



County of Huron

Corporate Climate Change Adaptation Plan

2021-2023 | Progress Update

www.HuronCounty.ca/climate-change-energy



Table of Contents

Huron County Land Acknowledgement • 1

Executive Summary • 2

Introduction • 3

Highlights | 2020 & 2021 • 5

Highlights | 2022 • 6

Highlights | 2023 • 7

Progress Overview of CCCAP Priority Areas • 8

Infrastructure & Assets • 10

Health & • 12

Safety • 12

Innovation & Growth • 14

Engagement & Partnership • 15

Resiliency & Continuity • 17

Conclusion & Next Steps • 18

References • 19

Appendix: Progress on Individual Actions • 20



Huron County Land Acknowledgement

We acknowledge that the land we stand upon today is the traditional territories of the Anishinaabe, Haudenosaunee, and Neutral peoples and is connected to the Dish with One Spoon wampum, under which multiple nations agreed to care for the land and its resources by the Great Lakes in peace.

We also acknowledge the Upper Canada Treaties signed in regards to this land, which include Treaty #29 and Treaty #45 ½.

We recognize First Peoples' continued stewardship of the land and water as well as the historical and ongoing injustices they face in Canada. We accept responsibility as a public institution and as treaty people to renew relationships with First Nation, Métis, and Inuit people through reconciliation, community service, and respect.



Executive Summary

In 2020, the County of Huron committed to tackling climate change by implementing programs, policies and strategies to reduce our greenhouse gas emissions and respond to and adapt to the impacts of climate change through the Corporate Climate Change Adaptation Plan (CCCAP). The CCCAP includes 63 corporate actions that span Infrastructure; Health & Safety; Innovation & Growth; Engagement & Partnerships; and Resiliency & Continuity. Over the past three years, staff, senior management, and county council have successfully achieved and initiated 45 climate actions to create a more resilient corporation and community.



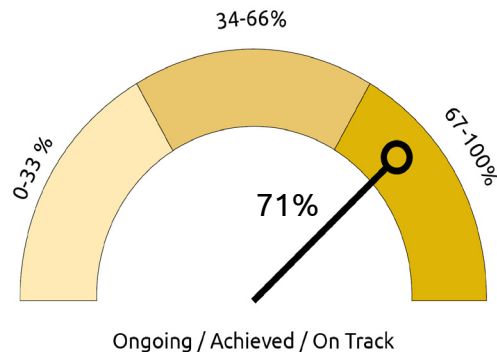
13 Actions have been achieved



24 Actions are ongoing



5 Actions are ahead of schedule



The County of Huron continues to be a leader in climate change initiatives with staff presenting innovative projects and policies at conferences such as Rural Talks to Rural (2022), Lake Huron Coastal Centre Conference (2023), and the EV Expo (2023) as well as presentations to municipal councils and professionals through Perth Municipal Day (2023), Pollinator Habitat Community of Practice of Southwestern Ontario (2023) and the PIEVC Program Advisory Committee (2023) and a recent request from AMO to feature the Climate Risk Assessment on County infrastructure currently underway. The County is also a funder and partner in the Southern Ontario Regional EV Charging Network which will be the first network of its kind in Ontario.

Introduction

The County of Huron is committed to being a leader by taking action to reduce, respond to, and recover from the impacts of climate change on the corporation and local communities. The purpose of the Corporate Climate Change Adaptation Plan (CCCAP) is to implement strategies to improve the resiliency of the County's services, operations, and assets to the impacts of climate change. This plan consists of both mitigation (reducing greenhouse gas emissions) and adaptation (preparing for future climate impacts) actions that will improve the resiliency of the corporation. It contains 14 goals with 63 actions that focus efforts in 5 priority areas:



In 2023, County Council released their strategic priorities and values for the County of Huron which will be addressed through the coordinated action of Council and staff over the course of the current Council's term (May 2023 - November 2026). The County's continued efforts to become more resilient through mitigation and adaptation actions align with Council's priorities, including their focus on alternative energy solutions, economic readiness, youth engagement, agriculture and creating welcoming and inclusive communities. Council values are also critical when considering climate actions as they will ensure that projects are designed and implemented through civic leadership using an environmental stewardship, rural and inclusive lens that promote community engagement and collaboration.

Guided by Council's strategic priorities and values, staff within all departments across the Corporation are involved in the implementation of climate actions that relate to their area of expertise and responsibility. A staff committee known as the Conservation and Climate Change Committee includes representatives from each department to share climate actions and sustainable projects including challenges and successes. In addition, the County has a Climate Change Committee involving members of the Senior Management Team and the Climate Change and Energy Specialist that strategically and financially guide the implementation of the CCCAP actions.

As part of our climate actions, the County of Huron understands the importance of tracking and reporting on the implementation progress we have accomplished to date to share our successes and reflect on necessary future actions. This CCCAP Progress Report provides a summary of the County's past and current work to reach the goals and actions within each Priority Area of the CCCAP and outlines climate actions for 2024.

Council's Values | 2023-2026

Collaborative Approach

Environmental Stewardship

Rural Lens

Civic Leadership

Community Engagement

Inclusivity



Highlights | 2020 & 2021

Projects



Developed a Single-Use Item Reduction Strategy.



Initiated 35 Corporate Sustainability Blog posts on CountyNet.



Developed a Climate Lens Tool to integrate the considerations of climate change in decision making.



Established a Climate Change & Energy Section on the County's website.



Developed a High Performance Building Standard to improve the efficiency and resiliency of County facilities.



Expanded the mandate of the staff County's Conservation Committee to include climate change.



Began implementing an energy monitoring system for the County.



Developed a Green Fleet Strategy for the corporation.



5 media releases and 19 media mentions.



308 people engaged in Sustainable Huron and Water protection Steering committee meetings.



Partnered with Wellington County to explore a feasibility study for a Regional Electric Vehicle Charging Network.



523 projects were approved through the Huron Clean Water Project.

Funding



Received \$35,150 from Federation of Canadian Municipalities for the Regional EV Charging network strategy feasibility study.



Received \$124,000 from the Municipalities for Climate Innovation Program to hire a Climate Change & Energy Specialist.

Highlights | 2022

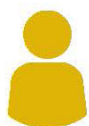
Projects



Held a zero-waste staff appreciation event.



Initiated 7 Corporate Sustainability Blog posts on CountyNet.



Creation of a permanent Climate Change & Energy Specialist position to advance CCCAP actions.



Created onboarding materials for employees to showcase our corporate commitment to climate change mitigation and adaptation.



Presented the County's corporate climate change actions at the Rural Talks to Rural Conference in Brussels.



Replaced 11 furnaces at County Housing family units with high efficiency models.



Upgraded all County-owned pole lights with LED fixtures.



Installation of 22 Level 2 electric vehicle charging ports across Huron County.



21 media releases and media mentions.



127 people engaged in Sustainable Huron and Water protection Steering committee meetings.



Completion of a feasibility study for implementing a Regional Electric Vehicle Charging Network (Level 3 chargers).



226 projects were approved through the Huron Clean Water Project.



Joined the PIEVC Program Advisory Committee to provide advice and guidance on developing their climate risk assessment protocol for municipal use.

Funding



Received \$165,000 in funding for the implementation of EV chargers in Huron County.

Highlights | 2023

Projects



Avoided 979kg of community greenhouse gas emissions from the 12 Level 2 EV chargers.



Shared 17 Corporate Sustainability Blog posts on CountyNet.



Presented the County's corporate climate change actions at the Lake Huron Coastal Centre Annual Conference and the EV Expo.



Initiation of a Climate Risk Assessment of County Bridges and Culverts.



Construction of new high-performance buildings.



Creation of 2 acres of wildflower habitat along two County forests as part of the Rural Roadside Pilot Project.



Conducted pilot energy audits on all facility and social housing buildings to understand how we can reduce our energy usage.



Replaced 5 boilers at the Courthouse with 3 more energy efficient models.



Creation of the draft Huron County Cycling Master Plan.



170 people engaged in Sustainable Huron and Water protection Steering committee meetings.



Continued to advance the implementation of the Regional Electric Vehicle Charging Network alongside partner Counties.



Creation of levels of service for the County forests to be included in the County Asset Management Plan in 2024.

Funding



Received \$22,000 in funding and contributions towards climate change projects from Canadian Wildlife Federation and in-kind contribution from WSP Consultants.



Waiting to hear back on funding applications submitted to Natural Infrastructure Fund – Infrastructure Canada for \$155,800 and Ontario Community Environment Fund for \$15,500.



Progress Overview of CCCAP Priority Areas

The CCCAP identifies 63 corporate actions to be completed between 2020 and 2025. County staff have evaluated the progress towards each action based on the descriptions outlined in Table 1 and the pre-determined timelines that were outlined in the CCCAP (Table 2).

Table 1

Ongoing	This action has no completion timeline and requires continuous work on an annual basis
Achieved	This action has been implemented
Ahead of Schedule	This action is underway and anticipated to be completed before the designated time frame
On Track	Work is progressing and the action is anticipated to be met in the designated timeframe
Behind Schedule	Work has either not started, or it progressed but the pace of effort will need to increase before it can be considered on track to be completed in the designated timeframe
Future Action	The action has not yet started and is slated for development in the future

Table 2

Now (2020-2021)	Actions that will be initiated/implemented immediately
Next (2022-2023)	Actions that will be initiated/implemented in the near future
Later (2024-2025)	Actions that will be initiated/implemented at a later date
Ongoing	Actions that have already been initiated and will continue through the CCCAP

Out of the 63 actions, 13 have been achieved with an additional 24 actions that are ongoing. All ongoing climate actions have no completion timeline as these actions require continuous work and dedication from staff to reach our climate objectives. Based on the original timeline, 5 actions are ahead of schedule and 3 additional actions are on track to be completed. Specific details on each action are included in the Appendix but the overall progress on climate actions and each priority area are outlined in Figure 1 and 2.

Fig 1. Progress on all CCCAP Actions

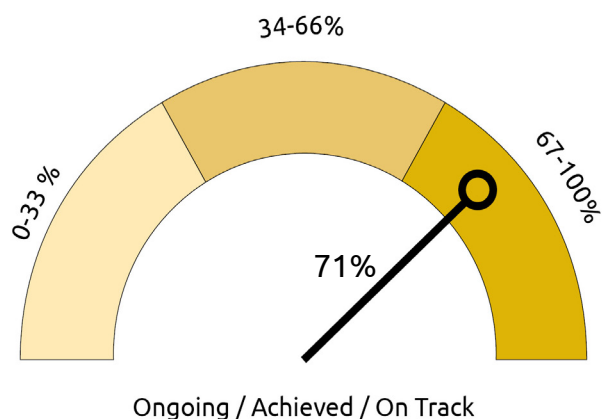
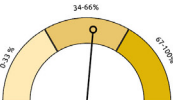
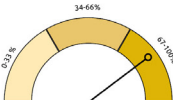


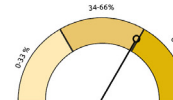


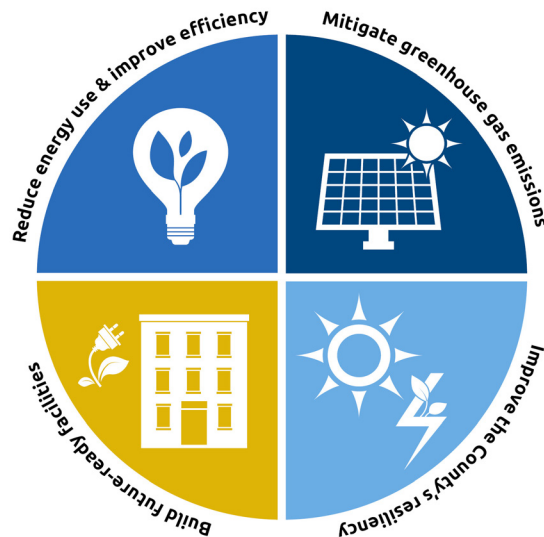
Fig. 2 Progress on all CCCAP Actions For Each Priority Area

Infrastructure & Assets	Health & Safety	Engagement & Partnerships	Resiliency & Continuity	Innovation & Growth
				
52% of actions ongoing/achieved	73% of actions ongoing/achieved	50% of actions ongoing/achieved	58% of actions ongoing/achieved	67% of actions ongoing/achieved



Infrastructure & Assets

In 2021, County Council approved the County of Huron's High Performance Building Standard (HPBS) which outlines a set of design criteria to prioritize efficiency, resiliency, and sustainability in corporate facilities and social housing.



Since the implementation of the HPBS, several County facilities have received energy efficient upgrades including LED lights; installing more efficient furnace and boiler models; and exterior insulation improvements. Most recently, a new County Housing build of 2 triplexes on Bennett Street in Goderich has been designed with the guidance of the HPBS to include the following energy efficiency benefits:



- All windows and doors are triple pane glass to reduce heat loss and gain .
- Fiberglass was specified for the doors and windows instead of vinyl. Fiberglass is stronger, moisture resistant and can better withstand extreme weather conditions. Fiberglass is also recyclable at the end of its life unlike vinyl.
- 2x6 stud construction was used to allow for additional exterior wall cavity insulation. The attic insulation provided is also twice the minimum set by the Ontario building code to ensure that heat remains inside the building in the winter, and that heat does not transfer into the building in the summer.
- All heating and cooling within the building will be done by heat pumps using electricity.
- A metal roof was used as it better reflects the sun's UV rays and will last a minimum of 40 years which is double the life expectancy of traditional asphalt shingles. Metal roofs are also 100% recyclable at the end of their life.

By the end of 2023, the County of Huron will have completed energy audits for all County facilities and social housing properties that outline the potential energy and cost savings future retrofits will create for the corporation.



Health & Safety

While natural hazards have not traditionally been a large threat to Huron County, climate change is projected to lead to more severe weather events such as ice and snowstorms and flooding.

Be Prepared for Extreme Weather:

TORNADO

Tornadoes are violently rotating columns of air that can destroy buildings and cause significant injury or death.

Action: Take shelter immediately in a sturdy structure.



EXTREME HEAT

Extreme heat can cause heat-related illnesses, including heat stroke.

Action: Move to a cool place and drink liquids.



HEAVY RAIN

Heavy rain can cause flash flooding.

Action: Avoid rising creeks and water covered roads.



STRONG WIND

Strong wind can knock over trees and damage buildings.

Action: Move indoors away from windows.



LIGHTENING

Lightening strikes can cause significant injury or death.

Action: Move indoors if you hear thunder.



LARGE HAIL

Hail can damage vehicles, crops, buildings, and cause injuries.

Action: Move indoors away from windows.



By 2050, Huron County will be experiencing:

Extreme Weather



Extreme Temperatures



Higher Precipitation & Flooding



Which can result in a variety of emergencies for Huron residents, including:

Power Outages

Ice storms, tornadoes, and many other extreme weather events can cause mass power outages across the region. Large-scale power outages can take several days for emergency workers to restore.

Damage to Property

Damage to property and local infrastructure is highly possible when extreme weather or flooding occurs, causing costly repairs, debris, and dangerous situations.



Loss of Agricultural Production

High precipitation and flooding can significantly impact agricultural land and farm property for a number of days.



Impacts to Human Health

Extreme temperatures can mean temperature and humidex levels are very high for several days or more. This can cause heat-related illnesses, and even medical emergencies such as heat stroke.

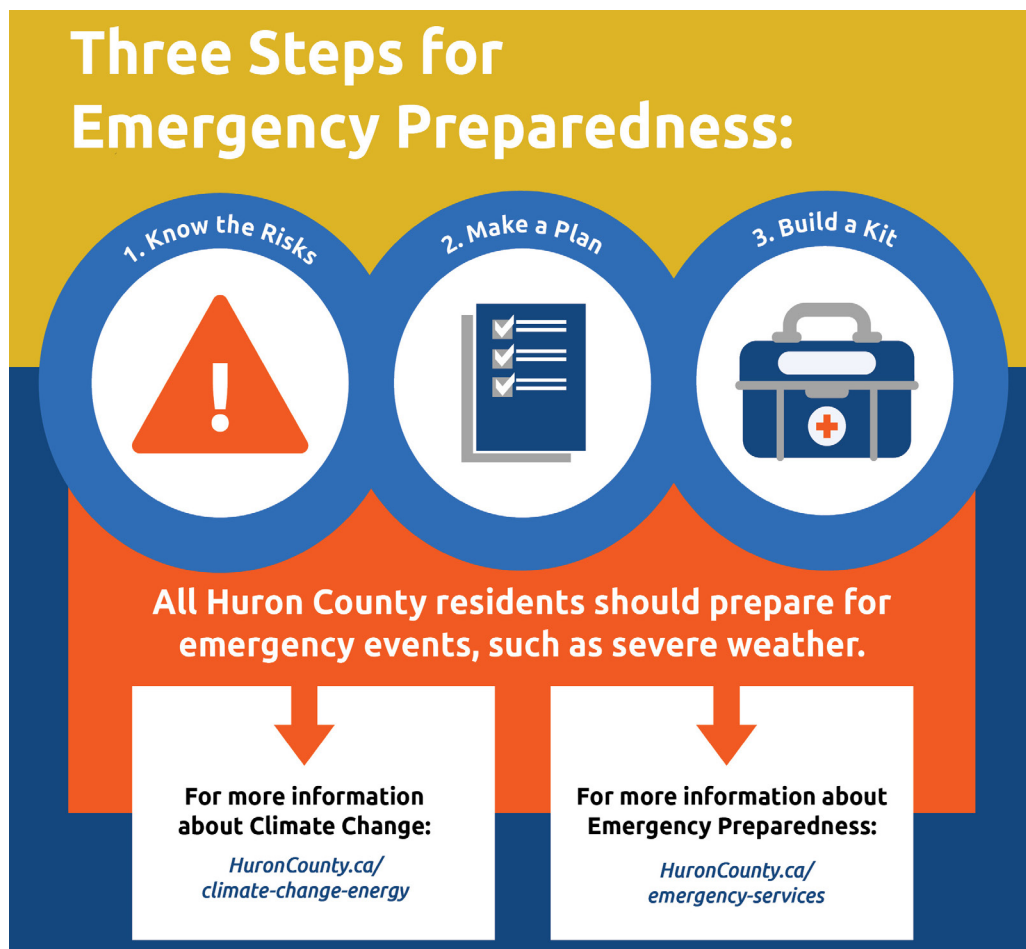


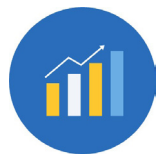
To be proactive in emergency planning and preparedness for severe weather in the County, the emergency control group which is composed of management from the County and local municipalities, participates in annual training for various types of emergencies. As the COVID-19 pandemic was an active emergency for communities, no emergency training exercises were conducted between 2020-2021. In 2023, the emergency control groups for each local municipality and the County will partake in a training exercise for a tornado response.

In addition to staff training, the Community Emergency Management Coordinator for the County has been promoting emergency preparedness and planning within the community using several tool kits the County of Huron has created:

- Customizable household emergency plans
- 72-hour emergency kit supply list
- Specific emergency plans for those cottaging, camping or using an RV

During significant weather events, the County shares those events with the public through the website to keep the public informed about the current situation and any potential risks or precautions they should take. A recent example of emergency response related to climate change was the collaboration between the community emergency managers in Huron and Perth County as well as Huron-Perth Public Health to source masks for the air quality concerns related to forest fire smoke in the summer of 2023.





Innovation & Growth

As part of a partnership between the Town of Goderich, Municipality of Huron East, and the County of Huron, 22 Level 2 electric vehicle charging stations were installed across the County in 2022. This important project helps to ensure the region is ready for a low-carbon future by making charging stations more accessible to local business, residents, and visitors. Installing more EV chargers helps encourage use of electric vehicles. This leads to a reduction in greenhouse gas emissions and improves air quality.



The addition of these 22 chargers has ensured that there are approximately 40 EV charging stations in Huron County available to electric vehicle drivers. As the Canadian government has set sales targets for electric vehicles requiring all new vehicles sold to be zero emission by 2030, the County's investment in energy efficiency infrastructure ensures the community is ready for a low-carbon future.

Since January 2023, all 12 EV charging stations owned by the County have been operational and led to the following environmental benefits:



979kg of greenhouse gas emissions avoided in 125 sessions since December 2022



Equivalent environmental impact to planting 25 trees and letting them grow for 10 years

The County has also partnered with 5 other Counties, including Bruce, Grey, Perth, Dufferin and Wellington, to create a Regional EV Charging Network in Southwestern Ontario to promote travel using electric vehicles. This project will continue to develop with the EV charging network looking to be installed in 2025 based on available funding.





Engagement & Partnership

Since the adoption of the CCCAP, the County has worked to diversify our communication strategies for staff and the community to ensure that everyone is aware and up to date on the County's climate actions. Below are a few ways that staff and the community continue to be made aware of climate actions:

- Climate Change is listed as a key County Service on the Huron County website;
- Dedicated Climate Change Action page on Huron County Connects including surveys to gather feedback;
- Proactive interviews with the local media to share climate change successes and projects;
- Infographics and posters designed for specific county projects or public events to promote climate actions;
- Presentations at local conferences on the County's climate actions including the Rural Talks to Rural (2022) and Lake Huron Coastal Centre Conference (2023);
- Media releases and social media posts demonstrating current climate actions;
- Information sharing within the staff Conservation and Climate Change Committee on sustainable successes across departments; and,
- Developing relationships with facilities and caterers to avoid single use items and plastics at County meetings and events.

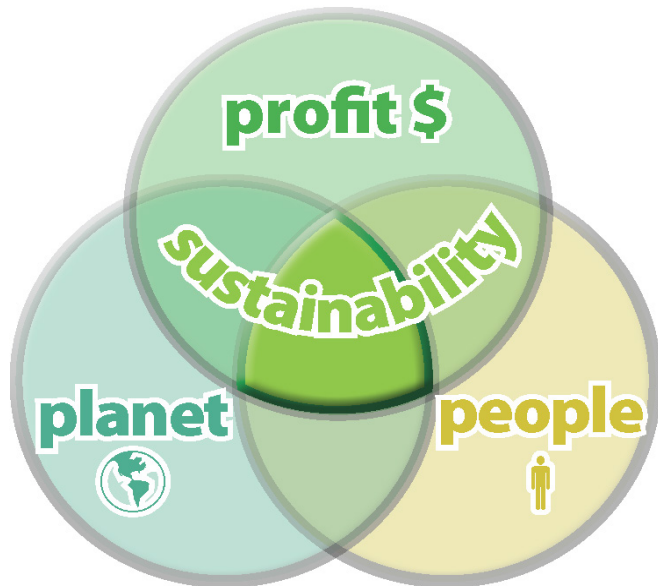


In addition to communication strategies, the County continues to leverage our environmentally focused steering committees to share important information and stories surrounding sustainability and water protection with the County. Over the past four years, several topics have been discussed with Sustainable Huron and the Water Protection Steering Committee, including:

- Natural heritage, environmental stewardship, forest health, aggregate rehabilitation, and shoreline erosion
- Agriculture and soil protection, cover crops and food production
- Local social initiatives, affordable housing projects and innovative housing models



Sustainable
Huron
TAKE
ACTION





Resiliency & Continuity

The County of Huron implemented a Work from Home Policy in 2020 to ensure continuation of operations and safety of staff during the COVID-19 pandemic. This policy has remained in place to provide employees with a flexible work option to establish a better personal work life balance while maintaining a high level of service. In addition, there are several other benefits of this policy that intersect with climate change including:

- Uninterrupted and continued service during inclement weather or other emergencies; and,
- Improved air quality resulting from lower vehicle emissions.

When this policy was created, it went through the County's Climate Lens Tool to determine if there were mitigation or adaptation benefits or costs from its usage. It was found that there were environmental benefits associated with this policy related to reduced greenhouse gas emissions from reduced staff commuting.

Based on a staff survey conducted in September 2023, 189 staff responded and 81 acknowledged that they work from home within a normal week. It was found that approximately 686,000 kilometers of yearly commuting has been reduced by those 81 staff who are able to work from home which translates to a reduction of approximately 141,000 kg of carbon dioxide emission reduction per year. This calculation is based off the following information:

- Canadian cars emit an average 207 grams of CO₂ per kilometer (NRCan, 2023)
- Assumption that County employees travel to work on average 47 weeks per year
- Accurate one-way commute of each survey responder



Conclusion & Next Steps

Over the past three and a half years, the County of Huron has achieved and initiated 71% of actions within our Corporate Climate Change Adaptation Plan. The County will continue to implement strategies to improve the resiliency of the County's services, operations, and assets to the impacts of climate change.

In 2024, the following climate actions have been planned:

- Staff Climate Change Engagement Strategy to facilitate learning, conversations and actions
- Explore the creation of corporate and community greenhouse gas emission inventories and reduction targets
- Update the Conservation and Demand Management Plan (2024-2028) and report on our facilities annual energy use
- Implement a tracking system to ensure staff are reviewing County policies (i.e., Continuity of Operations Plans (COOP) and Emergency Response Plans)
- Develop a joint invasive species management and biodiverse tree planting strategy
- Continue the implementation of the Regional EV Charging Network Strategy, including Level 3 EV chargers
- Construction of energy efficient affordable housing buildings
- Explore the creation of a Community Climate Action Plan
- Investigating the need for erosion protection plans for County infrastructure



References

Natural Resources Canada (NRCan). (2023). 2023 Fuel Consumption Guide. Government of Canada. Retrieved from <https://natural-resources.canada.ca/sites/nrcan/files/oeef/pdf/transportation/fuel-efficient-technologies/2023%20Fuel%20Consumption%20Guide.pdf>

Appendix: Progress on Individual Actions

Priority Area 1: Infrastructure & Assets

- **Goal #1:** Determine the impacts of climate change on the County's built infrastructure.
- **Goal #2:** Invest in modifications to improve the resiliency of County infrastructure and buildings to the impacts of climate change.
- **Goal #3:** Continue to identify and mitigate risks associated with stormwater management and flooding.
- **Goal #4:** Improve the capacity of the County's natural environment to adapt to future changes.

Priority Area 2: Health & Safety

- **Goal #5:** Continue to support community-level resiliency and preparedness
- **Goal #6:** Minimize climate-related risks for County employees, especially those working outdoors.
- **Goal #7:** Ensure that proactive procedures are in place to respond and recover from climate-related emergencies.

Priority Area 3: Engagement & Partnerships

- **Goal #8:** Develop and implement communication strategies to promote leadership and preparedness.
- **Goal #9:** Enhance community partnerships to strengthen the County's capacity to respond to climate events.
- **Goal #10:** Continue to encourage climate awareness at the corporate level.

Priority Area 4: Resiliency & Continuity

- **Goal #11:** Integrate climate change considerations into County policies and procedures
- **Goal #12:** Minimize disruptions to County operations and services to ensure resiliency and continuity.

Priority Area 5: Innovation & Growth

- **Goal #13:** Invest in innovative solutions that promote resiliency and carbon reduction.
- **Goal #14:** Continue to identify and take advantage of climate-related opportunities.

Appendix: Progress on Individual Actions

Priority Area 1: Infrastructure & Assets

Goal #1: Determine the impacts of climate change on the County's built infrastructure.

Actions		Timeline	Cost	Goal	Status Update	Comments
1.1	Complete an assessment to determine the impacts of climate change on County infrastructure	Next	High	Adaptation	On track	In 2023, a climate risk assessment of County bridges and large culverts was initiated to inform the continued maintenance and replacement of these assets under the projected climate.
1.2	Conduct energy audits on County facilities to assess future needs and plan for projected increases in energy demands	Next	Medium	Adaptation	Achieved	Energy audits for all County facilities, and social housing buildings were completed in 2023 and the results will be used to guide the energy efficiency upgrades outlined in the Conservation & Demand Management Plan in 2024.
1.3	Ensure that climate change is considered in the maintenance and inspection of County infrastructure and facilities	Now	N/A	Adaptation	Ongoing	Staff consider the potential impacts from climate change when inspecting and maintaining County infrastructure and facilities. With more localized storms, staff continue to check for erosion concerns around county culverts, roads and bridges during regular patrols.
1.4	Develop evaluation metrics to assess infrastructure projects with a climate lens, including new construction and upgrades/retrofits to existing assets	Now	N/A	Adaptation	Achieved	The creation of the High Performance Building Standard has been used to assess infrastructure projects and the climate lens tool is used to understand the connection between climate impacts and each infrastructure project.

Goal #2: Invest in modifications to improve the resiliency of County infrastructure and buildings to the impacts of climate change.

Actions		Timeline	Cost	Goal	Status Update	Comments
2.1	Prioritize retrofits for County facilities, including upgrading interior and exterior features to account for energy demands (ie. HVAC systems) and anticipated weather damage (ie. flood proofing)	Later	High	Adaptation	Ahead of Schedule	Guided by the HPBS, retrofits have occurred within several County-owned buildings including LED lighting; furnace, and boiler replacements, increase in insulation and, the use of heat pumps in new constructions.
2.2	Identify best practices (ie. cost-benefit analyses) to prioritize infrastructure upgrades that account for future climate impacts and improve resiliency	Later	High	Adaptation	Future Action	The inclusion of a climate lens within the Asset Management Plan and the climate risk assessment of County bridges and large culverts is the first step to ensuring that future climate impacts are considered in how we prioritize upgrades and replacement of infrastructure.
2.3	Complete and implement the Enriching the Rural Roadside strategy to enhance the aesthetics of rural towns/hamlets, increase traffic calming, and expand green infrastructure for climate adaptation and mitigation	Later	High	Adaptation & Mitigation	Ahead of schedule	In 2023, staff implemented the Rural Roadside Strategy Pilot Project with the creation of pollinator habitat within the right-of-way in front of two County forest properties. The work was paired with the management of invasive species within that area. The pilot project will inform best-practices for future expansion.
2.4	Continue to use localized weather data to inform the maintenance of County roads and plan for long-term resiliency	Ongoing	Low	Adaptation	Ongoing	The County currently uses three local weather pucks to measure ground temperature and obtain short and long-range weather data to inform the maintenance of our road's.
2.5	Continue to identify low-carbon resilient opportunities for County infrastructure, including trialing a recycled asphalt method to rehabilitate County roads	Ongoing	High	Adaptation & Mitigation	Behind schedule	All County roads continue to be rehabilitated using Cold in Place asphalt recycling which reuses existing asphalt and reduces the total energy needed to maintain our roads.

Goal #3: Continue to identify and mitigate risks associated with stormwater management and flooding.

Actions		Timeline	Cost	Goal	Status Update	Comments
3.1	Increase the use of green infrastructure to improve the management of stormwater on County-owned property	Next	High	Adaptation	Ongoing	County staff are naturalizing existing lawn area to enhance stormwater management including tree, shrub and wildflower plantings within various County-owned properties. The County has already created two stormwater management ponds at public works patrol yards to manage on-site water quantity and quality.
3.2	Ensure that climate projection data (ie. precipitation variables and Intensity-Duration-Frequency curves) is used to inform upgrades to the County's drainage infrastructure	Ongoing	N/A	Adaptation	Ongoing	All upgrades to County infrastructure follow the Intensity-Duration-Frequency curves outlined by the Ministry of Environment, Conservation and Parks.
3.3	Incorporate all road crossings, including existing municipal drains, into the Asset Management Plan (AMP) to plan for anticipated upgrades	Ongoing	High	Adaptation	Ongoing	All County-owned road crossings (bridges, culverts) are included in the AMP and any County-owned municipal drains are continually added to the AMP when discovered or upgraded to ensure we monitor for any necessary upgrades.
3.4	Identify and establish an erosion protection plan around County culverts, bridges, road shoulders, and ditches to improve resilience from rain/melt events	Later	High	Adaptation	Future action	Staff currently use regular patrols and observations to monitor erosion hazards. In 2024, staff are planning to use the Ontario Structure Inspections to help inform and formalize erosion protection plans for at-risk infrastructure.
3.5	Continue to use floodplain mapping, stormwater requirements, and development setbacks to mitigate flood and erosion risks on private property	Ongoing	N/A	Adaptation	Ongoing	The County relies on floodplain mapping and development setback outlined by the local conservation authorities to ensure flood and erosion risks are mitigated.
3.6	Explore the development of a corporate stormwater management strategy	Later	Low	Adaptation	Future action	Staff are planning to explore this action in 2025.

Goal #4: Improve the capacity of the County's natural environment to adapt to future changes.

Actions		Timeline	Cost	Goal	Status Update	Comments
4.1	Allocate resources to the development of an invasive species management plan and biodiverse tree planting strategy for County-owned property	Now	Low	Adaptation	Behind schedule	In 2024, staff are planning to develop a shared strategy to manage invasive species and plant diverse tree species for County-owned properties, particularly the 14 County forests.
4.2	Continue to support the naturalization of private land through the Huron County Clean Water Project	Ongoing	High	Adaptation	Ongoing	Between 2020 – 2022, 749 projects have been implemented through this project to further protect water in Huron County. In 2022, County Council increased funding to \$500,000 for the Huron Clean Water Project.
4.3	Continue to improve the management of rural roadsides by incorporating Integrated Pest Management practices	Ongoing	N/A	Adaptation	Ongoing	The County continues to monitor and manage ecosystems along the roadsides to prevent organisms from becoming pests. The County uses Integrated Vegetation Management practices to control invasive and noxious weeds along the roadsides.
4.4	Continue to manage the County Forests using good forestry practices to maximize forest health and carbon sequestration	Ongoing	N/A	Adaptation	Ongoing	The County forester continues to follow best-practices for forest management, including future opportunities to diversify our forests and assist in species migration due to the changing climate.
4.5	Develop a strategy to determine the value of the County's natural assets	Next	Low	Adaptation	On track	Staff have begun to explore approaches to value the County forests. This action is expected to be completed in 2025.
4.6	Explore the feasibility of incorporating County- owned green infrastructure into the Asset Management Plan (AMP)	Later	Low	Adaptation	Ahead of schedule	Staff have begun to research and include the County forests in the AMP. By July 2024, the County forests, including levels of service and financial implications will be included in the AMP.

Priority Area 2: Health & Safety

Goal #5: Continue to support community-level resiliency and preparedness.

Actions		Timeline	Cost	Goal	Status Update	Comments
5.1	Complete an assessment to identify the County's vulnerable populations, including the risks and barriers individuals may face as a result of climate change	Next	Low	Adaptation	Behind schedule	A comprehensive risk and vulnerability assessment has not been completed for Huron County although County staff are able to identify vulnerable populations and consider the additional risks as a result of climate change. The County does maintain a living document of the homeless population in the County based on each individual's consent.
5.2	Define the County's boundaries of responsibility to provide support to vulnerable populations, and use this as guidance when planning climate-related programs and services	Now	N/A	Adaptation	Achieved	The County's boundaries of responsibility to provide support for vulnerable populations has been defined and is used to guide climate-related programs and services. The County is responsible to support vulnerable populations during climate events in collaboration with the local municipalities.
5.3	Continue to support community warming programs, including Huron Out of the Cold	Ongoing	High	Adaptation	Ongoing	The County continues to fund and staff the Huron Out of the Cold while modifying the program to meet the community's needs. The County continues to apply for funding to increase the warming programs available during the winter and shoulder seasons.
5.4	Explore the feasibility of initiating a community cooling program in partnership with local municipalities to support vulnerable populations during extreme heat events	Later	High	Adaptation	Future action	The local municipalities in Huron County currently manage when facilities are available as cooling locations to vulnerable populations. In the future, the County is looking to partner with local municipalities to communicate these locations to residents and promote the cooling program.

5.5	Initiate an education and awareness campaign to encourage personal preparedness, including the development of a 72-hour emergency response plan	Later	Low	Adaptation	Ahead of schedule	Staff have made the Emergency Management page on the County website more user-friendly, including a 72-hour emergency kit list and the ability for individual households to create a personalized Home Emergency Plan .
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Goal #6: Minimize climate-related risks for County employees, especially those working outdoors.

Actions		Timeline	Cost	Goal	Status Update	Comments
6.1	Update health and safety policies to incorporate climate change considerations, including procedures to protect staff during extreme weather events	Now	N/A	Adaptation	Ongoing	The County has specific Standard Operating Procedures for each department which include procedures for how to act during extreme weather events. The County ensures staff are made aware of health-related concerns that are shared by the Huron-Perth Public Health Unit, specifically related to extreme heat events. In the future, staff are hoping to continue to update health and safety policies to include considerations for climate-related events.
6.2	Assess staffing requirements in critical service areas (ie. EMS, Public Works) to accommodate expected increases in demands as a result of climate change	Later	Low	Adaptation	Ongoing	Staffing requirements are determined by each department's Director to meet the appropriate level of service. There are various avenues that the County ensures that staffing requirements can meet expected demand as a result of climate change, including hiring more snow plow drivers for winter storms, altering staff schedules to avoid working in the heat in the summer, and directing staff to different departments depending on the operation needs during emergency situations (i.e., library staff helped at the Homes for the Aged during the COVID-19 lockdowns).
6.3	Continue to encourage the use of the County's Employee and Family Assistant Program (EFAP) to ensure staff have access to resources and support	Ongoing	N/A	Adaptation	Ongoing	Staff are continually encouraged to access the EFAP through the onboarding process, during extreme circumstances, and during performance reviews. The EFAP was used during the recovery process from the 2011 tornado in Goderich to inform staff on natural hazards and discuss resiliency.

Goal #7: Ensure that proactive procedures are in place to respond and recover from climate-related emergencies.

Actions		Timeline	Cost	Goal	Status Update	Comments
7.1	Explore the feasibility of posting severe weather alerts on the County's website	Now	Low	Adaptation	Achieved	The County currently posts Significant Weather Events on all web pages as per the Ontario Municipal Act. This practice ensures that the public is informed about the current situation and any potential risks or precautions they should take to stay safe during these weather events.
7.2	Incorporate climate change considerations into Continuity of Operations Plans (COOP), Hazard Identification and Risk Assessments, Emergency Response Plans and annual training exercises	Now	Low	Adaptation	Ongoing	Climate-related hazards are currently considered in COOPs and future training exercises will be considering planning for extreme weather events that will increase with climate change.
7.3	Assess training needs for staff, especially those in critical service areas, to ensure an informed response to and recovery from climate-related emergencies	Next	Low	Adaptation	Ongoing	Training for staff in critical services areas consider climate-related emergencies. Annual emergency response training focuses on one type of emergency a year, including tornadoes, and other extreme weather events.

Priority Area 3: Engagement & Partnerships

Goal #8: Develop and implement communication strategies to promote leadership and preparedness.

Actions		Timeline	Cost	Goal	Status Update	Comments
8.1	Examine existing communication procedures to identify and resolve gaps related to climate change and extreme weather events	Next	Low	Adaptation	Achieved	Climate change connections to extreme weather events has been highlighted through emergency management and preparedness communication materials for staff and the community.
8.2	Diversify communication strategies to ensure community members across all demographic groups are informed	Now	Low	Adaptation	Ongoing	The Communications team has incorporated climate change messaging into a variety of avenues including a designated Huron County Connects page, media releases and social media posts related to projects.
8.3	Work proactively with local media to promote the County's climate change efforts	Now	Low	Adaptation & Mitigation	Ongoing	County staff discuss climate change efforts with local media stations after all reports are taken to County Council.

Goal #9: Enhance community partnerships to strengthen the County's capacity to respond to climate events.

Actions		Timeline	Cost	Goal	Status Update	Comments
9.1	Work with local municipalities to support climate initiatives, including sharing best practices and encouraging community-based adaptation	Next	Low	Adaptation	Ongoing	Staff continue to work with local municipal staff to support climate initiatives and share learning opportunities to advance actions.
9.2	Continue to work with local Conservation Authorities and Huron Perth Public Health to support climate initiatives related to flood mitigation and community wellbeing	Ongoing	N/A	Adaptation	Behind schedule	Staff work closely with the Conservation Authorities to increase flood mitigation. Staff are planning to connect with Huron Perth Public Health in 2024 to further outreach and awareness on the ties between climate change, community wellbeing and health.
9.3	Enhance community partnerships between service organizations through Sustainable Huron and the Water Protection Steering Committee to advance local efforts for climate change	Now	Low	Adaptation	Behind schedule	Staff continue to coordinate and organize 3 informative meetings for each committee a year to build relationships in the community and advance sustainable practices.
9.4	Explore the feasibility of initiating a program to encourage and support climate action among key stakeholders, including local businesses and youth groups	Later	Low	Adaptation	Future action	Staff will begin to explore this action in 2024.

Goal #10: Continue to encourage climate awareness at the corporate level.

Actions		Timeline	Cost	Goal	Status Update	Comments
10.1	Develop a corporate climate change engagement strategy to encourage climate action, and improve corporate culture around environmental sustainability	Now	Low	Adaptation & Mitigation	Behind schedule	Staff are planning to develop a corporate climate change engagement strategy in 2024. Staff have developed a Single Use Plastic Reduction Strategy in 2020 to bring awareness to staff and reduce corporate single use plastics. Staff education will continue through engagement with the various corporate committees.
10.2	Engage and inform staff through online awareness, training, and information sessions	Now	N/A	Adaptation & Mitigation	Behind schedule	Staff update the designated climate action page on Huron County Connects regularly and post informative Corporate Sustainability Blogs on corporate projects and environmentally sustainable practices. In 2024, staff will begin to create online training and information sessions to inform staff on climate change and their role.
10.3	Showcase and promote climate actions and successes across County departments	Now	N/A	Adaptation & Mitigation	Ongoing	Staff acknowledge climate actions across the corporation through "Corporate Acts of Green" through the Corporate Sustainability Blog.

Priority Area 4: Resiliency & Continuity

Goal #11: Integrate climate change considerations into County policies and procedures.

Actions		Timeline	Cost	Goal	Status Update	Comments
11.1	Develop and apply a climate lens to decision-making	Now	N/A	Adaptation	Achieved	In 2021, a Climate Lens Tool was designed and piloted for County projects. The Climate Lens Tool was designed to be used for all county projects, policies, and procedures to ensure climate change is considered in decision-making.
11.2	Establish an internal climate change committee to oversee the implementation of adaptation initiatives	Now	N/A	Adaptation	Achieved	The County has a senior management Climate Change Committee to oversee the implementation of actions within the CCCAP. In addition, there is a staff committee with representatives from each department to further the engagement and awareness of climate actions with all staff.
11.3	Include a climate change impact section on reports to County Council	Now	N/A	Adaptation	Achieved	A climate impact section is included on reports that go to County Council.
11.4	Incorporate climate change considerations into the County's Asset Management Plan and Procurement Policy to prioritize proactive investments, sustainable sourcing, and low carbon resiliency	Later	Low	Adaptation	Ahead of schedule	Climate change is currently being considered in the Asset Management Plan and the specific considerations for each asset type will be slowly integrated into the plan. The Procurement Policy currently references sustainable sourcing and staff are planning to include more specific, and direct language for improving our low carbon resiliency.
11.5	When applicable, apply a climate lens to the review and update of existing County plans, policies, and procedures (ie. Official Plans, Zoning By-laws, budgets, strategic plans, etc.)	Next	N/A	Adaptation	Ongoing	As County plans, policies, and procedures are updated and created, climate change considerations are embedded within the documents.

11.6	Develop a database to keep track of all corporate plans, policies, and procedures that have been reviewed with a climate lens	Next	N/A	Adaptation	Behind schedule	Currently, staff are reviewing their policies to determine which corporate policies, procedures and plans should be considered with a climate lens. In 2024, staff are planning to develop a database to track which plans, policies, and procedures have been reviewed with a climate lens.
11.7	Explore the feasibility of hiring a permanent climate change staff person to advance action	Now	Medium	Adaptation	Achieved	In 2022, a permanent full-time Climate Change & Energy Specialist position was included in the budget to advance climate actions.

Goal #12: Minimize disruptions to County operations and services to ensure resiliency and continuity.

Actions		Timeline	Cost	Goal	Status Update	Comments
12.1	Implement a tracking system to ensure mandatory review of policies by County staff, including Continuity of Operations Plans (COOP) and Emergency Response Plans	Now	N/A	Adaptation	Behind schedule	Currently, staff review mandatory policies during the onboarding process. In 2024, the County will be using its new Human Resource Information System to implement a tracking system to ensure staff are reviewing the necessary policies.
12.2	Assess the financial implications of climate change and adjust budgets and reserve funds to account for contingencies associated with extreme weather events	Next	High	Adaptation	On track	The risk score associated with the climate risk assessment being conducted on the County bridges and culverts will help assess financial implications in the AMP for maintenance and replacement of these structures. The County has sufficient reserve funds to address extreme weather events that impact infrastructure.
12.3	Continue to increase access to solutions that enable remote work, including expanding the use of cloud-based software, developing work from home policies, and implementing procedures to reduce commuting during hazardous conditions	Ongoing	Medium	Adaptation	Ongoing	The County created a work from home policy in 2020 to allow staff to work remotely while reducing commuting and greenhouse gas emissions. Where operationally feasible, a hybrid work arrangement is in place and staff are encouraged to use their discretion during hazardous conditions. The County continues to expand access to cloud-based software for staff to access files and complete tasks from home.
12.4	Examine the use of back-up power generators across the County to ensure that critical service areas are accounted for (ie. EMS bases, and Libraries)	Ongoing	High	Adaptation	Behind schedule	Back-up power generators are currently available for all social housing buildings. As the County libraries are owned and operated by the local municipalities, it is their jurisdiction to determine the need for a back-up generator. The EMS bases currently do not have back-up generators, although the generators for the social housing could be used at those facilities during a climate emergency.

12.5	Create procedures to improve the sharing of human and physical resources to minimize disruptions to services in the event of a climate-related emergency (i.e.. redeployment)	Next	Low	Adaptation	Achieved	The County has incorporated remote and cloud-based software and programs to ensure staff are able to work with minimal disruptions to service during emergencies. During the COVID-19 pandemic, staff were deployed to service areas that required more assistance which is a practice that will continue in the event of a climate-related emergency.
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Priority Area 5: Innovation & Growth

Goal #13: Invest in innovative solutions that promote resiliency and carbon reduction.

Actions		Timeline	Cost	Goal	Status Update	Comments
13.1	Develop high-performance building standards to improve the efficiency and resiliency of new facilities and retrofits	Now	N/A	Adaptation & Mitigation	Achieved	In 2021, staff developed the High Performance Building Standard which has been used to inform new constructions and retrofits to existing County buildings that have occurred since 2021.
13.2	Explore the development of a policy to prioritize electrification of the County's fleet	Next	N/A	Adaptation	Achieved	In 2021, staff developed a Green Fleet Strategy to inform the electrification of the County's fleet. Staff continue to work towards an implementation plan for the inclusion of electric fleet vehicles.
13.3	Advance renewable energy generation at County facilities by exploring investment opportunities and initiating a pilot project	Next	Medium	Adaptation	Behind Schedule	Staff are beginning to explore investment opportunities for renewable energy generation within the County. The County continues to explore funding opportunities to initiate a renewable energy pilot project at a County facility.

Goal #14: Continue to identify and take advantage of climate-related opportunities.

Actions		Timeline	Cost	Goal	Status Update	Comments
14.1	Apply for funding to install electric vehicle chargers across the County in partnership with local municipalities	Ongoing	N/A	Mitigation	Achieved	In 2022, the County and two local municipalities received funding from Natural Resource Canada's Zero Emission Vehicle Infrastructure Program to install 22 level-2 electric vehicle charging stations.
14.2	Continue to make improvements to the County's trail networks	Ongoing	N/A	Adaptation	Ongoing	The County forester continues to make improvements to the trail network. Notable projects include the creation of a 500 foot accessible boardwalk, and a fully accessible trail in Hayes Tract and the implementation of a large, rock bridge in Stevenson Tract in 2022/2023.
14.3	Continue to support the expansion and promote the use of active transportation routes in Huron County	Ongoing	N/A	Adaptation & Mitigation	Ongoing	In 2023, a Cycling Master Plan was drafted to promote the use of active transportation routes in the County. County staff will continue to support the expansion of cycling routes through budgeted active transportation projects.
14.4	Incorporate climate change considerations into the County's Tourism Plan to account for future opportunities	Next	N/A	Adaptation	Behind Schedule	Staff will be exploring the inclusion of climate change in the next update to the County's Tourism Plan with a strong focus on sustainable tourism opportunities in the County.
14.5	Explore the feasibility of incentivizing energy efficiency or renewable energy generation in Huron County	Later	High	Mitigation	Future action	Staff are beginning to compile a list of existing energy efficiency incentives for homeowners and will continue to explore the feasibility of incentivizing energy efficiency for the community.
14.6	Continue to identify and take advantage of external funding opportunities	Ongoing	N/A	Adaptation & Mitigation	Ongoing	Funding opportunities are continuously explored, and the following funding has been awarded to County climate change projects: Municipalities for Climate Innovation Program (2019-2021); Green Municipal Fund (2021); Zero Emissions Vehicle Infrastructure Program (2022); and Monarch Habitat Restoration Southwestern Ontario (2023).