part of Lot 1, Concessions A & B, UCLG, Ontario. PIF P1208-012-12-2022. Commissioned by Kollaard Associates, the property owner's company, in support of his subdivision application.*

ACC claims it identified 21,29 ha or 95.5% of the property, as undisturbed and retaining archaeological potential. They believe – but could not 100% confirm that they included the previously identified sites. They concluded that

“No artefacts or other archeological resources were recovered during the Stage 1 and 2 assessments.”

In consultation with the Algonquins of Ontario, we vigorously dispute the accuracy, completeness, and quality of this report. The report is deficient in many critical areas. It is inadequate for decision-making related to the archeological and cultural significance of registered sites on this property. It is incumbent upon the Planning Committee to base its

decisions on credible information. We do not believe that the ACC report is credible. Our reasons are below.

The Technical Quality of the ACC Report is not validated.

The technical quality of the ACC report has not been validated by Ministry of Citizenship and Multiculturalism (MCM) or by Indigenous archaeological experts and knowledge keepers. We note that a letter from the MCM, dated February 3, 2023, states that the ACC Report:

- “has been entered into the Ontario Public Register of Archaeological Reports **without technical review** [our emphasis added] and that ... the Ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.”

Furthermore:

- “the Ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.”

The ACC Report presents a factually incorrect history of the location and surrounding areas.

ACC presents background history on James Wright’s 1968 study for the Archaeological Survey of Canada: *Ontario Prehistory: an eleven-thousand-year outline*. It also references Chris Ellis and Neal Ferris’s 1990 study, *The Archeology of Southern Ontario to AD 1650*, and Nick Adams 1994 *Field Manual for Avocational Archeologists in Ontario*. ACC presents this as a synthesis of Indigenous cultural occupations of the area of the subject property. It is factually incorrect as it is based on Southern Ontario references. The subject property is not located in Southern Ontario. The quality of this work is below acceptable standards and the lack of diligence and respect for Indigenous heritage is evident.

The ACC Report presents factually incorrect information on the Indigenous occupations, movements and use of the location and surrounding areas.

The ACC does not appear to have the necessary knowledge or expertise about Algonquin territory. For example, tables in the report outline the 11-thousand-year timeline covering Ontario broadly (a vast geographic area). Included, incorrectly is a table on the General Cultural Chronology for **Southwestern** Ontario whereas the property is in **Southeastern** Ontario. The ACC report presents incorrect information about the Indigenous occupation and/or movements of Indigenous Peoples on the property, in any timeline. It does not acknowledge that the subject property lies within the traditional, unceded and shared territories of several Indigenous Nations, each with long-standing cultural, historical and ecological relationships to the Rideau River and surrounding region, including: the Algonquin Anishinaabe Nation, the Haudenosaunee Confederacy, and the Mississauga of the Anishinaabe Nation. All used this area pre-contact and

early contact days as travel corridors and seasonal camps. All used this area prior to the construction of the canal and settler occupation.

There is minimal reference to use of the area prior to the building of the canal and to settler occupation, both of which had significant detrimental impacts on Indigenous peoples’ use of the waterways. ACC notes that a first survey was made in 1796. Andrewsville which is very near to the property, is named after Rufus Andrew who bought the property in 1843. A post office was opened there in 1890. Burritt’s Rapids was founded 1793. The history of the founding of Burritts Rapids states that the settlers to this area *followed the well travelled Indigenous trail from the St. Laurence River to the Rideau*. The current alignment of Davis Road is part of the original trail system leading to the point of the subject property, where it would be possible to camp, fish, launch watercraft etc.

The past and recent land use of the property is misconstrued.

ACC suggests, based on an 1861 map of the counties of Leeds and Grenville that there was no owner for the lots in the subject property, although there are references to a farmstead approximately 100 m southwest of the property. ACC admits that early maps were commissioned and may have simply missed or neglected to include detailed information on settler use, buildings, etc. on the subject property. The KHC report includes photographs of the site as hay fields. Although the land has not been used for agricultural purposes in recent years, it remains essentially rural in character and should not lose its designation as such.

The land has also been altered by the property owner, which is not acknowledged by ACC. Nearby residents observed that many truckloads of gravel were seen entering the property, sustained over a period of weeks, by the current owner after purchase. The location of this gravel/infill is not mentioned in the ACC report. The sites of gravel infill need to be documented as part of an archaeological study.

ACC’s findings and conclusions are misleading. They disregard any confirmed and potential archeological and culturally historic significance of this property to Indigenous Peoples.

The property is mapped according to the Borden system of registering archaeological sites (1952). The property is in the BfFw Borden block. ACC notes that the following Archaeological Sites on property are registered in the Ontario Archaeological Sites Data Base and the Public Register of Archaeological Reports. It is inferred that these artefacts were excavated as early as 2005 and were recorded in 2011 by KHC. These sites are described as follows:

- BfFw-4 described as a “campsite” where modified artefacts - retouched flakes, cores, micro-wedge, hammerstone, knife tool fragment, notched fragment, cobble tool, pebble tool found on an elevated site believed to be from 11,000

years ago (Paleoindian Site)

- BfFw-5 campsite, Island campsite, 34 positive test pits, 46 lithic artefacts along a relic riverbank channel. Modified artefacts include scrapers, perforators, retouched flake, cores, bifacial edge, graver, hammerstone, blade core. Believed to be an early Archaic Site.
- BfFw-6 campsite, Peninsula campsite, 136 positive test pits, 240 lithic artefacts from low area of elevation, cores, retouched flakes, scrapers, micro-scrapers, plans, graters, perforator, biface preform. Believed to be a middle Archaic Site.

ACC notes that the property is within one kilometer of six registered “Euro-Canadian” (i.e., settler) archeological sites but makes no attempt to contextualize Indigenous and Settler activity in this one-kilometer radius or if/how settlers may have interacted with the site.

The ACC report acknowledges that there are criteria for assessing archeological potential (as found in the Standards and Guidelines for Consultant Archaeologists MHSTCI 2011.) On that basis, ACC asserts that 21,29 ha or 95.5% of the property, as undisturbed and retaining archeological potential. ACC reported that it conducted intensive test pitting at 2.5-meter intervals in areas where the previous archaeological report indicated the presence of sites with artefacts. As a result, ACC assessed approximately 6.2 hectares, which accounts for about 27.8% of the property. The test pits measured 30 cm in diameter and were dug to a depth of at least 5 cm. However, this depth of examination appears to be insufficient. Additionally, ACC expressed uncertainty about the accuracy of its identification of the camp, peninsula, and island sites that were noted by KHC.

ACC notes that according to the 2011 Archaeological Standards and Guidelines, areas that do not have “archaeological potential” include sites where there has been quarrying, major landscaping involving grading below topsoil, building footprints, sewage and infrastructure, development.

As noted previously, residents observed many truckloads of gravel brought to the site over a period of weeks after he purchased the property. It is important to determine where the gravel was placed and if, in any way, the gravel or any other site work impacted any known archeological sites or environmental, wetland or shoreline features of the property.

ACC is dismissive of the findings of the KHC report yet provides no credible evidence to support their position.

ACC disputes that what KHC found were indeed all artefacts, stating they could be “ecofacts” (e.g., stones formed by nature, over time), but no evidence is provided for this analysis, and ACC did not actually examine the artefacts. The comment is purely speculative. The artefacts

identified and catalogued by KHC would have been available for examination, but it appears they relied on photographs.

Neither ACC nor Kollaard Associates have made any effort to engage with local Indigenous communities, as is best practice. Local Indigenous communities may have sought participation in the work, shared specialist knowledge, and curbed much of the dismissive stance that ACC has taken. Local Indigenous communities could have assessed the report to determine whether it is aligned with accepted local knowledge and practice. The Algonquins of Ontario Consultation Office have Enhanced Archaeological Standards and Guidelines for consultants working within Algonquin territory. Much of what has been dismissed by ACC, is addressed in those guidelines as something that requires consideration, awareness, and acceptance.

According to our consultation with the Algonquins of Ontario, Algonquin territory assemblages are often found in small numbers and widely distributed, but that does not discredit their importance as cultural resources to the Algonquin. As Ethan Huner stated,

“Any site that documents places where the people were and what they were doing on the land for thousands of years is a cultural value worth further research, protection, or salvaging. All too often the archeologist gets to make that judgment call that something had no cultural value or interest, and usually without any Indigenous involvement in reaching that determination.”

The Algonquins of Ontario indicated that at the very least they should have been contacted by the consultants at the outset to review or participate in their work, see if AOO had any input to offer the report, or to review their reports. Had trained Indigenous monitors been used (as is the AOO consultation protocol) they surely would have questioned the archeologist dismissing the same resources at a registered site as being ecofacts. River movements do not produce the diversity of “broken rock” that human manufacturing does.

Ethan Huner offered this perspective:

“Unless archeologists have extensive experience working in this area of Ontario and or have developed some awareness of different technologies and perspective of archeology, they far too often choose the easiest route, which is to ignore and dismiss because something is unfamiliar to them. It is a constant battle in the region for acceptance that people manufactured expedient tools, some of them not looking like formal tools, out of the resources immediately available.

Quartz was an excellent tool-grade stone and very common at archeological sites in Algonquin territory. It is one of the easiest ways to find a site is by presence of quartz in this area. Other lithic debris aside, it is surprising that with the amount of chert that that alone didn't even intrigue the archeologist enough to collect and analyze further. It was not even discussed if it was a foreign or local chert which is shocking. Chert is not common in this region and any chert needs to be scrutinized as potentially indicating a site.

That three separate locations of these lithic concentrations indicating campsite areas would not surprise an archaeologist with extensive experience in the Rideau or Algonquin territories. The three were registered as sites, even though only 2 appear to be found in the archeological site database. The first of the three sites had the same composition of materials as the other two sites. The Rideau Valley does have paleo and early archaic sites. It's not at all unbelievable that a site, let alone a paleo-shoreline, would have been used during the paleo period.”

Conclusion

The ACC report contains numerous inaccuracies and uncertainties regarding this site. ACC made no effort to examine the Indigenous artefacts. It is unclear why Stage 3 and 4 assessments have not been endorsed. It seems that the developer has opted to bypass a critical issue. This is unacceptable.

Recommendation

The Planning Committee Reject the ACC Report and require Kollaard Associates to contract with an Archeologist, qualified in the Paleo/Early Archaic period archaeology, and knowledgeable about local Indigenous cultures and history of the Rideau waterways, to prepare a fulsome Archeological Assessment of the Subject Property.

The scope of work should include:

- 1. Meaningful engagement of the Algonquins of Ontario's knowledge keepers, and adherence to protocols in designing and carrying out the work.**
- 2. A physical examination of the artefacts found by KHC, undertaken with the guidance of Algonquin cultural specialists and knowledge keepers.**
- 3. A critical re-examination of the ACC Report's methodology and findings.**
- 4. Further (Stage 3 and 4) assessment of the subject property.**

Appendix F

Sources Cited

Official Plan Merrickville Wolford:

<https://www.merrickville-wolford.ca/residents/planning-development/official-plan>

Merrickville-Wolford Approved Strategic Plan (2017-2025) by-law 10-17

<https://www.merrickville-wolford.ca/governance/plans-reports-studies/2017-2025-strategic-plan/viewdocument/685>

Official Plan United Counties of Leeds and Grenville:

<https://www.leedsgrenville.com/en/government/official-plan.aspx>

Ontario Provincial Planning Statement:

<https://www.ontario.ca/page/provincial-planning-statement-2024>

Natural Heritage Information Centre (NHIC) Observation Reporting Form

<https://www.ontario.ca/form/natural-heritage-information-centre-nhic-observation-reporting-form>

Ontario Species at Risk

<https://www.ontario.ca/page/species-risk>

Current: Endangered Species Act, 2007, S.O. 2007, c. 6

<https://www.ontario.ca/laws/statute/07e06>

Proposed interim changes to the Endangered Species Act, 2007 and a proposal for the Species Conservation Act, 2025 [Note: this proposal is only at the comment period.]

<https://ero.ontario.ca/notice/025-0380>

Appendix G

Photos

Arial Photos showing forested nature of the property and the view from the Rideau



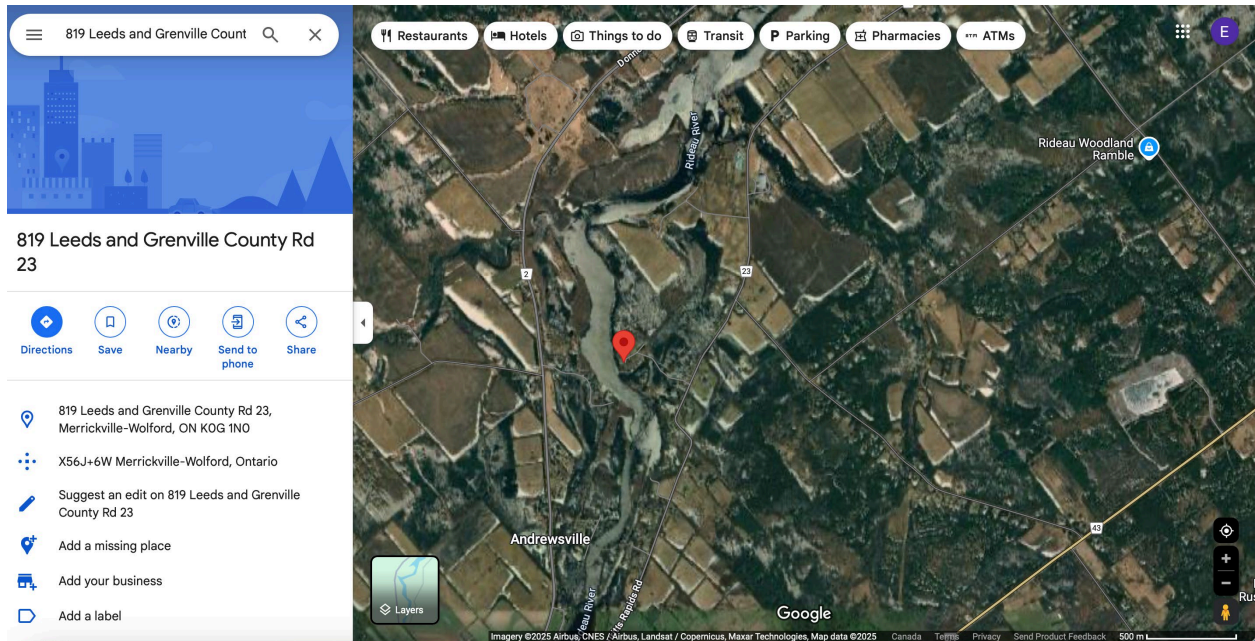
Arial Photos -highly unstable, steep and eroding riverbanks on subject property



Aerial photo showing river and wetlands traversing Applicant property to adjacent lands



Screen Shot showing the nature of area as very predominantly Rural and Agricultural



Predominant Agricultural Nature of Area as seen in pictures taken within 800 Metres of Applicant land including adjacent horse farm whose land runs directly next to the westerly portions of Applicant’s land, Cattle Farm, and corn and other crop fields.





Aerial photo showing adjacent horse farm paddocks (top) and forest to be eradicated on Applicant’s land (Note erosion of banks on left corner of photo)



Current view from Nicolson Locks showing visibility of the present house – refutation of the assertion that the new development would not be seen from the Rideau Waterway



Photo showing close proximity to Nicolson Locks in centre right area of photo



Turtle Crossing Sign directly in front of Subject Land at 819 CR 23



Horse crossing signs – this photo taken in front of fields of adjacent horse farm. Horse Horses Routinely Use Road to Hack and to Visit Neighbors (this photo taken across road from 819 CR 23 at 826 CR 23)



Photos showing hill where the new road to development is proposed at bottom

