

OFFICIAL PLAN AMENDMENT
No. 29
“Prime Agricultural Area Review”

Prepared for:

THE MUNICIPALITY OF MISSISSIPPI MILLS

April 8, 2021

J.L. RICHARDS & ASSOCIATES LIMITED

Engineers • Architects • Planners
1565 Carling Avenue, Suite 700
Ottawa, Ontario
K1Z 8R1

JLR 24473-007.1

PART A - THE PREAMBLE, contains an explanation of the purpose and basis for the amendment, as well as the lands affected, but does not constitute part of this amendment.

PART B - THE AMENDMENT, consisting of the following text and schedule constitutes Amendment No. 29 to the Municipality of Mississippi Mills' Community Official Plan (COP).

PART C - THE APPENDICES, which are listed or attached hereto, do not constitute a part of this amendment. These appendices include the public involvement associated with this amendment.

PART A – THE PREAMBLE

BACKGROUND

The first Mississippi Mills Community Official Plan (COP) was adopted by Council on December 13, 2005 and approved with modifications by the Minister of Municipal Affairs and Housing on August 29, 2006.

The Prime Agricultural Area designation consisted mostly of Canada Land Inventory Class 1 to 3 soils and active farming areas following consultation with area residents and the Ministry of Agriculture, Foods and Rural Affairs (OMAFRA).

As part of OPA 21 (Five Year Review), OMAFRA staff was consulted to discuss the need to update the Prime Agricultural Areas and related policies. OMAFRA had noted (email from John O'Neill dated June 27, 2016):

“... the current agricultural policies of the Mississippi Mills Official Plan (2006), agriculture is deemed to be a major economic and social contributor to the municipality. The plan highlights the changing nature of the agriculture industry and the challenges that the introduction of conflicting land uses can have on the ability of agriculture to prosper. In response the 2006 plan sought to establish policy direction to ensure the protection of agriculture and the agricultural land base. While it is encouraging to see the inclusion of policies that aim to achieve these goals, it is recommended that the policies be updated to ensure consistency with the PPS.”

“Section 3.2.1 (Goals and Objectives) indicates that the Agricultural designation is intended to be those lands which have large contiguous areas of Classes 1, 2 and 3 soils. While the presence of prime agricultural lands (Canada Land Inventory (CLI) Class 1, 2 and 3 soils) is a predominate characteristic to consider in identifying prime agricultural areas it is requested that the full definition of a prime agricultural area be taken in to consideration when mapping the municipalities Agricultural designation.”

“Prime agricultural area: means areas where prime agricultural lands predominate. This includes areas of prime agricultural lands and associated Canada Land Inventory Class 4 through 7 lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture....”

The Provincial Policy Statement 2020 defines prime agricultural area as:

“areas where prime agricultural lands predominate. This includes areas of prime agricultural lands and associated Canada Land Inventory Class 4 through 7 lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas may be identified by the Ontario Ministry of Agriculture and Food using guidelines developed by the Province as amended from time to time. A prime agricultural area may also be identified through an alternative agricultural land evaluation system approved by the Province.”

Furthermore, prime agricultural land is defined as:

“specialty crop areas and/or Canada Land Inventory Class 1, 2, and 3 lands, as amended from time to time, in this order of priority for protection.”

LANARK COUNTY DECISION ON OPA 21:

The Official Plan Amendment - OPA 21 (Five Year Review) was adopted by the Municipality of Mississippi Mills on June 26, 2018 by By-law No. 18-76 and forwarded to the County of Lanark for a decision under subsection 17(34) of the Planning Act. The County of Lanark is the approval authority for all changes to the Community Official Plan for Mississippi Mills.

The County of Lanark decided to partially approve Official Plan Amendment No. 21 to the Community Official Plan for the Municipality of Mississippi Mills, as adopted by By-law No. 2019-38 on December 4, 2019 under Section 17 of the *Planning Act*.

The following modification was made by the County (approval authority):

35. Schedule A – Rural Land Use is hereby modified by:

- b. Deferring the delineation of a Prime Agricultural designation on Schedule “A” – Rural Land Use pending the completion of an Agricultural Land Evaluation Area Review (LEAR).

PURPOSE

As per Lanark County’s approval decision on Official Plan Amendment No. 21 (OPA 21), which was a Five-Year Review of the Municipality of Mississippi Mills’ Community Official Plan, the Municipality was to identify its Prime Agricultural Areas (and related policies) using an alternative agricultural land evaluation system approved by the Province (LEAR).

LOCATION

The lands affected by this Amendment include all Rural lands within the Municipality of Mississippi Mills.

Appendix ‘A’ attached hereto shows the affected lands and the proposed changes to the land use designations and changes to Schedule A – Rural Land Use.

BASIS

The LEAR Study included as Appendix ‘B’ attached hereto forms the basis to this amendment.

PART B – THE AMENDMENT

All of this part of the document, entitled Part B – The Amendment, consisting of the following text and schedule to Amendment No. 29, constitutes Amendment No. 29 to the Community Official Plan (COP) of the Municipality of Mississippi Mills.

Note, a concurrent application is being filed to amend the Lanark County Sustainable Community Official Plan to change the Rural and Agricultural Lands shown on Schedule A to match with this amendment.

DETAILS OF THE AMENDMENT

The Municipality of Mississippi Mills Community Official Plan (COP) is hereby amended as follows:

- Item 1:** In accordance with Schedule “A” attached hereto, “Schedule ‘A’ Rural Land Use of the Municipality of Mississippi Mills Community Official Plan (COP) is hereby modified by remove the “Rural Agriculture Overlay”, remove the existing “Agriculture” and proposing a new “Agriculture” area.
- Item 2:** Delete the 5th paragraph under Section 3.2 Agriculture and replace with the following: “The “Agricultural” designation has been placed on provincially significant prime agricultural areas identified through an alternative agricultural land evaluation system (LEAR) approved by the Province followed public consultation.”
- Item 3:** Delete the 6th paragraph under Section 3.2 Agriculture of this Plan which reads: “This Plan also recognizes that there are productive locally significant agricultural operations located outside of the Agricultural designation on smaller pockets of good soils, as well as on poorer soils. These operations also require protection from conflicting land uses. The specific policies related to these areas are found in Section 3.3 of this Plan.”
- Item 4.** Delete item 3.2.3.4 General Policies which reads: “Council undertakes to complete a review of its prime agricultural lands through an alternative agricultural land evaluation area review (LEAR) approved by the Province including a review of related policies prior to the next Community Official Plan Five Year Review.”
- Item 5.** Delete item 3.3.1.1 which reads: “Identify locally significant agricultural lands as those which have soils within Classes 1 to 3 of the Canada Land Inventory located outside of the “Agricultural” designation and that are part of a productive agricultural operation. Schedule A shall identify such lands as an overlay referred to as “Rural – Agriculture”.
- Item 6.** Delete Section 3.3.4 Locally Significant Agricultural Operations. Agriculture is permitted across the Rural Area but only Prime Agricultural Areas will be designated.

IMPLEMENTATION AND INTERPRETATION

The implementation and interpretation of this Amendment shall be in accordance with the respective policies of the Municipality of Mississippi Mills Community Official Plan (COP). OPA 22 will not be in effect until a concurrent LCSCOP is approved.

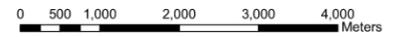
Schedule 'A' - Affected Lands



Official Plan

Municipality of Mississippi Mills

Rural Land Use (Schedule A)



Legend

Roads

- Roads
- County Road
- Other Roads
- Scenic or Heritage Road

Boundary

- Lot Line
- Ward Boundary
- Municipal Boundary
- Schedule Boundary
- Parcel Fabric

Water Features

- Stream / Creek
- Waterbody

Land Use Designation

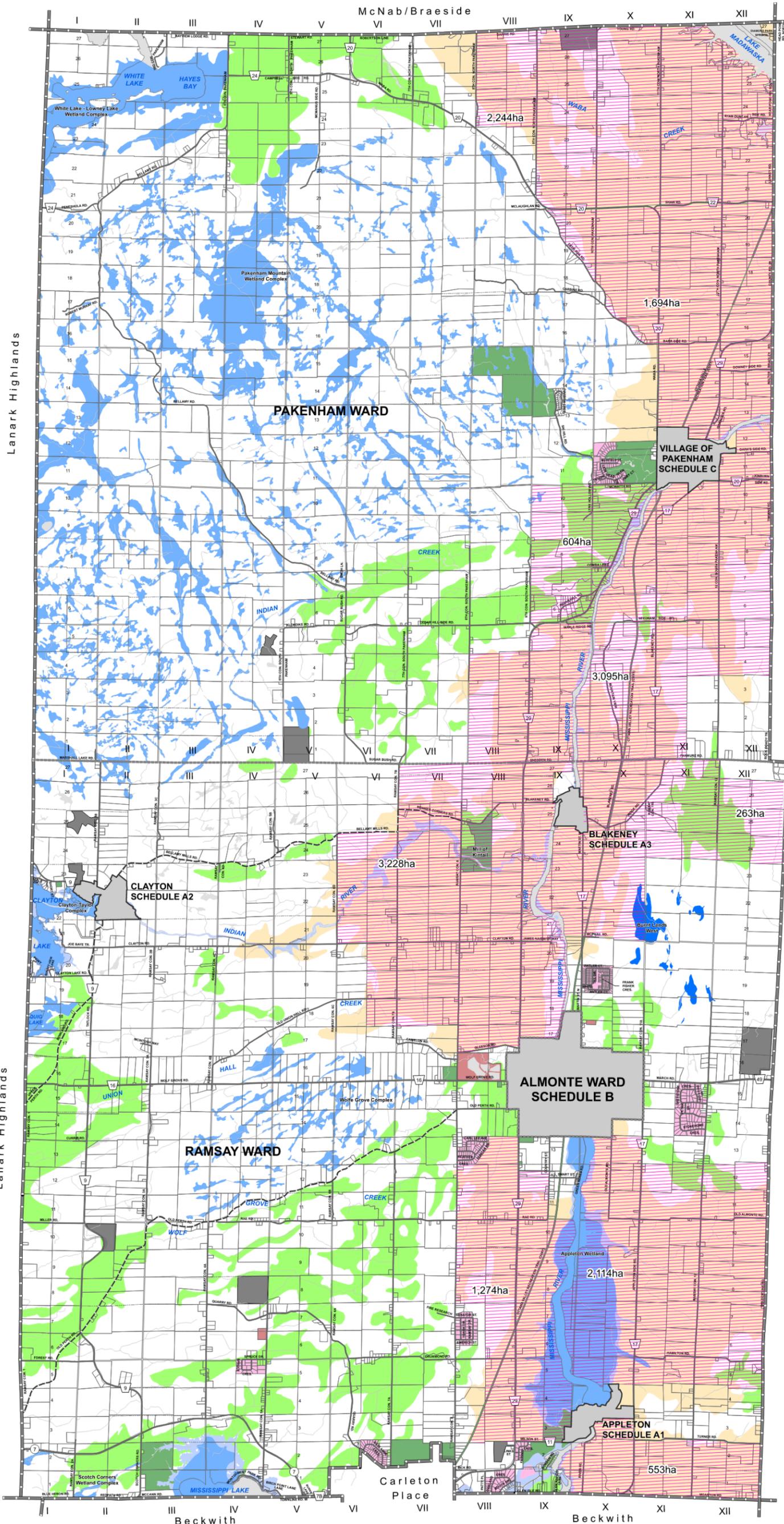
- Rural
- Rural Settlement Area and Hamlet
- Parkland and Open Space
- Waste Disposal
- Significant Wetlands Evaluated Local
- Significant Wetlands Evaluated Provincial
- Flood Plain
- Licensed Pits & Quarries

To be removed

- Prime Agriculture (11,723 ha)
- Rural - Agriculture Overlay (5,558 ha)

To be added

- Potential Prime Agriculture (15068ha)



Lanark Highlands

Lanark Highlands

Ottawa

Ottawa

Data Source: Source Data has been provided by the Ministry of Natural Resources, Ministry of Northern Development and Mines, Mississippi Valley Conservation Authority and the Municipality of Mississippi Mills.

Schedule 'B'- LEAR STUDY

I. What is a LEAR?

Land Evaluation and Area Review (LEAR) is a tool used by Ontario Municipalities to identify lands that may be suitable for designation as Prime Agricultural Areas in their Official Plans. Developed by OMAFRA, LEAR uses quantitative datasets to evaluate the agricultural suitability of lands based on soil capability as well as other factors that affect agricultural potential, within the context of a given Municipality. LEARs score individual land parcels based on their agricultural potential whereby high-scoring parcels have the greatest agricultural potential. LEARs also established a score threshold. Parcels that score below the selected score threshold are typically considered as poor candidates for Prime Agricultural Areas designation while those scoring above the score threshold are typically considered as good or excellent candidates for designation.

LEARs are intended to provide municipalities with a starting point for designating Prime Agricultural Areas. A parcel can receive a high LEAR score but may not be designated as a Prime Agricultural Area. A number of other factors play a role in the identification of Prime Agricultural Areas including field verification, property owner/community feedback, additional reports and analysis and other planning priorities.

Each LEAR evaluation has two key components:

- Land Evaluation (LE): This component evaluates soil capability as it relates to agriculture. The Canada Land Inventory (CLI) Soil Capacity Classification dataset is used for this component of the tool; providing 7 soil classifications as well as an organic soil classification to establish soil capacity.
- Area Review (AR): This component allows Municipalities to consider other factors that impact agricultural potential. This may include onsite factors such as parcel size or current land use or may include offsite factors such as conflicting land uses.

II. Background Research

Background research was conducted to achieve three objectives that are necessary for building a LEAR:

- Understand the formal LEAR requirements as per OMAFRA guidelines;
- Understand how Ontario Municipalities have interpreted OMAFRA guidelines to create LEARs that utilize available data, manage LEAR model limitations and consider community input and local conditions and priorities; and,
- To obtain local context and priorities as it relates to agriculture by reviewing existing work prepared for the Mississippi Mills.

Review of the OMAFRA guidelines was conducted prior to reviewing the LEAR models developed by Ontario Municipalities.

Though a number of LEARs were reviewed, a total of three LEAR models developed by Ontario Municipalities were selected for review as precedents: Prince Edward County, Halton Region, Peel Region and Town of Caledon. Findings from this research is summarized in the table below:

LEAR APPROACH SUMMARY					
Region	Year Conducted	LE factors	AR Factors	Weighting	Threshold
Prince Edward County	2018	CLI s classifications	>Agricultural as existing use >% of property being farmed >Conflicting land uses Parcel Size	Total possible score of 200 LE 50%, AR 50%	140/200
Halton Region	2009	CLI classifications, Greenbelt LEAR Halton soil maps/reports	>Property fabric >Farm infrastructure >Conflicting land uses	Total possible score of 10 LE 65%, AR 35%	6/10
Peel Region and Town of Caledon	2015	CLI classifications with consideration for topography (OMAFRA soils data and slope data)	>Fragmentation >% land used for agriculture >% of Land in Agricultural Production Within 1km Evaluation Unit >Conflicting land uses	LE 50%, AR 50%	535/800

III. Methodology

The Mississippi Mills LEAR was developed according to the following respective tasks: a) Background research, b) Review of existing data, c) Creation of draft approach, d) Review of Draft Approach, e) Model creation and validation, and, f) LEAR model finalization.

A) Background Research

Research was conducted to obtain additional information about the OMAFRA LEAR guidelines as well as how these guidelines were implemented in a number of Ontario municipalities. Specifically, the OMAFRA LEAR guidelines were reviewed to obtain LEAR requirements. Examples of LEAR requirements include:

- The Land Evaluation factor must account for a minimum of 50% of the total LEAR score;
- Organic soils must now be included in the Land Evaluation score as a CLI soil class as per updated and current OMAFRA guidance regarding the incorporation of organic soils as part of the LE component;
- Settlement areas shall not be evaluated under the LEAR;
- Area Review factors should be mutually exclusive and selected so as to avoid 'double counting' (i.e. Conflicting land uses and parcel fragmentation represent a similar consideration and therefore should not both be included in a given LEAR model).

Meanwhile, review of LEAR precedents provided insight into how said models were developed and adjusted to satisfy municipal conditions and priorities.

To gain context about agricultural land in Mississippi Mills, the 2018 document prepared by JL Richards, "Agricultural Lands Review", was reviewed. The review of this document provided valuable information on agricultural land conditions and typologies which was foundational in the selection and justification of criteria for the Mississippi Mills LEAR model.

B) Review of Existing Data

Prior to selecting criteria for the Mississippi Mills LEAR, several meetings were held with GIS experts at JL Richards to determine data availability. Given the project timeframe, possible criteria was limited to pre-existing, available data. Available data included but was not limited to:

- Canada Land Inventory (CLI) Soil Capacity Classification dataset;
- Municipal Property Assessment Corporation (MPAC) property codes dataset, including ownership and land use (Provided February 10, 2021 by the Municipality of Mississippi Mills);
- Municipal infrastructure datasets (i.e. servicing, roads);
- Ministry of Natural Resources datasets;
- Agriculture and Agri-Food Canada (AAFC) 2019 Annual Crop Inventory;
- Existing Official Plan Designation datasets (i.e. Village Boundaries, Agriculture, Rural-Agricultural Overlay); And,
- Land cover, topography and drainage datasets.

C) Creation of Draft Approach

Considering both research insights and data availability, Land Evaluation (LE) and Area Review (AR) criteria and criteria weighting and scoring breakdown were selected, constituting the draft approach. Components of this approach were organized into a PowerPoint presentation.

D) Review of Draft LEAR Approach

A total of three meetings were held to review the draft LEAR approach. The intent of these meetings was to get key feedback and comments to guide revisions to the draft approach. Respectively, these meetings included:

- An internal meeting for JL Richards consultants involved in the project to discuss and provide feedback on the first draft of the draft LEAR approach. Revisions to the draft approach were made following the meeting.
- Multiple meetings with John O'Neil from OMAFRA to discuss conformity of the draft LEAR approach with OMAFRA requirements and to get additional comments and recommendations.
- A third meeting with the JL Richards team, John O'Neil and Mississippi Mills staff.

Following the meetings, the draft model was revised according to comments and feedback.

E) Model creation and validation

Once the LEAR approach was finalized in terms of the selection of criteria and criteria weighting and scoring, the framework was developed into a GIS model using the appropriate datasets. Several internal meetings were held to verify the accuracy of the GIS model in scoring parcels.

LEAR model finalization

Following the development of the LEAR model in GIS, analysis' were performed to determine the appropriate LEAR score threshold. The score threshold would serve as the cutoff value for recommending evaluated parcels for Prime Agricultural Area designation under the LEAR model.

IV. LEAR Approach

The LEAR approach for Mississippi Mills can be summarized by the selected LE and AR score weighting and criteria and the selection of a threshold value. These aspects of the approach will be reviewed in the following sections.

A) Score Weighting

OMAFRA guidelines require that a minimum of 50 percent of the overall score be reserved to the Land Evaluation (LE) component of the overall LEAR score. No maximum percent was established by OMAFRA. For the Mississippi Mill LEAR, we decided to attribute 70 percent of the overall score to the Land Evaluation component. The remaining 30 percent of the score was attributed to Area Review (AR) factors. This weighting breakdown was selected as soil capability is a significant determinant of agricultural potential and we wanted the weighting scheme to be reflective of this. Additionally, we believed that AR factors are secondary to soil capability in determining agricultural potential and therefore, a total weight of 30 percent would be appropriate to attribute to these factors.

B) Selected LE Criteria

As mandated by OMAFRA, the Canada Land Inventory (CLI) Soil Capacity Classification dataset was used to evaluate soils in Mississippi Mills (see Figure 1). Consistent with OMAFRA requirements, the following scoring scheme was used:

Soil Capability Class	CLI score (field crop points) FCP	Total Score (/70 points)
1	1	70
Organics	0.9	63
2	0.9	63
3	0.8	56
4	0.6	42
5	0.4	28
6	0.2	14
7	0	0

C) Selected AR Criteria

After careful review of OMAFRA recommendations and the selected LEAR precedents, the following AR criteria were selected:

- Parcel Size;
- Conflicting Land Uses; and,
- Active Farming (Parcel Currently Used for Agriculture)

Each of these three criteria had a maximum of 10 points, for a total of 30 percent of the overall LEAR score. The scoring schemes for the AR factors are explained in more detail below:

Parcel Size

Parcel Size	Score
<81 Acres	10
51-80 Acres	8
26-50 Acres	6
11-25 Acres	4
6-10 Acres	2
1-5 Acres	1
>1 Acre	0

Parcel sizes were determined using MPAC data. Larger parcels were scored higher than smaller parcels as shown in the table above. Figure 2 shows a map of evaluated parcels scored by size.

Conflicting Land Uses

The Conflicting Land Uses factor considers individual parcels with one of the following land uses: open space, industrial, or residential dwelling. A 750-meter radius was created for each evaluated parcel to determine the number of individual conflicting land uses that were this distance or in closer proximity to said parcel. MPAC data was used to identify conflicting land uses. As per OMAFRA direction, settlement areas such as urban and village areas and residential subdivisions were disregarded and were not scored under this conflicting land uses factor. The following scoring breakdown was used:

Number of Individual Conflicting Land Uses within 750m	0-5	6-10	11-15	16-20	21-25	>26
Score	10	8	6	4	2	0

Figure 3 shows a map of conflicting land use scores for evaluated parcels.

Active Farming

Both MPAC and Agriculture and Agri-Food Canada's (AAFC) 2019 Cropland Data was used to determine whether and to what extent evaluated parcels are actively used for agriculture. A scaled scoring scheme was used for this criterion. Specifically, parcels are scored based on the percentage of total area actively farmed or used for agriculture. The following scoring breakdown was used:

Percentage of Evaluation Unit (Parcel) Currently Used for Agriculture	Score
0%	0
1% - 9%	1
10% - 20%	2
21% - 30%	3
31% - 40%	4
41% - 50%	5
51% - 60%	6
61% - 70%	7
71% - 80%	8
81% - 90%	9
91% or Greater	10

Figure 4 shows a map of active farming scores for evaluated parcels.

We believe that the selection of these criteria were appropriate given that they are commonly-used and widely-accepted criteria used for LEARs, reflect local conditions and priorities, can be analyzed using available data and all represent distinct and mutually-exclusive considerations for agriculture; mitigating the risk of 'double counting'.

Selected Threshold Value

Possible scores for evaluated parcels ranged from 0 to 100. After the GIS model was adjusted and reviewed for accuracy, the team decided on a threshold score of 65. This threshold was selected as— more than other threshold values that were considered— it was effective in identifying parcels appropriate for designation while excluding parcels less suitable for designation. OMAFRA also requires that, in addition to scoring above the selected threshold, parcels recommended for designation should also be located within blocks of agricultural land that are 250 ha or larger. The table below summarizes existing total areas designated as Prime Agriculture and Rural-Agriculture as well as total area scoring 66+ in the LEAR. Figure 5 shows a map of total LEAR scores for evaluated parcels. Figures 6 shows all parcels with total LEAR scores of 66 or greater.

Designation	Total Area (ha)
Existing Agricultural Designation	11,705.55
Existing Rural-Agricultural Designation	5,558.11
Area scoring 66+ in the LEAR Model	14,563.00

Figure 1. Land Evaluation: Soil Capacity Score

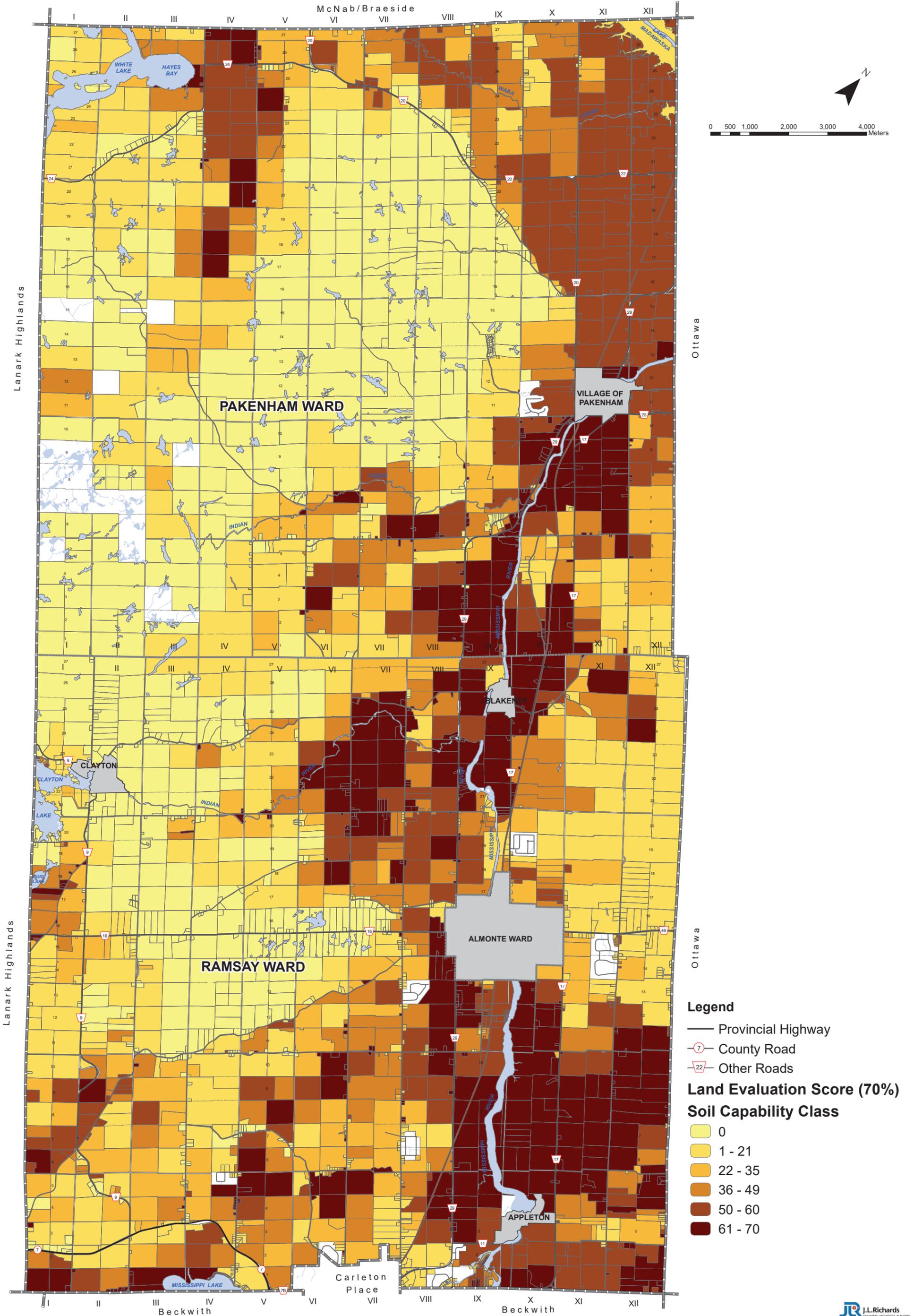
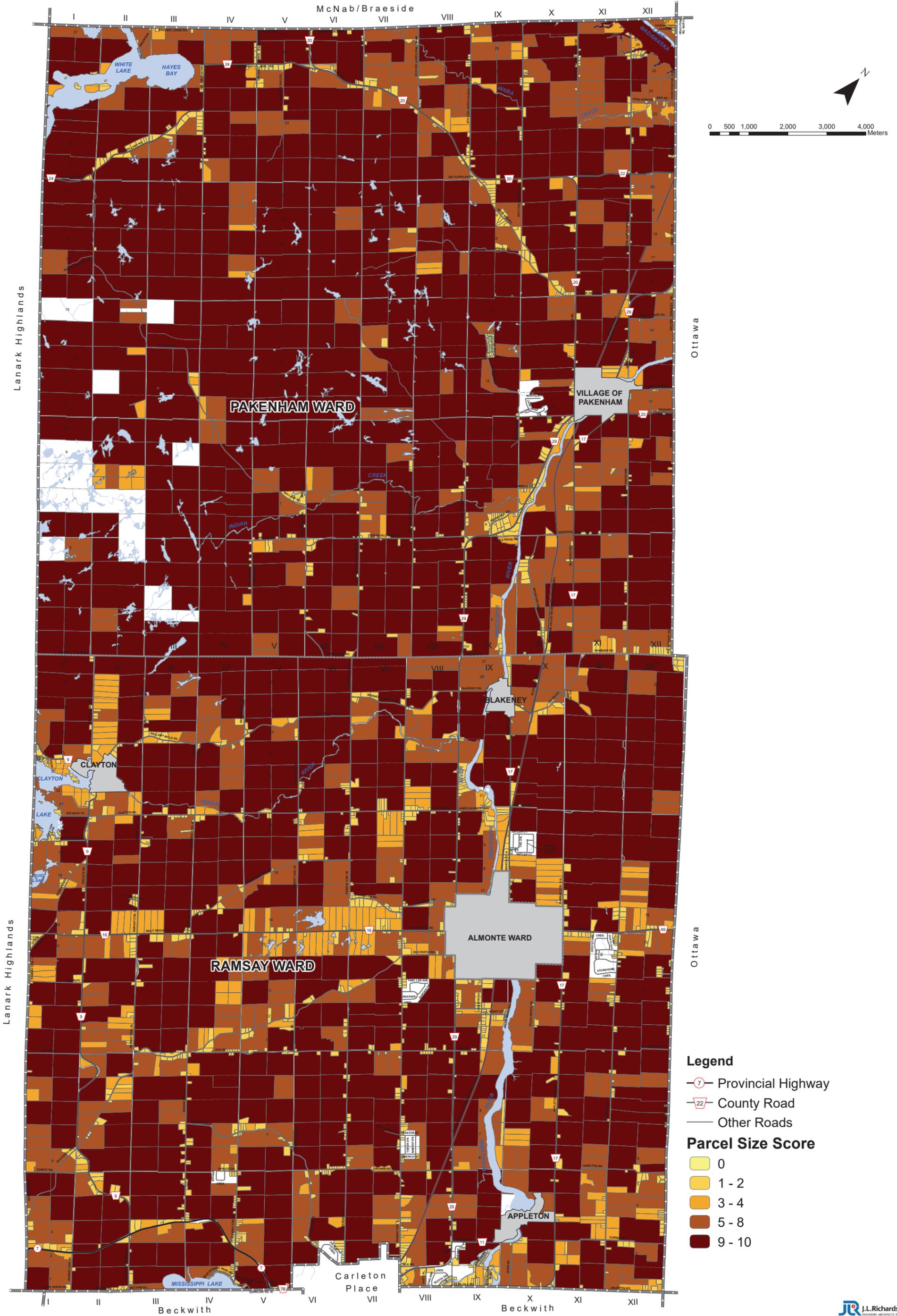


Figure 2. Area Review: Parcel Size Score



Legend

- (7)— Provincial Highway
- (22)— County Road
- Other Roads

Parcel Size Score

- 0
- 1 - 2
- 3 - 4
- 5 - 8
- 9 - 10

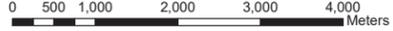


Figure 3. Area Review: Conflicting Land Uses Score

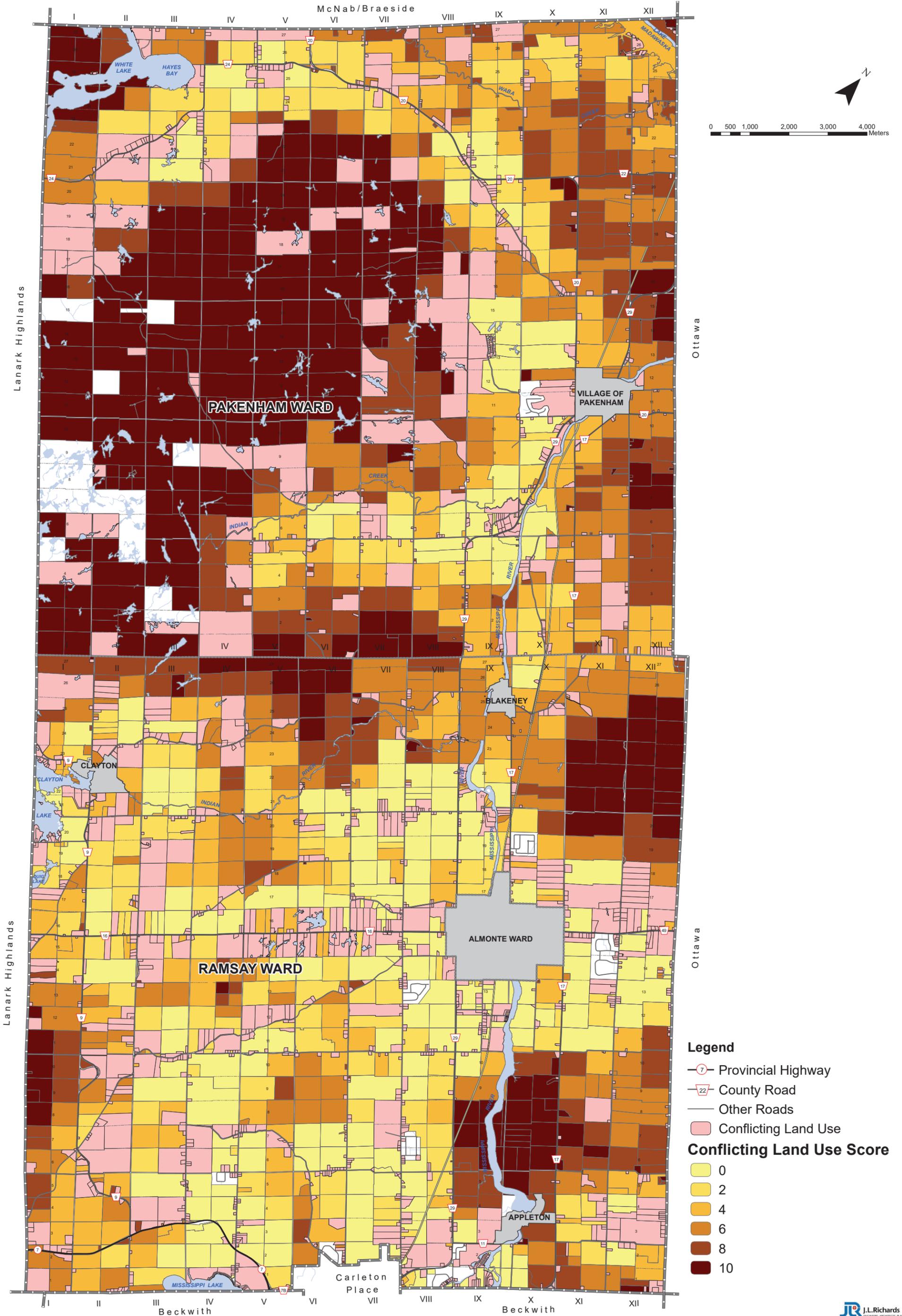


Figure 4. Area Review: Active Farming Score

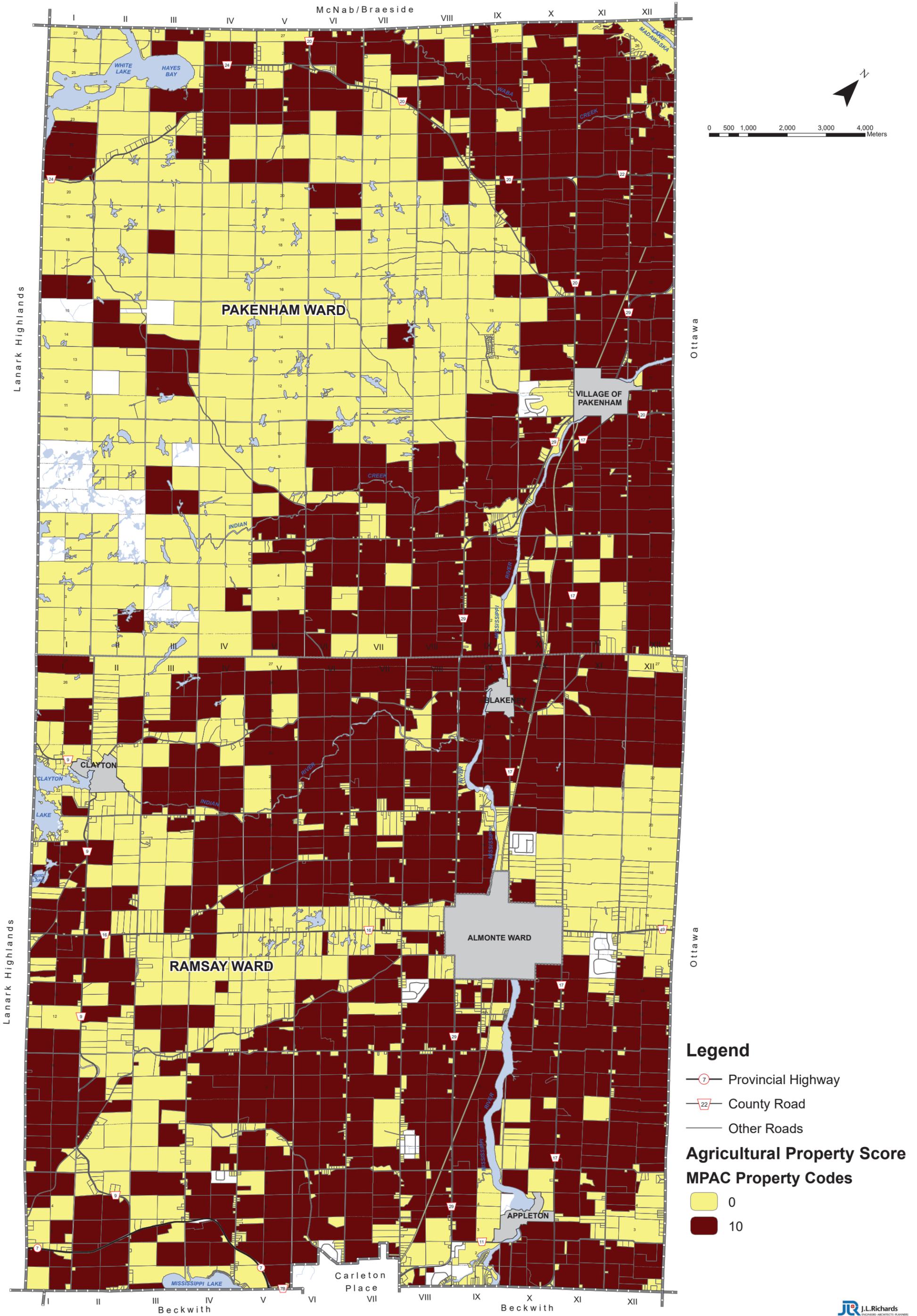
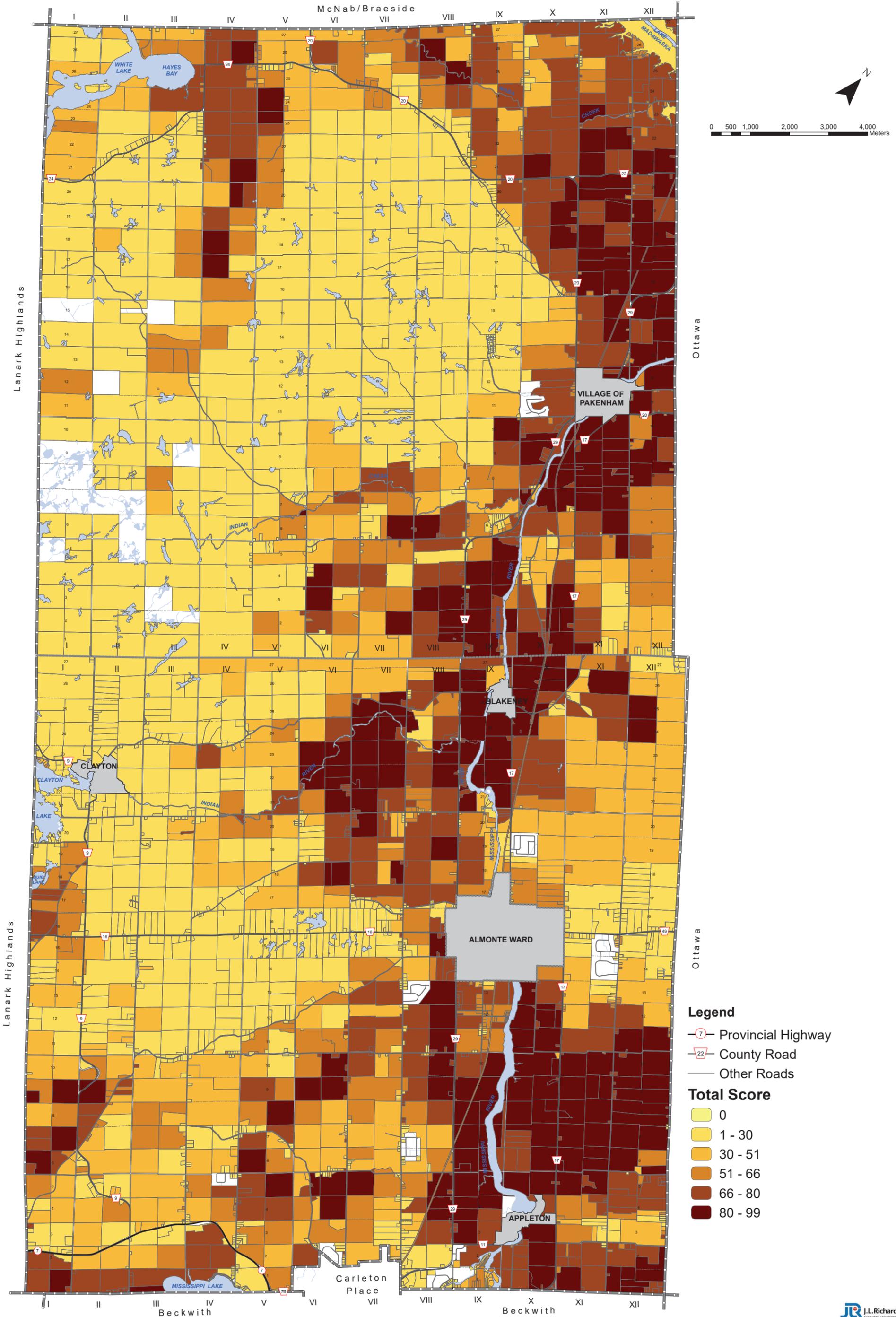
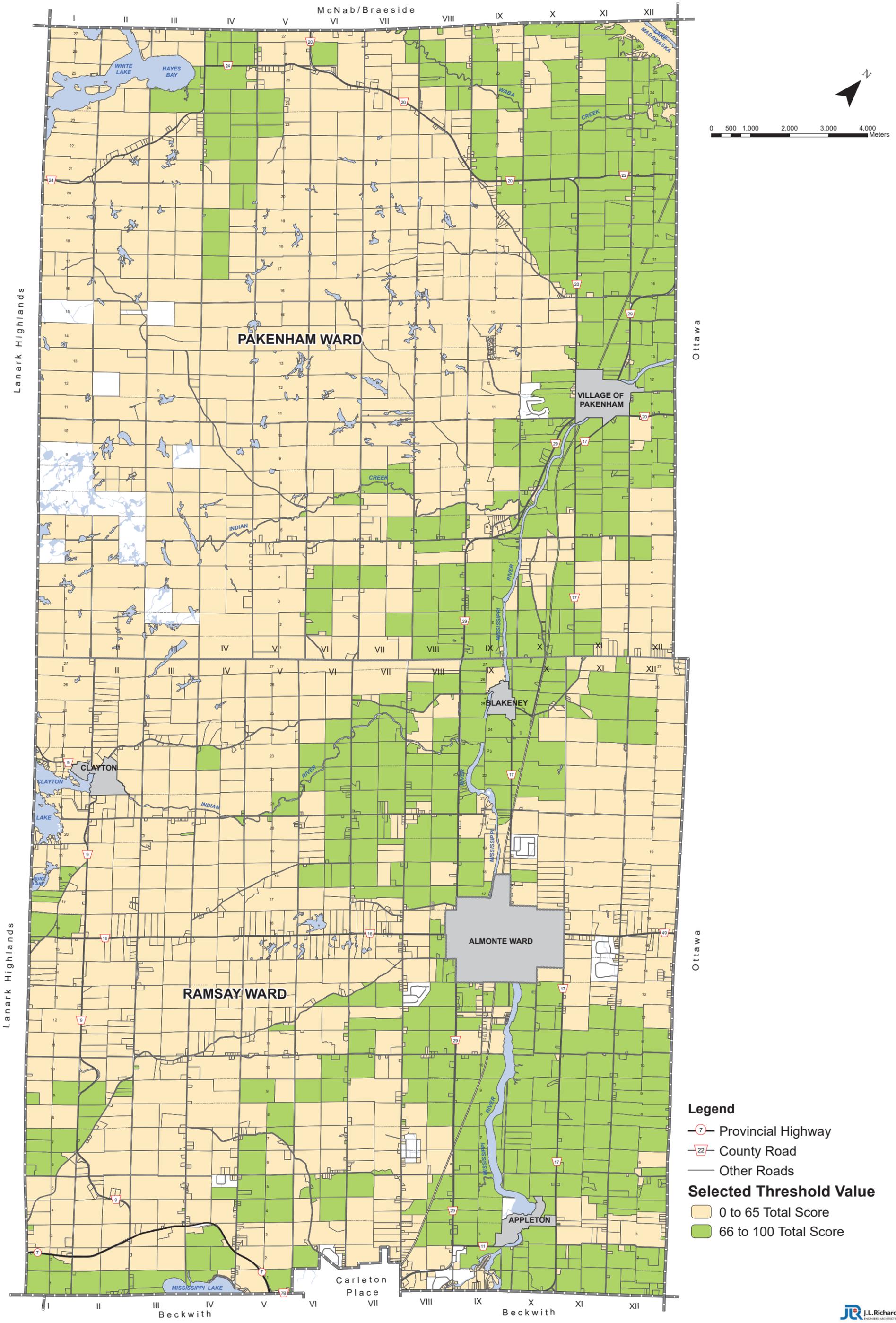


Figure 5. Total LEAR Score per Evaluated Parcel



- Legend**
- Provincial Highway
 - County Road
 - Other Roads
- Total Score**
- 0
 - 1 - 30
 - 30 - 51
 - 51 - 66
 - 66 - 80
 - 80 - 99

Figure 6. Parcels with LEAR Scores of 66+



PART C - THE APPENDICES