Applying Universal Law of Location as a Land Use Planning Decision Tool: Ontario Government Data, Evidence, and Research Studies Must be Upgraded to Enable Informed Decisions that Best Use and Preserve the Province's Threatened Farmland Inventory

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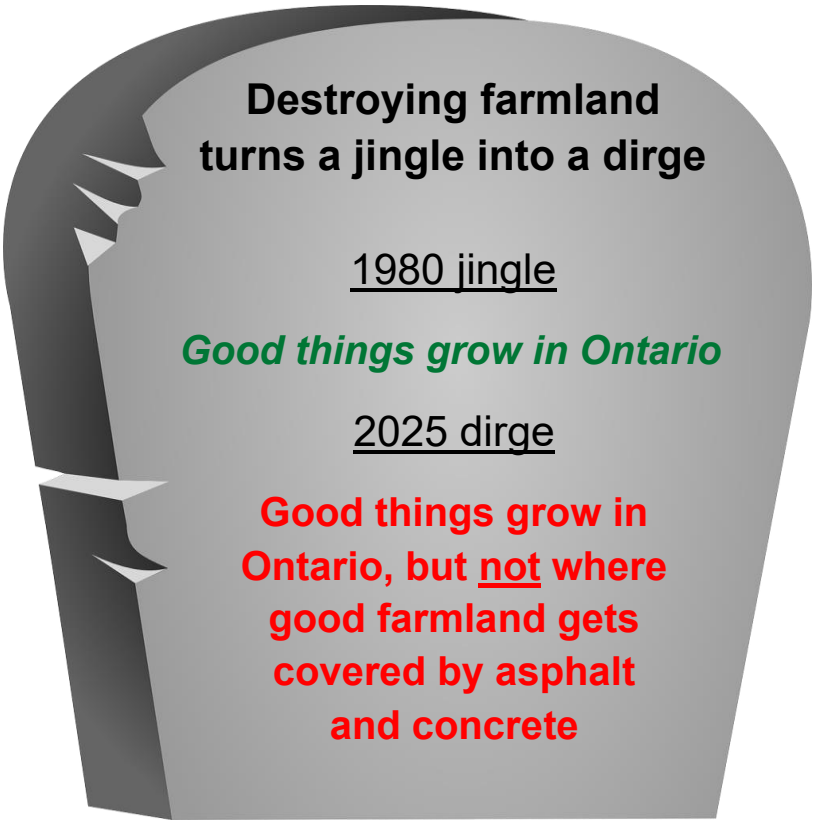


February 2025

A. Background

This case study continues the process of testing the Universal Law of Location as a land use planning and transportation planning decision tool. (Universal Law of Location Supported by GIS as a Best Practice Element in Land Use Planning and Transportation Planning Decision Systems)

The criterion of utility with its focus on "practical use" is selected for the first series of tests to assess the value of the Universal Law of Location as a land use planning decision tool. Synonyms of the concept of utility include accountability, applicability, benefit, effectiveness, efficiency, functionality, pertinence, practicality, relevance, suitability, use, and usefulness.

The fundamental point in choosing this route is that if the Universal Law of Location satisfies the utility condition, and many to most of the synonyms of utility, then the Law is likely to be of value to planners, provincial and municipal politicians, and citizens.

And, conversely, if the Universal Law of Location is not found to satisfy the utility condition, and many to most of the synonyms of utility, then the Law is not likely to be of value to planners, planners, provincial and municipal politicians, and citizens.

Section a and Section b briefly outline the contributions by the two completed case studies to the third case study, which applies the Universal Law of Location as a land use planning tool investigating whether Ontario government data, evidence, and studies on the state of the provincial farmland inventory must be upgraded to ensure sound land productivity and food security decisions.

a. First Test Case Study: Land use planning, Mayor's pledge to plant 1,000,000 trees in City of Ottawa

The first test case study investigates the 2022 municipal campaign pledge of mayoral candidate Mark Sutcliffe and now-mayor Mark Sutcliffe, City of Ottawa, to achieve 1,000,000 tree plantings in the current term of office, 2022-2026. (Universal Law of Location as a Land Use Planning Decision Tool: Analysis of Ottawa Mayor's Pledge to Plant 1,000,000 Trees)

That case study affirmed the utility of the Universal Law of Location as a land use planning tool by is contributions to:

> A. Enhancing data and evidence for data-driven and evidence-based decisions about where to locate trees and how to monitor tree-planting activities. And,

B. Proposing terms of reference for data-driven or evidence-based studies to support decisions about where to locate trees and how to monitor tree-planting activities.

b. Second Test Case Study: Transportation Planning – Gridlock, Congestion, and Bike Lanes

The second test case study uses the Universal Law of Location as a tool to ascertain whether, how, and with what consequences the provincial government takes geographic considerations into account in statements and decisions involving gridlock, congestion, and the removal of bike lanes in cities in Ontario. (Applying Universal Law of Location as a Transportation Planning Decision Tool: Ontario Government Data and Evidence Fail to Support Positions on Gridlock, Congestion, and Removal of Bike Lanes)

The first general conclusion is that the Universal Law of Location contributes to enhancing data and evidence for decisions about gridlock, congestion and removal of bike lanes, and contributes terms of reference for data-driven and evidence-based studies to support decisions regarding gridlock, congestion, and removal of bike lanes in Ontario municipalities.

As for the Ontario government positions on gridlock, congestion, and removal of bike lanes, based on obtained materials the findings are as follows.

1. The position on gridlock is not supported by data or evidence to establish its existence for even one gridlock event in Ontario history, which further consigns the notion of gridlock to transportation fantasyland.

2. To the extent that concerns about congestion are based on fantasy notions about gridlock, the concerns about congestion cannot be described by data nor demonstrated by evidence, which is a natural consequence of building a case on a fantasy foundation.

3. To the extent that concerns about congestion are attributed to the installation of bike lanes, no data and no evidence that describe and establish a consequential causal relationship were located.

4. To the extent that congestion relief is attributed to the removal of bike lanes, no data and no evidence that describe and establish a consequential causal relationship were located.

5. To the extent that the installation of bike lanes is deemed to have a consequential causal relationship with the increased incidence of motor vehicle congestion, no data or evidence that describe and establish that relationship were located.

6. To the extent that the removal of bike lanes is deemed to have a consequential causal relationship with the decreased incidence of motor vehicle congestion, no data and no evidence that describe and establish that relationship were located.

The second general conclusion is that the Universal Law of Location which states that something is everywhere below, on and above the Earth's surface is an effective, efficient, and directive means of analysing the data and evidence describing Ontario government positions and decisions on gridlock, congestion and removal of bike lanes. (Applying Universal Law of Location as a Transportation Planning Decision Tool: Ontario Government Data and Evidence Fail to Support Positions on Gridlock, Congestion, and Removal of Bike Lanes)

c. Third Test Case Study: Ontario Agricultural Land Inventory

The third test case study is in the land use planning domain, the focus is on agricultural land, and it involves provincial and municipal governments, both of which make decisions affecting the province's inventory of agricultural land and, consequently, the state of food security in Ontario.

Figure 1.

During the early phase of the case study, the epitaph in Figure 1 came to mind as an illustration of my concern about the many years of disrespect shown by provincial and municipal governments and corporate entities to Ontario's agricultural land inventory.

There are six "chapters" to this background story which overviews the reasons to select farmland for a case study test of the utility of the Universal Law of Location. The background materials cover the period from the 1950s to the current date, or about 75 years.

As a rule, the longer the study period the more robust the findings that are drawn. However, land use change in Ontario is far more dynamic and extensive after than before WW2. Consequently, for the purposes of testing the utility of the Universal Law of Location, it is deemed reasonable to base this study on data-driven and evidence-based actions taken and not taken by provincial and municipal governments since the 1950s.

By way of brief elaboration about the time factor, consideration of actions taken in the early years of the study may provide insights into the baseline thinking by governments about agricultural land policies, plans, and programs, as well as into the values and attitudes held by citizens regarding the importance of agricultural land to their lives.

With that evolving context in place, we may better understand how we got to where we are regarding the province's farmland inventory, and whether post-2025 steps must be taken to upgrade government data, evidence, and research studies on farmland to ensure sound farmland and food security decisions.

The six chapters to this background story are listed in Table 1. They are presented in chronological order.

Table 1. Chapters in the Background Story for Selecting Ontario's Agricultural Land Inventory to Test of the Utility of the Universal Law of Location

1. National perspective on Canada's rural communities, 1950s-1970s
2. Ontario Planned? 1970s-1980s
3. Doomsday Map projections,1980s-1990s
4. Sustainable development movement, 1990s+
5. Climate change, reckless resource exploitation, and Doomsday Mapping of real data and real evidence using GIS, 1980s+
6. Food security, 2020s+

1. National perspective on Canada's rural communities, 1950s-1970s

The first part of the background story dealing with classes, amounts, and locations of farmlands in Ontario began in the 1970s when I was Director, Non-Metropolitan Community Development (NMCD), Ministry of State for Urban Affairs (MSUA), Government of Canada. In that position and as senior research officer, and senior policy advisor, also at MSUA, I encountered many of the rural-urban conflicts in Ontario (and across Canada) that had been building post-WW2.

The rural-urban conflict of interest to this case study is the loss of actual and potential agricultural land to such non-agricultural land uses as urban development, housing subdivisions, highway infrastructure, airports, industry sites, commercial sites, landfill sites, and quarries.

Context for this project includes a seminar which I organized as part of the Canadian Association of Geographers annual meeting in 1978 at the (then) University of Western Ontario. The seminar theme was "Development Strategies for Small Communities in Ontario".

Among the problems raised during discussions were threats to the viability of farming operations due to farmland loss from official plan amendments and re-zonings, as well as farmland fracturing to accommodate urban expansion and inter-city road building.

A perceived, related issue was that of foreign ownership of land, with emphasis on agricultural land. Because the Canada Land Inventory was basically a data system with limited policy and research capabilities, in the late 1970s the NMC Directorate completed initial designs of a Canada Land Market Information System (CALAMARIS) prototype.

Some 45 years later, the Ontario agricultural land inventory situation may require a CALAMARIS-type initiative to ensure the security of Ontario food land.

We return to this topic in Section G.

2. *Ontario Planned?*, 1970s-1980s (1)

A comment of particular relevance to this case study is by Barry Cullingworth, a contributor to ***Ontario Planned?*:**

> "The ongoing debate about agricultural land policy has raised many passions but little objective appraisal." **(2)**

Cullingworth's comment is consistent with my intergovernmental experience in Ontario during the 1970s, and then my academic research and consulting experiences in the 1980s on GIS-related matters involving agricultural lands. **(3)**

Further, his comment is consistent with findings from literature searches and discussions with other researchers about the land use decision tools employed by provincial governments and municipal governments over recent decades. That is, the record of significant enhancements to identifying, testing, adopting, and implementing more robust agricultural land policy appraisal methods and techniques is sparse.

Which brings us to another reason for selecting agricultural land for a case study to test the utility of Universal Law of Location as a land use planning tool.

On the one hand, numerous contributors to ***Ontario Planned?*** affirm the importance of agricultural land to the health and well-being of Ontarians, and they along with Cullingworth affirm that good planning decisions depend on good data, good evidence, as does performing a good objective appraisal of agricultural land policy.

However, they also affirm that in the years leading up to the production of ***Ontario Planned?*** such was not the case, and the quality of data-based and evidence-driven decision-making in the agricultural land domain was lacking on the parts of both municipal and provincial governments.

Moreover, and reading between the lines of ***Ontario Planned?***, it appears evident that data and evidence available 40 years ago were regarded by most contributors as barely adequate at best for data-driven and evidence-based agricultural land policy decisions. **(4)**

Consequently, it therefore appears prudent to presume that the message from ***Ontario Planned?*** goes far beyond just updating the data sets and evidence used by municipal and provincial governments decades ago to make agricultural land policy decisions.

We return to this topic in Section G.

3. Doomsday Map projections, 1980s-2000s

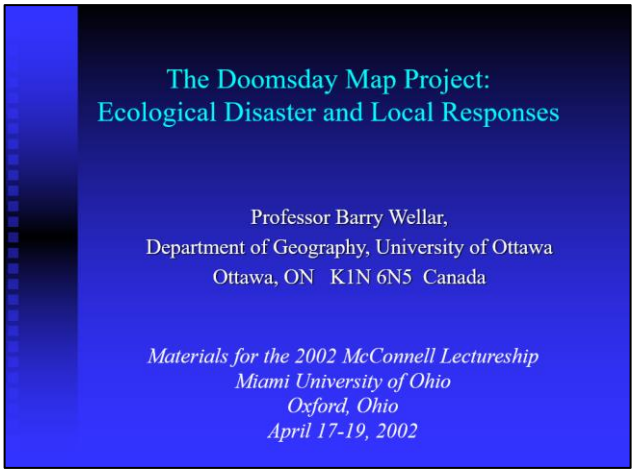
Upon my return to university teaching and research in 1979, University of Ottawa, I continued many projects that were carryovers from my policy research activities at the federal Ministry of State for Urban Affairs, with emphasis on GIS, remote sensing, and spatial database management systems.

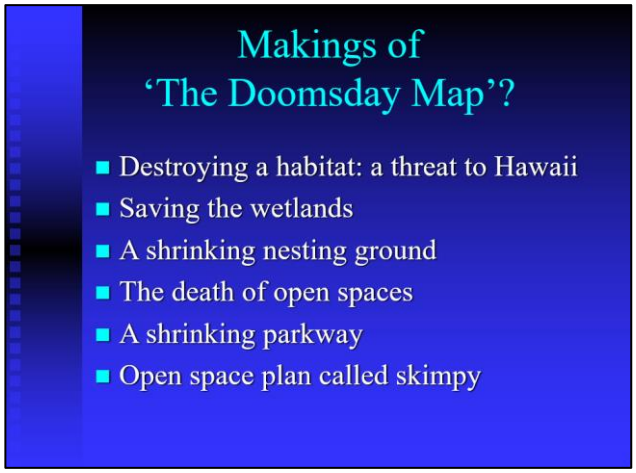
By the mid-1980s the concept of a Doomsday Map had taken material shape as a means to represent my concerns that many land, water, and air resources were in extreme jeopardy. Further, advances in GIS science and technology pointed to GIS-based capabilities and maps as an effective way to represent my concerns. **(5)**

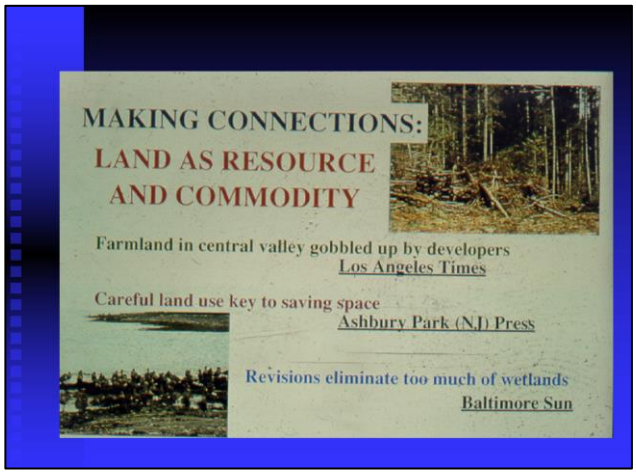
The first presentation of the Doomsday Map concept was at the 1990 GIS-LIS Conference in Anaheim, CA. **(6)**

Several graphics presented in Exhibit 1 are selected from numerous graphics to illustrate the topics covered in Doomsday Map slides. **(7)**

Exhibit 1. Images of News Headlines from Pre-1990 News Stories Signalling Agricultural Lands and Natural Resources in Trouble in Canada and Beyond







The bottom line is that by the 1980s and 1990s the reality of disappearing farmland and deteriorating farmland due to soil loss, soil quality depletion, drought, and other issues leading to food security challenges, had already been matters of record for decades as exemplified by newspaper headlines and stories in Doomsday Map illustrations.

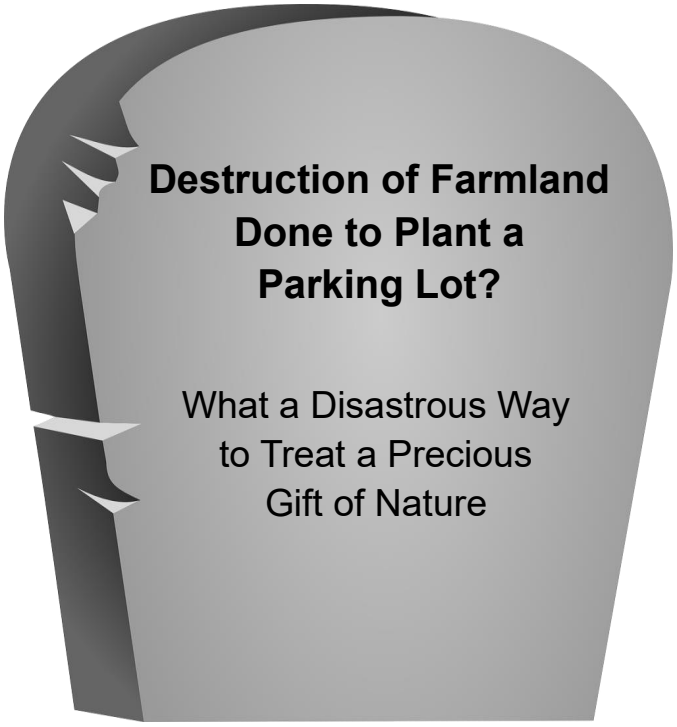
It therefore follows from the perspective of prudent governance that if major corrective actions have not been taken in the past 20-30 years to address those systemic failures to protect and preserve farmland, then the data and evidence on Ontario's farmland inventory must be upgraded.

And, they must be incorporated in provincial and municipal government policies, plans, and programs in order to prompt action to meet the existential challenges to Ontario's agricultural land and food security. **(8)**

By the time that I began publishing reports on the Doomsday Map project I reviewed many thousands of newspaper stories, mostly from Canada and the U.S.

Thirty-five years later, the epitaph in Figure 2 comes to mind as an appropriate way to express my thoughts about the callous and reckless disregard shown to one of Ontario's most precious features.

Figure 2.



We return to this topic in Section G.

4. Sustainable development movement, 1990s-Present

The term "sustainable development" began its rise to popularity in the late 1970s, and as of this date when used as the search word in Google it generates about 490,000,000 results.

However, despite the popularity of the term, problems have been identified at the operational level, and especially in the realm of land and agricultural land in particular.

First, the word "development" is often used in definitions of the concept of "sustainable development".

As a result of using a tautological approach, definitions of the meaning and intent of using "sustainable development" in policies, plans, and programs are often murky, they do not meet the standards of rigorous defining which describe entities in terms of their structural and functional features, and they have limited operational value.

Second, the term development when applied to land can apply to both agricultural and non-agricultural uses of land.

In the former case, farmers and farm enterprises are engaged in modifying rather than developing raw land to create farms. Further, they are modifying land rather than developing land to convert or transform one type of farm into a different type of farm.

Consequently, because land in agricultural use remains in agricultural use, the criteria for sustainable development are met at a fundamental level.

In the case of non-agricultural uses, however, when individuals, corporations, and governments convert raw land and land in agricultural use to land in non-agricultural use for such purposes as multi-unit housing, single-unit housing, shopping centres, go-cart tracks, warehouses, industrial sites, roads, junkyards, tank "farms", quarries, landfills, office towers, open pit and underground mines, and other non-agricultural land uses under and on Earth's surface, then the criteria for sustainable development are not met for as long as the non-agricultural uses are not converted back to agricultural land.

Finally, in principle there is a temporal dimension to sustainability, and a basic, operational question is,

> What does "sustainable development" mean in practice when used in policies, plans, and programs that affect Ontario's agricultural land inventory over time and space?

The three preceding parts of the background story underline the need to specify the temporal and spatial aspects associated with the concept of sustainability.

Further, reading between the lines, if the temporal and spatial aspects of sustainability are not specified when the term is used in association with the inventory of agricultural land, then it appears fair to say that at best the term "sustainability" is largely employed as a token gesture on many occasions. **(9)**

By way of brief comment on the popularity of a term or concept possibly being misleading when it comes to substance, searches reveal a massive literature associating sustainable development with agricultural land.

However, my findings come up short in searches for data-driven and evidence-based decisions by Ontario's provincial and municipal governments to protect and preserve the province's inventory of any class of agricultural land, much less classes 4, 3, 2 and, much, much less, class 1 agricultural land, a.k.a. class A agricultural land, and prime agricultural land.

As a case in point, a critical variable in analysis of progress in achieving sustainable development in association with Ontario's land inventory is the amount and the quality of the agricultural land component comprising the province's overall land inventory.

However, I have not been able to locate the application of zero-sum logic by municipal or provincial governments in, for example, analysis of the state of Ontario's farmland inventory vis-à-vis inventories of other land uses. **(10)**

The epitaph in Figure 3 can be cast in many ways, but the bottom line for class 1, class 2, and class 3 agricultural land is that, setting miracles aside, what we have of each class today is the most that each class that we will ever have, and the size of each inventory can only go down.

Research questions will persist as long as any class 1, class 2, or class 3 land is still around to decline, and include asking

> "How fast and where will the declines occur until all high-quality farmland is destroyed, and the zero-sum dance is over for some of the best farmland that ever graced planet Earth?"

Third, since agricultural land is necessary to the survival of the human species, it seems reasonable that a filter based on the criterion of highest and best use must be applied to all lands in Ontario to ensure that any lands in the province which satisfy that criterion are set aside in perpetuity for agriculture.

Figure 3.

We return to this topic in Section G.

5. Climate change, reckless resource exploitation, and Doomsday Mapping of real data and real evidence using GIS, 1980s-Present

By 2015, about 25 years had passed since the introduction of the Doomsday Map, and I was fortunate to be granted an opportunity to revisit that early work. The opportunity came through a grant from Esri International to organize a colloquium at Esri HQ in Redlands, CA in 2015, followed by a session at the Esri Federal GIS meeting in Washington D.C. in 2016, on the theme of Using the Retrospective Approach to Mine for GIS Nuggets.

The colloquium proceedings titled *Presentation Slides from the Research Colloquium on Using the Retrospective Approach to Mine for GIS Nuggets* can be viewed at https://wellar.ca/wellarconsulting/COLLOQUIUM_SLIDE_PRESENTATIONS.pdf.

The publication of immediate interest to this report is "Abuse v. Care of Land, Water, and Air, 1990-2015: The Doomsday Map and Stewardship Map Concepts as Compelling Arguments to Retrospectively Mine the Popular Literature for GIS Nuggets" by B. Wellar, pp.186-248. **(11)**

The bottom line is that after 25 years it appeared that more agricultural land had been lost than had been gained globally, and that losses exceeded gains in many countries. Ten years later, from 2015 to 2025, that same story appears to hold, which means that the Doomsday Map is outpacing the Stewardship Map with regard to the diminishing size and quality of agricultural land inventories in general.

That being the case, it seems fair to say that there is greater need than ever for Ontario's provincial and municipal governments, as well as citizens, to presume that the province's agricultural land security is already in a state of imminent jeopardy.

And it is also prudent to presume that agricultural land security risk will increase at an increasing rate until action is taken to protect and preserve existing farmland of all classes 1-4, and quite possibly classes 5, 6, and 7 in some locations.

A first, critical step towards acquiring the knowledge needed to make data-driven and evidence-based land use decisions at the best practices level, therefore, is to ascertain the location, size, and condition of Ontario's actual and potential agricultural land inventory.

We return to this topic in Section G.

6. Food security

The final background comments to affirm the societal significance of upgrading Ontario government's data and evidence on the state of its farmland inventory are on food security. **(12)**

Food is a necessity of life, which speaks to the designation of highest and best use being assigned to lands which are suitable for agriculture.

In accordance with the non-discrimination principle, other land uses which also serve a necessity of life function could also be designated highest and best use.

Further, because food is a necessity of life, the greater the degree of food self-sufficiency achieved by a jurisdiction the greater its degree of food security, food independence, and food sovereignty. **(13)**

And, as suggested previously, *ceteris paribus*, the greater the amounts of agricultural land, the greater the diversity of agricultural land, and the broader the locational distribution of agricultural land in a jurisdiction, the greater the likelihood that a jurisdiction will experience higher-end levels of food security, food independence, food self-sufficiency, and food sovereignty.

Overall, the Google search results for food security (1,640,000,000), food insecurity (214,000,000), food self-sufficiency (760,000,000), and food sovereignty (60,400,000) amount to 3,674,400,000 webpage mentions.

Those numbers appear more than sufficient to justify an investigation seeking to upgrade the data and evidence used in studies to inform decisions affecting Ontario's agricultural land inventory.

We return to this topic in Section G.

Those background materials in combination with the three Universal Law of Location reports are the basis of the case study objective statement in Section B.

B. Case Study Objective

Given the success of the first and second test case studies, the third test follows suit with necessary language changes.

The focus of language in this case study is guided by the language in Part c of Section A and includes such terms as agriculture, climate change, data, decision, development, ecosystem, evidence, farmland, food, geographical, GIS, highest and best use, inventory, land, location, mapping, municipal government, planning, provincial government, rural, security, non-agricultural, self-sufficiency, soil, spatial, stewardship, sustainability, and zero-sum.

Following from the discussion in Universal Law of Location Supported by GIS as a Best Practice Element in Land Use Planning and Transportation Planning Decision Systems, there are three general tests for assessing the utility of the Universal Law of Location as a farmland inventory decision tool. That is, whether the Law:

1. Contributes to upgrading Ontario governments' data on the province's farmland inventory.

2. Contributes to upgrading the evidence used by Ontario governments to make decisions that affect the province's farmland inventory.

3. Contributes to terms of reference for data-driven and evidence-based studies to upgrade decisions that affect the province's farmland inventory and its state of food security.

There are specific tests of utility of the Universal Law of Location within each of the general tests. We will run as many as possible within the time frame and resources assigned for this case study.

Discussions about upgrading data, upgrading evidence, and contributing terms of reference for research studies on upgrading data and upgrading evidence are presented in Sections D, E, and F, respectively.

However, before getting to the test stage, it is necessary to discuss the three types of documentation to be considered in Sections D, E, and F, and Appendix A.

One type of documentation consists of the existing bodies of data, evidence, and research studies which are already part of municipal and provincial government records.

In the case of data records on agricultural lands, they are specified, collected, stored, processed, and disseminated by or by authority of the provincial and municipal governments. Conditions of access to these records is set by the municipal and provincial governments.

Bodies of evidence assembled by provincial and municipal governments for legislative, policy, program, plan, operations, and other purposes are also totally within the purview of municipal and provincial governments, Conditions of access to these records is set by the municipal and provincial governments.

Finally, provincial and municipal governments undertake and fund research studies, and participate in research studies into the bodies of data and evidence used to modify existing legislation, policies, plans, programs, and operations, develop new legislation, policies, plans, programs, and operations, etc.

That is a massive body of documentation, and this case study will examine only as much of that documentation as needed to conduct tests of the utility of the Universal of Law of Location as a farmland inventory decision tool.

C. Communications Providing Context for Sections C, D, E, F, G, H, and I

Table 2 presents the list of persons and organizations selected to receive communications regarding the quality of data, evidence, and research used by the current provincial government in decisions that affect Ontario's agricultural land inventory.

Table 2. Communications to Persons and Organizations Selected to Provide Insights into the Quality of Data, Evidence, and Research Used in Decisions that Affect Ontario's Agricultural Land Inventory

Provincial Politicians Minister Rob Flack, Ministry of Agriculture, Food, and Agribusiness Minister Lisa Thompson, Ministry of Rural Affairs MPP John Vanthof (New Democrat) MPP Ted Hsu (Liberal) MPP Mike Schreiner (Green) In the interests of transparency and accountability, Appendix 1 reports on responses by or on behalf of provincial politicians to the communication, Universal Law of Location Project: Agricultural Land Inventory.
Municipal Government Councils Bradford-West Gwillimbury (Town); Brampton (City); Brantford (City); Cambridge (City); Dufferin (County); Grimsby (Town); Guelph (City); Halton (Region); Hamilton (City); London (City); Markham (City); Newmarket (Town); Niagara (Region); Ottawa (City); Peterborough (City); Temiskaming Shores (City); Vaughan (City); Wellington (County); Wilmot (Township). In the interests of transparency and accountability, Appendix 2 reports on whether a contacted municipal government council responded to the communication. Universal Law of Location Project: Agricultural Land Inventory.
Advocacy Groups Agricultural Adaptation Council Farm & Food Care Ontario Association of Agricultural Societies Ontario Farmland Trust Ontario Federation of Agriculture Ontario Soil and Crop Improvement Association In the interests of transparency and accountability, Appendix 3 reports on whether a contacted advocacy group responded to the communication, Universal Law of Location Project: Agricultural Land Inventory.

Finally, in the interests of recognition and acknowledgement of the substantive response from Martin Straathof, Executive Director, Ontario Farmland Trust, it is presented in Appendix 4.

Exhibits 2 and 3 are email communications to Rob Flack and Lisa Thompson, Ministers of Agriculture, Food and Agribusiness, and Rural Affairs, respectively.

With due regard for accountability and transparency involving government decisions and as communicated to a number of parties involved in the case study, the quality of data, evidence, and research used by the current provincial government in decisions that affect Ontario's agricultural land inventory largely begins and ends with Rob Flack, Minister of Agriculture, Food and Agribusiness, and Lisa Thompson, Minister of Rural Affairs. It is therefore appropriate for the first emails to provide that context for subsequent communications.

Exhibit 2. Email to Minister Rob Flack, Ontario Ministry of Agriculture, Food and Agribusiness

From: wellar.barry@gmail.com <wellar.barry@gmail.com>
Sent: Thursday, January 2, 2025 4:31 PM
To: minister.omafra@ontario.ca
Cc: JVanthof-QP@ndp.on.ca; thsu.mpp.co@ola.org; 'George A. Neville' <george.neville@ncf.ca>; 'douglasarnold douglasarnold' <douglasarnold@sympatico.ca>; 'le hibou' <ottawaowl2@yahoo.ca>; information@fca-fac.ca; 'Horizon Ottawa' <info@horizonottawa.ca>; wellar.barry@gmail.com; 'Ecology Ottawa' <info@ecologyottawa.ca>
Subject: Testing the Universal Law of Location: Ontario agricultural Land Inventory-Provincial Communications

Hon. Rob Flack

Minister of Agriculture, Food and Agribusiness

Dear Minister Flack,

I seek your assistance in conducting case study 3 of the Universal Law of Location project. The focus of this case study is on the data, evidence, and research studies used by the provincial government in making legislative, policy, plan, program, and operations decisions which affect the province's agricultural land inventory.

The objective of this case study is to test the utility of the Universal Law of Location as an agricultural land inventory decision tool. There are three general tests for assessing

the utility of the Universal Law of Location, each of which involves the analytics behind provincial government initiatives that affect the amount and quality of Ontario's agricultural land resource.

That is, we are testing whether applying the Universal Law of Location:

- Contributes to upgrading provincial government data on the province's agricultural land inventory.
- Contributes to upgrading the evidence used by Ontario governments to make decisions that affect the province's agricultural land inventory.
- Contributes to terms of reference for data-driven or evidence-based studies to upgrade decisions that affect the province's agricultural land inventory and, consequently, to state of food security.

Minister, your assistance in two regards will be most appreciated.

First, so that I may give full credit to the Ministry as due, please inform me of projects undertaken by or authorized by the Ministry of Agriculture, Food and Agribusiness this term and the previous term of office to review and evaluate the data, evidence, and studies used to make decisions that affect the province's agricultural land inventory and, consequently, its state of food security.

Second, so that I may better understand the communications flow between the Ministry of Agriculture, Food and Agribusiness and other parties with an interest in the agricultural land inventory, I seek your response to an initial set of requests for details about Ministry communications which are in the public domain.

1. Please inform me of communications to the Ministry of Agriculture, Food and Agribusiness during this term and the previous term which question or challenge Ministry data, evidence, or studies used to make decisions that affect Ontario's agricultural land inventory.

2. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to other provincial agencies that question or challenge the data, evidence, or studies used by those agencies to make decisions that affect Ontario's agricultural land inventory.

3. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to municipal governments that question or challenge the data, evidence, or studies used by those governments to make decisions that affect Ontario's agricultural land inventory.

4. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to federal government agencies that question or challenge the data, evidence, or studies used by federal agencies to make decisions that affect Ontario's agricultural land inventory.

5. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to private sector entities that question or challenge the data, evidence, or studies used by private sector entities to comment on provincial government decisions that affect Ontario's agricultural land inventory.

6. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to public interest groups that question or challenge the data, evidence, or studies used by public interest groups to comment on provincial government decisions that affect Ontario's agricultural land inventory.

7. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to vested interest groups that question or challenge the data, evidence, or studies used by vested interest groups to comment on provincial government decisions that affect Ontario's agricultural land inventory.

9. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to academic and other researchers that question or challenge the data, evidence, or studies used by academic and other researchers to comment on provincial government decisions that affect Ontario's agricultural land inventory.

10. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to journalists that question or challenge the data, evidence, or studies used by journalists to comment on provincial government decisions that affect Ontario's agricultural land inventory.

11. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to citizens that question or challenge the data, evidence, or studies used by citizens to comment on provincial government decisions that affect Ontario's agricultural land inventory.

I hasten to add that if I missed one or more of your Ministry's contact groups, I will be most appreciative if you will kindly include it or them in the list and respond accordingly.

Finally, following the previous tests of the Universal Law of Location, this report will also be posted at https://wellar.ca/informationresearch/Publications.html where it can be readily disseminated, accessed, re-posted, and so on.

Consequently, so that readers of the report will have ready access to your responses and will not have to contact you or me, but can go directly to the files and folders, to facilitate further communications and information exchanges please include links to files and folders of materials pertinent to responses.

Minister, I look forward to receiving your response at the earliest moment.

Thank you.

Dr. Barry Wellar, C.M., GISP
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President, Information Research Board Inc.
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Nepean, ON K2H 6T4
CANADA
http://wellar.ca/informationresearch/

Exhibit 3. Email to Minister Lisa Thompson, Ontario Ministry of Rural Affairs

From: wellar.barry@gmail.com <wellar.barry@gmail.com>
Sent: Thursday, January 2, 2025 4:40 PM
To: minister.omafra@ontario.ca
Cc: JVanthof-QP@ndp.on.ca; thsu.mpp.co@ola.org; 'George A. Neville' <george.neville@ncf.ca>; 'douglasarnold douglasarnold' <douglasarnold@sympatico.ca>; 'le hibou' <ottawaowl2@yahoo.ca>; 'Ecology Ottawa' <info@ecologyottawa.ca>; information@fca-fac.ca; 'Horizon Ottawa' <info@horizonottawa.ca>; wellar.barry@gmail.com
Subject: Testing the Universal Law of Location: Ontario agricultural Land Inventory-Provincial Communications

Hon. Lisa Thompson. Ministry of Rural Affairs

Dear Minister Thompson,

I seek your assistance in conducting case study 3 of the Universal Law of Location project. The focus of this case study is on the data, evidence, and research studies used by the provincial government in making legislative, policy, plan, program, and operations decisions which affect the province's agricultural land inventory.

The objective of this case study is to test the utility of the Universal Law of Location as an agricultural land inventory decision tool. There are three general tests for assessing the utility of the Universal Law of Location, each of which involves the analytics behind

provincial government initiatives that affect the amount and quality of Ontario's agricultural land resource.

In brief we are testing whether applying the Universal Law of Location:

- Contributes to upgrading provincial government data on the province's agricultural land inventory.
- Contributes to upgrading the evidence used by Ontario governments to make decisions that affect the province's agricultural land inventory.
- Contributes to terms of reference for data-driven or evidence-based studies to upgrade decisions that affect the province's agricultural land inventory and, consequently, its state of food security.

Minister, your assistance in two regards will be most appreciated.

First, so that I may give full credit to the Ministry as due, please inform me of any projects undertaken by or authorized by the Ministry of Rural Affairs this term and the previous term of office to review and evaluate the data, evidence, and studies used to make decisions that affect the province's agricultural land inventory and, consequently, its state of food security.

Second, so that I may better understand the communications flow between the Ministry and other parties with an interest in the agricultural land inventory, I prepared an initial set of requests for details about Ministry communications which are in the public domain.

1. Please inform me of communications to the Ministry Rural Affairs during this term and previous terms which question or challenge Ministry data, evidence, or studies used to make decisions that affect Ontario's agricultural land inventory.

2. Please inform me of communications by the Ministry of Rural Affairs to other provincial agencies that question or challenge the data, evidence, or studies used by those agencies to make decisions that affect Ontario's agricultural land inventory.

3. Please inform me of communications by the Ministry of Rural Affairs to municipal governments that question or challenge the data, evidence, or studies used by those governments to make decisions that affect Ontario's agricultural land inventory.

4. Please inform me of communications by the Ministry of Rural Affairs to federal government agencies that question or challenge the data, evidence, or studies used by federal agencies to make decisions that affect Ontario's agricultural land inventory.

5. Please inform me of communications by the Ministry of Rural Affairs to private sector entities that question or challenge the data, evidence, or studies used by private sector entities to comment on provincial government decisions that affect Ontario's agricultural land inventory.

6. Please inform me of communications by the Ministry of Rural Affairs to public interest groups that question or challenge the data, evidence, or studies used by public interest groups to comment on provincial government decisions that affect Ontario's agricultural land inventory.

7. Please inform me of communications by the Ministry of Rural Affairs to vested interest groups that question or challenge the data, evidence, or studies used by vested interest groups to comment on provincial government decisions that affect Ontario's agricultural land inventory.

9. Please inform me of communications by the Ministry of Rural Affairs to academic and other researchers that question or challenge the data, evidence, or studies used by academic and other researchers to comment on provincial government decisions that affect Ontario's agricultural land inventory.

10. Please inform me of communications by the Ministry of Rural Affairs to journalists that question or challenge the data, evidence, or studies used by journalists to comment on provincial government decisions that affect Ontario's agricultural land inventory.

11. Please inform me of communications by the Ministry of Rural Affairs to citizens that question or challenge the data, evidence, or studies used by citizens to comment on provincial government decisions that affect Ontario's agricultural land inventory.

I hasten to add that if I missed one or more of your Ministry's contact groups, I will be most appreciative if you will kindly include it or them in the list and respond accordingly.

Finally, following the previous tests of the Universal Law of Location, this report will also be posted at https://wellar.ca/informationresearch/Publications.html where it can be readily disseminated, accessed, re-posted, and so on.

Consequently, so that readers of the report will have ready access to your responses and will not have to contact you or me, but can go directly to the files and folders, to facilitate further communications and information exchanges please include links to files and folders. to facilitate further communications and information exchanges.

Minister, I look forward to receiving your response at the earliest moment.

Thank you.

Dr. Barry Wellar, C.M., RPP (Lifetime)
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Based on experience in the policy domain over many years, I am aware that few ministers have the expertise borne of education, training, and hands-on practice to prepare data-driven or evidence-based legislation, or to speak knowledgeably about matters involving research methodology.

As a result, it is deemed advisable to speak directly to officials who are responsible for informing politicians about the methodology underlying the advice given on policy, program, planning, and operations matters.

However, decisions about who answers policy research questions in the emails are within the purview of Minister Flack and Minister Thompson. In the interests of transparency and accountability, inquiries will be made if necessary to confirm the author(s) of responses.

The next communication (Exhibit 3) is the email sent to the agriculture critics for the Green Party, Liberal Party and the New Democrat Party. The email to John Vanthof, agriculture critic of the Official Opposition (New Democrats) is used for illustrative purposes.

Exhibit 4. Email to Selected Opposition MPPs (J. Vanthof example)

From: wellar.barry@gmail.com <wellar.barry@gmail.com>
Sent: Tuesday, January 21, 2025 4:16 PM
To: 'Vanthof - QP, John' <JVanthof-QP@ndp.on.ca>
Cc: 'Inglis, Lindsay' <LInglis@ndp.on.ca>; 'George A. Neville' <george.neville@ncf.ca>; 'douglasarnold douglasarnold' <douglasarnold@sympatico.ca>; 'le hibou' <ottawaowl2@yahoo.ca>; 'Martin Straathof' <martin@ontariofarmlandtrust.ca>
Subject: Universal Law of Location Project: Agricultural Land Inventory -- MPP John Vanthof

Dear MPP John Vanthof,

I am investigating the quality of data, evidence, and research studies used by the provincial government and municipal governments when making decisions that affect the amount and characteristics of Ontario's agricultural land inventory.

As you will appreciate in your role of Agriculture Critic for the New Democratic Party, the quality of data, evidence, and research used by the current provincial government in decisions that affect Ontario's agricultural land inventory largely begins and ends with Rob Flack, Minister of Agriculture, Food and Agribusiness, and Lisa Thompson, Minister of Rural Affairs.

In emails of January 2, 2025, I ask the Ministers a number of questions, the responses to which I believe are very important to ascertaining whether the Universal Law of Location contributes to:

1. Upgrading Ontario government data on the province's farmland inventory.
2. Upgrading the evidence used by Ontario governments to make decisions that affect the province's farmland inventory.
3. Strengthening terms of reference for data-driven and evidence-based studies to upgrade decisions that affect the province's farmland inventory and the province's state of food security.

In this communication I am reaching out to you as Official Opposition critic for agriculture to invite your comments on the following two parts of the communication sent to Minister Flack and Minister Thompson on January 2, 2025.

Dear Minister,

I seek your assistance in conducting case study 3 of the Universal Law of Location project. The focus of this case study is on the data, evidence, and research studies used by the provincial government in making legislative, policy, plan, program, and operations decisions which affect the province's agricultural land inventory.

Minister, your assistance in two regards will be most appreciated.

So that I may give full credit to the Ministry as due, please inform me of projects undertaken by or authorized by the Ministry of Agriculture, Food and Agribusiness this term and the previous term of office to review and evaluate the data, evidence, and studies used to make decisions that affect the province's agricultural land inventory and, consequently, its state of food security.

Note: I have not received a substantive reply to the email of January 2, so any comment as to whether the Ministry has updated or is likely to upgrade the data,

evidence, and research studies used to make decisions affecting the province's agricultural land inventory will be most appreciated. (14)

Please inform me of communications to the Ministry of Agriculture, Food and Agribusiness during this term and the previous term which question or challenge Ministry data, evidence, or studies used to make decisions that affect Ontario's agricultural land inventory

Note: I have not received a substantive reply to the email of January 2, so any comment as to communications from you to the Minister/Ministry regarding data, evidence, and research studies will be appreciated. (15)

MPP Vanthof, I do not wish this to be an onerous task, so I welcome receiving an indicative response, including links to YouTube videos as well as to Hansard and other productions which could contribute to the robustness of case study findings.

Thank you for your consideration of this request.

Dr. Barry Wellar, C.M., RPP (Lifetime)
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It was anticipated that three weeks would be sufficient for both Ministers to respond, and especially if they wanted to be on record prior to an election call which had been on the public radar for some months. That way, before needing to submit the report for posting to meet research schedules, opposition critics could comment on claims expressed by the Ministers to the first question.

Regrettably responses were not received in that timeframe, so the hope is that responses from Ministers will be received in the near future. If not, then perhaps that part of the communications to Ministers can be re-visited after this report is completed.

Finally, the conditions of transparency and accountability apply in equal measure to all elected officials. The emails to agriculture critics affirm that on behalf of citizens and research design integrity, all politicians are being held to the same standard.

The communications to critics may also serve to recognize their contributions to upgrading the data, evidence, and research studies used by the provincial government in making decisions affecting Ontario's agricultural land inventory.

In the interests of transparency and accountability, Appendix 1 reports on whether contacted provincial politician responded to the communication regarding "Universal Law of Location Project: Agricultural Land Inventory".

Exhibit 5. Email to Municipal Governments (City of Hamilton example)

From: wellar.barry@gmail.com <wellar.barry@gmail.com>
Sent: Monday, January 6, 2025 9:51 PM
To: mayor@hamilton.ca
Subject: Testing the Universal Law of Location: Ontario Agricultural Land Inventory-- Municipal Communications-- Hamilton

Mayor Horwath and Councillors, City of Hamilton

Dear Members of Council,

As you may be aware, Ontario has been undergoing farmland loss for many decades. The current rate exceeds 300 acres per day, or more than 100,000 acres per year, with much of that loss due to expansion of settlement areas.

And, as you may also be aware, concerns about farmland losses are often correlated with phrases such as food insecurity, food shortages, and rising food costs in broadcast media and social media stories and comments.

Due to the societal importance of the size and condition of Ontario's agricultural land inventory, it has been selected for the third case study of the utility of the Universal Law of Location as a land use planning decision tool. Universal Law of Location Supported by GIS as a Best Practice Element in Land Use Planning and Transportation Planning Decision Systems

I seek your assistance in conducting case study 3.

The focus of this component of the case study is on the data, evidence, and research studies used by municipalities in making policy, plan, program, and operations decisions which affect the size and condition of the province's agricultural land inventory.

The objective of this case study is to test the utility of the Universal Law of Location as an agricultural land inventory decision tool. There are three general tests for assessing the utility of the Universal Law of Location, each of which involves the analytics behind municipal government initiatives that affect the size and condition of Ontario's agricultural land resource.

In brief, we are testing whether applying the Universal Law of Location:

- Contributes to upgrading municipal government data on the province's agricultural land inventory.
- Contributes to upgrading the evidence used by municipal governments to make decisions that affect the province's agricultural land inventory.
- Contributes to terms of reference for data-driven or evidence-based studies to upgrade municipal government decisions that affect the province's agricultural land inventory and, consequently, the province's level of food security.

Mayor and councillors, your assistance in two regards will be most appreciated.

First, so that I may give full credit to the City of Hamilton please inform me of activities undertaken or authorized by the city this term and the previous term, to review and evaluate the data, evidence, and studies used to make decisions that affect the province's agricultural land inventory and, consequently, the robustness of the province's food supply and level of food security.

Second, so that I may better understand the communications flow between the City of Hamilton and other parties with an interest in Ontario's agricultural land inventory, I seek your response to an initial set of requests for details about City of Hamilton communications in these regards.

1. Please inform me of communications by the provincial government to the City of Hamilton during this term and the previous term that affect the city's agricultural land inventory.

2. Please inform me of communications by the provincial government to the City of Hamilton during this term and the previous term that question or challenge City of Hamilton data, evidence. or studies used to make decisions that affect Ontario's agricultural land inventory.

3. Please inform me of communications by the City of Hamilton that question or challenge the data, evidence, or studies used by provincial agencies to make decisions that affect Ontario's agricultural land inventory.

4. Please inform me of communications by the City of Hamilton that question or challenge the data, evidence, or studies used by private sector entities to comment on decisions that affect Ontario's agricultural land inventory.

5. Please inform me of communications by the City of Hamilton that question or challenge the data, evidence, or studies used by public interest groups to comment on City of Hamilton decisions that affect Ontario's agricultural land inventory.

6. Please inform me of communications by the City of Hamilton that question or challenge the data, evidence, or studies used by vested interest groups to comment on City of Hamilton decisions that affect Ontario's agricultural land inventory.

7. Please inform me of communications by the City of Hamilton that question or challenge the data, evidence, or studies used by academic and other researchers to comment on City of Hamilton decisions that affect Ontario's agricultural land inventory.

8. Please inform me of communications by the City of Hamilton d that question or challenge the data, evidence, or studies used by journalists to comment on City of Hamilton decisions that affect Ontario's agricultural land inventory.

9. Please inform me of communications by the City of Hamilton that question or challenge the data, evidence, or studies used by citizens to comment on City of Hamilton decisions that affect Ontario's agricultural land inventory.

I hasten to add that if I missed one or more of the city's contact groups, I will be most appreciative if you will kindly include it or them in the list and respond accordingly.

Finally, following the previous tests of the Universal Law of Location, this report will also be posted at https://wellar.ca/informationresearch/Publications.html where it can be readily disseminated, accessed, re-posted, and so on.

So that readers of the report will have ready access to your responses and will not have to contact you or me, but can go directly to the files and folders, please include links to files and folders to facilitate further communications and information exchanges

Mayor and Councillors, I look forward to receiving your responses at the earliest moment.

Thank you.

Dr. Barry Wellar, C.M. RPP (Lifetime)
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In the interests of transparency and accountability, Appendix 2 reports on whether contacted municipal government politicians responded to the communication regarding "Universal Law of Location Project: Agricultural Land Inventory". **(16)**

Exhibit 6. Email to Agricultural Advocacy Groups (Ontario Federation of Agriculture example)

From: wellar.barry@gmail.com <wellar.barry@gmail.com>
Sent: Saturday, January 11, 2025 4:43 PM
To: tyler.brooks@ofa.on.ca
Subject: Ontario Agricultural Land Inventory Project

Hello at OFA,

I am investigating the quality of data, evidence, and research studies used by the provincial government and municipal governments when making decisions that affect the amount and condition of Ontario's agricultural land inventory.

In this communication I invite your feedback on whether you have had communications with Minister Flack or Minister Thompson regarding item 6 in the emails to them of January 2, 2025.

To Minister Flack

"6. Please inform me of communications by the Ministry of Agriculture, Food and Agribusiness to public interest groups that question or challenge the data, evidence, or studies used by public interest groups to comment on provincial government decisions that affect Ontario's agricultural land inventory."

To Minister Thompson

"6. Please inform me of communications by the Ministry of Rural Affairs to public interest groups that question or challenge the data, evidence, or studies used by public interest groups to comment on provincial government decisions that affect Ontario's agricultural land inventory."

The full emails are attached.

To this date, I have not received a reply from either minister to the email of January 2, 2025.

Again, names and email addresses for potential commentators on element 6 of the communications will be most appreciated.

Thanks for your consideration.

Dr. Barry Wellar, C.M. RPP (Lifetime)
Professor Emeritus, University of Ottawa

President, Information Research Board
133 Ridgefield Crescent
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In the interests of transparency and accountability, Appendix 3 reports on whether contacted advocacy groups responded to the communication regarding "Universal Law of Location Project: Agricultural Land Inventory". **(17)**

Exhibit 7. Advocacy Groups Sent Exhibit 5 Email

- Agricultural Adaptation Council: https://adaptcouncil.org/
- Farm & Food Care Ontario: https://www.farmfoodcareon.org/
- Ontario Association of Agricultural Societies: https://ontarioagsocieties.com/
- Ontario Farmland Trust: https://ontariofarmlandtrust.ca/
- Ontario Federation of Agriculture: https://ofa.on.ca/
- Ontario Soil and Crop Improvement Association: https://www.ontariosoilcrop.org/

D. Brief Comment on "Agricultural Land Classes"

References are made to 'agricultural land classes" in the preceding pages, and many more are made in materials which follow. For the convenience of readers who are not members of the agricultural community, an early contribution to the literature on this topic is taken from a Canada Land Inventory production dated 1972. (https://sis.agr.gc.ca/cansis/nsdb/cli/classdesc.html)

Land Capability Class Descriptions for Agriculture

The classes indicate the degree of limitation imposed by the soil in its use for mechanized agriculture. The subclasses indicate the kinds of limitations that individually or in combination with others, are affecting agricultural land use.

Classes

Note: To see a further description of each class, select each class in the following table.

Class	Description
Class 1	Soils in this class have no significant limitations in use for crops.

Class 2	Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices.
Class 3	Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices.
Class 4	Soils in this class have severe limitations that restrict the range of crops or require special conservation practices.
Class 5	Soils in this class gave very severe limitations that restrict their capability in producing perennial forage crops, and improvement practices are feasible.
Class 6	Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible.
Class 7	Soils in this class have no capacity for arable culture or permanent pasture".

That document was published more than 50 years ago, and while it remains substantively sound it is dated due to climatic and other changes. The organizations listed in Section D, exhibit 6, have much to offer in terms of understanding, for example, the relationships between agricultural and non-agricultural land uses, and the consequences that attach to reductions in the inventory of classes of agricultural lands in regions throughout the province.

Finally, the organizations listed in Section D, exhibit 6, have much to offer in terms of representing and depicting, for example, the relationships between agricultural and non-agricultural land uses, and the consequences that attach to reductions in the inventory of classes of agricultural lands in regions throughout the province.

E. Selection of online reference productions which discuss the quality of data, evidence, and research studies used in provincial decisions which affect the province's agricultural land inventory

There is a temporal aspect to this research which extends over some 75 years. Table 3 contains a selection of productions which provide what appears to be a representative perspective on views expressed by such interested parties as politicians, advocacy groups, academic researchers, consultants, and citizens regarding the quality of data, evidence, and research studies used by the previous and current provincial government to make decisions affecting Ontario's agricultural land inventory.

Table 3. A Selection of Links to Productions which "Call into Question" (18) Data, Evidence, or Studies Used by the Government of Ontario as the Basis of Decisions Affecting Ontario's Agricultural Land Inventory

1. https://www.chathamdailynews.ca/2015/02/08/good-things-grow-in-southwestern-ontario
2. https://ontariofarmlandtrust.ca/2015/09/16/sprawl-continues-recent-map-shows/
3. https://thenarwhal.ca/ontario-farmland-development/
4. https://neptis.org/publications/chapters/where-does-agriculture-fit-relation-competing-demands-land
5. https://www.cbc.ca/news/canada/ottawa/what-ontario-s-urban-boundary-reversal-means-for-ottawa-1.7005129
6. https://ontariofarmlandtrust.ca/2023/08/15/ontarios-precious-farmland-beyond-the-greenbelt-controversy/
7. https://ofa.on.ca/newsroom/ontario-farmland-under-intense-pressure/
8. https://www.cbc.ca/news/canada/toronto/ont-farmland-loss-1.6493833
9. https://www.nationalobserver.com/2022/07/26/news/squeezed-housing-crisis-ontario-farmland-dangerously-rare
10. https://www.elorafergustoday.com/cultivate/ontario-farmland-trust-protecting-and-preserving-ontario-farmlands-9485907
11. https://www.cbc.ca/news/canada/canada-prime-farmland-1.6877661
12. https://ontarionature.org/hallman-pit-another-threat-to-precious-farmland-blog/
13. https://news.uoguelph.ca/2024/10/urban-development-threatening-canadas-farmland/
14. https://www.simcoe.com/opinion/ontario-s-best-farmland-is-disappearing-under-concrete/article_d3d3ecdd-12a3-5a76-9cfa-faff5f106143.html
15. https://nfuontario.ca/news/farmers-and-farm-organizations-are-speaking-up-to-protect-ontarios-farmland-for-farming/
16. https://ofa.on.ca/newsroom/farmers-pausing-growth-but-confident-in-future-outlooks-survey-says/
17. https://www.heritage-matters.ca/articles/protecting-ontarios-agricultural-landscapes-challenges-and-opportunites

18. https://sustainablesociety.com/research-material/farmland-loss/
19. https://www.thetrillium.ca/news/energy-and-the-environment/niagara-escarpment-developments-threaten-vast-swath-of-greenbelt-advocates-9919176
20. https://ero.ontario.ca/comment/95112
21. https://investigatemidwest.org/2018/09/18/disappearing-farmland/
22. https://ontarionature.org/news-release/joint-statement-bill-23-and-greenbelt/
23. https://www.globalheroes.com/ontario-farmland-trust-protects-our-farmland/
24. https://www.brantfordexpositor.ca/news/loss-of-farmland-flagged-as-civic-election-issue
25. https://bobbiannbrady.com/fight-to-save-ontarios-farmland-continues/
26. https://www.reddit.com/r/ontario/comments/1c7vy3s/a_secret_threat_hangs_over_a_tiny_corner_of/
27. https://environmentaldefence.ca/campaign/protecting-ontarios-environment/
28. https://www.tvo.org/article/doug-fords-plans-for-ontarios-farmland-put-us-all-at-risk
29. https://thepointer.com/article/2023-10-08/despite-reversal-of-greenbelt-swaps-ford-government-doubling-down-on-projects-that-put-ontario-farmland-at-risk
30. https://www.orangeville.com/opinion/ontario-must-put-farmland-first-editorial/article_c8cf347c-a74d-5bd3-9be0-9902a97a4332.html
31. https://barrie360.com/ontario-farmers-raise-concerns-dwindling-farmland/
32. https://globalnews.ca/news/8871676/battle-stop-sprawl-paving-rural-ontario/
33. https://farmersforum.com/ontario-is-not-running-out-of-cropland-says-university-of-guelph-professor/
34. https://www.orilliamatters.com/ontario-news/ontario-rapidly-losing-farmland-amid-urban-sprawl-provincial-agriculture-group-5493958
35. https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/2014101E
36. https://www.corporateknights.com/transportation/this-ontario-farmer-is-leading-a-movement-to-stop-a-highway/
37. https://www.collingwoodtoday.ca/ontario-news/ontario-farmers-raise-concerns-of-dwindling-farmland-at-rural-expo-9594863

38. https://www.youtube.com/watch?v=L7YC7vf1hF8
39. https://www.fraserinstitute.org/sites/default/files/an-economic-analysis-of-rural-land-use-policies-in-ontario.pdf
40. https://www.nfu.ca/wp-content/uploads/2018/05/farm_ontario.pdf
41. https://www.simcoe.com/opinion/ontario-s-best-farmland-is-disappearing-under-concrete/article_d3d3ecdd-12a3-5a76-9cfa-faff5f106143.html
42. https://www.wellingtonadvertiser.com/wfa-urges-council-to-consider-agriculture-impact-to-county-economy-in-policy-decisions/
43. https://www.guelphmercury.com/news/the-case-of-the-disappearing-farmland/article_d61839bc-8441-5f65-8d7c-76f03f85d3ba.html
44. https://windsorstar.com/news/local-news/accelerating-urban-sprawl-critical-election-issue-say-farmers
45. https://niagaraatlarge.com/2024/05/16/in-doug-fords-ontario-farmland-is-under-attack-everywhere-and-it-has-to-stop/
46. https://farmtario.com/news/new-provincial-planning-statement-could-lead-to-loss-of-farmland-in-ontario/
47. https://mlfpc.ca/2022/10/20/lets-talk-about-protecting-farmland/
48. https://capitalcurrent.ca/low-supply-of-farmland-may-be-deterring-potential-farmers/
49. https://storymaps.arcgis.com/stories/0611dfaf516f44ed933684ff0eaf0e0d
50. https://macleans.ca/news/canada/the-editorial-protecting-canadas-farmland-the-right-way/
51. https://ngtimes.ca/between-1996-and-2016-ontario-lost-1-5-million-acres-of-farmland-to-development/
52. https://www.manitoulin.com/ontario-farmers-group-discuss-farmland-protection-and-housing-concerns/
53. https://www.intelligencer.ca/news/belleville-council-pushes-back-on-farmland-development
54. https://www.cambridgetoday.ca/letters-to-the-editor/letter-taxpayers-dollars-used-to-plough-under-crops-9284025
55. https://www.youtube.com/watch?v=pMqOUYX9qPw

56. https://thepointer.com/article/2023-04-24/experts-say-pcs-proposed-bill-97-is-a-sprawl-inducing-full-frontal-assault-on-ontario-agriculture
57. https://www.waynecaldwell.ca/wp-content/uploads/2021/06/volume-1-FINAL.pdf
58. https://www.sierraclub.ca/provincial-government-makes-significant-retreat-on-land-use-planning/
59. https://www.thespec.com/news/future-of-work-loss-of-farmland-high-costs-development-contributing-to-hamilton-farmers-economic-plight/article_99289fc8-c9a0-51f2-ba32-d2e25ee3ed09.html
60. https://kitchener.citynews.ca/2024/06/12/two-wilmot-councillors-are-challenging-the-region-to-provide-full-technical-details-on-land-assembly/
61. https://kitchener.citynews.ca/2024/08/29/regional-council-votes-on-motion-to-protect-farmland-after-160-acres-of-corn-in-wilmot-was-destroyed/
62. https://www.thetrillium.ca/news/energy-and-the-environment/niagara-escarpment-developments-threaten-vast-swath-of-greenbelt-advocates-9919176
63. https://www.newmarkettoday.ca/local-news/concerns-about-proposed-holland-marsh-highway-growing-among-environmental-groups-3320799
64. https://kitchener.citynews.ca/2024/08/29/regional-council-votes-on-motion-to-protect-farmland-after-160-acres-of-corn-in-wilmot-was-destroyed/
65. https://kitchener.citynews.ca/2024/08/28/tractor-convoy-to-drive-from-new-hamburg-to-kitchener-protesting-wilmot-land-assembly/
66. https://kitchener.citynews.ca/2025/01/25/more-properties-sold-to-the-region-as-fight-for-farmland-grows/
67. https://kitchener.citynews.ca/2025/02/09/majority-of-kitchener-conestoga-voters-oppose-wilmot-land-assembly-poll/
68. https://kitchener.citynews.ca/2024/08/16/surprised-and-confused-regional-chair-responds-to-ford-government-slamming-wilmot-land-assembly/
69. https://ontariofarmlandtrust.ca/about/farmland-loss/
70. https://nfuontario.ca/farmland-protection-campaign/
71. https://ero.ontario.ca/comment/90958
72. http://www.omafra.gov.on.ca/english/landuse/facts/permitteduseguide.pdf
73. https://metcalffoundation.com/wp-content/uploads/2011/05/food-connects-us-all.pdf
74. https://ero.ontario.ca/comment/35614

75. https://www.cbc.ca/news/canada/london/ontario-bill-97-farm-housing-severence-1.6849374
76. https://capi-icpa.ca/wp-content/uploads/2019/07/2019-07-26-CAPI-Glenn-Fox-Paper-Guelph-Dialogue
77. https://www.auditor.on.ca/en/content/specialreports/specialreports/Greenbelt_en.pdf
78. https://farmtario.com/news/farmland-versus-nuclear-waste/
79. https://farmersforum.com/car-plant-wipes-out-1500-acres-of-farmland/
80. https://news.gov.bc.ca/factsheets/alr-is-for-farming-not-mega-homes-or-construction-waste

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Three comments should suffice to demonstrate the pertinence of the productions in Table 3.

First, the contents of links in Table 3 are more than sufficient to establish that Ontario's agricultural land inventory is currently being depleted at a rate in excess of 100,000 acres per year, which likely amounts to 1,150,000 - 1,300, 000 or possibly more acres lost in the decade 2015-2025.

Second, while there is widespread concern supported by documentation about the significant loss of class 1, class 2, and class 3 farmland, which are frequently referred to as prime agricultural land, there is also concern that the negative impacts of losses to the inventories of other classes of agricultural land are not duly appreciated.

As for notions that losses of land in a higher class can be compensated for by taking and amending land in one or more lower classes, they were tossed around more than 50 years ago to my recollection.

My searches did not encounter research studies of recent date on that fall-back strategy if it can be termed a strategy, and I invite being corrected by Ministers Flack and Thompson and their officials as to whether research in that regard has been in progress for some years.

Third, many productions in Table 3 explicitly or implicitly refer to a critical zero-sum relationship among land uses.

That is, given that there a fixed amount of land in Ontario, if non-agricultural land uses are introduced or re-located in areas that are not already designated for non-agricultural land uses then by definition they are situated in areas designated agricultural, and the agricultural land inventory is reduced accordingly.

The epitaph in Figure 4 with its zero-sum theme expresses a sentiment which can de derived from many of the links in Table 3

Figure 4.

Moreover, while a variety of non-agricultural uses such as roads, subdivisions, shopping plazas etc., can readily be situated on agricultural lands, the converse is generally very difficult if not impossible to achieve.

To paraphrase a saying in the marketing business, "Once agricultural land is gone and especially class I, 2, and 3 farmland is gone, it's gone."

For emphasis, that adage is given epitaph status in Figure 5.

Those who read grocery store flyers, including those of Farmboy, will be familiar with the phrase "When they're gone, they're gone." However, when used by stores reference is to items in this week's flyer. Figure 5 means gone, as in totally and permanently erased.

Figure 5.

Further, and briefly expanding the second comment, the body of agricultural land in Ontario is fixed unless it is expanded into areas designated non-agricultural. If it remains fixed, then the zero-sum relationship among agricultural land classes holds.

As a result, upgrades from lower grades to higher grades (if, when, and where they are achieved), means losses in the bodies of land in the lower affected class(es).

The bottom-line point as made by the entries in Table 3 is that there must be a major upgrade in the data, evidence, and research studies used as the basis for provincial government decisions that affect the amount, location, and characteristics of Ontario's agricultural land inventory.

F. Communications Received and Not Received from Parties Contacted in Section C, Table 2

Parties who or which are held to transparency and accountability standards by citizens in principle are entitled have their responses published in a report which notes that they have been asked to respond to questions.

And, in principle citizens are entitled to be informed which parties did and did not respond to questions.

Since automatic responses to email communications are of no substantive value, they are deemed to be "No substantive response".

Appendix 1, Appendix 2, and Appendix 3 present the response/no response records for provincial politicians, municipal government councils, and advocacy groups.

The substantive responses speak for the authors and their agencies, offices, organizations, political parties or other affiliations regarding concerns, non-concerns, or other perspectives about the data, evidence, and research studies used by the provincial government in decisions affecting Ontario's agricultural land inventory.

The non-responses and non-substantive responses do not contribute to the objective of the case study, and therefore merit mention in this report.

However, comment is reserved for a possible future report on individuals, agencies, offices, organizations, political parties or other affiliations complicit in decisions that negatively affect Ontario's agricultural land inventory.

G. Assessing the Utility of the Universal Law of Location as a Land Use Planning and Decision Tool for Evaluating Government Statements about the State of Ontario's Agricultural Land Inventory

There are three general tests for assessing the utility of the Universal Law of Location as an agricultural land inventory decision tool. That is, whether the Law:

1. Contributes to upgrading Ontario government data on the province's farmland inventory.
2. Contributes to upgrading the evidence used by Ontario governments to make decisions that affect the province's farmland inventory.
3. Contributes to terms of reference for data-driven and evidence-based studies to upgrade Ontario government decisions that affect the province's farmland inventory and its state of food security.

The Universal Law of Location is briefly recalled, and then its utility to upgrading the data, evidence, and research studies used by the provincial government in making decisions that affect Ontario's agricultural land inventory is assessed.

1. Universal Law of Location Reviewed

The Universal Law of Location states that something is everywhere under, on, and above the Earth's surface. (Universal Law of Location Supported by GIS as a Best Practice Element in Land Use Planning and Transportation Planning Decision Systems)

One message of this law, therefore, is that if governments, corporations, individuals, or other enterprises locate non-agricultural, physical entities on, under, or above the surface of agricultural land, the Ontario agricultural land inventory is affected.

As dozens of productions cited in this report establish, the effects of locating non-agricultural entities on, under, or above the surface of agricultural land include physical loss of agricultural land acreage in some cases, as well as degradation and loss of productivity of agricultural land acreage in other cases.

The bottom line, therefore, is that costs are incurred when non-agricultural uses are located below, on, or above agricultural lands, and numerous productions affirm that there is an urgent need to upgrade the quality of data, evidence, and research studies used by the provincial government in making decisions that affect Ontario's agricultural land inventory.

Having due regard for the robustness of cited methodologically designed research studies, and the data-driven, evidence-based, and empirical studies listed in Table 3, the Universal Law of Location with its focus on the real world of land use by-passes wish lists and ideological biases and uses the sum-zero argument to great effect.

That is, there is a fixed amount of land in the province, and there is also a fixed amount of agricultural land unless and until that amount is increased, which means if that happens then some other type of land use is decreased. And on it goes.

The following three sections present what applying the Universal Law of Location reveals about needed upgrades to the quality of data, evidence, and research studies used by the provincial government in making decisions that affect Ontario's Agricultural land inventory.

Finally, we are only presenting what is necessary to establish the utility of the Universal Law of Location as an agricultural land inventory decision tool.

2. Contribution of the Universal Law of Location to Upgrading Data to be Used in Decisions that Affect Ontario's Agricultural Land Inventory.

Research for this case study reveals a number of shortcomings in the province's database on its agricultural land inventory.

Table 4 presents a selection of core data upgrades that are needed for provincial governments, opposition politicians, agriculture entities, citizens, researchers, journalists, and other interested parties to make informed decisions about the current state of Ontario's agricultural land inventory and, taking a longer view, its preferred state 10, 20, 50, and 100 years into the future.

Figure 6 is a caution preceding Table 4, namely that data are inputs to decisions, no more and no less. Or, to re-phrase, data do not destroy farmland, people do with their decisions. As such, Figure 6 provides context for Table 4, and disrespecting Figure 6 is an abuse of Table 4.

Figure 6.

Table 4. Needed Data Upgrades Identified as a Result of Applying the Universal Law of Location to the Province's Current Body of Data Used to Make Decisions that Affect Ontario's Agricultural Land Inventory

1. Annual number of acres lost at the municipality, county, district, and region scale for agricultural land class 1, class 2, class 3, and class 4, 1985-2024 inclusive.

2. Number of acres of class 1, class 2, class 3, and class 4 agricultural land lost to non-agricultural land uses in Ontario municipal, county, district and regional locations for each year 2010-2024 inclusive.

3. Number of acres of class 1, class 2, class 3, and class 4 agricultural land lost due to urban boundary expansions in each municipal, county, district, and regional government for each year 2010-2024 inclusive.

4. Monthly accounts of number of acres of agricultural land classes 1, 2, 3, and 4, lost by each municipal, county, district, and regional government 2025-forward.

5. Monthly accounts of number of acres of agricultural land classes 1, 2, 3, and 4 lost to non-agricultural uses by each municipal, county, district, and regional government, 2025-forward.

6. Annual rolling projections, 2025-forward, for five, 10, 15, 20, 25 and 50 years of acreage loss by each municipal, county, district, and regional government for agricultural land classes 1, 2, 3, and 4.

7. Annual GIS-based imagery updates, 2025-forward, 1:50,000 scale for agricultural land classes 1, 2, 3, and 4.

8. Annual rolling projections, 2025-forward, for five, 10, 15, 20, and 25 years on the state of food security in Ontario.

9. Quinquennial GIS-based imagery updates, 1:250,000 scale for agricultural land classes 5, 6, and 7, 2025-forward.

The needed data upgrades are derived from the many sources presented in previous sections, which means that Table 4 can be deconstructed, and each entry can be tracked back to one or more sources cited in the text.

Further, the specified data upgrades are sufficient to test the utility of the Universal Law of Location as a land use planning and decision tool. However, there are many more data upgrades which can be derived from the cited productions to generate more comprehensive information on the state and condition of Ontario's agricultural land inventory.

3. Contribution of the Universal Law of Location to Upgrading Evidence Used in Decisions that Affect Ontario's Agricultural Land Inventory

Research for this case study reveals a number of shortcomings in the body of evidence used by the provincial government to manage its agricultural land inventory. Specifically, despite a documented record of decades of losing already scarce class 1, class 2 class 3, and class 4 agricultural land to non-agricultural uses, Ontario's inventory of high-end agricultural land continues to lose more than 100,000 acres per year.

Consequently, since it appears reasonable to presume that no provincial government sets out to deliberately diminish a resource which is critically vital to the health and well-being of Ontarians, our attention therefore turns to examining the evidence used to make decisions as the possible cause of the depletion of the agricultural land inventory.

As to the significance of examining the evidence, it cannot be over-emphasized.

That is, once high-end (classes 1-3) agricultural land is gone to non-agricultural uses, it is gone and often gone forever. To recall the Universal Law of Location, something is already everywhere, which means that prime and near-prime agricultural lands occupy a special place in Ontario's landscape, and there are no other special places for these prime and near-prime agricultural lands.

Shortcomings in the evidence needed to make prudent decisions that affect Ontario's agricultural land inventory therefore have critically negative consequences for the health and well-being of Ontarians.

Further to that point, as coincidence would have it this report is being finalized while Ontario is in the last weeks of a very brief provincial election campaign. Promises are being made left, right, and center, and in some cases there is abundant, observable evidence to support promises

However, it is proving difficult to find evidence from all parties to support promises dealing with the fate of Ontario's agricultural land inventory.

Figure 7 speaks to that matter.

Figure 7.

To put the entries in Table 5 in context, the Universal Law of Location states that something is everywhere under, on, and above the Earth's surface.

Table 5 therefore speaks to the matter of the evidence used to justify locating non-agricultural land uses under, on, or above agricultural land.

Because many hours of searching of government documents drew a relative blank as to how "evidence" is substantively defined in productions by ministries responsible for agriculture, agricultural land, rural affairs, or municipal affairs for policy, plan, and program decisions, this study pursues that important topic in Table 5.

Or, to re-phrase, the current number of acres of high-quality agricultural land in Ontario's land inventory is most likely at peak and is dropping by more than 100,000 acres per year.

Table 5. Needed Evidence Upgrades Identified as a Result of Applying the Universal Law of Location to the Province's Current Body of Evidence Used to Make Decisions that Affect Ontario's Agricultural Land Inventory

1. Catalogue of all Government of Ontario studies on Ontario's agricultural land inventory, 1950-present.
2. Catalogue of all research methods used in making decisions affecting Ontario's agricultural land inventory, 1950-present.
3. Catalogue of all research techniques used in making decisions affecting Ontario's agricultural land inventory, 1950-present.
4. Catalogue of all GIS-based mapping systems used in making decisions affecting Ontario's agricultural land inventory, 1950-present.
5. Catalogue of all references to "evidence" in productions by ministries responsible for agriculture, agricultural land, rural affairs, or municipal affairs, 1950-2025.
6. Catalogue of all references to "evidence" in productions sent to government ministers responsible for agriculture, agricultural land, rural affairs, or municipal affairs, 1950-2025.
7. Catalogue of all references to "zero-sum" in productions by ministries responsible for agriculture, agricultural land, rural affairs, or municipal affairs, 1950-2025.
8. Catalogue of all references to "zero-sum" in productions sent to government ministers responsible for agriculture, agricultural land, rural affairs, or municipal affairs, 1950-2025.

It is therefore reasonable to expect that the hardest of hard evidence is used to continue the loss of a vital resource and the identified studies are designed to inform citizens and all other interested parties about the grounds for displacing agricultural uses of agricultural lands by non-agricultural uses.

Figure 8 and Figure 9 present two perspectives to be considered by those who are "not impressed" by government inaction on the evidence upgrades presented in Table 5.

Figure 8.

Figure 9.

It is again emphasized that the evidence is used make decisions for change in only one direction it appears safe to say. That is, the decisions are to reduce the province's agricultural land inventory by converting portions of that land to non-agricultural uses. That being the case, it therefore appears fair to say that when it comes to the hardest of hard evidence, matters such as political expediency, ideological leanings, service to developers, and service to speculators should count for nothing in principle and in practice. **(19)**

Further, because of the importance of agricultural land to Ontarians, it is expected that all relevant files are digitized. That being the case, all the projects in Table 5 can readily be completed in 2025.

Finally, the needed evidence upgrades are derived from the many sources presented in previous sections, which means that Table 5 can be deconstructed, and each entry can be tracked back to one or more sources cited in the text.

Further, the specified evidence upgrades are sufficient to test the utility of the Universal Law of Location as a land use planning and decision tool. However, there are many more evidence upgrades which can be derived from the cited productions to generate more comprehensive information on the state and condition of Ontario's agricultural land inventory.

Building on the contents of Table 5, Table 6 is a first estimation of the studies needed to upgrade the provincial research agenda in order that citizens and politicians can make the informed decisions which are needed to protect and preserve the province's diminishing agricultural land inventory.

Prior to presenting Table 6, it is necessary to explain why Table 6 is a first estimation.

As noted above, difficulties were encountered when searching provincial records to ascertain the variables and meta-data incorporated in provincial agricultural land databases. And difficulties were encountered when searching for the evidence used in making policy, plan, and program decisions about the use and disposition of agricultural land.

Difficulties also arose when searching provincial records for research studies undertaken over the past 75 years that dealt with problems, issues, concerns, etc., that were or could be associated with the Law of Universal Location. That is, since something is everywhere, the question arises:

What research studies have been undertaken to ensure the soundness of decisions to remove agricultural land uses from agricultural lands and replace them with non-agricultural uses?

There could be such materials in the files, but I did not find them after numerous searches. As a result, the materials in Table 6 are referred to as a first estimation, which can be revised in part or whole if corrective responses are received from the Ministry of Agriculture, Food, and Agribusiness or the Ministry of Rural Affairs.

Table 6. Needed Research Study Upgrades Identified as a Result of Applying the Universal Law of Location to the Province's Current Body of Data and Evidence Used to Make Decisions that Affect Ontario's Agricultural Land Inventory

Study 1. Review of all current policy, plan, program, and operations productions for inclusion of the zero-sum constraint condition on conversion of agricultural land to non-agricultural land uses.

Study 2. Review of all current policy, plan, program, and operations productions for inclusion of the zero-sum constraint condition on conversion of agricultural land to municipal boundary expansion land.

Study 3. Geo-based report on the state of Ontario's food self-sufficiency, Annual, 2025-forward.

Study 4. Geo-based report on the state of Ontario's food insecurity, Annual, 2025-forward.

Study 5. Investigating the impact of climate change on crops and yields of agricultural land classes 1, 2, 3, 4, 5, 6, and 7 at 5-year intervals, 2025-forward.

Study 6. Designing GIS applications which rank non-agricultural land uses from highest and best to lowest and worst for development approvals for agricultural land classes 1, 2, 3 and 4.

Study 7. Empirically testing study 6 by examining practices of affected municipalities, counties, districts, and regions, as well as Government of Ontario, 2012-2024.

Study 8. Literature search and review of theoretical research on upgrading agricultural land classes 4, 3, and 2 to agricultural land classes 3, 2, and 1 respectively.

Study 9. Literature search and review of applied research on upgrading agricultural land classes 4, 3, and 2 to agricultural land classes 3, 2, and 1 respectively.

Study 10. Literature search and review of theoretical research on converting non-agricultural land uses to class 1, class 2, class 3, and class 4 agricultural land as a means of increasing the provincial inventory of agricultural land classes 1, 2, 3, and 4

Study 11. Literature search and review of applied research on converting non-agricultural land uses to class 1, class 2, class 3, and class 4 agricultural land as a means of increasing the provincial inventory of agricultural land classes 1, 2, 3, and 4.

Study 12. Upon completion and expert review of study 7, map non-agricultural lands with potential for increasing the provincial inventory of class 1, class 2, class 3, and class 4 agricultural land.

Study 13. Design of a comprehensive, impact assessment gate-keeper procedure to precede decisions about allowing non-agricultural uses of land on agricultural land.

Study 14. Design of a protocol which incorporates the zero-sum condition into analysis of all Ontario government proposals to locate non-agricultural land uses under, on, or above agricultural lands.

Study 15. Methodologically designed handbook of rules for choosing between agricultural use and non-agricultural use of class 1, class 2, class 3, class 4, class 5, class 6, and class 7 agricultural land.

It is emphasized that the studies listed in Table 6 are specific to testing the utility of the Universal Law of Location as an agricultural land use planning decision tool. In this case the focus is on research studies found to be necessary to better use and preserve Ontario's agricultural land inventory.

H. Assessing the Utility of the Universal Law of Location as an Agricultural Land Inventory Planning and Decision Tool

As noted in Section B, there are three general tests for assessing the utility of the Universal Law of Location as an agricultural land inventory planning and decision tool. That is, whether the Law:

1. Contributes to upgrading Ontario government data on the province's agricultural land inventory.
2. Contributes to upgrading the evidence used by Ontario governments to make decisions that affect the province's agricultural land inventory.
3. Contributes to terms of reference for data-driven and evidence-based studies to upgrade decisions that affect the province's agricultural land inventory and its state of food security.

The assessment of the utility of the Universal Law of Location as an agricultural land inventory planning and decision tool are summarized as follows.

Table 4 (Needed data upgrades identified as a result of applying the Universal Law of Location to the province's current body of data used to make decisions that affect Ontario's agricultural land inventory), demonstrates that the Universal Law of Location passes the first test of utility as a land use planning and decision tool.

Table 5 (Needed evidence upgrades identified as a result of applying the Universal Law of Location to the province's current body of evidence used to make decisions that affect Ontario's agricultural land inventory), demonstrates that the Universal Law of Location passes the second test of utility as a land use planning and decision tool.

Table 6, (Needed research study upgrades identified as a result of applying the Universal Law of Location to the province's current body of data and evidence used to make decisions that affect Ontario's agricultural land inventory), demonstrates that the Universal Law of Location passes the third test of utility as a land use planning and decision tool.

Again, more data, evidence, and research study upgrades can be derived from the cited source productions, but the upgrades listed in Tables 4, 5, and 6 are more than sufficient to affirm the utility of the Universal Law of Location as a land use planning and decision tool.

Finally, questions arose regarding the design of a final headstone to illustrate the research project finding the urgent need to upgrade the data, evidence, and research studies used by provincial and municipal governments in decisions affecting Ontario's diminishing agricultural land inventory.

Figure 10 presents a message for action by politicians, and a message for citizens if prompt and prudent action is not taken by politicians, citizens and the agricultural community.

Figure 10.

I. Conclusion

The real-world problem underlying this project is that Ontario's agricultural land inventory currently loses more than 100,000 acres of high-quality agricultural land per year and has likely lost more than a million 1,000,000 (one million) acres in the past decade.

And the research or applied science problem underlying the project flows from reviews of sources such as *Hansard* (Ontario), the learned literature, and professional and technical literature, as well as broadcast media and social media productions which yield thousands of statements about concerns, issues, complaints, challenges and questions regarding the data, evidence, and research studies used by the provincial government in decisions that affect Ontario's agricultural land inventory.

In this case study the policy research, planning research, and program research question is whether applying the Universal Law of Location that something is everywhere could contribute to upgrading the data, evidence, and research studies used in decisions that better protect and preserve Ontario's agricultural land inventory, and strengthen Ontario's food supply, and food security.

The summary conclusion is that that the Universal Law of Location can contribute to upgrading the data, evidence, and studies used by the provincial government in decisions affecting the province's agricultural land inventory and affirms the utility of the Universal Law of Location as a land use planning and decision tool.

J. Endnotes

1. Richardson, Nigel, (ed.). ***Ontario Planned?*** A special issue on the Golden Age of planning in Ontario 1966-1975. Plan Canada, 24:3/4 Dec 84. Canadian Institute of Planners, Ottawa.

2. Cullingworth, Barry. "The Provincial Role in Planning and Development" in *Ontario Planned?,* 142-156.

3. It was my shared experience with other public service bureaucrats and academic researchers engaged in regional, urban, and rural research that Cullingworth's remark was applicable to most and perhaps all provinces across Canada due to the urbanization trend which drew attention away from rural issues. It appears fair to say that the trend continues to the present day, with no end in sight.

4. I knew and interacted with many of the participants. In most cases this enterprise involved a conflictual aspect regarding positions taken for various reasons, including that of not biting the hand that feeds you when it comes to research funding, consulting opportunities, teaching appointments, and jobs for students.

5. For any reader who puzzles over the origins of the Doomsday Map, a summary comment is that I attribute much of the inspiration to teaching and research in a variety of disciplines and courses. They include geography, planning (urban, regional, rural), research methodology, GIS, geomatics, environmental studies, sustainable development, and political geography, first at the University of Kansas and then the University of Ottawa.

6. The original Doomsday Map publication is, B. Wellar, "Science, Applications, Coherence, and GIS: Seizing the Moment", GIS/LIS Proceedings, v.2 pp. 854-871. Links to subsequent Doomsday Map productions include:

Abuse v. Care of Land, Water, and Air, 1990-2015 - wellar.ca;

Thoughts about Creating New Risk Assessment Paradigms to ...;

Geography and Geographic Information Systems (GIS ...;

B. Wellar 2006 Geography and Geographic Information ...;

Foundations of Urban and Regional Information Systems ...

7. I hasten to note that leading up to the 1990 presentation at the GIS-LIS conference it took considerable time and effort to access newspapers and obtain Doomsday Map-related headlines. In 2025, a mini-search project reveals that courtesy of Google and other search engines it is now possible to obtain more than 1,000 Doomsday Map-related broadcast media headlines per day. I suggest that our increased capability to document things gone and going wrong with our natural resources inventories is consistent with the rate of degradation and destruction of those natural resource inventories, including high-quality agricultural land inventories.

8. It is axiomatic that better data and better evidence are necessary inputs to better decisions, but countless examples exist to confirm that they are not sufficient for achieving better decisions which are in the public interest if elected and appointed officials bend to such pressures as ideological biases, and vested interests that include speculators, developers, and election campaign donors.

9. "Token gesture" is polite language. When the term "sustainable" is used to deceive, the term "fraud" is more accurate and more precise.

10. Use of zero-sum logic in planning is discussed in previous Universal Law of Location reports Universal Law of Location as a Land Use Planning Decision Tool: Analysis of Ottawa Mayor's Pledge to Plant 1,000,000 Trees, and Applying Universal Law of Location as a Transportation Planning Decision Tool: Ontario Government Data and Evidence Fail to Support Positions on Gridlock, Congestion, and Removal of Bike Lanes.

11. https://www.wellar.ca/wellarconsulting/EsriGISRetroCOLL_PaperDDM_FINAL.pdf

12. When used as keyword search terms, "food security" and "food insecurity" yield similar and different results for both broadcast media and social media websites. However, searches using both security and insecurity are pertinent to data, evidence, and research studies used in decisions affecting Ontario's agricultural land inventory.

13. The current noise about tariffs has prompted increased talk about Canada's and Ontario's sovereignty, independence, self-sufficiency, self-reliance, etc. Perhaps with an impending election in Ontario candidates for office will expand the narrative and debate issues involving Ontario's food sovereignty, food independence, food self-sufficiency,

food self-reliance, food security, etc. all of which are affected by the state of the province's agricultural land inventory.

14. A substantive reply is one that answers the question asked to the best of a government agency's capabilities or admits that it does not have a substantive answer. In my experience over the past 50 years anything less, such as a freedom of information (FOI) referral is a stall, a dodge, a sign of trying to hide damaging records, an attempt to escape accountability, an attempt to sidestep transparency, and so on.

15. A substantive reply is one that answers the question asked to the best of a government agency's capabilities, or admits that it does not have a substantive answer In my experience over the past 50 years anything less, such as a freedom of information (FOI) referral is a stall, a dodge, a sign of trying to hide damaging records, an attempt to escape accountability, an attempt to sidestep transparency, and so on.

16. The case study interest is in substantive contributions by councils to testing the utility of the Universal Law of Location for its contribution to upgrading provincial, data, evidence, and studies used in provincial decisions affecting Ontario's agricultural land inventory. Other interests for possible consideration in subsequent studies include a survey of municipal governments about their records of decisions which affect Ontario's agricultural land inventory. A major question of accountability is which municipal councils are complicit in the daily loss of hundreds of acres of high-quality agricultural land.

17. The case study interest is in substantive contributions by advocacy groups to testing the utility of the Universal Law of Location for its contribution to upgrading provincial, data, evidence, and studies used in provincial decisions affecting Ontario's agricultural land inventory. Other interests for possible consideration in subsequent studies include a survey of advocacy groups about their decisions which affect Ontario's agricultural land inventory.

18. The phrase "call into question" is used in this report to refer to expressed concerns about data, evidence, and research studies used as the basis of provincial government decisions negatively affecting the state of Ontario's agricultural land inventory, as well as data, evidence, and research studies which are missing from the provincial government's suite of analytical tools used to make decisions affecting the province's agricultural land inventory. In addition, it is used as a polite cover phrase for terms such as berate, call to account, challenge, chide, chastise, dispute, lambaste, lampoon, laugh at, rebuke, reject, repudiate, ridicule, scold, and take to task politicians with whom citizens and politicians on the opposite side are in testy disagreement.

19. A case in point in Ontario over the past year or so is the infamous "Greenbelt Scam" as it has been termed, in which the provincial government attempted to rezone huge amounts of a protected greenbelt which has the shape of a large half-crescent East, North, and West of Metro Toronto, and then spreads into a massive swath of land covering much of southwestern Ontario.

Huge amounts of high-quality agricultural land would have been lost forever, and replaced by non-agricultural land uses, including roads.

That proposed rezoning fails all principles and practices of good planning, and under intense pressure was walked back by the provincial government.

Shortly thereafter the fraud section of the Royal Canadian Mounted Police walked in, so to speak, to conduct a criminal investigation. Media reports paint that provincial gambit with intense developer support as treating prime agricultural land as just another disposable commodity, even though it is widely regarded as an invaluable and irreplaceable natural resource.

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Appendices

- **Appendix 1.** Email Communications Record, Provincial Politicians, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory
- **Appendix 2.** Email Communications Record, Municipal Government Councils, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory
- **Appendix 3.** Email Communications Record, Advocacy Groups, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory
- **Appendix 4.** Substantive Response from Martin Straathof, Executive Director, Ontario Farmland Trust, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory
- **Appendix 5.** Good Things Grow in Ontario Only as Long as the Agricultural Land Inventory Permits

Appendix 1. Email Communications Record, Provincial Politicians, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory

As per section C, emails were sent to

Minister Rob Flack, Ministry of Agriculture, Food, and Agribusiness – **Token response**

Minister Lisa Thompson, Ministry of Rural Affairs – **Token response**

MPP John Vanthof (New Democrat) – **RESPONSE**

MPP Ted Hsu (Liberal) – **No response**

MPP Mike Schreiner (Green) – **No response**

Email responses of a token/FOI ploy nature were sent on behalf of Lisa Thompson, Minister of Rural Affairs, and Rob Flack, Minister of Agriculture, Food and Agribusiness.

The emails were posted one minute apart, and were sent from Corporate Correspondence Unit, Ontario Ministry of Rural Affairs for Thompson, and Corporate Correspondence Unit, Ontario Ministry of Agriculture, Food and Agribusiness for Flack.

As shown, the texts are identical except for names, and each uses the freedom of information ploy to avoid answering the questions asked, and to duck ministerial transparency and accountability obligations.

As a primary consequence for this report, Ministers Flack and Thompson do not explicitly and directly assist in testing the utility of the Universal Law of Location regarding its contribution to ascertaining whether there is need to upgrade the data, evidence, and research studies used by the provincial government to make decisions affecting Ontario's agricultural land inventory.

However, this is but one of my many communications to politicians, and it was learned long ago to expect an FOI diversion if the politician(s) is likely to be in the denial versus honest and straightforward answer mode.

That said and given that Ontario is losing more than 100,000 acres of high-quality farmland per year, and more than 1,000,000 acres in the last decide, the denial mode comes as no surprise.

Moreover, by using the FOI ploy, the ministers defaulted on the opportunity to at least pretend to discount a finding that the data, evidence, and research studies used by the provincial government to make planning decisions affecting Ontario's agricultural land inventory are in urgent need of upgrading.

The double default is therefore taken as inadvertent affirmation that one or more of data, evidence, or research studies is the cause of failed decisions regarding the province's diminishing agricultural land inventory.

Email from Ministry of Rural Affairs (MRA)

From: Ministry of Rural Affairs (MRA) <Minister.MRA@ontario.ca>
Sent: Monday, February 3, 2025 11:40 AM
To: wellar.barry@gmail.com
Subject: RE: Testing the Universal Law of Location: Ontario Agricultural Land Inventory-Provincial Communications

Dear Dr. Wellar,

Thank-you for your email. To obtain assistance you would need to file a freedom of information request with the Ontario Ministry of Rural Affairs. Requests must be filed in writing with the ministry either via the OPS eRequest portal or by mail using the Access Request Form.

To file your request electronically via the eRequest portal, please use the following link: eRequest. Both the access request and the $5.00 application fee can be submitted electronically online via this link.

To file your request by mail please follow the steps outlined below:

Complete the form available at this link: Access or Correction Request - Forms - Central Forms Repository (CFR) (beta) (gov.on.ca) . When completing the form, please provide information on the specific records you are seeking, including the date or time period of the records you are seeking. The access form must be accompanied by a **$5.00 application access fee made payable by cheque to the "Minister of Finance."** The completed application form and the $5.00 cheque should be sent to:

> FOI Coordinator
> Ministry of Municipal Affairs and Housing/ Ministry of Rural Affairs
> Corporate Services Branch
> 777 Bay Street, 17th Floor
> Toronto, Ontario M7A 2J3

If you have additional questions you can contact our ministry's FOI team at MMAH.FOI@ontario.ca

Kind regards,

Corporate Correspondence Unit
Ontario Ministry of Rural Affairs

Email from Ontario Ministry of Agriculture, Food and Agribusiness (OMAFA)

From: Ontario Ministry of Agriculture, Food and Agribusiness (OMAFA) <minister.omafa@ontario.ca>
Sent: Monday, February 3, 2025 11:41 AM
To: wellar.barry@gmail.com
Subject: RE: Testing the Universal Law of Location: Ontario Agricultural Land Inventory-Provincial Communications

Dear Dr. Wellar,

Thank-you for your email. To obtain assistance you would need to file a freedom of information request with the Ontario Ministry of Agriculture, Food and Agribusiness. Requests must be filed in writing with the ministry either via the OPS eRequest portal or by mail using the Access Request Form.

To file your request electronically via the eRequest portal, please use the following link: eRequest. Both the access request and the $5.00 application fee can be submitted electronically online via this link.

However, if you would prefer to file your request by mail, please follow the steps outlined below:

The mail-in option is still available by completing the form available at this link: Access or Correction Request - Forms - Central Forms Repository (CFR) (beta) (gov.on.ca). When completing the form, please provide information on the specific records you are seeking, including the date or time period of the records you are seeking. The access form must be accompanied by a **$5.00 application access fee made payable by cheque to the "Minister of Finance."** The completed application form and the $5.00 cheque should be sent to:

Ontario Ministry of Agriculture, Food and Agribusiness
Attention: Freedom of Information - Business Services Coordinator
1 Stone Rd West, 2nd Floor (Business Services Branch)
Guelph, ON N1G 4Y2

I hope you find this information helpful.

If you would like to discuss this further, to clarify the scope of the information you are seeking you can contact our ministry's FOI Coordinator, Corinne Johnston-Hallahan at FOIaccessOMAFRA@ontario.ca.

Kind regards,

Corporate Correspondence Unit
Ontario Ministry of Agriculture, Food and Agribusiness

The response/No response record for MPPs is as follows.

Minister Rob Flack, Ministry of Agriculture, Food, and Agribusiness – **Token response**

Minister Lisa Thompson, Ministry of Rural Affairs – **Token response**

MPP John Vanthof (New Democrat) – **RESPONSE**

MPP Ted Hsu (Liberal) – **No response**

MPP Mike Schreiner (Green) – **No response**

Appendix 2. Email Communications Record, Municipal Government Councils, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory

Municipal councils are the government closest to the people, and they are also closest to the land since they are directly responsible for land use planning and zoning of much of the land in Ontario, including the re-zoning of land use from agricultural to non-agricultural.

As per section C, emails were sent to a selection of municipal government councils in or proximal to agricultural zones. The record of responses/non-responses is as follows.

Bradford-West Gwillimbury (Town) – **No response**

Brampton (City) – **No response**

Brantford (City) – **No response**

Cambridge (City) – **No response**

Dufferin (County) – **No response**

Grimsby (Town) – **No response**

Guelph (City) – **No response**

Halton (Region) – **No response**

Hamilton (City) – **No response**

London (City) – **No response**

Markham (City) – **No response**

Newmarket (Town) – **No response**

Niagara (Region) – **No response**

Ottawa (City) – **No response**

Peterborough (City) – **No response**

Temiskaming Shores (City) – **No response**

Vaughan (City) – **No response**

Wellington (County) – **No response**

Wilmot (Township) – **No response**

Appendix 3. Email Communications Record, Advocacy Groups, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory

Among their many duties, advocacy groups represent and promote the interests of farming communities, agricultural businesses, consumers of agricultural products, and citizens. More advocacy group activities are provided by the links in section C.

As per section C, emails were sent to a selection of advocacy groups. The record of responses/non-responses is as follows.

Agricultural Adaptation Council – **No response**

Farm & Food Care Ontario – **No response**

Ontario Association of Agricultural Societies – **No response**

Ontario Farmland Trust – **RESPONSE**

Ontario Federation of Agriculture – **No response**

Ontario Soil and Crop Improvement Association – **No response**

Appendix 4. Substantive Response from Martin Straathof, Executive Director, Ontario Farmland Trust, re: Testing the Universal Law of Location: Ontario Agricultural Land Inventory

Permission was obtained from Martin Straathof to include his substantive response in the report. It follows.

From: Martin Straathof <martin@ontariofarmlandtrust.ca>
Sent: Monday, January 20, 2025, 8:33 PM
To: Barry Wellar <wellar.barry@gmail.com>
Cc: Ontario Farmland Trust (info) <info@ontariofarmlandtrust.ca>
Subject: Re: Ontario Agricultural Land Inventory Project

Dear Dr. Wellar,

Thank you for your email and for reaching out to Ontario Farmland Trust regarding your investigation into the quality of data and evidence used in decision-making on Ontario's agricultural land inventory. Apologies for the delay on my end - I wanted to spend some time on this response.

To date, we have not received any communication from either Minister Flack or Minister Thompson concerning the data, evidence, or studies used by public interest groups in this context. That said, I often highlight the need for greater investigation into the alarming farmland loss numbers reported by Statistics Canada, particularly the figure of 319 acres of farmland lost per day between 2016 and 2021.

While this number is indeed staggering, we currently lack sufficient data to fully explain the drivers are behind it. Researchers, such as Dr. Sara Epp from the University of Guelph, are working on specific studies, including a report (attached for your reference) that examines lands re-designated from "Prime Agricultural Areas" to non-agricultural uses between 2000 and 2017. She's also working on updating the report with the most recent data. However, this data focuses only on Official Plan Amendments (OPAs) and does not fully align with the StatsCan figures, which are based on census-reported land in production.

Our understanding suggests several factors may contribute to the unaccounted-for farmland loss:

1. **Permitted Non-Agricultural Uses**: Land may remain designated as agricultural in Official Plans but is used for activities like aggregate extraction or infrastructure, effectively removing it from productive agricultural use.
2. **Rural Land Reclassification**: Rural-designated lands with agricultural potential may be lost to other non-agricultural uses, or their use may change while retaining their rural designation.
3. **Other Land Categories**: The census includes forested areas and wetlands as part of "farmland," which may no longer be classified as such due to development or other land-use changes. These lands are critical to the broader agricultural ecosystem. Conversion to cropland is also a likely factor, and while that would balance out the farmland loss data, the likely cause of this is that farmers are getting pushed off prime farmland to make way for development, they are forced onto more marginal land, and as such, they need more of the forested and natural landscapes to maintain a viable farm business. The 319 acres/day simply does not inform us of this.
4. **Unfarmed Lands**: Some lands, while still designated as agricultural, are no longer farmed due to challenges such as affordability, speculative ownership, or lack of access for new and young farmers.

While these factors provide potential explanations, further investigation is essential. The scale of the reported loss calls for the government to prioritize detailed data collection and analysis to inform policy decisions.

I appreciate your efforts to pursue this important line of inquiry and would be happy to connect you with other stakeholders or researchers, such as Dr. Epp, whose ongoing work may complement your investigation. Or folks at CAPI, who have a land-use hub that has data sets that might tell us more details of the information provided above. I am hoping for some funds in the near future to hire a grad researcher to get into these data sets.

Please don't hesitate to reach out if I can provide additional information or assistance.

All the best,

Martin

Martin Straathof (he/they)
Executive Director
Ontario Farmland Trust
c/o University of Guelph
Guelph, ON N1G 2W1

martin@ontariofarmlandtrust.ca
www.ontariofarmlandtrust.ca

Appendix 5. Good Things Grow in Ontario Only as Long as the Agricultural Land Inventory Permits

The 1980 jingle and video present an image of: Good Things Grow in Ontario 1980