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**GREEN ENERGY AND CLIMATE CHANGE WORKING GROUP  
MINUTES**

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Friday, April 12<sup>th</sup>, 2024

2:00 p.m.

Tay Valley Municipal Office – 217 Harper Road, Perth, Ontario  
Council Chambers

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**ATTENDANCE:**

**Members Present:** Chair, Councillor, Greg Hallam  
Councillor, Angela Pierman  
Bob Argue  
Jennifer Dickson  
David Poch  
Gilbert Rossignol

**Members Absent:** Douglas Barr  
Peter Nelson

**Staff Present:** Noelle Reeve, Planner

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**1. CALL TO ORDER**

The meeting was called to order at 2:02 p.m.  
A quorum was present.

**2. AMENDMENTS/APPROVAL OF AGENDA**

i) Addition under New/Other Business – FCM Large Building Retrofit Program .

The Agenda was approved as amended.

**3. DISCLOSURE OF PECUNIARY INTEREST AND/OR CONFLICT OF INTEREST  
AND GENERAL NATURE THEREOF**

None at this time.

#### 4. APPROVAL OF MINUTES

i) **Minutes – December 8, 2023.**

The minutes of the Green Energy and Climate Change Working Group Meeting held on December 8<sup>th</sup>, 2023, were approved as circulated.

ii) **Minutes – February 16, 2024**

The minutes of the Green Energy and Climate Change Working Group Meeting held on February 16<sup>th</sup>, 2024 were approved as circulated.

#### 5. DELEGATIONS & PRESENTATIONS

None.

#### 6. BUSINESS

i) **Climate Action Plan Update.**

- Update on Municipal Office LED Lighting Upgrades recommendation by Public Works

In his report to Committee of the Whole April 9, 2024, <https://events.tayvalleytwp.ca/meetings/Detail/2024-04-09-1800-Committee-of-the-Whole-Meeting/1e692d3d-ea53-4ac9-ab35-b14801528b9b>, the Public Works Manager stated, “The Municipal Office currently has fluorescent lights throughout the building (131 total fixtures). The Building Condition Assessment noted that approximately 24% of the building’s total energy consumption was from the existing lighting fixtures. The new LED lights will reduce energy consumption and reduce operational and maintenance costs compared to the fluorescent lights.”

- Update on February 2024 Blue Box Report to Council by Public Works

The Public Works Manager presented a report to Committee of the Whole on February 13, 2024 on the implementation options for the Township under *Ontario Regulation 391/21 Blue Box*, under the *Resource Recovery and Circular Economy Act, 2016*.

<https://events.tayvalleytwp.ca/meetings/Detail/2024-02-13-1800-Committee-of-the-Whole/8cc28397-b18d-483f-a413-b1100185c88b>

The new regulation moves Ontario to an “extended producer responsibility (EPR) model where industry will be wholly responsible for the cost and operations of blue box recycling. Transition for Tay Valley Township will occur on January 1, 2025.

Circular Materials Ontario (CMO) is a non-profit Producer Responsibility Organization (PRO) that represents most producers of paper products, packaging, and packaging-like products. Because of CMO's market reach, they are able to create the agreements between PRO's and the municipalities, to implement the new Regulation.

CMO has issued a Master Service Agreement, Statements of Work for Depot Collection, and Promotion and Education for Depot Collection. The agreement is an attractive option which contracts with the municipality for depot collection only and pays third party contractors selected by CMO to haul and process the blue box materials."

The Township can either "opt-in" or "opt-out". The Public Works Manager will be taking a report to Committee of the Whole in May with recommendations on whether to opt in or opt out.

- Composting Education Outreach Suggestions – *attached, page 8.*

G. Rossignol discussed his research on composting options and his willingness to work with the Township on education and raising awareness of composting.

The Working Group discussed that Tay Valley already has a ban on organics in the landfill but that the ban has not been widely explained to residents nor has it been enforced.

However, B. Argue noted that the Township waste audit showed that compostables in the waste stream were lower than expected so some portion of the residents are already composting.

The Working Group was not in favour of creating an expensive brochure, especially since the County is proposing to undertake education to encourage composting. They would prefer to have educational signs at the waste sites and a few tables at the waste sites with people available to answer questions to encourage more people to compost by providing them with information.

- Strategic Plan Update

The Planner noted that the CAO/Clerk provided an update on the Strategic Plan to Committee of the Whole on April 9, 2024 that references recycling, greenhouse gas reduction progress, etc. The report highlights the need to provide more education to Tay Valley residents on how to reduce their greenhouse gases. <https://events.tayvalleytwp.ca/meetings/Detail/2024-04-09-1800-Committee-of-the-Whole-Meeting/1e692d3d-ea53-4ac9-ab35-b14801528b9b>

B. Argue reminded the Planner that he had submitted some “Did You Know” pieces last year to go on the website. The Planner will look into where those pieces went.

G. Rossignol wondered if the Township could post information on its Facebook page from the Suzuki Foundation e.g., taking a pledge to not spray your lawn with pesticides, etc.

- Update on Township Climate Crisis Declaration

The Planner informed the Working Group that the Climate Crisis Declaration Report was adopted at the Council Meeting on February 27, 2024. The report provides direction from Council for Township staff to give high priority to reducing greenhouse gas emissions in all its operational decision-making. The Planner will discuss with the CAO/Clerk about a media release to be issued communicating to Township residents that Council has taken this step.

## ii) **Communications**

- Lanark County Climate Change Committee Update

The Planner advised the Working Group that the County Committee is gaining momentum and has hired a consultant to do a transportation analysis of all of Lanark County’s transportation movements e.g., commuting for work, trips for grocery shopping, etc. in order to develop solutions to reduce greenhouse gas emissions.

The County also has hired an intern who will focus on increasing composting actions by the public and will produce educational materials that Tay Valley can use for its residents.

The Planner noted that the County has approved an additional \$10,000 for municipalities for 2024 to use to implement their Climate Action Plan. It was noted that only four (4) municipalities took advantage of the funds last year so there will be a deadline to apply to use the funds this year. The Senior Management Team will discuss where to recommend to Council to use these funds e.g., an electric vehicle, etc. The funds from last year’s grant will be used to promote composting.

The County will also continue funding their 1 million tree program this year. Township residents will be able to take advantage of this program to plant trees on their properties to absorb greenhouse gases.

The County is also setting up a Share Point database so that municipalities can see what activities and programs are being undertaken in other municipalities and at the County level so as not to re-invent the wheel.

The County held a builder's workshop in the Fall to discuss greener homes grants, energy efficient construction, etc.

The County is buying two level 3 chargers for electric vehicles. One will be installed at the County building and the County is looking for feedback for options on another public location. Suggestions are to be emailed to Elizabeth Gallant.

The Working Group asked what would be the cost to have 3 phase for hydro to be run to the municipal building to install a level 3 charger. It was noted that 3 phase goes to OMYA only.

The County Climate Change Committee received a presentation from Just Good Compost (see Attachment 2) who are providing compost pick up services for residents and restaurants in Carleton Place and Mississippi Mills. The compost is then digested in bio-reactors that work more quickly than usual compost. The bio-reactors rely more on fungus than on bacteria to break the compost down.

Finally, the County is proposing to undertake a Climate Adaption Plan as well as working on implementing their current Climate Mitigation Plan. (See Attachment 3.) If you have comments please submit them to Elizabeth Gallant, Climate Environmental Coordinator, at the County.  
[egallant@lanarkcounty.ca](mailto:egallant@lanarkcounty.ca)

In thinking about adaptation to increased heat, the Working Group wondered about the Burgess Hall possibly being a cooling centre too.

- Climate Network Lanark (CNL) Climate Concierge Update

The Planner advised the Working Group that the Climate Network Lanark Climate Concierge program that was helping people access grants (e.g., the federal Greener Homes, Off-Oil and other grants) has ended. At least 4 Tay Valley Residents participated in the Perth and Area hub.

However, Climate Network Lanark is anticipating that the federal budget will introduce a replacement home retro-fit grant program and that CNL will provide a Climate Concierge program for residents in the Fall of 2024. The program was unique in Canada in hosting neighbourhood clusters to build community connections to pursue other climate related initiatives.

- Climate Network Lanark Education Series and Electrify Lanark Summit -

The Planner told the Working Group that Climate Network Lanark is organizing an Electrify Lanark Summit on May 18<sup>th</sup> at the Perth Legion and the Province is sending someone from the IESO to speak about electrification opportunities. A reservation is required through Tickets Please. (See Attachment 4.)

Leading up to the summit, there will be a 6-session, free, mini-series on topics such as solar panels, heat pumps, hot water tanks, etc. For more information you can contact Climate Network Lanark. (See Attachment 5.)

- Lanark County Wetlands Nature Based Climate Solutions Workshop Update

The Planner advised the Working Group of the Workshop that was held at the County offices on Thursday February 1, 2024.

The Planner commented that County lower tier Planners, Conservation Authority Planners and the County CAO and Warden were all in attendance. The County is updating its Official Plan and have hired Watson Consultants to look into how population should be allocated in Lanark County. The Planner noted that this process may lead to Maberly, Glen Tay and Stanleyville developing into functional Hamlets.

The County has hired another firm to undertake an Aggregate Study. The Planner presented on Natural Heritage Systems and asked the County CAO about the County doing a Natural Heritage Study. The CEO of the Rideau Valley Conservation Authority, Sommer Casgrain, offered to supply their data layers to reduce the cost to the County.

The Planner responded to a question from Councillor Pierman that Tay Valley completed a partial Natural Heritage Study for its Official Plan update but did not have the funds to do a complete study. Tay Valley used the Ministry of Natural Resources data and Dr. Paul Keddy's Green Gem analysis to identify nodes but not corridors.

## **7. NEW/OTHER BUSINESS**

### **i) Resignation of Peter Nelson**

In anticipation of Council accepting Peter Nelson's resignation from the Working Group, the Working Group suggested that Peter be invited to receive a certificate of appreciation at an upcoming Council meeting and that a photograph be taken and put on the Township Facebook page.

### **ii) FCM Large Building Retrofit program**

The Working Group members heard from Bob Argue about his work on a project that he is undertaking for the Mississippi Mills Textile Museum for deep energy retrofits for the building. The project will see the building shift from natural gas to ground source heat pumps reducing the greenhouse footprint by 95%. The retrofit will be 100% funded by the FCM Municipal Green Grants.

The Working Group held a discussion of how this could be implemented for the Tay Valley municipal building to reduce the greenhouse gas emissions of the building.

The Working Group put forward the following recommendation to the Council.

Recommendation:

The Green Energy and Climate Change Working Group moves that, Bob Argue and a small team work with the Public Works Manager to explore a Major Retrofit to the municipal building for solar and heat pump technology to replace natural gas through a FCM 100% funding grant.

Jennifer Dickson asked about the province moving to create legislation to reverse the Ontario Energy Board decision to end the subsidies to Enbridge for new pipelines since these would become stranded assets and a drain on the taxpayer and could Council comment on this in a letter to the Minister responsible.

Council already sent a letter opposing the subsidies last Fall. There may be an opportunity to support other municipalities who have objected as Councillors can pull an item from the Council communication package onto the Council floor. Councillors Hallam and Pierman said they would look for an opportunity to do so.

## 8. NEXT MEETING DATE AND PROPOSED AGENDA ITEMS

Next Meeting: Friday, June 14<sup>th</sup>, 2024 at 2:00 p.m.

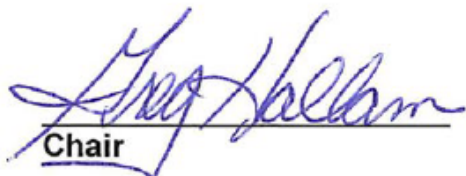
## 9. DEFERRED ITEMS

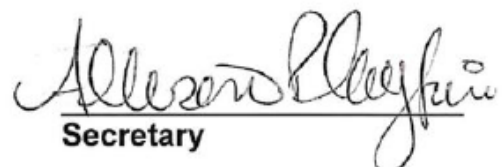
*\*The following items will be discussed at the next and/or future meeting:*

- *None at this time*

## 10. ADJOURNMENT

The Working Group adjourned at 3:25 p.m.

  
Chair

  
Secretary

# COMPOSTING FOR SUCCESS

Presented by Gilbert Rossignol

April 12<sup>th</sup>, 2024

1

## Guideline for the production of compost in Ontario

- <https://www.ontario.ca/page/guideline-production-compost-ontario>
- This guideline outlines planning, design and operational practices for composting facilities. It replaces the Interim Guidelines for the Production and Use of Aerobic Compost in Ontario.
- The Guideline has been prepared to assist proponents of composting facilities, ministry staff and others in the siting, design, and approval of composting facilities. It also provides guidance on the production of compost based on engineering principles, practical experience, and current legislation, to protect public health and the environment.
- In general, this Guideline applies only to composting of non-hazardous organic materials for the purpose of producing a humus-like material intended for use as a soil conditioner. Some composting operations (such as backyard composters and on-farm composting of agricultural wastes) are beyond the scope of the Guideline.

2



## Municipal Compost Systems

- <https://www.o2compost.com/default.aspx>
- Municipal Composting
- Municipal systems include medium scale, decentralized facilities that serve one or more local communities, or large scale regional facilities that draw materials from a much larger area (a radius of 200 miles or more). In the eastern United States, municipal facilities serve an interstate population.
- Where odors have adversely impacted a neighboring community, O2Compost has been called in to revise the method of composting to an Aerated Static Pile (ASP) Technology and, in all cases, odor impacts have been resolved. In virtually all cases, the owner / operator has also realized a significant increase in profits by eliminating the need for turning compost piles.
- <https://www.o2compost.com/municipal-composting-systems.aspx>

3

## Municipal Compost Systems

- <https://www.bromecompost.com/en/>
- Municipal Composting (Canadian)
- COMPOSTING ORGANIC WASTE FOR A MUNICIPALITY:  
LANDRIENNE
- With the Quebec provincial government aiming to implement an organics ban for landfill sites, the municipality of Landrienne was searching for a long-term solution to manage organic waste and generate added value for their region. The site is shared as a collaboration between the municipalities of Saint-Marc-de-Figuery, of La Corne, and of Saint-Félix-de-Dalquier. The total population for these 4 municipalities, located in Abitibi-Témiscamingue, is 3800 people divided among 1600 homes. In Fall of 2021, the municipality of Barraute, a community of around 2000 people was integrated into the collection program.

4

## The Biggest Challenges with Municipal Composting Systems

- <https://compostsystems.com/services/municipal-composting-systems/>
- Odor management.
- Maintaining semi-optimized process conditions for composting over the long-term.
- Water Management

5

## Link of interest and next steps

- The Compost Council of Canada: <https://www.compost.org/>
- Questions
- What's next
- What are the objectives of TVT
- Location
- Facilities
- PPP (private public partnership)
- Any previous studies
- High level briefing

6

## Attachment 2 - Just Good Compost Presentation to Lanark County

# Just Good Compost

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Organic Waste Diversion for Small and Rural  
Municipalities



## Outline of Presentation

- 1) Background
- 2) Currently available options
- 3) Just Good Compost: Overview of our service (part one) and method of composting (part two)

## Municipal Compost Programs: Drawbacks (household)

Bins are large, inconvenient, difficult to handle (especially for those with apartments/ no garage).

Messy/stinky, difficult to clean (especially for seniors and disabled)

Require expensive compostable bags (\$20 a pack)

Only 50% -60% residents regularly use Green Bin service

## Municipal Green Bin Programs: Drawbacks (municipalities).

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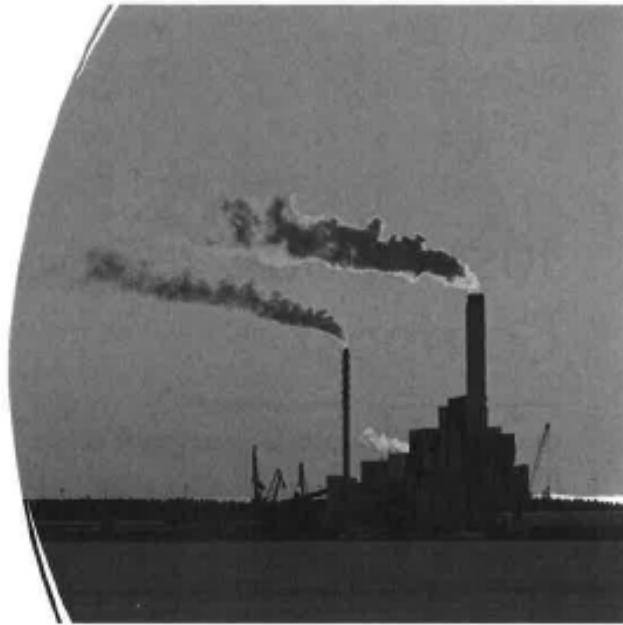
### Economic impact:

- Significant cost to the municipalities:
  - Each bin costs approximately \$120 to manufacture
  - Expensive contracts to pick up and dispose of waste
- Jobs and money leave the community (contracts are given to large companies/corporations).

## Part One: Background

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- Each year, the average Canadian contributes 200 Kg of kitchen scraps to the landfill.
- 2 000 000 tonnes in Ontario alone
- Organics in the landfill produce methane, a green house gas that is 80 times more damaging to the environment than CO<sub>2</sub>
- Canadian landfills create the equivalent of 20.3 million passenger vehicles or 11.9 million heated homes every year.



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### Current Option 1: Municipal Green Bin Programs

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- Household organics are picked-up along with garbage and recycling
- Helps reduce household waste
- Saves space in the landfill



# Municipal Green Bin Programs: Drawbacks (Municipalities)

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## Environmental impact:

- Large plastic bins need to be manufactured, require specialized recycling at the end of their life cycle
- Collection requires large diesel trucks that make regular stops
- Little control over goes into the bin, resulting in low grade compost
- Finished compost is not returned to the community

## Small town problems



Municipal green bin programs are particularly ill-suited for small and rural municipalities, which tend to:

lack facilities to process their own organics and must transport it significant distances (often 100s of km) to larger urban centres and pay for it to be composted.

Cover large geographical areas and have widely dispersed populations. In order to collect organics multiple centres such as towns or villages these municipalities must also pick up from remote residences as well.



These difficulties add significant costs to organic collection programs. The emissions produced from traversing rural roads and transporting waste long distances can also offset the environmental benefits of diverting organics from the landfill.

## Electronic Dehydrators: Drawbacks (continued)

Require electricity

Don't compost organics, they dehydrate them

Rob soil of its moisture and can't be used in gardens (high nitrogen content harms plants)

Dehydrated food takes longer to break down than regular food scraps

Misses out on the biodiversity and carbon capture of the composting process.

Like all electronic devices are difficult to dispose of at the end of their life cycle.

Our Solution  
(Part 1):  
An innovative  
model of  
organic waste  
collection

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## Just Good Compost: How it works

Refurbished buckets (collected from restaurants) are given to households for kitchen scraps and replaced with a clean one each week.

These buckets are picked up and washed by employees from different vulnerable populations (currently working with intellectually disabled adults).

Using light weight vehicles, food scraps are taken to local farms where they are composted using bio-reactors (more on this below).

Customers are welcome to finished compost when it is ready or they can donate it to local charities (youth centers, community gardens).

## Just Good Compost: Face benefits

No mess, no odour, no washing

Animal and pest-proof

No expensive compostable bags

Nothing to break (as with electronic dehydrators)

Buckets can be recycled through household blue bin programs



## Current Option 2: Electric Dehydrators

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- Two leading brands: Lomi and the Foodcycler
- These devices use electricity to dehydrate food scraps to the point where they can be mixed into soil or spread on lawns (but not put in garden as the high nitrogen content will burn the roots).
- Better option than throwing organics into the garbage



### Electric Dehydrators: Drawbacks

Space- same size as a breadmaker, not practical for smaller homes/apartments.

Expensive: FoodCycler retails for \$500, the Lomi for \$600

Customers quickly run out of potting soil and end up placing dehydrated food into the garbage (where it produces Methane).

Has a large carbon footprint (requires 68 Kg CO<sub>2</sub>e to manufacture + shipping, repair and disposal).

## Environmental Benefits



**Low emissions:**  
Light weight vehicles  
Strategically designed routes to  
maximize efficiency  
Waste is transported locally,  
rather than being hauled  
hundreds of Kilometers



**Greater control over  
what goes into the bin  
(emptied by hand)**



**Refurbished buckets (no  
need to manufacture  
bins/ electronic devices)**



**Creates high quality  
compost that is returned  
to the community (for  
members; charities,  
local farmers).**



**Well suited for  
restaurants and  
institutions who often  
struggle with mess,  
smells, and attracting  
vermin such as raccoons  
and rats.**

## Economic Benefits

Low cost to the municipality

Jobs/money stay in the community

Offers meaningful employment to vulnerable populations  
(new immigrants, those with criminal records, disabled)

## Community Benefits

1) Ideal system for schools (no extra work, no smell, no vermin)

2) Ideally suited for different community players (youth centre, co-op students)

3) Educates people about how much organics they throw in the garbage.

## Our Solution (Part 2): Composting

### The Johnson-Su Bioreactor

- Recently developed at the University of New-Mexico
- Uses fungus to break down food scraps (and all related pathogens) rather than bacteria.
- Produces no methane and captures carbon from the atmosphere
- Does not require any turning and produces no leachate (liquid that comes off of the compost)
- Odourless and pest-proof.
- Eliminates the need for large processing facilities
- Require little space and can be placed anywhere. We currently have them running along the fence lines of large hay fields (in the unusable space that farmer's require to turn their tractors and combines).
- Produces Fungal Dominant Compost (FDC), a far superior quality of compost that is widely used in regenerative agriculture.



# Johnson-Su Bioreactors

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Empty



Full

## More information

Just Good Compost (JGC):  
[www.justgoodcompost.com](http://www.justgoodcompost.com)

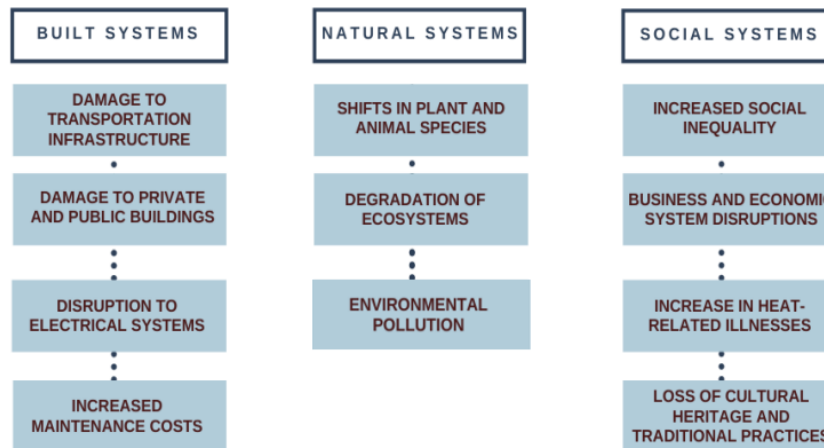
Johnson-Su Bioreactors:  
<https://regenerationinternational.org/wp-content/uploads/2017/09/Johnson-Su-Bioreactor.pdf>

Fungal Dominant Compost:  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9947323/>

## Attachment 3 - Lanark County Proposed Adaptation Plan

### What is an adaptation plan?

- Adaptation plans identify impacts, assess vulnerabilities and risks, and identify actions to adjust to a changing climate
- Example climate impacts:



### BARC Program

- ICLEI's Building Adaptive and Resilient Communities (BARC) is a national program focused on resilience and adaptation
  - Over 120 Canadian municipalities, large and small, have used the BARC framework, tools, and resources to guide their adaptation efforts.
- Lanark County can use plans completed through the BARC program as a framework for a County-wide adaptation plan
  - Examples: Caledon, Dufferin County, Halton Hills, Waterloo, Hamilton
- <https://icleicanada.org/barc-program/>



## Adaptation Plan Goals

- Identify levels of climate related risk in Lanark County
- Outline opportunities to increase climate resilience in:
  - Buildings, infrastructure, and assets
  - Health and safety
  - Environment
  - Agriculture
  - Social
  - Economic
- Create a strategic adaptation plan that prioritizes risks, implements policy changes, and allocates resources.



## What does climate adaptation look like?

### **Education and Information Provision**

- Raising awareness through early warning and response system
- Providing information through climate hazard and vulnerability mapping

### **Capital Investments**

- Allocate funding for adaptive assets and the creation of resilient infrastructure.
- Stormwater management infrastructure, mechanical and passive cooling in buildings, ecological restorations, etc.

### **Policy and Program Development**

- Relevant bylaws, regulations, policies, or programs around land use planning, building standards, maintenance requirements, occupational health and safety systems, etc.

### **Advocacy, Outreach, and Engagement**

- Creating awareness campaigns for community organizations, businesses, residents, vulnerable populations, etc.



## Next Steps - Stakeholder Engagement

- Adaptation will require collective implementation with diverse partners, including:
  - Leeds, Grenville and Lanark District Health Unit
  - First responders and emergency services
  - Conservation Authorities
  - Social service providers
  - Agricultural and food security organizations
  - Climate Network Lanark
  - Local municipalities (e.g., building standards)
- Engage with stakeholders early in the planning process through individual meetings, stakeholder meetings, and presentations.



## HOW WE MAKE AND STORE ELECTRICITY IN LANARK COUNTY

*Electrify*  
**LANARK**

**Where will more  
electricity...**

**...come from to  
decarbonize?**

### **SPEAKERS**

- Ralph Torrie
- Steve Lapp
- Art Hunter
- OREC
- IESO\*

\*invited

**Royal Candian Legion**

Branch 244, Perth

**May 18, 2024**

**9 am - 4 pm**



### **TICKETS:**

\$20.00 with tax  
at [ticketsplease.ca](https://ticketsplease.ca)

**limited seating**

**lunch  
provided!**  
from Gather

This event is possible thanks to the  
generous donation of the  
Perth & District Community  
Foundation and other donors



[WWW.CLIMATENETWORKELANARK.CA](http://WWW.CLIMATENETWORKELANARK.CA)



**Taking local action on the climate crisis**

# Electrify LANARK

## FORUM

**The Legion  
Perth Branch**

**May 18, 2024**

**9:00am - 4:00 pm**

### WORKSHOPS

- **Residential Solar Photovoltaics**  
April 25th at the Perth Library
- **Outdoor Appliances**  
May 25th at the Home Hardware in Perth
- **EVs, E-Bikes, and Chargers**  
June 8th at the Almonte Branch of the Mississippi Mills Public Library
- **Hot Water Heating Systems**  
June 20th at the Smith Falls Arena
- **Heat Pumps**  
September 19th at Beckwith Town Offices
- **Home Resiliency**  
September 26th at Carleton Place Arena
- **Indoor Appliances & Induction Stoves**  
October 5th, location TBD

Reserve your spot on [ticketsplease.ca](https://ticketsplease.ca)

This event is possible thanks to the generous donation of the Perth & District Community Foundation and other donors



CLIMATE NETWORK LANARK

[WWW.CLIMATENETWORKLANARK.CA](http://WWW.CLIMATENETWORKLANARK.CA)