



## **Planning and Development Committee Agenda**

**October 17, 2019**

**9:30 a.m.**

**Council Chambers**

**County Administration Centre, Walkerton**

- 1. Call to Order**
- 2. Declaration of Pecuniary Interest**
- 3. Public Meetings**
  - a. 9:30 a.m. BCOPA 245 Sovie c/o Davidson
- 4. Action Items**
  - a. Process Improvements Official Plan Amendment
  - b. Proposed Changes to the Aggregate Resources Act
- 5. Information Items**
  - a. Bruce Innovates: Foundational Hydrogen Infrastructure Update
  - b. Bruce County Wins EDAC Award for Digital Marketing
  - c. BCOPA 242- Rubick Appeal
  - d. 2019 October Communications in the Field
- 6. Act on Recommendations**

That in accordance with the Procedure By-law, staff be authorized and directed to give effect to the actions of the Planning and Development Committee in respect of all resolutions passed during the October 17, 2019 meeting.

**7. Next Meeting**

November 21, 2019

**8. Adjournment**



## Committee Report

**To:** Warden Mitch Twolan  
Members of the Planning and Development Committee

**From:** Kara Van Myall  
Director of Planning and Development

**Date:** October 17, 2019

**Re:** BCOPA 245 Sovie c/o Davidson

---

### Staff Recommendation:

**That the Planning and Development Committee approve application BCOPA 245.**

### Executive Summary:

The subject lands are located in the Municipality of Kincardine along Bruce-Saugeen Townline, approximately 1.2 kilometres west of North Bruce in an agricultural area. The property is approximately 20 hectares in size and contains a detached dwelling and three accessory buildings. Approximately 10 hectares of the property are under active cultivation.

The applicants are proposing to use the existing wood barn on the property as a wedding and special events venue under the name “Sovie Stables”.

The application proposes to:

- Amend the Bruce County Official Plan to permit the proposed ‘on-farm diversified’ use.

The 2014 update to the Provincial Policy Statement (PPS) provided policies that allow for ‘on-farm diversified uses’ in prime agricultural areas. The term ‘on-farm diversified use’ is used to describe a wide range of uses, located on a farm and limited in area, that provide a supplementary income. However, the Bruce County Official Plan has not been amended to reflect these changes in the PPS. These uses must be explicitly permitted in prime agricultural areas through the Official Plan. Therefore, the amendment is required in order to allow the proposed ‘wedding barn’ facility.

This report and recommendation deals with the Official Plan Amendment application. A local Zoning By-law amendment will be required in order to allow the use on the property and may include specific provisions to regulate the proposed wedding barn.

The application is consistent with the Provincial Policy Statement and conforms to the intent and purpose of the County Official Plan.

## Background:

The Soviets acquired the subject property in 2017 and are proposing to use the existing wood barn as a special events facility. The building was used by the previous owner for events such as weddings, however no formal approvals were in place.

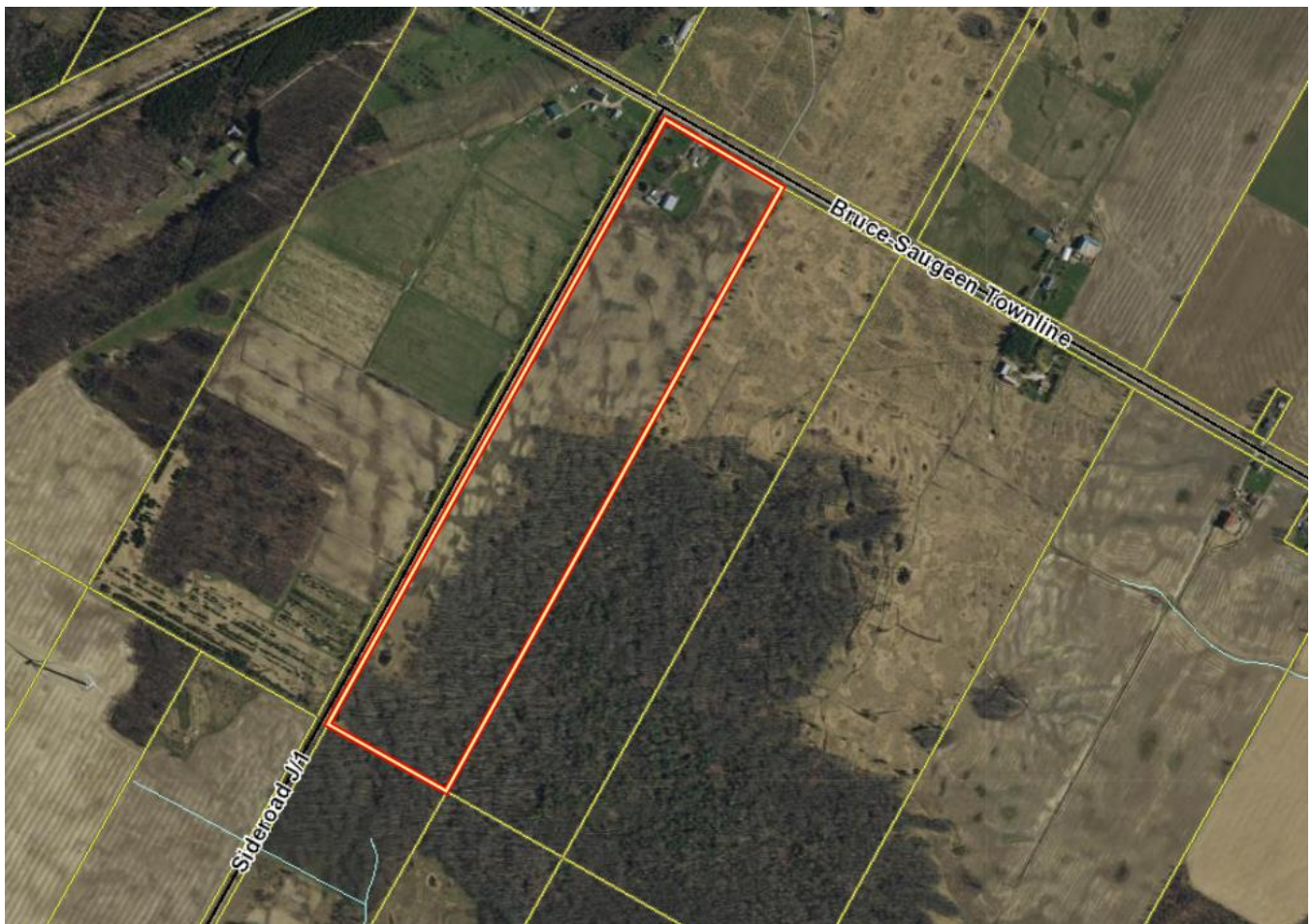
## Description of Proposal

The barn is approximately 300 square metres in size and no enlargements are proposed. No kitchen facilities are proposed. All food will be prepared offsite with only some food assembly in the building. Washrooms are proposed to be provided in the form of a “washroom trailer” which includes toilets, sinks and a water tank. The holding tank will be pumped after each event. The water tank will be filled from the well on the property.

Parking is proposed to be provided on site for approximately 64 vehicles with an additional 3 accessible spaces adjacent to the event building. The Soviets also intend to offer a bus shuttle service between Port Elgin and/or Kincardine.

The applicants have provided letters from engineers outlining the required structural upgrades to the building and the required fire protection for the proposed use. The applicant will be required to make the upgrades as outlined through their building permit.

## Air Photo







## Provincial Interests

The Provincial Policy Statement sets out the policy framework for prime agricultural areas and the permitted uses in these areas.

The PPS allows for “on-farm diversified uses” in prime agricultural areas. These uses must be secondary to the principal agricultural use and limited in area. The intent of this policy is to enable diversification on farm properties and for supplementary income.

OMAFRA also provides guidance on how to implement the PPS’s policies in this area. Their guideline states that these types of uses must be either a) related to agriculture, b) supportive of agriculture or c) able to co-exist with agriculture without conflict.

The Planning Report prepared on behalf of the applicant states that a rural location is required for the proposed use due to the increased desirability of farms as wedding venues due to the charm offered by these areas. This is intended as a part-time business and events will likely be held only on weekends and only during certain months of the year.

The OMAFRA guideline sets out criteria that must be met to qualify as an on-farm diversified use. These are:

1. Located on a Farm

Approximately 10 hectares of the property are actively farmed. These lands are leased to a neighbouring farmer. The remaining lands include a woodlot and the building cluster.

## 2. Secondary to the principle agricultural use

The guideline states that the agricultural use on the property must be the principal use in both spatial and temporal terms. In this case, approximately 50% of the property is cropped while the other 50% are comprised of the woodlot and the building cluster. The proposed use will not result in the loss of any agricultural land and will only occur on an occasional basis. Very few site alterations are required to allow for the proposed use. The only alterations proposed are those required to bring the building up to code and laying gravel for the parking lot.

Regarding land use compatibility, the applicant's Planner offers the following:

- The "wedding barn" will be occasional and efforts will be made to keep the sound emitted to a minimum. It is proposed that all events will conclude by 1 am.
- Traffic impacts should be minimal as most vehicles will arrive within a short period and then leave at various times. The proposed busing will also reduce any traffic impacts.
- Servicing will be addressed through the portable washroom facilities. It should have no impact on the agricultural operation.

## 3. Limited in area

This criterion is intended to ensure a minimal amount of land is taken out of agricultural production, agriculture remains the primary use, and off-site impacts are limited. The guideline encourages the reuse of existing buildings in order to reduce the amount of farmland consumed by the use and maintain the character of the area. Generally, the recommended standard for an acceptable area is 2% of a farm parcel.

This proposal does not result in the loss of any actively used farmland. The existing building cluster where the proposed use will be located is approximately 1.2 hectares in area and includes the existing dwelling and two accessory building not proposed to be used for the events facility. The areas proposed for the "wedding barn" facility include the barn, an outdoor gathering area, the washroom, and the parking area. These occupy approximately 0.4 hectares of land which translates to 2.1%.

4. Includes, but is not limited to, home occupations, home industries, agri-tourism uses and uses that produce value-added agricultural products.

The PPS does not provide an encompassing definition of what constitute an 'on-farm diversified use'. While some examples are provided (such as those above), the OMAFRA guideline states that other uses may also be suitable, so long as they met the required criteria.

The applicant's Planning Report argues that the proposed 'wedding barn' meets the intent of the PPS policy for on-farm diversified uses. County staff are satisfied that, as the proposal meets all the criteria for 'on-farm diversified uses', it can be considered as such. Additionally, the Ministry of Agriculture, Food and Rural Affairs has not provided any comment to suggest that the proposal would not constitute an on-farm diversified use.

5. Shall be compatible with, and shall not hinder, surrounding agricultural operations.

The proposed use is intermittent, seasonal, and does not result in the loss of any farmland. The proposed facility meets the required Minimum Distance Separation I setbacks from the existing unoccupied barn on the adjacent property at 1781 Bruce-Saugeen Townline and from the occupied barn at 1716 Bruce-Saugeen Townline.

Overall, Planning staff are satisfied that the proposal meets the intent of the provincial policies for on-farm diversified uses.

Other areas of provincial interest reviewed though the application include Natural Hazards as well as Natural and Cultural Heritage.

While a significant portion of the property is designated as Hazard Lands, the proposed on-farm diversified use is outside of these areas and will not be impacted by any natural hazard features.

The natural heritage features impacting the property include significant woodlands, adjacent lands to fish habitat, potentially significant wildlife habitat, and potentially habitat of endangered species and threatened species. However, based on their review of the application, the SVCA did not recommend the preparation of an EIS.

Portions of the property have archaeological potential, however, these areas are outside of the area proposed on-farm diversified use and are not impacted by the application.

The application is consistent with the Provincial Policy Statement.

## County Official Plan



The subject property is within the designated Agricultural and Hazard Lands. The hazard lands are generally limited to the treed portion of the property. The building cluster and cropped area are generally designated Agricultural.

Policy	Comment
5.5.2 Agricultural Areas	The objectives of the Agricultural area generally encourage uses that are supportive of the agricultural community and provide supplemental sources of income.
5.5.4 Permitted Uses - Agricultural Areas	<p>The County Official Plan has not yet been updated to reflect the policies put in place through the PPS 2014 with regards to “On-Farm Diversified Uses”</p> <p>OMAFRA guidelines state that in order to permit on farm diversified uses, an Official Plan must explicitly state that these uses are permitted in the prime agricultural area.</p>



Policy	Comment
	As the Bruce County Official Plan does not contemplate on-farm diversified uses as defined by the province. An Official Plan Amendment is necessary in order to allow for the proposed use.
4.7 Servicing	The property does not have access to municipal services. The dwelling is serviced by a well and septic. The proposed on-farm diversified use will be serviced with a washroom trailer that will have the septic tank pumped out after each event. The water tank will be filled by the existing well on the property. A well capacity report has been prepared demonstrating that the well can accommodate the increased use.

The proposed amendment is consistent with the intent and purpose of the County Official Plan.

## Zoning by-law



An associated Zoning By-law Amendment has been submitted through the application and will be considered by the Municipality of Kincardine at a later date. The Zoning By-law Amendment will define where on the property the proposed use is permitted and may provide further provisions in regard to areas such as:

- Parking requirements
- Hours of operation
- Site Plan Agreements
- Servicing

The amendment will ensure the proposal conforms to the Municipality of Kincardine Zoning By-law.

### Agency Comments

#### Conservation Authority:

- A large portion of the property is designated Hazard Land Area in the Bruce County Official Plan, this same area is zoned EP in the Municipality of Kincardine Zoning By-law. The Hazard Land Area and EP zone generally coincide with the Hazardous Lands

mapping for the property as originally plotted by SVCA staff. Based on Schedule A to the applications, proposed development will not be affected by any natural hazard features.

- In the opinion of SVCA staff, the natural heritage features and areas affecting the properties include significant woodlands, adjacent lands to fish habitat, potentially significant wildlife habitat, and potentially habitat of endangered species and threatened species.
- The proposed development will not be located within significant woodlands or its adjacent lands, therefore, the preparation of an Environmental Impact Study (EIS) to address significant woodlands or their adjacent lands is not warranted for this proposal at this time.
- The proposed development will not be located within the adjacent lands to fish habitat, therefore, the preparation of an EIS to address the adjacent lands to fish habitat is not warranted for this proposal at this time.
- It is the opinion of SVCA staff that impacts to significant wildlife habitat are likely to be negligible based on Schedule A to the applications. SVCA staff are not recommending the preparation of an EIS to address significance wildlife habitat or its adjacent lands at this time.
- It is the responsibility of the applicant to ensure the endangered species and threatened species policy referred to in the PPS has been appropriately addressed.
- The majority of the property is within the SVCA Approximate Screening Area associated with the SVCA's Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation.
- However, based on Schedule A to the applications, development as proposed will not be located within the SVCA Approximate Screening Area. Therefore, based on Schedule A to the applications, a Permit from the SVCA will not be required.
- The proposed Bruce County OP amendment and proposed zoning by-law amendments are acceptable to SVCA staff.

Comment: Planning staff have no outstanding concerns in regard to natural hazards or natural heritage

Municipality of Kincardine:

- **CBO:** Subject to Site Plan Approval
- **Public Works:** No comments

Comment: The associated Zoning By-law Amendment will require the proposed wedding facility to be subject to Site Plan Approval.

Bruce-Grey Catholic District School Board: No comments

Historic Saugeen Metis: No objection or opposition

Hydro One: No comments or concerns

## Public Comments

Ricky Johnston - 1781 Bruce-Saugeen Townline

Although I support the purpose of the application, I have concerns as to what it will mean to the use of my farm at 1781 Bruce Saugeen Townline. I currently have a cow / calf operation and need to know the implications on my business. Specifically I am concerned with “rumours” that I will no longer be able to house animals in my barn, or pasture animals on my farm.

**Comment:** The proposed wedding barn facility meets the required MDS I setback for new on-farm diversified uses from the existing unoccupied barn on Mr. Johnston’s property. The requirements for MDS I are generally greater than the MDS II requirements that Mr. Johnston would be required to meet should he propose a change that would require an MDS calculation. Pasture lands are not subject to MDS.

### Planning Analysis and Comments:

The proposed on-farm diversified use of a wedding barn on the subject lands meets the strict policy requirements set out by the province under the PPS for such uses. While these uses are not explicitly permitted in Bruce County’s agricultural policies, the proposal generally meets the intent of the agricultural area policies.

It is not expected that the approval of this amendment will negatively impact adjacent landowners or the agricultural character of the area. The proposal will allow the applicants to provide and develop a diversified revenue source without removing any land from agricultural production.

These types of uses should be held to a high standard to ensure their compatibility with adjacent agricultural operations. In the opinion of planning staff, this proposal has met the required standard.

### Financial/Staffing/Legal/IT Considerations:

Potential Appeal to Local Planning Appeals Tribunal

Written by:  
Tessa Fortier RPP (Candidate),  
Planner, Planning and Development

## Appendix 1 - Provincial Policy Statement 2014

Applies?	Section	Policy	Comment
	<b>1.0</b>	<b>Building Strong Communities</b>	
	1.1	Managing & Directing Land Use To Achieve Efficient Development & Land Use Patterns	
	1.1.3	Settlement Areas	
x	1.1.4	Rural Areas in Municipalities	
	1.2	Coordination	
	1.3	Employment Areas	
	1.4	Housing	
	1.5	Public Spaces, Parks and Open Space	
	1.6	Infrastructure and Public Service Facilities	
	1.6.4	Sewage and Water	
	1.6.5	Transportation Systems	
	1.6.6	Transportation and Infrastructure Corridors	
	1.6.7	Airports	
	1.6.8	Waste Management	
	1.7	Long-Term Economic Prosperity	
	1.8	Energy and Air Quality	
	<b>2.0</b>	<b>Wise Use and Management of Resources</b>	
	2.1	Natural Heritage	
	2.2	Water	
x	2.3	Agriculture	
x	2.3.3	Permitted Uses	
	2.3.4	Lot Creation and Lot Adjustments	
	2.3.5	Removal of Land from Prime Agricultural Areas	
	2.4	Minerals and Petroleum	
	2.4.2	Protection of Long-Term Resource Supply	
	2.4.3	Rehabilitation	
	2.4.4	Extraction in Prime Agricultural Areas	
	2.5	Mineral Aggregate Resources	
	2.5.2	Protection of Long-Term Resource Supply	
	2.5.3	Rehabilitation	
	2.5.4	Extraction in Prime Agricultural Areas	
	2.5.5	Wayside Pits/Quarries, Portable Asphalt Plants / Concrete Plants	
	2.6	Cultural Heritage and Archaeology	
x	<b>3.0</b>	<b>Protecting Public Health and Safety</b>	
x	3.1	Natural Hazards	
x	3.2	Human-made Hazards	





## Committee Report

**To:** Warden Mitch Twolan  
Members of the Planning and Development Committee

**From:** Kara Van Myall  
Director of Planning and Development

**Date:** October 17, 2019

**Re:** Process Improvements Official Plan Amendment

---

### Staff Recommendation:

That the Committee direct staff to initiate a Bruce County Official Plan Amendment as attached to this report.

### Background:

The Planning Department is undergoing a significant transformation and process improvement is one of our key areas of focus. Through this work staff identified an opportunity for policy changes to address some of the “tension” in Planning between future goals and current challenges as it relates to the following three issues:

Issue	Opportunity (Recommendations)
1. Conditions and information requirements for re-creating merged township lots	Clarify that township lot consents are not considered to be new lots or intended to be subject to information requirements or conditions related to future uses unless proposed by the application.
2. Recreating small developed lots that have accidentally merged	Permit merged developed lots to be severed, use conditions to maintain or improve wastewater
3. Lot additions for existing undersized lots	Clearly permit lot additions and boundary adjustments in all designations, including where required to improve existing deficiencies; remove requirement to rezone retained lot in Agricultural areas

Regarding Issue 1 (conditions for Township lots), staff note that the definition of development in the Provincial Policy Statement includes the creation of a new lot, and development is required to be consistent with provincial direction and policy.

These opportunities relate to issues that staff see with some frequency in their work. Staff appreciate that owners in these circumstances can experience frustration, including:

- Inability to sell one property separately from another property they own;
- They (often) have paid taxes based on 2 separate lots;
- The lots may not meet the policy requirements for severance;
- Pursuing studies or amendments to the policies to allow a severance can be costly and the outcome is uncertain;
- Existing Legal Dwellings / uses (and associated impacts) can continue indefinitely regardless of whether or where there is a lot line between them.

Staff reviewed the planning considerations related to these issues and prepared a draft Official Plan Amendment, which follows this report as Appendix 'A'. A detailed policy review and analysis of the current policy framework and provincial interests is attached as Appendix 'B' and notes potential options.

#### **Financial/Staffing/Legal/IT Considerations:**

A general amendment to the County Official Plan includes costs of approximately \$5000 for public notices in newspapers throughout the County to adequately notify the public of the proposal.

Amendments to establish a more flexible policy framework could reduce the number of applications for amendment to the Plan or local by-laws in order to enable a consent. It may also enable more clients to apply for consents. Application volume to department revenues may be impacted, noting however that application fees do not generally cover the costs associated with processing applications.

Advancing an amendment at this time offers an opportunity to test new policies for inclusion in the upcoming larger Bruce County Official Plan project.

Amendments which provide a clearer policy direction could assist applicants and staff in the review of development proposals, with associated time savings.

#### **Interdepartmental Consultation:**

Staff contacted the Drinking Water Source Protection Office and Niagara Escarpment Commission to review policies that may be applicable.

#### **Link to Strategic Goals and Elements:**

Goal 5 - Eliminate our own red tape

Element 'A' - All work processes designed for the fewest steps and the easiest completion;

Element 'E' - Focus on the internal and the external customer/client needs first

Written by: Jakob Van Dorp, Senior Planner, Planning and Development

**Approved by:**

A handwritten signature in cursive script, reading "Bettyanne Cobean". The ink is dark and the signature is fluid, with a long, sweeping tail on the final letter.

Bettyanne Cobean  
Acting Chief Administrative Officer

## Appendix 'A': Proposed Amendment

### 1. New Section to be added to the Bruce County Official Plan:

#### 6.5.3.1.1 Land Division Policies / General Policies / Merged and Undersized Lots

County Council acknowledges that some types of lots can merge on title if they have the same owner and may not meet current planning criteria for severance. County Council wishes to provide opportunities for lots to be re-created or to have boundary adjustments in certain circumstances.

The policies of this section apply to consent applications that propose:

- To re-create lots merged on title; or
- To provide lot additions to or between existing undersized lots. In the event of conflict between these policies and other policies of the Plan, these policies prevail.

#### i) Merged Lots:

- a. Merged lots may be re-created by consent if the lots conform to Land Division Policies of the Plan;
- b. Further to policy 6.5.3.1.xiii, the re-creation of one or more original Township lots by consent is not considered to be creating new lots. Such consents are not intended to be subject to information requirements and/ or conditions of approval related to future uses unless such uses are proposed as part of the application.
- c. Where more than one dwelling or use exists on the same lot, new lots may be created for the additional dwelling or use despite policies to the contrary so long as the following criteria are met:
  - i) The owner/applicant/agent must satisfy the zoning administrator that each and every lot to be severed or retained has existing development that was legally established; this policy does not permit the creation of vacant lots.
  - ii) The additional dwelling/ use on the lot must have occurred as a result of lots merging on title, and not as a result of additional uses being constructed on a lot in accordance with the zoning by-law (for example a detached accessory dwelling on a commercial lot or a secondary dwelling on a lot for farm help).
  - iii) The Chief Building Official of the Municipality confirms that the dwelling or use is habitable / usable at the time of application.
  - iv) Where a connection to municipal or communal sewage disposal systems is not available, each and every proposed lot must be able to accommodate its own sewage disposal system within the property. Although not preferred, existing shared wells may be permitted, and easements may be established for existing shared wells.
  - v) When re-creating merged, developed lots in accordance with this policy, the approval authority may approve consent(s) with different boundaries than the original lots where such boundaries better accommodate buildings, structures, services, access, or a more even distribution of land between lots.
  - vi) Where the resulting lots are smaller than 4000 square metres, a development agreement must be registered on title of the undersized lots

to prevent further intensification of the use by way of enlargement or additional plumbing fixtures unless the lot is connected to a municipal or communal sewer system with capacity or the proposed development is supported by a nitrate study as outlined in Section 4.7.5.8 of this Plan.

- ii) Lot adjustments / additions:
  - a. Lot adjustments and additions within the Agricultural designation are permitted subject to Section 6.5.3.3 Consents - Agricultural Areas
  - b. In all other designations, lot adjustments are permitted for legal and technical reasons. Lot adjustments are limited to such purposes as easements, correction of deeds, quit claims and minor boundary adjustments; all of which do not result in the creation of a new lot.
  - c. Boundary adjustments and lot additions from lots with private sewage disposal systems that are smaller than 4000 square metres or the minimum lot area for their designation are permitted as long as the lot addition does not result in the enlarged parcel becoming larger than the parcel that is becoming smaller.
  - d. Where 2 or more independently transferable lots are being consolidated into fewer total lots, the resulting lots may be certified despite continuing to be undersized.
  - e. Boundary adjustments and lot additions are not permitted to add lands outside of a settlement area to lands within a settlement area.

## **2. Sentence to be deleted from the Bruce County Official Plan:**

Delete the final sentence from Policy 6.5.3.3.6 - Consents - Agricultural Areas, as shown below:

Lot enlargements for the expansion of an existing Secondary Compatible Use as per Section 5.5.4.1; or existing Farm Related Commercial or Industrial Use as per Section 5.5.9; or existing Institutional Use as per Section 5.5.10 shall be limited in area and shall only be of sufficient size to accommodate the commercial, industrial or institutional use, accessory buildings (where including accessory buildings does not render the lot excessively large in the opinion of the Land Division Committee), a well and a sewage disposal system, while ensuring that as little acreage as possible is removed from the agricultural lands. ~~As a condition of consent, the remnant parcel shall be rezoned for agricultural purposes only provided it is vacant.~~



## **Appendix ‘B’: Detailed Planning Analysis:**

### **Background: Merged Lots**

The *Planning Act* generally prohibits a property owner from transferring a piece of property if they also own abutting lands. There are some exceptions, for example if the lots are in a plan of subdivision or when consent (often called a severance) is given by the Land Division Committee. To further complicate matters, original “Town Plot” lots are considered to be “subdivision” lots, however original “Township” lots are not.

Owners can preserve their ability to transfer adjacent lots independently by careful estate planning and seeking legal advice regarding who appears on title of the lots. This has not always happened and may continue to occur.

### **Issue #1 Requirements and Conditions for Severing Merged Lots that Conform to Policy**

Sometimes lots that have merged on title will meet the lot area, frontage, density, and general consent policies to be eligible for severance. This is most commonly the case when an original Township lot merges with an adjacent Township lot. As the lots cannot be transferred independently, a consent is required.

Lot creation by consent requires the Planning Authority to review various matters (see Provincial Interests below), which can appear onerous to owners who are seeking to regain an ability that they formerly had - to transfer previously existing lots independently of each other.

### **Current Policy**

General consents policies of the County Official Plan require that

“vii) “The severed and retained lot(s) shall: be of acceptable size and dimension for the intended use; have regard for the proper treatment and disposal of stormwater and proper lot grading; have safe and adequate access to the highway system; be consistent with the sewage and water servicing policies of Section 4.7.5 [Water and Sewer Services]; not be premature in regard to the public interest; have regard to the natural environment.”

“x) On the granting of a consent, conditions may be imposed on the severed and retained lot(s) to ensure the proper development of the severed and/or retained lots(s) including but not limited to the requirement for a stormwater management plan, lot grading plan, tree retention plan, parkland dedication, cash-in-lieu of parkland, roadway/highway widening dedication servicing requirements, etc.”

And also provide that:

“xiii) Nothing in this Plan shall prohibit the recreation of the original Township lot fabric provided both the severed and retained lots comply with the minimum lot area requirements of this Plan and both the severed and retained lots front onto, and have access to, an opened and maintained municipal road that is maintained on a year-round basis at the time of application.”

### **Analysis:**

The Policy permitting re-creation of the original township lot fabric is intended to support a common size for parcels of land in the countryside and enable straightforward transfers of township lots that merge on title with only basic requirements for area, frontage and access on a road.

The Plan and local by-laws generally permit a range of uses in Rural/Agricultural areas which may not involve development or site alteration, and within which there may be many possible locations for development.

Policies (vii) and (x) permit the use of development agreements and other tools as conditions of consent approval. In some circumstances these conditions or agreements have been applied to consent applications on larger lots (not necessarily township lots) as a way of recognizing that

- Lot creation is development and enables further development;
- There are significant natural features or archaeological potential;
- A specific development site has not been identified; and
- Natural features may change

These conditions or agreements provide greater flexibility than a requirement to complete all studies prior to submitting an application to create a lot. Agreements also do not prohibit the creation of lots or re-creation of the original township lot fabric but do provide a means of ensuring that development of lots is consistent with Provincial interests and supports the goals and objectives of the Official Plan.

Through a recent application there appeared to be concern amongst Committee members regarding the use of conditions when dealing with former township lots. This report provides the committee with an opportunity to discuss in general terms the intent and application of these policies.

### Options and Actions

Options and suggested actions to move them forward are outlined below:

Option	Summary	Suggested Action
A - Status Quo	Leave policies as they are	No action required.
B - Treat as new lots	Amend Official Plan consents policies to clarify that all lot creation is subject to the goals and objectives of the official plan	Resolution to direct staff to Initiate County Plan Amendment
C - Do not treat as new lots	Amend Official Plan consents policies to clarify that township lot consents are not considered to be new lots or intended to be subject to information requirements or conditions related to future uses unless proposed by the application.	Resolution to direct staff to Initiate County Plan Amendment as attached

Staff recommends that option ‘C’ be pursued as a means of clarifying the Plan intent for these lots.

### Issue 2: Severing undersized lots that have merged on title

Staff estimate there to be least 20 cases in Bruce County where two (or more) undersized adjacent lots with dwellings and septic systems have merged on title. In many cases, the owners did not intend to merge the lots and were not aware that the lots had merged until they attempted to sell one of them.

These lots are considered “undersized” if their ability to effectively dilute wastewater that is generated on the lot is unknown. Protection of ground and surface water from contamination is a major objective of land use planning. Concentration of nutrients in

human waste, for example due to many septic systems in a small geographic area, can cause health and environmental impacts. These impacts are different from biological contaminants (such as e.coli) which may be effectively managed through proper design and maintenance of a septic system.

When developed lots merge, the ‘extra’ development may not conform to the zoning by-law. If Legally established, it would be considered a legal non-conforming use. Owners of non-conforming dwellings may be able to get building permits to maintain their buildings, but may not be able to make the use “larger” (i.e. by way of an addition, by converting a room to a bedroom, or adding new plumbing fixtures, without a committee of adjustment approval or a zoning by-law amendment).

### **Current Policy**

- The [County Official Plan](#) sets a 4047 square metre (1 acre) minimum lot area for lots with septic systems. The Plan requires groundwater quality impact studies that follow provincial guidelines where smaller lots are proposed. The studies must demonstrate that each new lot can effectively dilute nutrients to meet the Ontario drinking water standards. Policies do not recognize situations where undersized lots merge on title.
- Planning Act regulations require similar studies for applications on an existing lot when the design sewage flow rate would or could exceed 4500l/day.
- Some Local Official Plans set a maximum density for development on private or partial services.
- The [Niagara Escarpment Plan \(NEP\)](#) applies to some areas within the Municipality of Northern Bruce Peninsula and the Town of South Bruce Peninsula. Lot creation policies of the NEP outline criteria to be considered in this scenario:
  - neither the dwelling on the new lot nor the dwelling(s) to be retained were approved on the basis that they would be for temporary use or as a dwelling unit accessory to agriculture;
  - all the dwellings on the property are existing uses as defined in this plan and have received approval from the municipality;
  - both the dwelling on the new lot and the dwelling retained are of a reasonable standard for habitation and have been used as a dwelling unit within the year before making application to sever;
  - severance of the existing dwelling does not conflict with Part 2.4.18 below; and
  - a new lot is not to be created for a mobile or portable dwelling unit.

### **Analysis**

Applications to re-sever undersized merged lots face a challenge because the groundwater quality impact study (noted above) is costly and in some cases the lots are so small that the study is unlikely to support lot creation.

To support ground and surface water quality, the Planning objective would be for “extra” dwelling(s) on undersized lots to be removed so that there is a lower density of development on septic systems and the nutrient impacts to groundwater are thus reduced.

However, removing extra dwelling(s) is a cost to owners who may have “legal non-conforming” or “grandfathered” rights; if the dwellings were legally established, they have a right to be there.

It is unlikely an owner would voluntarily remove a well-maintained dwelling. Removal of a dwelling would likely follow a period where it is poorly maintained and/or becomes derelict.

This could have adverse neighbourhood impacts and also removes housing stock from the community. Strong communities and providing housing are also planning objectives.

If it is unlikely that density will be reduced, the next-best thing from a groundwater quality perspective would be “don’t make it worse - avoid increasing nutrient contamination.” This objective can be met on merged lots where a committee of adjustment approval is required for the use to expand. If the lots were severed and number of dwellings / uses again conforms to the bylaw this opportunity to reviewing groundwater impacts would be lost.

A development agreement can be used to protect groundwater from impacts due to additional development. This approach has been proposed by a planning consultant acting for an applicant in a current consent proposal that is awaiting the Committee’s discussion.

It is important to note that this analysis applies only:

- Where the lots in question have existing development - creating vacant undersized lots with private services would not support the groundwater quality objective;
- Where it can be demonstrated that the existing development was legally established - if development was not legally established, it doesn’t have a right to be there;
- Where the multiple dwelling situation occurred as a result of lots merging on title; some zones permit more than one dwelling (example: for farm help on a farm) and do not intend for such dwellings to be subsequently severed;
- Where the proposed lots can accommodate their onsite services, especially the sewage disposal system, within the property. Although not preferred, existing shared wells may be appropriate. A new lot line may not need to follow the former lot line, if it helps to accommodate services or share land more evenly between lots.
- Where further groundwater impacts are avoided (i.e. through development agreement)

### Options and Actions

Options and suggested actions to move them forward are outlined below:

Option	Summary	Suggested Action
A - Status Quo	Consider applications on a case-by-case basis where applicants complete studies or request exemption through OPA	No action required.
B - Do Not Support	Continue with multiple dwellings on a lot (refuse consent applications unless policy and study criteria are met); legal non-conforming status permits maintenance and prevents expansion of uses	Adopt Resolution that the County does not support severance of merged undersized lots
C - Support severance, manage future impacts	Permit developed lots to be severed, use conditions and/or restrictions on title to maintain or improve wastewater	Resolution to Initiate County Plan Amendment as attached
D Support severance	Permit dwellings to be severed with no specific limits on re-development or intensification	Resolution to Initiate County Plan Amendment to specifically consent in these circumstances

Staff recommend that option ‘C’ represents the best balance of public and private interests and have included this option in the attached amendment.

### **Issue 3: Lot Additions between undersized lots**

Similar considerations apply when there are two adjacent undersized lots next to each other, and one owner wishes to obtain lands from their neighbour. This might be proposed to improve access, increase a yard setback, facilitate building an addition, or obtain land under an existing building. If both lots are legally existing separate lots, the density of development has been established. Making one lot a little smaller to make another lot a little bigger does not affect the density of dwellings and is unlikely to have a significant effect on the intensity of use. This approach would be appropriate to make lot areas more equal but should not result in a “retained” lot that is smaller than a newly enlarged lot. We have also had cases where a vacant undersized lot is split into two pieces and added to adjacent undersized parcels, creating two larger lots from three smaller lots.

### **Current Policy**

Boundary adjustments/enlargements are not discussed in the general consents policies of the County Official Plan. The plan does specifically permit consents for boundary adjustments and lot enlargements (and establishes criteria for them) in the Agricultural and Rural designations, as below:

#### **Section 6.5.3.3 Consents - Agricultural Areas:**

- In no instance shall an original Crown surveyed lot be divided into more than two (2) parcels including the retained portion (unless divided for school, church, road widening, minor lot line adjustments)
- Lot adjustments for legal or technical reasons are permitted, limited to easements, correction of deeds, quit claims and minor boundary adjustments; all of which do not result in the creation of a new lot.
- Lot enlargements permitted for expansion of an existing Non-Farm Residential lot; limited in area to accommodate the residence, accessory buildings, a well and a sewage disposal system, while ensuring that as little acreage as possible is removed from the agricultural lands. The maximum lot size shall generally not exceed 0.81 hectares (2.0 ac.). As a condition of consent, the remnant parcel shall be rezoned for agricultural purposes only provided it is vacant.

#### **Section 6.5.3.4 Consents - Rural Areas:**

- Lot adjustments for legal or technical reasons permitted for easements, correction of deeds, quit claims and minor boundary adjustments; all of which do not result in the creation of a new lot.
- Lot enlargements for an existing Non-Farm Lot or Non-Farm Residential Lot criteria are:
  - maximum lot size 4 hectares, justification required for a proposed lot size over 0.81 hectares (2 acres);
  - Lot addition lands must be designated ‘R - Rural’ unless receiving lot is smaller than 0.4 hectares (1 acres) in size, wherein ‘A - Agricultural’ lands may be added to a maximum total lot area of 0.61 hectares (1.5 acres).
  - Designation beneath ‘Hazard’ land area applies
  - Retained parcel must be viable for its existing or proposed future use,
  - Frontage-to-depth ratio shall be a maximum of 1:3 and conform to the appropriate zoning requirements for lot frontage.
  - Must meet MDS I setbacks from surrounding livestock facilities



The PPS permits lot adjustments in prime agricultural areas for legal or technical reasons including purposes such as easements, corrections of deeds, quit claims, and minor boundary adjustments, which do not result in the creation of a new lot.

### Analysis

In practice, lot additions where the parcels meets all of the policies for severance are routinely processed.

Typically, however, lot additions are requested where lots are small and space is needed to permit a new building to be constructed or because existing development was located partly on another lot. This is most common in settlement areas and Rural Recreation areas.

Having no clear policy for lot additions where there are existing undersized lots leaves some uncertainty which could impact the consistency of review for these proposals.

The final sentence of the Agricultural consents policy for lot additions to undersized lots in the Agricultural designation appears intended to prevent dwellings from being constructed on a farm parcel that has granted a lot addition to a non-farm lot. However, it does not state this clearly. If this is the case, the effect on the retained lot is the same as if a surplus farm dwelling was severed, despite the application creating no new lot. Staff recommend that this policy be understood to describe what makes a boundary adjustment in favour of a non-farm lot “minor,” and that the statement regarding rezoning be deleted as being unclear, a deterrent to these boundary adjustments, and more restrictive than the Provincial Policy Statement.

### Options and Actions

Options and suggested actions to move them forward are outlined below:

Option	Summary	Suggested Action
A - Status Quo	Leave policies as they are	No action required.
B - Do Not Support	Reserve the County consent certificate only for applications that yield lots that conform to current lot creation standards	Adopt Resolution which makes it clear to applicants that the County does not support lot additions from undersized lots
C - Clarify policies	Amend policies to clearly permit lot additions and boundary adjustments in all designations, including where required to improve existing deficiencies; remove rezoning requirement in Ag areas	Initiate County Plan Amendment as attached to specifically permit consents in these situations

Staff recommend Option C.

### **Provincial Interests relevant to all three Planning Issues:**

Planning decisions are required to have regard for provincial interests outlined in [Section \(2\)](#) of the *Planning Act*, Land Division criteria in [Section 51\(24\)](#) of the *Planning Act* and be consistent with [Provincial Policy Statements](#) and conform to or not conflict with provincial plans that are in effect.

### **Planning Act:**

The most relevant Section (2) interests include:

- the orderly development of safe and healthy communities,
- the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems; and
- the protection of public health and safety

Section 51(24) criteria include “the suitability of the land for the purposes for which it is to be subdivided”

### **[Provincial Policy Statement \(2014\):](#)**

Direction for water is found in Section 2.2.

2.2.1 Planning authorities shall protect, improve or restore the quality and quantity of water by:

e. implementing necessary restrictions on development and site alteration to:

1. protect all municipal drinking water supplies and designated vulnerable areas; and
2. protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions;

Quality and quantity of water is measured by indicators associated with hydrologic function such as minimum base flow, depth to water table, aquifer pressure, oxygen levels, suspended solids, temperature, bacteria, nutrients and hazardous contaminants, and hydrologic regime.

Development means the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the Planning Act.

Direction for lot adjustments in prime agricultural areas is found in Section 2.3 - Agriculture:

2.3.4.2 Lot adjustments in prime agricultural areas may be permitted for legal or technical reasons.

“Legal or technical reasons”: means severances for purposes such as easements, corrections of deeds, quit claims, and minor boundary adjustments, which do not result in the creation of a new lot.

“Development:”

means the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act, but does not include:

- a) activities that create or maintain infrastructure authorized under an environmental assessment process;
- b) works subject to the Drainage Act; or
- c) for the purposes of policy 2.1.4(a), underground or surface mining of minerals or advanced exploration on mining lands in significant areas of mineral potential in

Ecoregion 5E, where advanced exploration has the same meaning as under the Mining Act. Instead, those matters shall be subject to policy 2.1.5(a).

#### **Comments on PPS:**

Severance of lots qualifies as development, and is therefore required to meet the “protect, improve, or restore” direction. The PPS as a forward-looking statement of interests does not directly address legal non-conforming uses.

Staff contacted our Ministry of Municipal Affairs representative for assistance in a policy scan for merged undersized lots. It was noted that some jurisdictions in Eastern Ontario use a minor variance process to address lot area when re-severing inadvertently merged developed lots. This indicates that there is not a planning policy conflict.

#### **Drinking Water Source Protection Plan**

This plan has been approved under the Clean Water Act and identifies actions required to protect municipal drinking water supplies based on vulnerability to contamination.

The Source Protection Plan identifies Wellhead Protection Areas A and B and Intake Protection Zone 1 areas where there is a vulnerability score of “10” as areas where an onsite sewage disposal system or a sewage holding tank may be a significant threat. The Plan includes the following policy (02-05):

“New lots created either through severance or subdivision under the Planning Act shall only be permitted by the planning approval authority where the lots will be serviced by a municipal sewage system or where an on-site septic system could be located outside of a vulnerable area with a vulnerability score of 10.”

The Source protection plan also directs The Ministry of Municipal Affairs and Housing to consider changes to the Ontario Building Code and other such legislation to:

1. Set standards under the Ontario Building Code to define advanced systems, including, but not necessarily limited to, standards for Nitrate and Phosphorous levels in effluent; and
2. Require that advanced septic systems be required for new installations in vulnerable areas where an on-site sewage system is or would be a significant drinking water threat.

The Building Code now references the CAN-BNQ standard which can include nitrate and phosphorous reduction but has not acted on the recommendation that these systems be required in all vulnerable areas.

These systems have also been required as part of the approval of new “infilling” lots within in areas of high-density development on private sewage disposal systems and could also be used to support groundwater quality improvements where merged lots are proposed to be re-severed.

Background work on the source protection plan also identified vulnerable surface and groundwater features which may warrant advanced systems. The Source Protection plan did not provide policies on these areas as it is focused on municipal drinking water systems.



## Committee Report

**To:** Warden Mitch Twolan  
Members of the Planning and Development Committee

**From:** Kara Van Myall  
Director of Planning and Development

**Date:** October 17, 2019

**Re:** Proposed Changes to the Aggregate Resources Act

---

### Staff Recommendation:

That the “Proposed Changes to the Aggregate Resources Act report” be forwarded to the Ministry of Natural Resources and Forestry as the County of Bruce’s comments on the Environmental Registry of Ontario posting #019-0556.

### Background:

Aggregate is governed in Ontario by the Minister of Natural Resources and Forestry (MNRF), through the [Aggregate Resources Act](#) and [Ontario Regulation 244/97](#). This past March, John Yakabuski, Minister of Natural Resources and Forestry hosted the Ontario Government's Summit on Aggregate Reform to garner feedback on how to improve Ontario’s management of aggregate resources. Approximately 70 representatives from industry, municipal government, Indigenous communities and key stakeholders attended the Summit and provided input. The public was also invited to submit their ideas on the challenges and opportunities facing Ontario’s aggregates sector, through an online survey (closed May 31) and email - 378 submissions were received.

As a result of this input, the Ministry is proposing changes to the aggregate resources framework, intent on improving the way aggregate resources are managed in the province.

On September 20<sup>th</sup> the government forwarded a letter to municipalities inviting their input, seeking comments on the proposed changes. The full proposal is available on the Environmental Registry: <https://ero.ontario.ca/notice/019-0556>), with comments open until November 4, 2019. The proposed changes focus on:

- Improving access to aggregates within road allowances;
- Clarifying jurisdiction on Crown land and depth of extraction;
- Clarifying how haul routes are considered under aggregates legislation; and,
- Strengthening protection of water resources through a more robust application process for requests to extract aggregates below the water table.
- Ontario is also considering some regulatory changes, which they will consult on in the near future.

The summary below provides an overview of the proposed changes to the Aggregate Resources Act and the County's comments in review - serving as our position.

### Summary & Review Comments

1. Strengthen protection of water resources by creating a more robust application process for existing operators that want to expand to extract aggregate within the water table, allowing for increased public engagement on applications that may impact water resources. This would allow municipalities and others to officially object to an application and provide the opportunity to have their concerns heard by the Local Planning Appeal Tribunal.

**Comment:** A number of existing quarries within Bruce County are preparing to or are in process of requesting license amendments to go below the water table. Bruce County appreciates the province recognizing the public interest in extraction below the water table in terms of both the operation and the post-extraction landscape.

2. Clarify that depth of extraction of pits and quarries is managed under the Aggregate Resources Act and that duplicative municipal zoning by-laws relating to the depth of aggregate extraction would not apply.

**Comment:** Municipal efforts to regulate depth of extraction or "vertical zoning" have arisen due to a lack of engagement opportunities for license amendments. This change makes sense together with the changes noted in (1) above.

3. Clarify that the application of municipal zoning on Crown land does not apply to aggregate extraction.

**Comment:** There is relatively little Crown land in Bruce County outside of the Niagara Escarpment Plan (NEP) area. If zoning does not apply, Plan amendments would also not be required to enable a zoning change. The NEP does require aggregate operations to conform to Official Plans, and so Official Plan Amendment(s) may be required if extraction was proposed on crown land within the NEP.

4. Clarify how haul routes are considered under the Aggregate Resources Act so that the Local Planning Appeal Tribunal and the Minister, when making a decision about issuing or refusing a license, cannot impose conditions requiring agreements between municipalities and aggregate producers regarding aggregate haulage. This change is proposed to apply to all applications in progress where a decision by the Local Planning Appeal Tribunal or the Minister has not yet been made. Municipalities and aggregate producers may continue to enter into agreements on a voluntary basis.

**Comment:** Haul routes can generate neighbourhood concerns regarding offsite impacts of extraction, in terms of noise/dust/vibration, safety, and impacts to road infrastructure. Sorting out agreements can significantly extend the review process. Voluntary agreements may help to address concerns with operations, but if entered into need some mechanism to ensure that they are followed. Bruce County recommends that the province continue to allow Municipalities to require that

proponents address road maintenance and improvements to load ratings on haul routes so that extraction of this important resource can proceed without adverse impacts to the transportation system. If haul route agreements are removed as a formal tool for addressing impacts of operations, a review of tonnage fees for Municipalities may be appropriate.

5. Improve access to aggregates in adjacent municipal road allowances through a simpler application process (i.e. amendment vs a new application) for an existing license holder, if supported by the municipality.

**Comment:** South Bruce Peninsula Official Plan policies currently recognize opportunities to extract within road allowances and even beneath roads subject to the Aggregate Resources Act. Reducing barriers to extraction in these circumstances could help to make materials available and increase flexibility and options in developing a comprehensive approach to rehabilitation where there are clusters of aggregate operations. This flexibility should be integrated into extraction and progressive rehabilitation plans to maintain natural corridor functions that unopened road allowances and extraction setbacks often provide between extraction operations.

6. Provide more flexibility for regulations to permit self-filing of routine site plan amendments, as long as regulatory conditions are met.

**Comment:** Streamlining routine amendments is appropriate. We note that many operations are increasingly complex, and the definition of “routine” is important to understand.

A summary of some regulatory (Ontario Regulation 244/97) changes also being considered follows - further consultation will occur on regulations.

7. Enhanced reporting on rehabilitation by requiring more context and detail on where, when and how rehabilitation is or has been undertaken.

**Comment:** Bruce County supports provincial efforts to encourage rehabilitation of areas where extraction has been completed that are not needed for ongoing operations.

8. Allowing operators to self-file changes to existing site plans for some routine activities, subject to conditions set out in regulation. For example, re-location of some structures or fencing, as long as setbacks are respected.

**Comment:** These amendments appear to be appropriate; we would suggest that the regulation include ‘and other operational requirements.

9. Allowing some low-risk activities to occur without a license if conditions specified in regulation are followed. For example, extraction of small amounts of aggregate if material is for personal use and does not leave the property.

**Comment:** A personal use exemption is appropriate. Bruce County encourages the province to take care in crafting the details of the regulation and provide adequate resources to monitor it for abuse.

10. Clarifying requirements for site plan amendment applications.

**Comment:** Bruce County encourages clarity in requirements.

11. Streamlining compliance reporting requirements, while maintaining the annual requirement.

**Comment:** Recent aggregate extraction proposals in Bruce County have included complex annual monitoring requirements to avoid impacts to groundwater, species at risk, and other provincial interests. To support reporting on these requirements, staff and proponents have worked together to develop streamlined reports that supplement standard Aggregate Resources Act compliance checklists. Bruce County encourages the province to ensure that streamlining annual reporting requirements maintains or enhances their effectiveness in tracking compliance with operations requirements.

12. Reviewing application requirements for new sites, including notification and consultation requirements.

**Comment:** Bruce County recognizes that review under the Aggregate Resources Act often generates changes to proposed aggregate developments and encourages proponents to proceed through the Aggregate Resources Act notification and consultation process, including First Nations engagement, and to resolve issues under that Act to the extent possible before filing formal applications for local planning approvals.

13. While no changes to aggregates fees are being proposed at this time, the Ministry is also interested in hearing feedback on fees.

**Comment:** Review of Aggregate fees would be appropriate if Municipalities are no longer able to compel proponents to address impacts to infrastructure through haul route agreements.

#### **Financial/Staffing/Legal/IT Considerations:**

There are no financial, staffing, legal or IT considerations associated with this report.

### **Interdepartmental Consultation:**

Staff from Planning & Development and Office of the CAO co-wrote the report and consulted with Transportation and Environmental Services regarding haul routes.

The report will be shared with the local municipalities for awareness and in support of building our collective local voice if they wished to provide comments to the Ministry.

### **Link to Strategic Goals and Elements:**

Goal 5: Eliminate our own red tape:

- e. focus on the internal and external customer / client needs first

Goal 7: Stimulate and reward innovation and economic development:

- a. Streamline and simplify our Planning Processes (Official Plan, Zoning By-law)

Goal 9: Coordinated, Concerted effort to advance our agenda:

- b. Politicians and staff lobby associations and government in support of local policy needs;

Written by: Jack Van Dorp, Senior Planner, Planning and Development & Matt Meade, Strategic Initiatives Specialist, Office of the CAO

**Approved by:**

A handwritten signature in dark ink, reading "Bettyanne Cobean". The signature is written in a cursive, flowing style.

Bettyanne Cobean  
Acting Chief Administrative Officer



## Committee Report

**To:** Warden Mitch Twolan  
Members of the Planning and Development Committee

**From:** Kara Van Myall  
Director of Planning and Development

**Date:** October 17, 2019

**Re:** Bruce Innovates: Foundational Hydrogen Infrastructure Update

---

### Staff Recommendation:

The “Bruce Innovates: Foundational Hydrogen Infrastructure Update” report is for information.

### Background:

A significant opportunity exists for Bruce County to produce clean hydrogen from clean nuclear and renewable electricity, and in doing so, position the region to not only contribute to, but also to benefit from, the transition to a low-carbon economy. To take advantage of this opportunity, Bruce County has launched an initiative called “Bruce Innovates: Foundational Hydrogen Infrastructure”. Bruce Innovates marks the first major transformational project of a broader umbrella initiative called “Project Innovate”, the goal of which is to transform the County into an innovative energy leader within ten years.

The project aims to transform Bruce County into the Clean Energy Capital of Canada by establishing a world-class region for collaboration and training in clean technology development and innovation. Bruce Innovates has the potential to be a ground-breaking and innovative way to pursue multiple objectives simultaneously, including:

1. Developing, testing and scaling-up hydrogen-based energy systems - by undertaking pilot projects before eventually progressing to larger-scale commercial technologies;
2. Diversifying and boosting the economy - by growing a hydrogen economy and creating export opportunities, whilst supporting entrepreneurship, clean-tech business development, job creation and next generation career development;
3. Supporting Saugeen First Nation (SFN) and other First Nation communities in building capacity towards greater energy self-sufficiency - by developing hydrogen-based on- and off-grid energy systems; and
4. Accelerating the commercial deployment of Canadian-based hydrogen technologies both nationally and abroad - by marketing utility-scale hydrogen production and energy storage technologies.

At the July Planning and Development Committee meeting, staff brought forward the acknowledged need to advance funding to support foundational work that would include an execution plan that builds support, develops a compelling business case and outlines how to fully realize the economic development opportunities within the over-arching framework to advance Bruce County as the Energy Capital of Canada.

To this end, the work undertaken with the help of Ernst and Young has assisted the development of a strong application to the Green Municipal Fund; Feasibility Plan development and a Bruce Innovates Project Overview document necessary to share with potential project funders. See the attached Project Overview for an outline of the submission.

### **Bruce Innovates Update:**

Grant Applications to Support Large Scale Deployment submitted to date:

- Saugeen Sustainability Energy Centre - submissions made to the Low Carbon Economy Challenge Fund (LCEF) - Not successful.
- Underground Storage / Dynamic Electrolyzer - submission made to the Strategic Innovation Fund (SIF) - advanced to stage two, under review.
- An application to NRCan's NICE program submitted for both the SSEC and Storage / Electrolyser initiatives. NICE may not support the specifics of the intended project, so staff are working inside the Ministry with OCNI to find a suitable funding opportunity that acknowledges the connection between nuclear and hydrogen. This opportunity is not an option at this time.
- FCM application to Green Municipal Fund Submitted in August. In stage 1 of review.

Steering Committee, Outreach and Connections:

- The initial areas of focus for foundational projects include four key areas; Synthetic Natural Gas (SNG), Transportation, and Industrial Uses.
- The Committee has engaged one commercial partner and is in discussions with a potential second partner to become members of the Steering Committee and discuss options for potential pilot projects.
- A Communications plan is in the works to connect the Project Overview (attached) with potential funding partners and/or investment partners. These include staff and political members of both the Provincial and Federal government Ministries in addition to outreach to private sector companies and individuals. This plan includes tactics such as video to promote the objectives of Bruce Innovates and the broader goal of positioning Bruce County as the Energy Capital of Canada.
- The project Steering Committee acknowledges there are several interested parties in both the private and public sector that want to support the hydrogen agenda. These individuals are included in the communications / outreach plan.
- A Terms of Reference (TOR) for the Committee was drafted to acknowledge a number of key roles and activities including:
  - o Defining and outlining the vision, purpose and roles of steering committee members.

- Noting founding partners, Bruce County and Saugeen First Nation, and Project Partners. Project Partners engage in specific pilot projects through the various opportunities in transportation, heating and industry.
- Establishment of potential working groups to include Power-to-Gas Working Group, Foundational Large-Scale Infrastructure Working Group and Innovation Centre Working Group.
- Members of the Committee will attend the October 28<sup>th</sup> MaRS think tank event on Hydrogen (providing support to Canada's most promising leading-edge innovators). This collaborative workshop is designed to ignite open dialogue with prospective hydrogen adopters to understand how to enter and develop this new opportunity in energy transition in Canada.

#### **Financial/Staffing/Legal/IT Considerations:**

There are no financial, staffing, legal or IT considerations associated with this report.

#### **Interdepartmental Consultation:**

None

#### **Link to Strategic Goals and Elements:**

- |         |  |
|---------|--|
| Goal #6 | Explore alternate options to improve efficiency, service:<br>C. Look for economy of scale or shared services among our departments and our communities |
| Goal #7 | Stimulate and reward innovation and economic development   |

Written by: Jill Roote, Manager of Economic Development, Planning and Development

#### **Approved by:**



Bettyanne Cobean  
Acting Chief Administrative Officer



# **BRUCE** **INNOVATES**

Bruce County's  
Foundational Hydrogen  
Infrastructure Project

# EXECUTIVE SUMMARY

A significant opportunity exists for Bruce County to produce clean hydrogen from clean nuclear and renewable electricity, and in doing so, position the region to not only contribute to, but also to benefit from, the transition to a low-carbon economy. To take advantage of this opportunity, Bruce County has launched an initiative called “Bruce Innovates: Foundational Hydrogen Infrastructure Project”.<sup>1</sup> The project aims to transform Bruce County into the Clean Energy Capital of Canada by establishing a world-class region for collaboration and training in clean technology development and innovation.

Bruce Innovates has the potential to be a ground-breaking and innovative way to pursue multiple objectives simultaneously, including:

1. Developing, testing and scaling-up hydrogen-based energy systems – by undertaking pilot projects before eventually progressing to larger-scale commercial technologies;
2. Diversifying and boosting the economy – by growing a hydrogen economy and creating export opportunities, whilst supporting entrepreneurship, clean-tech business development, job creation and next generation career development;
3. Supporting Saugeen First Nation (SFN) and other First Nation communities in building capacity towards greater energy self-sufficiency – by developing hydrogen-based on- and off-grid energy systems; and
4. Accelerating the commercial deployment of Canadian-based hydrogen technologies both nationally and abroad – by marketing utility-scale hydrogen production and energy storage technologies.

**To this end, Bruce County is looking to form a strategic partnership to achieve the key goals of this opportunity. Having partner support will help the County advance this initiative through the critical first stages of project development, including:**

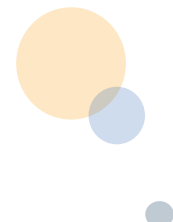
- **Developing a technical and economic feasibility study of the proposed project; and**
- **Advancing project planning and initial demonstrations of hydrogen technologies.**



---

<sup>1</sup> Bruce Innovates marks the first major transformational project of a broader umbrella initiative called “Project Innovate”, the goal of which is to transform the County into an innovative energy supercluster within ten years.





# Contents

EXECUTIVE SUMMARY .....	2
FOREWORD .....	4
ENDORSEMENTS .....	5
PART 1 – WHY HYDROGEN? .....	6
Decarbonization of the future energy mix .....	6
Hydrogen production and end-use applications .....	7
The Bruce County advantage.....	8
Hydrogen projects – case studies .....	10
PART 2 – BRUCE INNOVATES .....	12
Project overview .....	12
Key partners and stakeholders.....	13
Policy drivers .....	13
Key objectives of Bruce Innovates .....	14
Action plan and timeline for Bruce Innovates .....	18
PART 3 – THE OUTCOMES.....	19
Successful outcomes .....	19
Lessons learned from other hydrogen projects .....	20
Program management .....	20
Project team.....	21
Join us! .....	21

# FOREWORD

Bruce County has the economy, location, natural resources, readiness to build and project partners required to become a leader in clean hydrogen technology, research and innovation. The County also demonstrates several important characteristics for attracting investment, including:

- A culture and support system that nurtures skills training and entrepreneurship in the energy sector;
- A multi-year partnership with Bruce Power, which has created an energy cluster of world class intellectual talent; and
- Global recognition for being a leader in zero-emissions power generation from nuclear and renewable sources.



Bruce County has a unique opportunity to leverage these strengths to build a sustainable energy supercluster and utilize existing assets to diversify into alternative industries. The County recognizes that hydrogen can support these targets and has a vision for Bruce County of being a world-class energy hub at the forefront of hydrogen technology and clean energy innovation in Canada.

A feasibility study that assesses the County's plans to advance Bruce Innovates would help establish the foundation on which to move the project forward in a methodical, proactive way.

A stylized, handwritten signature in black ink.

Mitch Twolan,  
Bruce County Warden



A stylized, handwritten signature in black ink.

Lester Anoquot,  
Saugeen First Nation Chief



# ENDORSEMENTS



“Along with nuclear, hydrogen will play a critical role in next generation clean energy technology. Bruce Power welcomes this initiative and recognizes it as an important step towards transitioning to a low-carbon energy system that will help Ontario and Canada with solutions needed to meet climate change goals.”

**James Scongack, Executive Vice President Corporate Affairs & Operational Services, Bruce Power**



“Bruce County is already building on strengths as a sustainable energy region and is well on the way to becoming a leader in Clean Energy in Canada. Hydrogen technologies are a welcome addition to an already diverse mix of energy companies located here and this work is well aligned with the work of the Nuclear Innovation Institute - Canada’s leading-edge nuclear applied research facility and centre of excellence for talent development and business innovation.”

**Frank Saunders, President, Ontario’s Nuclear Innovation Institute**



“Bruce County, endowed with underground geologic formations capable of storing vast amounts of hydrogen, in addition to being home to the largest operating nuclear facility in the world, makes it a natural place to advance energy transformation and establish itself as a leader in hydrogen technologies. These types of next generation initiatives are essential to electrify transportation, agriculture, industry and heating sectors in the coming decades.”

**Robert Stasko, Board Chair, Hydrogen Business Council**



“OCNI represents more than 220 Canadian suppliers to the nuclear industry in Canada and offshore. Our vision is to “lead and strengthen a thriving Canadian nuclear supply chain” through innovation and leadership. OCNI works closely with Bruce Power and Bruce County in driving economic development in the region. We believe that Bruce County has unique advantages to become a world-class innovative energy hub and is well positioned to be at the forefront of hydrogen technology development and implementation in Canada.”

**Ron Oberth, President and CEO, Organization of Canadian Nuclear Industries (OCNI)**



# PART 1 – WHY HYDROGEN?

## Decarbonization of the future energy mix

### Hydrogen is a clean fuel



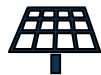
As regions are exploring options to transition to a low-emissions energy future, hydrogen is emerging as a strong complement to existing options and market forces



A confluence of technology improvement and business needs have reinvigorated the optimism on hydrogen economy



The narrative for hydrogen is changing from technological development to market activation



Hydrogen is envisioned to be produced from carbon free sources in the medium to long term

### Relevance for multiple stakeholders



#### Producers

- Rising renewables capacity and falling costs will enable production of clean hydrogen
- Continuous improvements are being made across the hydrogen value chain



#### Governments and regulators

- Governments have come up with hydrogen roadmaps and targets, and are subsidizing the industry to incentivize and push for faster hydrogen adoption



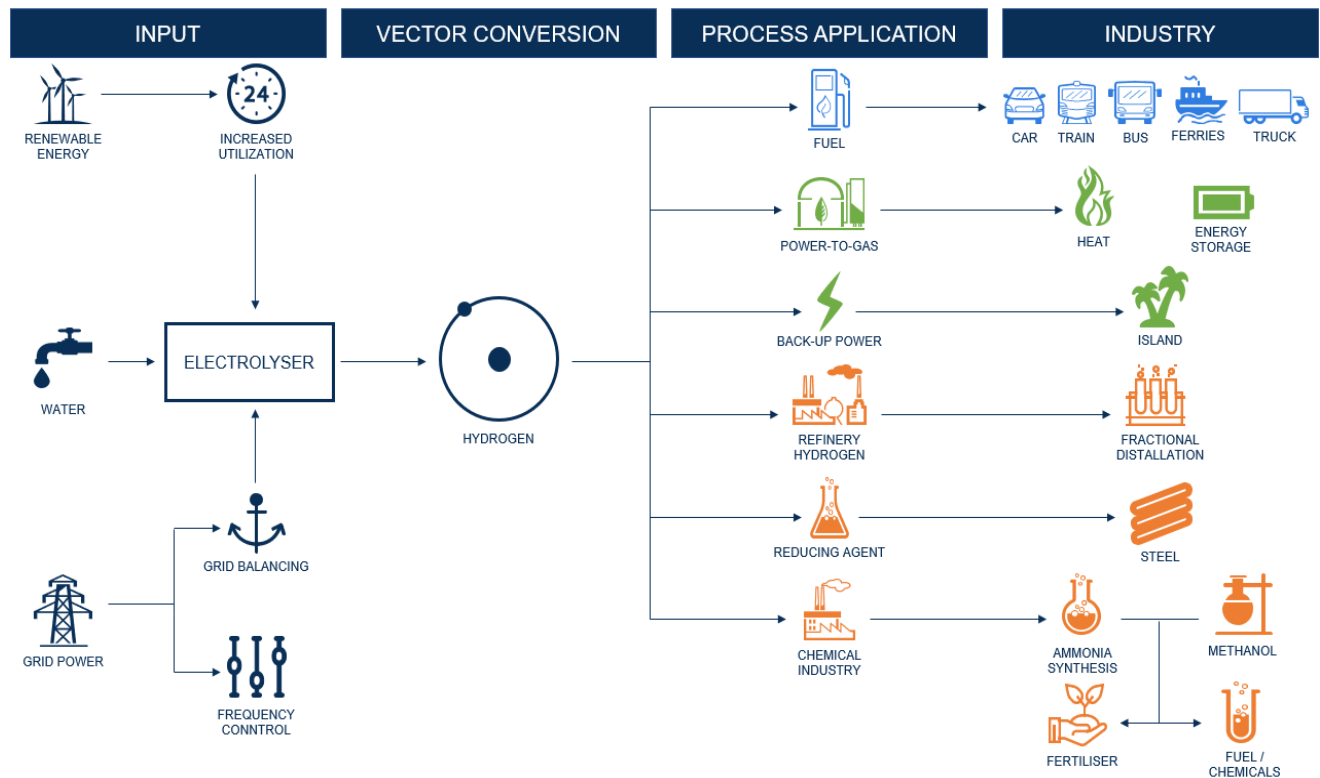
#### Consumers

- Hydrogen is primarily used as an industrial feedstock but has significant potential to decarbonize other sectors
- Hydrogen can help to manage the mismatch in supply and demand of electricity as it can store and transport excess electricity
- In the transportation sector, fuel cell electric vehicles (FCEVs) have many benefits compared to lithium ion battery electric vehicles (EVs)
- Buildings connected to a natural gas grid for heating requirements can switch to a hydrogen-based fuel

## Hydrogen production and end-use applications

Hydrogen production: In a process called “Power-to-Gas”, electricity (“Power”) is fed into an electrolyser, which is a device that uses the electricity to split a water molecule ( $\text{H}_2\text{O}$ ) into oxygen ( $\text{O}_2$ ) and hydrogen ( $\text{H}_2$ ) gas (“Gas”).

Hydrogen’s end-use applications: Hydrogen presents a unique value proposition in that one hydrogen production facility can enable multiple end uses, including electrical grid stability, decarbonization of the gas grid system, fuel for vehicles and industrial processes.



## The Bruce County advantage

Bruce County is an ideal location to develop and deploy hydrogen technologies. The combination of substantial zero-emission electricity generation capacity, favourable geological formations and strong project buy-in from stakeholders, makes the Bruce region uniquely positioned to lead the clean energy transformation for Canada.



**The Bruce transmission zone produces significantly more electricity than it currently consumes, and would benefit from having this excess energy used in the production of hydrogen**

The Independent Electricity System Operator for Ontario (IESO), responsible for managing the electrical grid system, specifically identifies the Bruce region as a viable location for Power-to-Gas processes (IESO Report – Energy Storage, March 2016). The Bruce transmission zone is capacity congested (meaning that the transmission system is unable to absorb the large amounts of off-peak power generated from nuclear and renewable sources), but Power-to-Gas could help alleviate this pressure on the grid by withdrawing large amounts of energy to power the production of hydrogen.



**Bruce Innovates would be the first project to demonstrate the capabilities of Power-to-Gas in a capacity congested transmission zone**

With Bruce Innovates, Ontario would experience for the first time the benefits of having a Power-to-Gas facility in operation in a zone that is classified as 'capacity congested'. Currently, the only Power-to-Gas facility in operation belongs to a zone that isn't – this would be the Enbridge and Hydrogenics' Markham Energy Storage Facility, which operates in the Toronto zone. As such, Bruce Innovates has a unique opportunity to demonstrate the potential for hydrogen production to alleviate pressure on the grid from excess nuclear and renewable energy – a value proposition which will become increasingly evident as the province, and the rest of the globe, moves towards increasingly higher levels of zero-emissions power sources.



**The Bruce region features underground formations that are ideal for storing hydrogen gas**

The Bruce region is endowed with underground geologic formations that enable the storing of vast amounts of hydrogen. The integration of hydrogen storage in geologic reservoirs is envisioned by the Canadian Nuclear Laboratories (CNL) as a unique Canadian technological opportunity that could enable significant de-carbonization across multiple sectors not only in Canadian markets, but globally as well.



**The Bruce region can provide an abundance of off-peak emissions-free energy that can be used to power the production of 'clean hydrogen'**

Bruce County generates an abundance of nuclear and renewable energy at off-peak hours, which enables the production of 'clean' hydrogen since nuclear, wind and solar are carbon-free sources of power.



**The Bruce County administration, together with its partners, is determined to unlock the tremendous potential that hydrogen has for diversifying and stimulating the local economy**

Bruce County and its partners have already made significant progress towards establishing the program framework and technological requirements for Bruce Innovates. Conceptual designs have been discussed, and selection of Steering Committee members is under way, demonstrating that project leadership and stakeholder buy-in is strong.



## Hydrogen projects – case studies

This section highlights a sample of hydrogen projects that are currently active across the globe. The projects that have been selected represent the different parts along the evolving hydrogen value chain, but what they have in common is that they stimulate entrepreneurship, nurture clean-tech business development, create jobs, encourage innovative skills advancement and spark growth opportunities for the private sector.

Through Bruce Innovates, the Bruce region has an opportunity to become a key player in this new, promising, and global hydrogen value chain.

### **Enbridge and Hydrogenics' Markham Energy Storage Facility**

The Markham Energy Storage Facility, owned and operated under a joint venture between Hydrogenics and Enbridge Gas Distribution, is now providing regulation services under contract to the IESO of Ontario. Hydrogenics' Power-to-Gas technology is transforming the energy sector through the production of renewable hydrogen for zero-emission FCEVs (train, bus and truck fleets) or other applications while providing grid services to System Operators around the globe.

Source: <https://www.hydrogenics.com/2018/07/16/north-americas-first-multi-megawatt-power-to-gas-facility-begins-operations/>

### **Air Liquide Canada's hydrogen electrolysis plant in Quebec**

Air Liquide will build in Bécancour, Québec, the largest Proton-Exchange Membrane (PEM) electrolyser in the world with a 20 megawatts (MW) capacity for the production of low-carbon hydrogen (the facility will use hydropower). Bécancour's proximity to major industrial markets in Canada and the United States will play a key role in the supply of low-carbon hydrogen for both industry and mobility usage in North America.

Source: <https://www.greencarcongress.com/2019/02/20190226-airliquide.html>

### **Germany's REFHYNE Project with Shell and ITM**

The 10MW REFHYNE electrolyser has been designed as the building block for future electrolyzers up to 100MW and beyond. It is scheduled to be operational by 2020 to provide bulk quantities of hydrogen for refinery processes and will also explore applications in other sectors including power generation, heating for buildings and transport.

Source: <https://refhyne.eu/>

### California's Hydrogen Fueling Infrastructure

Through its Assembly Bill No. 8 program, the State of California co-funds the deployment of at least 100 hydrogen fueling stations to enable the launch of a consumer fuel cell electric vehicle (FCEV) market. AB 8 dedicates up to \$20 million US per year to support continued construction of the stations. In addition to AB 8, the recently-updated Low Carbon Fuel Standard provides strong policy drivers for accelerating commercialization of FCEVs and their associated infrastructure.

Source: <https://ww2.arb.ca.gov/our-work/programs/hydrogen-fueling-infrastructure/about>

### China's Fuel Cell Technology Roadmap

In December 2016, China's "13th Five-Year Plan" included a Fuel Cell Technology Roadmap, which laid out targets for fuel cell and hydrogen energy development. The Roadmap calls for over 1,000 hydrogen refueling stations to be in operation by 2030, with at least 50% of all hydrogen production coming from renewable resources. In addition, the Roadmap set a target for over 1 million FCEVs in service by 2030.

Source: <http://www.fchea.org/in-transition/2019/2/4/chinese-fuel-cell-industry-developments>

### UK's ITM Birmingham Bus Project

The 3MW project is currently being deployed and combines grid balancing with bus refuelling services. Power grid services include Frequency Control by Demand Management (FCDM) combined with renewable energy contracts as well as trials for Enhanced Frequency Response (EFR). Mobility services target refueling of all types of hydrogen vehicles, from passenger cars to commercial vehicles, including buses, trucks, trains and ships.

Source: *ITM Power – Power-to-Gas Energy Storage: Principles, projects and future projects*

### UK's Big Hit

The EU-funded project aims to demonstrate the use of hydrogen as a flexible local energy store and vector, transporting hydrogen by tube trailer to the mainland near the Scottish island of Orkney. The project aims to produce hydrogen from stranded renewables, with services including 1.5MW of off-grid energy storage, repowering, renewable heat and fuel for transport.

Source: *ITM Power – Power-to-Gas Energy Storage: Principles, projects and future projects*

# PART 2 – BRUCE INNOVATES

## Project overview

A significant opportunity exists for Bruce County to produce clean hydrogen from off-peak nuclear and renewable electricity, and in doing so, position the region to not only contribute to, but also to benefit from, the transition to a low-carbon economy. To take advantage of this opportunity, Bruce County has launched an initiative called “Bruce Innovates: Foundational Hydrogen Infrastructure Project”. The project aims to transform Bruce County into the clean energy capital of Canada, by establishing a world-class centre for collaboration and training in clean technology development and energy innovation.

At the core of the Bruce Innovates is the concept for a world-class centre for collaboration and training in clean technology and energy innovation. The centre will be the hub and physical location from which the Bruce region will:

1. Develop, test and scale-up hydrogen production and storage systems;
2. Diversify and boost the economy through investments in hydrogen and clean energy innovation;
3. Support SFN and other First Nation communities in building capacity towards greater energy self-sufficiency through hydrogen-based solutions; and
4. Accelerate the commercial deployment of Canadian-based hydrogen technologies both nationally and abroad.

These actions will help unlock the potential for a hydrogen economy in the Bruce region. Some of the major benefits that will come out of it include:

**Placing Ontario at the forefront of a new industrial revolution:** With the versatility of hydrogen, Bruce County has the potential to ignite a new industrial revolution that will enhance the economy, create jobs, move the Province of Ontario into a leadership role in clean tech and put Canada back on the forefront in fighting climate change.

**Access to zero emissions energy:** Hydrogen is the most promising zero-emissions fuel for the future – it is a sustainable alternative to traditional fossil fuels. It has the potential for mitigating climate change and creating an abundant fuel supply for tomorrow. Hydrogen technology is proven, and the time is right to harness clean electricity to produce this transformative fuel.

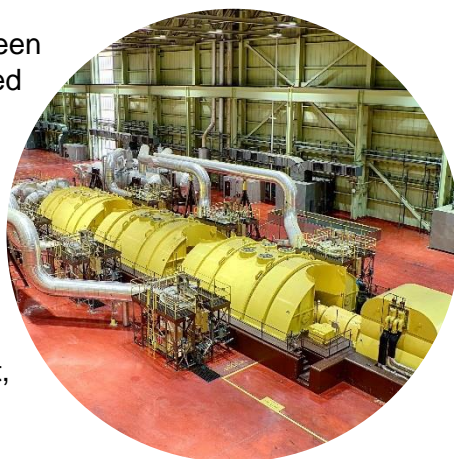
**Utilization of off-peak energy:** Hydrogen is the link between a mismatched electricity supply and demand (peak vs. off peak) that forces nuclear and renewable electricity suppliers to curtail (maneuver) operations causing off-peak – in other words, wasted energy. This is known as the off-peak manoeuvring conundrum, and the Bruce transmission zone is struggling to cope with it. A dynamic electrolyser will make productive use of this off-peak clean electricity resource and generate clean hydrogen while automatically following the ebbs and flows of electricity production, thereby utilizing excess energy that would otherwise be curtailed. When demand for electricity is low (off-peak), hydrogen is produced through electrolysis and then stored above ground for immediate use or underground for future use.

## Key partners and stakeholders

In 2018, the County of Bruce Planning and Development Committee began collaboration with the Hydrogen Business Council of Canada (HBC), the Canadian Nuclear Laboratories (CNL), the Organization of Canadian Nuclear Industries (OCNI), and local hydrogen industry stakeholders, including SFN and Carlsun Energy Solutions (Carlsun), to discuss energy innovation in the region. The collaboration began with a paper entitled “Energy Innovation in the County of Bruce”, illustrating how Bruce County is uniquely positioned to become the “clean energy capital of Canada”. This collaborative effort has formed the basis of what is now known as the Bruce Innovates initiative to advance clean hydrogen technologies in the region.



Two years prior to this, in 2016, an important partnership between Carlsun (a licensed manufacturer and system integrator of advanced hydrogen electrolyser systems) and SFN was formed to initiate steps to advance the concept for a sustainable energy centre and hydrogen technologies in the region. SFN leadership believes hydrogen energy systems using clean electricity offer a sustainable pathway which is fully aligned with environmental protection and sustainability values of First Nations. Initiatives under this partnership use the brand name 7GFUEL® representing the seven generation principles of First Nations, which are Respect, Love, Truth, Bravery, Wisdom, Generosity and Humility.



## Policy drivers

Bruce Innovates is in line with the Pan-Canadian Framework for Clean Growth and Climate Change, which is Canada’s plan to meet its emission reduction targets, grow the economy, and build resilience to a changing climate. In fact, the scope of Bruce Innovates covers four of the seven types of projects that comprise Canada’s climate plan, including:

- Clean and renewable energy;
- Alternative fuel infrastructure;
- Investments in Indigenous, rural and remote communities to transition to cleaner energy sources; and
- Made-in-Canada clean technologies.

While there is no specific hydrogen policy for Canada yet, there is an excellent opportunity for Bruce Innovates to become the catalyst for the development of a national hydrogen policy that will support Canada’s fight against climate change.



## Key objectives of Bruce Innovates

In partnership with local industry, First Nations and academic institutions, the project will establish a world-class, multi-purpose centre for collaboration and training in clean technology and energy innovation. This work will lay the foundation for the region's plans to build an energy supercluster and eventually become Canada's leader in clean energy innovation. The four key objectives supporting this goal are outlined in further detail below.

1

### Developing, testing and scaling-up of hydrogen production and storage systems

The Bruce region will be the site for the design, manufacturing and implementation of hydrogen technologies, starting initially with a small-scale demonstration of hydrogen production and storage capabilities (see below for further details). The results of the pilot project will then be used to inform plans for much larger utility-scale hydrogen systems.



#### Hydrogen production and storage demonstration project

The first pilot project within Bruce Innovates will be a Power-to-Gas demonstration of hydrogen production (electrolysis) and energy storage capabilities.

##### *Electrolysis demonstration*

The current standard in Ontario's power sector is to maneuver (turn down) nuclear and renewable energy production when demand is low. This is wasteful and inefficient. The demonstration will aim to show how an electrolyser utilizes clean electricity and converts it into ultra-pure hydrogen while also providing ancillary services to stabilize the grid.

##### *Energy storage demonstration*

The aim of this demonstration is to prove that depleted natural gas wells in Bruce region can store large amounts of hydrogen gas to enable seasonal storage for off-peak and curtailed electricity. Demonstrating underground storage in these formations is an essential step to making hydrogen a scalable solution.

## Diversifying and boosting the economy through investments in hydrogen and clean energy innovation

Bruce Innovates will attract investment, create jobs, provide training for the local community, and increase revenue generation for industry participants.

**Investment** – The need for capital inflow to help develop Bruce Innovates and the hydrogen projects is likely to be met with strong investor interest from around the globe. Investors are actively seeking out assets that can combine clean energy attributes with multiple end-use functionality, as is the case with hydrogen systems.

**Training for the local community** – Bruce County and SFN will partner with an established educational institution that will directly contribute to the training and development of skills for building a hydrogen economy. Among other objectives, training will aim to equip SFN and people from other First Nations communities with the skills required to be able to operate and maintain hydrogen systems themselves and thereby support efforts in those communities to develop greater energy self-sufficiency.

**Jobs** – These hydrogen projects will create next-generation career opportunities in clean energy innovation and will attract highly qualified workers and professionals to the Bruce region. Also, construction and assembly will create multiple temporary construction and assembly jobs.

**Increased revenue generation** – For industry participants and experts in the Bruce region, such as Bruce Power, Carlsun and others, the aim is to provide increased revenue generation by:

- Enabling multiple patent and licensing opportunities;
- Advancing hydrogen technology development;
- Unlocking performance and supply chain cost reduction;
- Accelerating commercialization of hydrogen infrastructure systems and fuels to support rapid implementation of hydrogen technologies required this decade; and
- Reinforcing growth and transition of local small enterprises to become medium sized enterprises.



### Supporting Saugeen First Nation and other First Nation communities in building capacity towards energy self-sufficiency through hydrogen technologies

The renewable infrastructure components of Bruce Innovates compliments SFN's desire to become energy self-sufficient and enables the simulation of both micro-grid applications and remote/off-grid renewable hydrogen applications.

The energy future of First Nation communities poses a unique set of challenges and opportunities. The challenges lie in adopting cost-effective energy systems that will provide reliable energy services, while at the same time:

- moving communities away from carbon energy sources; and
- building an energy infrastructure that is scalable and will allow communities to prosper.

The opportunities lie in developing a solution which uses resources in the community and can demonstrate First Nation leadership on sustainable energy advancement both now and in the future.

The Bruce Innovates project will bring together solution providers and the resources of First Nations to develop the hydrogen systems that can address the challenges and opportunities mentioned above. The sequence of events is broadly envisioned to be as follows:

- Initially the focus will be to develop renewable-hydrogen systems for back-up power for rural grid-connected communities. These systems will be assembled and factory tested locally.
- Over time these systems can be expanded to provide energy autonomy in remote, off-grid communities currently relying on diesel. Development, testing and assembly of these hydrogen solutions for these remote communities is a primary goal of Bruce Innovates. In time, these micro-grid systems will enable the communities to build community strength through energy independence. Meanwhile, the revenue generated by the provision of these solutions will be a significant boost to SFN.

Additionally, these hydrogen projects will also serve to improve First Nation community engagement. The current practice for new technology development doesn't involve First Nation communities to the extent it ought to. This project would set a precedent in First Nations engagement as it would be the first of its kind to focus on clean-tech advancement to support the development of local, clean energy infrastructure in these communities.



## Accelerating in the commercial deployment of Canadian-based hydrogen technologies

From the late 2020s onward, the plan for Bruce Innovates includes exporting technology advancements and expertise from the Bruce region to the rest of Canada as well as abroad. This will enable the County and its partners to fully capitalize on the commercial opportunities available with hydrogen and clean energy innovation.

The integrated hydrogen systems being considered by Bruce Innovates have high potential for replicability, meaning that there will be a strong commercial export opportunity to other communities across Canada and regions around the globe that wish to develop hydrogen infrastructure on their own. There will also be opportunities to provide subject matter expertise as consultants on other hydrogen projects around the globe.

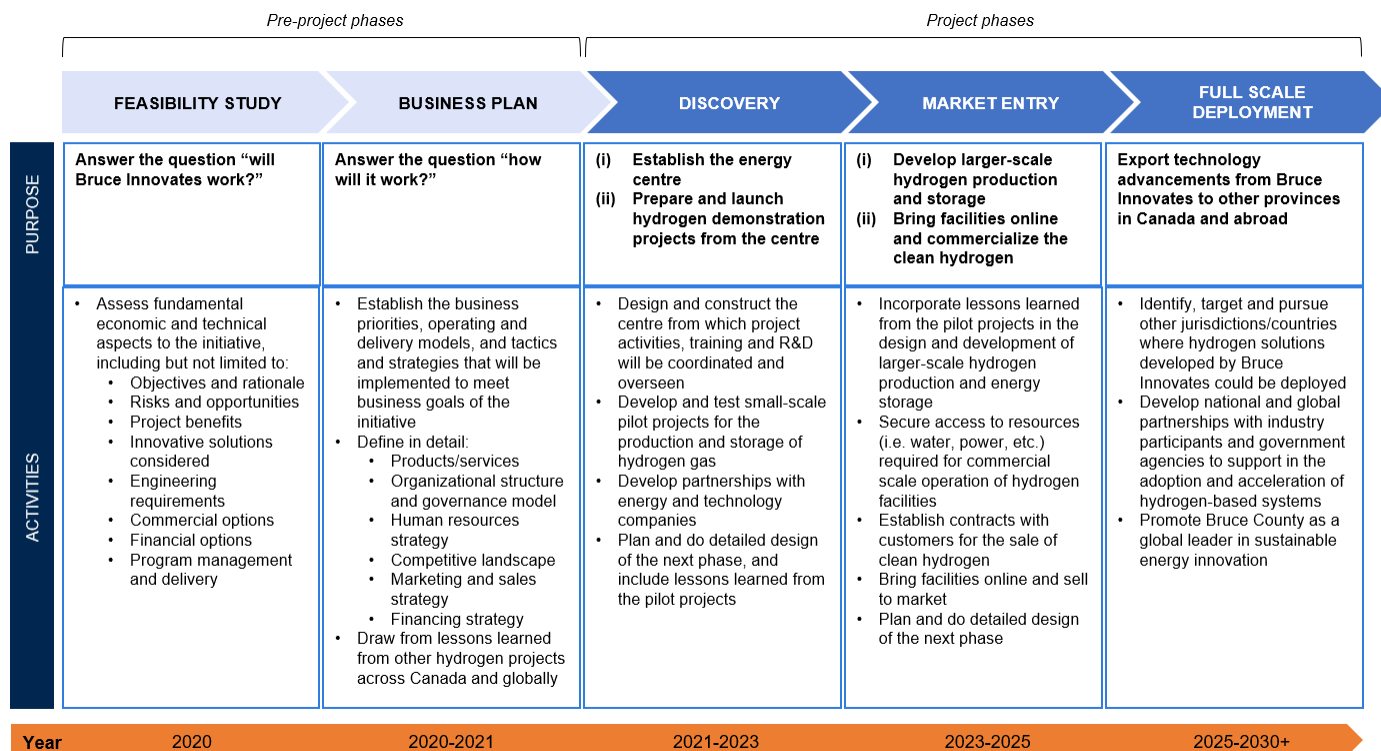
Commercial export of both hydrogen systems and subject matter expertise could include a mix of the following components and/or services:

- Electrolysers for hydrogen production
- Hydrogen storage technologies
- Grid-connected hydrogen-based system components
- Off-grid / micro-grid system components
- Hydrogen fuels and systems for heat and/or mobility
- Hydrogen products for industry (i.e. green ammonia) and consumer goods



# Action plan and timeline for Bruce Innovates

The action plan for the development and execution of Bruce Innovates begins with two pre-project phases followed by three project phases, combining for a total duration of 10+ years.



# PART 3 – THE OUTCOMES

## Successful outcomes

The expected successful outcomes from the collaboration of Bruce County, SFN, local stakeholders and corporate partners include:

### TARGET DATE

**Demonstration of small-scale hydrogen production and storage technologies in the Bruce region**

**2023**

**Demonstration of large-scale (25MW+) hydrogen systems that can be deployed to various regions of Canada and internationally**

**2025**

**Using hydrogen systems to attract investment into the Bruce region, create jobs and enable energy self-sufficiency for First Nations communities, all while reducing the region's carbon footprint**

**2025**

**Accelerating the commercial deployment of Canadian-based hydrogen technologies both nationally and abroad**

**2030**

These outcomes will provide the foundation for Bruce County, SFN and stakeholders to become leaders in the integration of large-scale hydrogen industries.

## Lessons learned from other hydrogen projects

As illustrated in the 'Action plan and timeline', one of the key activities that forms part of the Business Plan pre-project phase is 'Drawing from lessons learned from other hydrogen projects in Canada and globally'. There are two main reasons why this will be an important step to perform:

1. To gain a more comprehensive understanding of the types of challenges associated with hydrogen projects and the potential impact they could have on project fundamentals; and
2. To determine 'what worked well' on other projects that enabled them to finish on time, within budget, and most importantly, how successful outcomes were achieved.

## Program management

Bruce County and SFN, along with other partners, will work together to advance Bruce Innovates, including project initiatives and the demonstration of hydrogen production and storage systems. Bruce County will be the Project Lead for Financial Management and work in partnership with SFN to oversee Project Management.

A Memorandum of Understanding (MOU) has been struck between Bruce County and SFN to advance the following pertaining to Bruce Innovates:

Project area	Approach
Project oversight	<p>The Steering Committee will be composed initially of the following members:</p> <ul style="list-style-type: none"><li>• Chief of Saugeen First Nation</li><li>• Warden of Bruce County</li><li>• Industry Experts</li><li>• Chief Administrative Officer, Bruce County</li><li>• Director of Planning and Development, Bruce County</li><li>• Legal Representative</li></ul> <p>The Steering Committee will meet at least once a month, and additional meetings of the Steering Committee may be held as required.</p>
Project development	<p>Agreed that once raised, the Project Funding will be used to advance the Project over the next one to three years, and specifically, within such a timeframe, to advance the following:</p> <ul style="list-style-type: none"><li>• Power-to-Gas pilot demonstration (production and storage)</li><li>• Design and construction of the centre</li></ul>
Project resourcing	<p>Agreed that each Party will provide initial Seed Funding to cover initial Project costs related to the development of:</p> <ul style="list-style-type: none"><li>• Feasibility studies and business case development; and</li><li>• Retaining a Project Manager to directly support the management and advancement of the Project, including identifying investors to help secure the Project Funding.</li></ul> <p>Bruce County shall be responsible for coordinating the Seed Funding.</p>

## Project team

The Project Team will consist of the following key roles:

Role	Professional qualifications and experiences
Economic Development Manager Planning and Development Bruce County	Project Coordinator – key contact for application / implementation and general coordination of project deliverables
Director Planning and Development Bruce County	Project Lead – liaise with Steering Committee, other levels of government and contacts where appropriate to advance the project
Bruce County Chief Administrative Officer (CAO)	Steering Committee Member – Municipal CAO / Public Administration professional
Warden of Bruce County Warden	Steering Committee Member – Municipal Warden / political lead Bruce County
Saugeen First Nation Chief	Steering Committee Member – First Nation Chief / political lead Indigenous Community
Legal Representative	Steering Committee Member / Legal Counsel and Project Management over acquiring commercial investment in overall project vision
Industry Expert	Steering Committee Member Private Sector / Technical Expert Lead

## Join us!

**Bruce County invites partners to join us on our mission to become a global leader in clean energy innovation. There's never been a more exciting time to collaborate with us. Your support will be a catalyst as we advance towards our vision of transforming the Bruce region into the clean energy leader of Canada and a global hub for sustainable energy advancement.**





## Committee Report

**To:** Warden Mitch Twolan  
Members of the Planning and Development Committee

**From:** Kara Van Myall  
Director of Planning and Development

**Date:** October 17, 2019

**Re:** Bruce County Wins EDAC Award for Digital Marketing

---

### Recommendation:

The “Bruce County Wins EDAC Award for Digital Marketing” report is for information.

### Background:

The Economic Developers’ Association of Canada (EDAC) has recognized Explore the Bruce’s Instagram campaign for 2019 with a Marketing Canada Award for “Digital Marketing - Social Media”. The awards acknowledge and praise communities across Canada who have succeeded in their marketing efforts. This year, 128 submissions were received and evaluated by an expert panel of judges seeking:

- Creativity and uniqueness of the approach
- Effectiveness in achieving objectives
- User-friendliness
- Ease of extracting information
- Completeness and consistency of approach

The awards were presented on September 22<sup>nd</sup> at the EDAC Annual Conference in Edmonton, Alberta.

Instagram is a platform to share experiences through imagery. This social channel is different from the other social channels like Facebook or Twitter due to its focus on the image versus the content and the story. The decision by staff to focus on Instagram was done in order to engage more with millennials. Instagram is one of the top ways that this powerful market plans their vacations. 60% of millennials use Instagram for inspiration.

Throughout 2019, a User Generated Content (UGC) campaign was implemented. This means that photos taken by locals, tourists and businesses posted to their Instagram accounts and with their permission, are shared via the Explore the Bruce account. This method works to push a greater variety of experiences, products and expands the audience’s awareness and knowledge of Bruce County. The proof that it works is shown in the number of people that engaged in purchasing decisions for art and food or by tagging friends as a way of motivating

them to come for an experience. This method also allows for varying the image delivery by taking advantage of the amazing Bruce County and Explore the Bruce followers' photography.

In 2018, 40 posts grew the audience by 803 followers. In comparison, in 2019, by using UGC, 137 posts grew the audience by 2,874 or 45% to date.

You can find the award submission here: [EDAC Submission](#).

#### **Financial/Staffing/Legal/IT Considerations:**

There are no financial, staffing, legal or IT considerations associated with this report.

#### **Interdepartmental Consultation:**

None

#### **Link to Strategic Goals and Elements:**

Goal #3 Fine creative new ways to engage our public

Goal #7 Stimulate and Reward Innovation and Economic Development

Written by: Cally Mann, Information Officer, Planning and Development

#### **Approved by:**

A handwritten signature in dark ink, reading "Bettyanne Cobean". The signature is written in a cursive, flowing style.

Bettyanne Cobean  
Acting Chief Administrative Officer



## Committee Report

**To:** Warden Mitch Twolan  
Members of the Planning and Development Committee

**From:** Kara Van Myall  
Director of Planning and Development

**Date:** October 17, 2019

**Re:** BCOPA 242- Rubick Appeal

---

### Staff Recommendation:

The BCOPA 242 - Rubick Appeal report is for information.

### Background:

Adolf and Sharon Rubick made an application to create two farm lots, being 40 and 20 hectares, from a 60-hectare farm. The application required a Bruce County Official Plan Amendment to permit the 20 hectare farm lot.

On August 15, 2019 Planning and Development Committee recommended approval of BCOPA 242 and permit the 20 hectare farm lot.

Ministry of Municipal Affairs and Housing (MMAH) has appealed Council's decision to approve OPA 242. The reasons for this appeal are attached as Appendix A to this report.

### Financial/Staffing/Legal/IT Considerations:

There are no financial, staffing, legal or IT considerations associated with this report.

Written by: Dana Kieffer, M.Sc., Planner, Planning and Development

### Approved by:

Bettyanne Cobean  
Acting Chief Administrative Officer

# Appendix A- Appeal Information

Sep. 27. 2019 5:10PM

MPEB

No. 1111 P. 1

Ministry of  
Municipal Affairs  
and Housing

Municipal Services Division  
777 Bay Street, 16th Floor  
Toronto ON M5G 2E5  
Telephone: 416 585-7296  
Fax: 416 585-7292

Ministère des  
Affaires municipales  
et du Logement

Division des services aux municipalités  
777, rue Bay, 16<sup>e</sup> étage  
Toronto ON M5G 2E5  
Téléphone: 416 585-7296  
Télécopieur: 416 585-7292



# Fax

## TO:

**Name:** Donna Van Wyck, Clerk  
**Fax No.:** 519-881-1619  
**Organization:** County of Bruce

## FROM:

**Name:** Hodan Egeh  
**Fax No.:** 416-585-7292  
**Phone No.:** 416-585-6659  
**Organization:** Ministry of Municipal Affairs and Housing

**Date:** September 27, 2019

**No. of pages (including cover page):** 4

## Message:

Please find enclosed the following with regard to the County of Bruce Council's September 5<sup>th</sup>, 2019 decision to adopt Official Plan Amendment No. 242:

- Notice of Appeal of Council's decision to adopt Official Plan Amendment No. 242;
- One (1) credit memo in the amount of \$300.00, which confirms MMAH's payment of the prescribed appeal fee to the Local Planning Appeal Tribunal (LPAT).

Please call me at 416-585-6659 if you do not receive all 4 pages of this fax.

Thank you,

**Hodan Egeh, MCIP, RPP**  
Senior Planner, Appeals and Information Coordination  
Information and Analysis Unit (One Window Planning Office)  
Municipal Programs and Analytics Branch  
Ministry of Municipal Affairs and Housing

**Ministry of the  
Attorney General**

Legal Services Branch  
Ministry of  
Municipal Affairs and Housing

16th Floor, 777 Bay Street  
Toronto, Ontario M5G 2E5

Tel: (416) 585-6514  
Fax: (416) 585-4003  
Writer's Direct Line: (416) 585-6543

**Ministère du  
Procureur général**

Direction des services juridiques  
Ministère des Affaires  
municipales et du Logement

16<sup>e</sup> étage, 777, rue Bay  
Toronto, Ontario M5G 2E5

Tél: (416) 585-6514  
Télééc: (416) 585-4003  
Ligne directe du rédacteur: (416) 585-6543



September 27, 2019

Ms. Donna Van Wyck  
Clerk  
County of Bruce  
30 Park Street, P.O. Box 848  
Walkerton, ON N0G 2V0

**Sent via Fax: 519-881-1619**

Dear Ms. Van Wyck,

**Re: Notice of Appeal of the Decision of the County of Bruce Council to adopt  
Official Plan Amendment No. 242 to the County of Bruce Official Plan**

---

Pursuant to subsection 17(24) of the *Planning Act*, the Minister of Municipal Affairs and Housing hereby appeals the September 5, 2019 decision of the Council of the County of Bruce (Council) to adopt Official Plan Amendment No. 242 (OPA 242) to the County of Bruce Official Plan.

The decision of Council to adopt OPA 242 would reduce the minimum farm lot size to facilitate the creation of a 20-hectare farm lot from lands described as Concession 10, Lot 2 & North Part Lot 3, geographic Township of Culross, Municipality of South Bruce.

In adopting OPA 242, Council did not have regard to matters of provincial interest, including matters such as the protection of the agricultural resources of the Province as provided in clause 2(b) of the *Planning Act*.

The decision of Council to adopt OPA 242 is not consistent with those provincial policies related to the protection of prime agricultural areas for long-term use for agriculture in the Provincial Policy Statement, 2014 (PPS).

More specifically, the decision of Council to adopt OPA 242:

- (a) is not consistent with policy 2.3.1 of the PPS, which provides that prime agricultural areas shall be protected for long-term use for agriculture, and
- (b) is not consistent with policy 2.3.4.1(a) of the PPS, which provides that lot creation may only be permitted for agricultural uses, provided that the lots are of a size appropriate for the type of agricultural use(s) common in the area and are

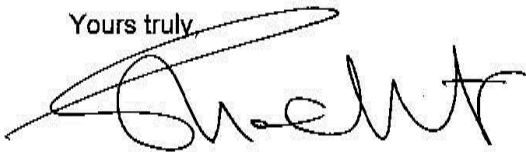
sufficiently large to maintain flexibility for future changes in the type or size of agricultural operations.

While the principal reasons for this appeal are set out above, nothing contained in this notice of appeal shall be deemed to restrict subsequent or more detailed objections.

Attached is a Credit Memo in the amount of \$300.00, which confirms payment from the Ministry of Municipal Affairs and Housing to the Local Planning Appeal Tribunal. This represents the appeal fees as prescribed under the *Local Planning Appeal Tribunal Act* in respect to OPA 242.

Should you have any questions regarding this matter, please contact Erick Boyd, Manager, Community Planning and Development, at 519-873-4025.

Yours truly,

A handwritten signature in black ink, appearing to read 'Shachter', with a large, sweeping initial stroke.

Irvin Shachter  
Senior Counsel

Encl.: *Credit Memo*

- c. Kara Van Myall, Director of Planning and Development, Bruce County  
Erick Boyd, Manager, Community Planning and Development, MMAH, MSO-W  
Hodan Egeh, Senior Planner, Appeals and Information Coordination, MMAH

**Ministry of  
Municipal Affairs  
and Housing**

Municipal Services Division  
777 Bay Street, 16<sup>th</sup> Floor  
Toronto ON M5G 2E5  
Telephone: 416 585-7296  
Fax: 416 585-7292

**Ministère des  
Affaires municipales  
et du Logement**

Division des services aux municipalités  
777, rue Bay, 16<sup>e</sup> étage  
Toronto ON M5G 2E5  
Téléphone: 416 585-7296  
Télécopieur: 416 585-7292



September 27, 2019

**CREDIT MEMO**

**MEMORANDUM TO:**

Mary Ann Hunwicks  
Registrar  
Local Planning Appeal Tribunal

**Re:**

**NOTICE OF APPEAL**  
**Appeal of September 5<sup>th</sup>, 2019 Decision of the County of**  
**Bruce Council to adopt Official Plan Amendment No. 242**  
**to the County of Bruce Official Plan**  
Credit Memo Number: 19-004

---

Please accept this Credit Memo as payment of the fee prescribed under the Local Planning Appeal Tribunal Act in the amount of \$300.00.

This Memo authorizes payment from the responsibility centre for the Municipal Programs and Analytics Branch. By copy of this Credit Memo, the Financial Processing Operations Branch (Ontario Shared Services) is directed to transfer the above noted amount to the responsibility centre of the Local Planning Appeal Tribunal.

If you have any questions, please contact Hodan Egeh (Senior Planner, Appeals and Information Coordination) at 416-585-6659.

A handwritten signature in black ink, appearing to read "Dawn Palin Rokosh".

Dawn Palin Rokosh  
Director  
Municipal Programs and Analytics Branch

cc: General Accounting Unit, Ontario Shared Services  
Michael Lewis, Environment and Land Tribunals Ontario



## Committee Report

**To:** Warden Mitch Twolan  
Members of the Planning and Development Committee

**From:** Kara Van Myall  
Director of Planning and Development

**Date:** October 17, 2019

**Re:** 2019 October Communications in the Field

---

### Staff Recommendation:

The 2019 October Communications in the Field report is for information.

### Background:

The Economic Development and Land Use Planning Communications reports are included below.

### Financial/Staffing/Legal/IT Considerations:

There are no financial, staffing, legal or IT considerations associated with this report.

### Interdepartmental Consultation:

None.

### Link to Strategic Goals and Elements:

None

### Approved by:

Bettyanne Cobean  
Acting Chief Administrative Officer





## ECONOMIC DEVELOPMENT

# Communications in-the-Field Report

October 2019

There are three objectives driving economic development communications in Bruce County: 1) Attract more tourists 2) Attract more new and expanding businesses 3) Attract more young families and other residents over time.

### TOURISTS // VISIT

### ENTREPRENEURS // WORK

### RESIDENTS // LIVE

#### Activities / Results

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li><b>Bruce County Tourism Innovation Lab, "Spark Grant":</b> 17 applications were received and are currently under review.</li> <li><b>Tobermory Trail Race:</b> Staff attended the race and set up a booth, talked to over 40 people about their tourism experience in Bruce County.</li> </ul> | <ul style="list-style-type: none"> <li><b>Regional Economic Development Working Group (RWG):</b> Bruce County Economic Development RWG meeting was held on September 26 in Tobermory. The members got an update from Parks Canada on their new initiatives and learned about visitors to the Peninsula. Trade and Skilled Workforce Secretariat's action plan was also shared with the members by the Talent Development Officer.</li> <li><b>Business to Bruce Fall Training Series:</b> 14 training seminars will be held throughout the County between September 24 and November 21.</li> </ul> | <ul style="list-style-type: none"> <li><b>FarmLink:</b> As an outcome of the Bruce, Grey and Simcoe Agri-Food BR&amp;E, Bruce, Grey and Simcoe are partnering with FarmLink to connect local farm owners in succession with land and experience seekers through a regional profile on the FarmLink: <a href="https://farmlink.net/region/brucegreysimcoe">https://farmlink.net/region/brucegreysimcoe</a>. There are currently over 400 farm seekers on the platform and three local farms listing their properties.</li> </ul> |
|---|--|---|

#### Coming Up

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><b>Bruce County Tourism Innovation Lab, "Spark Grant":</b> Pitch day is November 5.</li> </ul> | <ul style="list-style-type: none"> <li><b>Business to Bruce Mentorship Networking Event:</b> The event will be in Kincardine on October 24. The event is free and open for all to register. This event will bring together Mentors and Mentees to participate in and strengthen the Business to Bruce Mentorship program.</li> <li><b>Bridges to Better Business Event:</b> The event will be at the Bruce Power Visitor Centre on November 6. The theme of this year's event is "Inspiring Innovation".</li> </ul> |
|---|---|