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Town of Aurora  
**Information Report**  
No. PDS22-127

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**Subject:** Corporate Environmental Action Plan 2021 Progress Report

**Prepared by:** Sebastian Contarin, Energy and Climate Change Analyst

**Department:** Planning and Development Services

**Date:** September 13, 2022

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**In accordance with the Procedure By-law, any Member of Council may request that this Information Report be placed on an upcoming General Committee or Council meeting agenda for discussion.**

## **Executive Summary**

The Corporate Environmental Action Plan (CEAP) is a five-year plan that outlines environmental sustainability action items directed at staff at the corporate level. An annual progress report is presented to the Environmental Advisory Committee (EAC) and to Council.

- The CEAP 2021 Progress Report show cases the Town's actions towards environmental sustainability and supports Council's commitments to the environment.
- Town staff implemented a tracking sheet to monitor progress and encourage accountability.

## **Background**

The Corporate Environmental Action Plan (CEAP) is a five-year action plan that allows The Corporation of the Town of Aurora to achieve its environmental goals for the period 2018 to 2023. The 2010 CEAP and the 2018 version received input from three Advisory Committees, staff, and senior management.

The purpose of the CEAP is to protect and enhance the natural environment, promote environmental sustainability, integrity and conservation of resources, and create a practice of environmental stewardship within the community. The CEAP is intended to provide corporate direction on key strategic environmental initiatives that will be

initiated over the next five years. The CEAP was developed to assist Council to plan for and implement specific actions to improve the Town's environmental performance and sustainability for future generations. The success of the Plan requires a coordinated approach to implementation that includes all of the Town's departments.

The overall themes in the CEAP cover:

- Water Conservation;
- Sustainable Urban Development;
- Waste Reduction and Diversion;
- Biodiversity and Natural Heritage;
- Climate Change and Energy; and
- Environmental Awareness

## Analysis

**The CEAP 2021 Progress Report show cases the Town's actions towards environmental sustainability and supports Council's commitments to the environment.**

In 2021, the Town Council approved the Electric Vehicle Charging Station Policy, taking another important step towards decreasing the community's greenhouse gas emissions through the transition towards an electric-fuel exclusive corporate transportation fleet.

Though 2021 brought many challenges due to the COVID19 pandemic, staff continued to effectively implementation of the CEAP. The following is a summary of the Town's 2021 successes from the CEAP Progress Report (a more detailed summary of the Town's environmental objectives by theme and the Town's initiatives are found in Attachment 1):

Areas of Implementation	Completed Actions
Water Conservation	<ul style="list-style-type: none"> <li>• Town Operations installed an in-ground holding tank at library square to harvest and repurpose greywater, generated from splashpad usage, as a resource for irrigation for landscape and vegetation; and</li> <li>• Town Operations changed 315 water meters in 2021 as part of its water loss reduction strategy.</li> </ul>

Areas of Implementation	Completed Actions
Sustainable Urban Development	<ul style="list-style-type: none"> <li>• Applied low impact development techniques during construction of the 2021 road reconstruction projects (bio-swales and enhanced oil/grit separator);</li> <li>• Replaced sanitary laterals as part of its water loss reduction strategy;</li> <li>• The Town participated and maintained the Annual Smart Commute Designation Award, maintaining the Gold Standard every year since 2012; and</li> <li>• Implementation of LEED Gold certified design features on town-owned facilities during construction of the 2021 construction projects.</li> </ul>
Waste Reduction and Diversion	<ul style="list-style-type: none"> <li>• Included recycled concrete material as a provisional item as part of 2021 road reconstruction project procurement to encourage sustainable construction and building practices for Town infrastructure;</li> <li>• Integrated energy and waste reducing methodological practices as part of 2021 infrastructure maintenance and monitoring projects;</li> <li>• Integrated CB shields as part of 2021 storm pond reconstruction project;</li> <li>• The Town has diverted approximately 66% of waste its waste; exceeding the 2018 base year rate by 1%;</li> <li>• Council approved the Bag Tag Program, which aims to educate residents on proper waste disposal practices and increase town-wide waste diversion rates;</li> <li>• Increased the number of multi-residential buildings within the Town's recycling program.</li> </ul>
Biodiversity and Natural Heritage	<ul style="list-style-type: none"> <li>• Planted 1,900 trees and shrubs on Aurora lands;</li> <li>• A thirteenth partnership was established in 2021 with the Adopt a Park Program and Partnership development (Herb McKenzie Park);</li> <li>• Maintained the partnership with York Region for invasive species control where Phragmites, Garlic Mustard, Giant Hog Weed, and European Buckthorn were targeted on regional frontage adjacent to Aurora parkland. Arboretum continued work on Phragmites control.</li> </ul>

Areas of Implementation	Completed Actions
Climate Change and Energy	<ul style="list-style-type: none"> <li>• Town had the kick-off to their Climate Change Adaptation Plan and Green Development Standard in 2021;</li> <li>• Integrated Aurora’s “Every Second Counts” public education campaign in 2021, as part of the Council-approved Anti-Idling Policy;</li> <li>• Council approved the Town’s first Green Fleet Action Plan and Electric Vehicle Charging Station Policy, which aims to electrify the Town’s corporate fleet to produce zero emissions by 2051;</li> <li>• The Town had partnered with IVY Charge and installed eight (8) dual head level 2 chargers at town-owned facilities; with proposed actions on installing two (2) additional dual head chargers as part of the Library Square Project;</li> <li>• Continued energy use tracking at town facility demonstrated a total of 19,828,350 equivalent kilowatt-hours in 2021; approximately 14.5% less consumption compared to 2018;</li> <li>• Council approved \$50,000 for the implementation of energy efficient measures within town-owned facilities, as part of effort to reduce corporate emissions;</li> <li>• Acquisition and implementation of energy efficient infrastructure within town-owned facilities;</li> <li>• Generated 613,727 kilowatt-hours of electricity from Town solar rooftop systems;</li> <li>• Continued adoption of monthly Building Performance meetings with Facility staff and Energy and Climate Change Analyst, to discuss ongoing energy projects, operational changes, energy consumption, trends, best practices for energy conservation, new technologies, utility incentives;</li> <li>• Continued investigation of new technology to improve energy efficiency at SARC using the Building Automation System innovation;</li> <li>• Performed a building audit, for natural gas consumption, under Enbridge’s Run it Right program, resulting to reductions to annual GHG emissions and operational costs across town-owned facilities;</li> <li>• Integration of operational changes at town-owned facilities, in effort to reduce energy consumption during COVID 19 shutdown, resulted to an estimated energy cost avoidance of \$488,000 (~23% energy avoidance) in 2021.</li> </ul>

Areas of Implementation	Completed Actions
Environmental Awareness	<ul style="list-style-type: none"> <li>• Continued efforts on updating the Town of Aurora website, providing the community up-to-date information on the Town's climate change initiatives and plans;</li> <li>• Integration of Every Second Counts Town Anti-Idling education campaign;</li> <li>• Integration of two (2) Community Environmental awareness GO Green Challenges;</li> <li>• Developed an enhanced Lymantria Dispar Dispar (LDD) strategy that includes monitoring, robust communication plan, burlap kits, and watering and injection treatments of select prominent trees.</li> </ul>

**Town staff implemented a tracking sheet to monitor progress and encourage accountability.**

The Progress Report consists of a summary document, highlighting the achievements for 2021 (see Attachment 1), and a separate tracking document, used by staff to monitor the progress of the action items (see Attachment 2).

The CEAP is reported annually, presented to EAC and Council and then posted on the Town's website. Ideally, reports are presented by mid-year for the previous reporting year. This timeframe allows staff to collect, verify, input, and analyze all the data needed for tracking and reporting. Since the CEAP monitors facility energy consumption, utility bills often get adjusted or corrected and require additional time to finalize the data.

**Advisory Committee Review**

The Environmental Advisory Committee (EAC) commented on the draft CEAP 2021 Progress Report on June 22, 2022. Staff presented a brief overview of the Corporate Environmental Action Plan (CEAP) and annual progress report for 2021, including the CEAP purposes and themes, reporting process, and successfully implemented objectives. The Committee inquired about corporate-wide staff involvement and about the usage and monitoring of the IVY electric vehicle charging station at Town Hall, and staff provided clarification.

## **Legal Considerations**

None.

## **Financial Implications**

A key action item arising from the Town's recently approved Fiscal Strategy is the undertaking of a review of the alignment between its many strategic and master plans and its long-term operating and capital plans to ensure sufficient resources are available to achieve each plan's deliverables. These alignment reviews are scheduled to take place over the coming few years; with the CEAP scheduled for review in late 2023. Funding availability relating to the delivery of all remaining outstanding Corporate Environmental Action plan actions cannot be effectively determined until the conclusion of the noted alignment review.

In the interim, CEAP action requirements will continue to be inserted into the Town's operating or capital budgets on a priority basis as deemed necessary for Council's review and approval.

## **Communications Considerations**

The Town will inform both the public and internal stakeholders on the actions that the Town has taken in support of the CEAP by posting the Progress Report online and through social media posts.

## **Link to Strategic Plan**

The CEAP 2021 Progress Report is aligned with Aurora's Strategic Plan, which is based on the three pillars of sustainability – environment, community, economy – and establishes a vision for Aurora as “an innovative and sustainable community where neighbours care and businesses thrive”.

## **Alternative(s) to the Recommendation**

None

## **Conclusions**

The CEAP Progress Report celebrates the Town's environmental initiatives and helps track action plan items. The tracking sheet pilot is considered a success and will continue for future progress reports.

## **Attachments**

Attachment 1 – Corporate Environmental Action Plan 2021 Progress Report (PDF Version)

Attachment 2 - Corporate Environmental Action Plan 2021 Tracking Sheet (PDF Version)

## **Previous Reports**

PDS21-063 Corporate Environmental Action Plan 2020 Progress Report, October 19, 2021.

## **Pre-submission Review**

Agenda Management Team review on August 25, 2022

## **Approvals**

**Approved by Marco Ramunno, Director, Planning and Development Services**

**Approved by Doug Nadorozny, Chief Administrative Officer**

**Attachment 1**  
**Corporate Environmental Action Plan 2021 Progress Report**

**WATER CONSERVATION**

Objective W1: Reduce Town owned facility water consumption

Objective W2: Reduce the uncontrolled and inadequately controlled storm water areas with respect to both quality and quantity by following recommendations of the Town's Comprehensive Storm water Management Master Plan

- Town Operations installed an in-ground holding tank at library square to harvest and repurpose greywater, generated from splashpad usage, as a resource for irrigation for landscape and vegetation (W1).;
- Town Operations changed 315 water meters in 2021 as part of its water loss reduction strategy (W1).;
- Applied low impact development techniques during construction of the 2021 road reconstruction projects (bio-swales and enhanced oil/grit separator) (S1 and W2).;
- Replaced sanitary laterals as part of its water loss reduction strategy (W1)



## SUSTAINABLE URBAN DEVELOPMENT

Objective S1: Foster a sustainable green development and alternate methods of transportation to improve the quality of life of Aurora's residents and Town staff.

- To promote sustainable transportation for Town staff, the Town participated in the Annual Smart Commute Designation Award, maintaining Gold Standard status since 2012 (S1).;
- Implementation of LEED Gold certified design features on town-owned facilities during construction of the 2021 construction projects (water conservation low-flow hands-free plumbing fixtures; daylighting; high efficiency water fixtures and HVAC units; thermal comfort and control systems; LIDs; drought resistant plantings; and rainwater harvest designs) (W1, S1, and C3).

## WASTE REDUCTION and DIVERSION

Objective D1: Implement sustainable construction practices to reduce waste, incorporate sustainable design and reclaim or recycle materials.

Objective D2: Reduce waste going to landfill disposal.

- Included recycled concrete material as a provisional item as part of 2021 road reconstruction project procurement to encourage sustainable construction and building practices for Town infrastructure (D1);
- Integrated energy and waste reducing methodological practices as part of 2021 infrastructure maintenance and monitoring projects (integration of on-site helical piles, repurposing of topsoil stockpiles, and integration of web-based infrastructure maintenance and monitoring applications) (D1, D2, and C3).;
- Integrated CB shields as part of 2021 storm pond reconstruction project (W2 and D1).;
- As part of the Town's Waste Reduction Strategies, the Town has set 2018 as a base year for tracking Community-level waste diversion rates (D2):
  - 2018: 65%
  - 2019: 65%
  - 2020: 64%
  - 2021: 66%;
- Council approved the Bag Tag Program, which aims to educate residents on proper waste disposal practices and increase town-wide waste diversion rates (D2).;
- Increased the number of multi-residential buildings within the Town's recycling program (D2).

## BIODIVERSITY and NATURAL HERITAGE

Objective B1: Enrich Aurora's ecology by protecting and preserving biodiversity.

- Planted 1,900 trees and shrubs on Aurora lands (B1).;
- As part of Aurora's ecological enrichment strategy, a thirteenth partnership was established in 2021 with the Adopt a Park Program and Partnership development (Herb McKenzie Park) (B1).;
- Maintained the partnership with York Region for invasive species control where Phragmites, Garlic Mustard, Giant Hog Weed, and European Buckthorn were targeted on regional frontage adjacent to Aurora parkland. Arboretum continued work on Phragmites control (B1).

## CLIMATE CHANGE and ENERGY

Objective C1: Prepare a Climate Change Adaptation Plan

Objective C2: Implement the Provincial Climate Change Plan Actions

Objective C3: Reduce the town's greenhouse gas emissions by town staff and at town facilities. \* Actions pulled from the Provincial Climate Change Plan

- As part of Aurora's climate change adaptation initiatives, the Town had the kick-off to their Climate Change Adaptation Plan and Green Development Standard in 2021 (C1).;
- Integrated Aurora's "Every Second Counts" public education campaign in 2021, as part of the Council-approved Anti-Idling Policy, which aims to limit idling from residents, businesses, and Town staff (C3).;
- Council approved the Town's first Green Fleet Action Plan and Electric Vehicle Charging Station Policy, which aims to electrify the Town's corporate fleet to produce zero emissions by 2051 (C3).;
- As part of Aurora's commitment to the Provincial Climate Action Plan, the Town had partnered with IVY Charge and installed eight (8) dual head level 2 chargers at town-owned facilities; with proposed actions on installing two (2) additional dual head chargers as part of the Library Square Project (C3).;
- Continued energy use tracking at Town Facilities (C3):
  - 2018: 23,180,806 equivalent kilowatt-hours (Benchmark)
  - 2019: 24,641,678 equivalent kilowatt-hours (~0.1% more than benchmark)
  - 2020: 19,860,541 equivalent kilowatt-hours (~14.3% less than benchmark)
  - 2021: 19,828,350 equivalent kilowatt-hours (~14.5% less than benchmark);
- Council approved \$50,000 for the implementation of energy efficient measures within town-owned facilities, as part of effort to reduce corporate emissions (C3).;
- Acquisition and implementation of energy efficient infrastructure within town-owned facilities (energy management software, LEDs, light control and occupancy systems, building automation system) (C3).;
- Generated 613,727 kilowatt-hours of electricity from Town solar rooftop systems (C3).;
- Continue monthly Building Performance meetings with Facility staff and Energy and Climate Change Analyst, to discuss ongoing energy projects, operational changes, energy consumption, trends, best practices for energy conservation, new technologies, utility incentives etc. (C3).;

- Continued investigation of new technology to improve energy efficiency at SARC using the Building Automation System innovation (C3).;
- Performed a natural gas use audit under Enbridge's "Run it Right" program, which served to implement low-cost energy conservation measures and operational changes, resulting to annual GHG emission reductions of 5% and annual operational costs of \$3,700 at town-owned facilities (C3).;
- Integration of operational changes at town-owned facilities, in effort to reduce energy consumption during COVID 19 shutdown, resulted to an estimated energy cost avoidance of \$488,000 (~23% energy avoidance) in 2021.

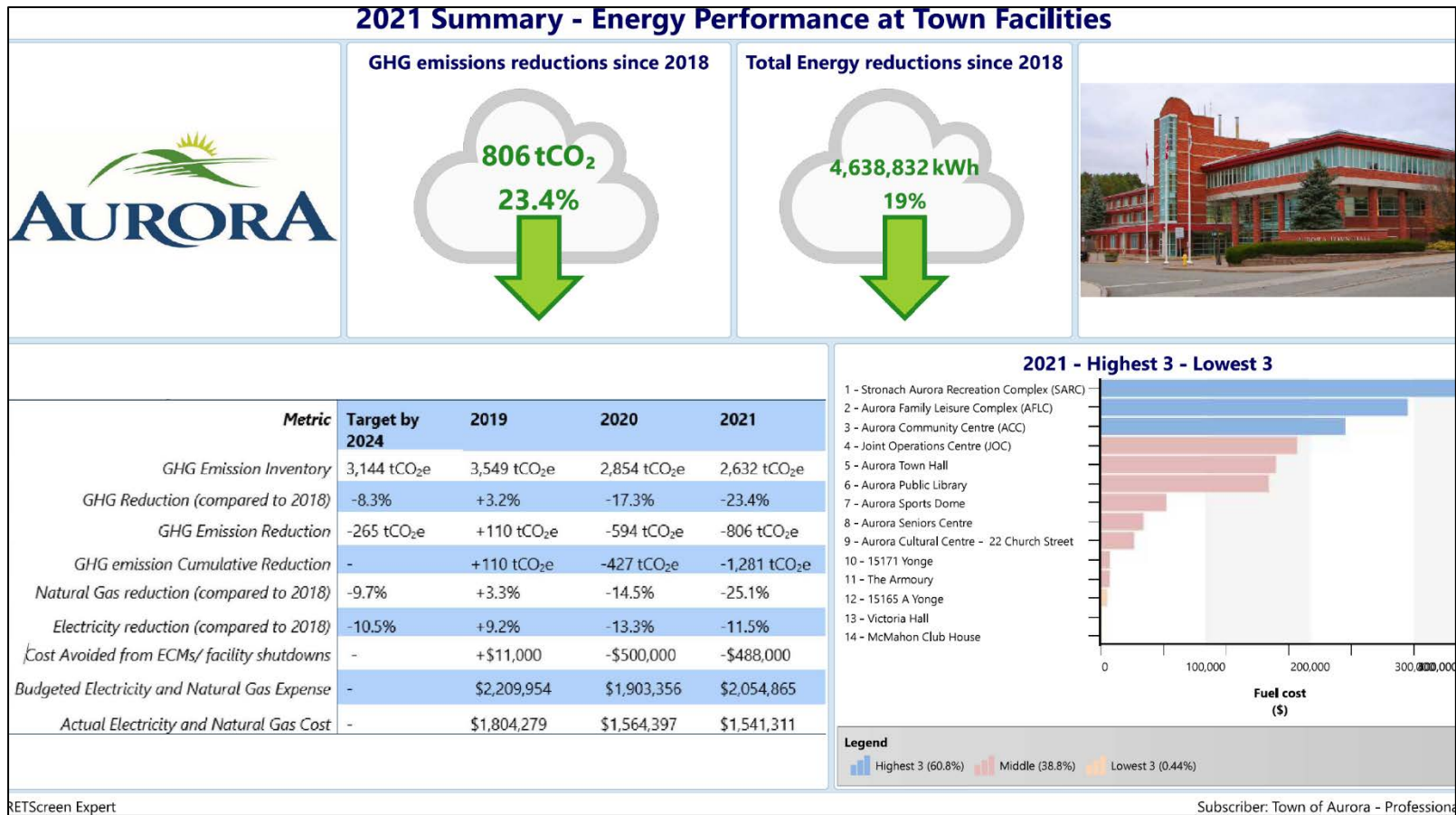
## ENVIRONMENTAL AWARENESS

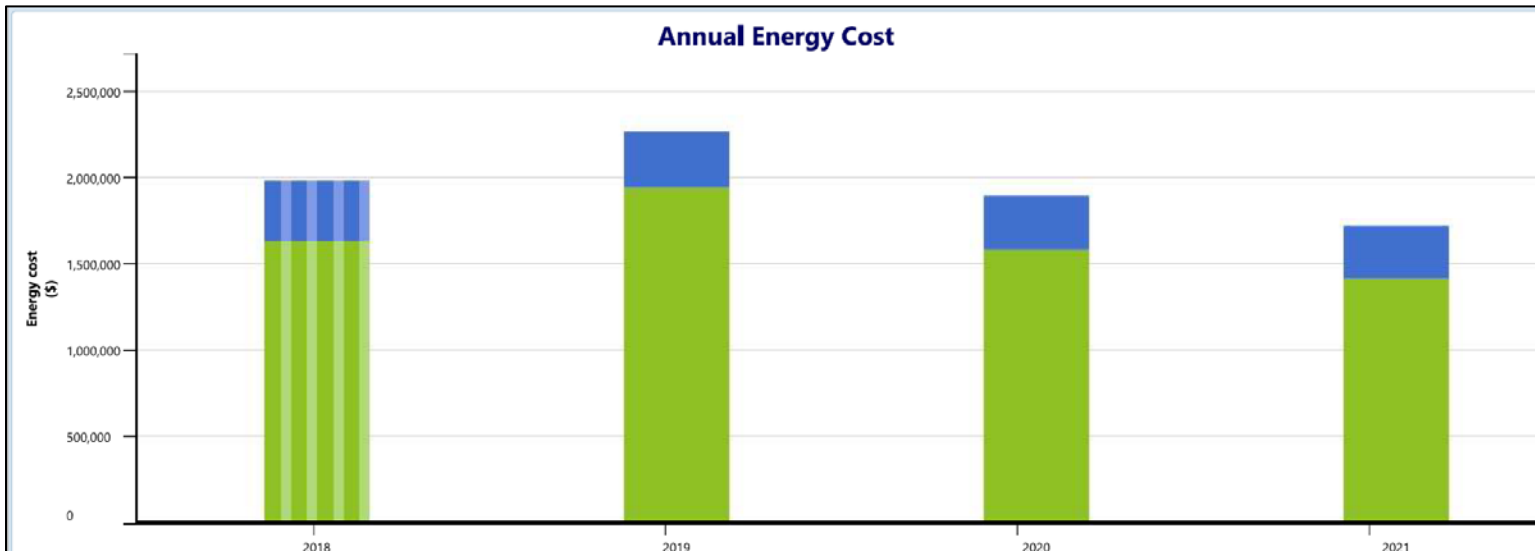
Objective A1: Encourage the stewardship of Aurora's natural resources and advance green initiatives by promoting community involvement

- Continued efforts on updating the Town of Aurora website, providing the community up-to-date information on the Town's climate change initiatives and plans (A1).;
- Integration of Every Second Counts Town Anti-Idling education campaign, which served as an education tool regarding the impacts of vehicle idling whilst promoting anti-idling methodologies (A1).;
- Integration of two (2) Community Environmental awareness GO Green Challenges, which served to promote and encourage environmental awareness initiatives at home (A1).;
- Developed an enhanced Lymantria Dispar Dispar (LDD) strategy that includes monitoring, robust communication plan, burlap kits, and watering and injection treatments of select prominent trees (A1 and B1).

# ANNEX 1

## 2021 Building Energy Performance at Town Facilities

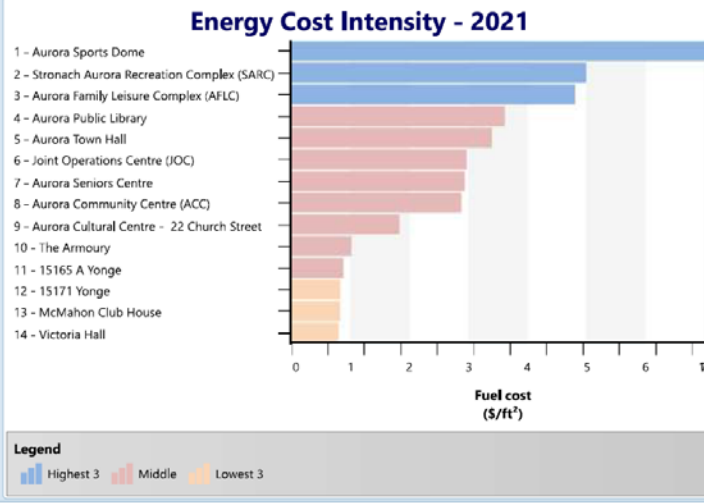




**Legend**  
 Natural gas Electricity Reference year | 2018 Actual: 2021

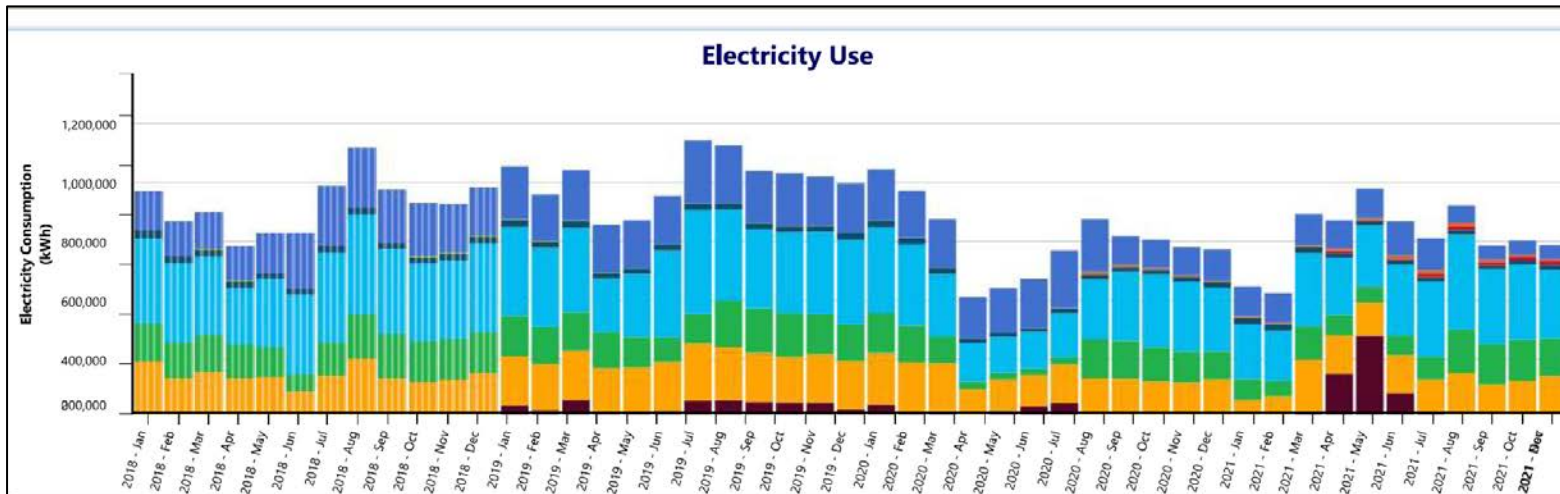
### Historic Energy Cost (2018-2021)

	Fuel cost			
	2018	2021	Difference	Difference
	\$	\$	\$	%
<b>Aurora Town Hall</b>	317,105	167,422	149,683	47.2%
<b>The Armoury</b>	2,754	8,524	-5,770	-209%
<b>15165 A Yonge</b>		6,250	-6,250	
<b>15171 Yonge</b>		8,685	-8,685	
<b>Aurora Sports Dome</b>		62,847	-62,847	
<b>McMahon Club House</b>		618	-618	
<b>Aurora Seniors Centre</b>	48,770	40,938	7,832	16.1%
<b>Stronach Aurora Recreation Complex (SARC)</b>	605,132	519,796	85,336	14.1%
<b>Aurora Community Centre (ACC)</b>	283,891	233,662	50,229	17.7%
<b>Aurora Family Leisure Complex (AFLC)</b>	355,123	293,324	61,799	17.4%
<b>Aurora Public Library</b>	133,423	160,530	-27,106	-20.3%
<b>Victoria Hall</b>	3,549	717	2,832	79.8%
<b>Aurora Cultural Centre - 22 Church Street</b>	30,669	32,020	-1,351	-4.4%
<b>Joint Operations Centre (JOC)</b>	203,668	187,584	16,084	7.9%
<b>Total</b>	<b>1,984,084</b>	<b>1,722,917</b>	<b>261,167</b>	<b>13.2%</b>



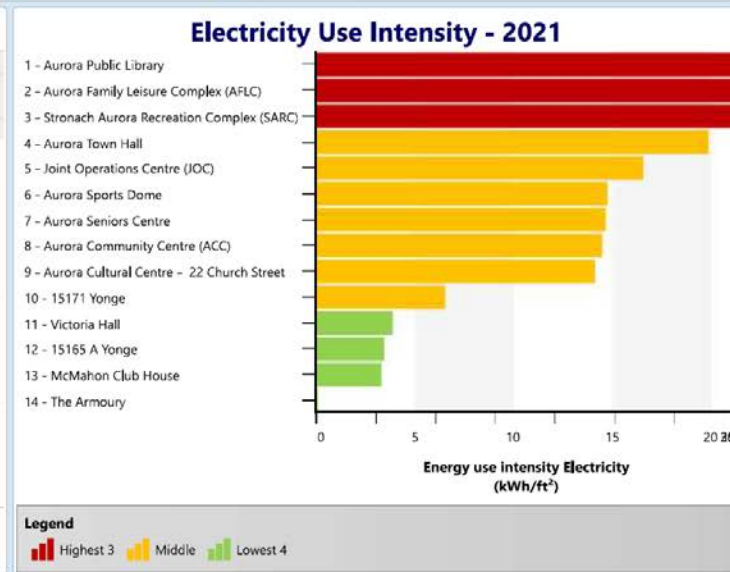
**Legend**  
 Highest 3 Middle Lowest 3

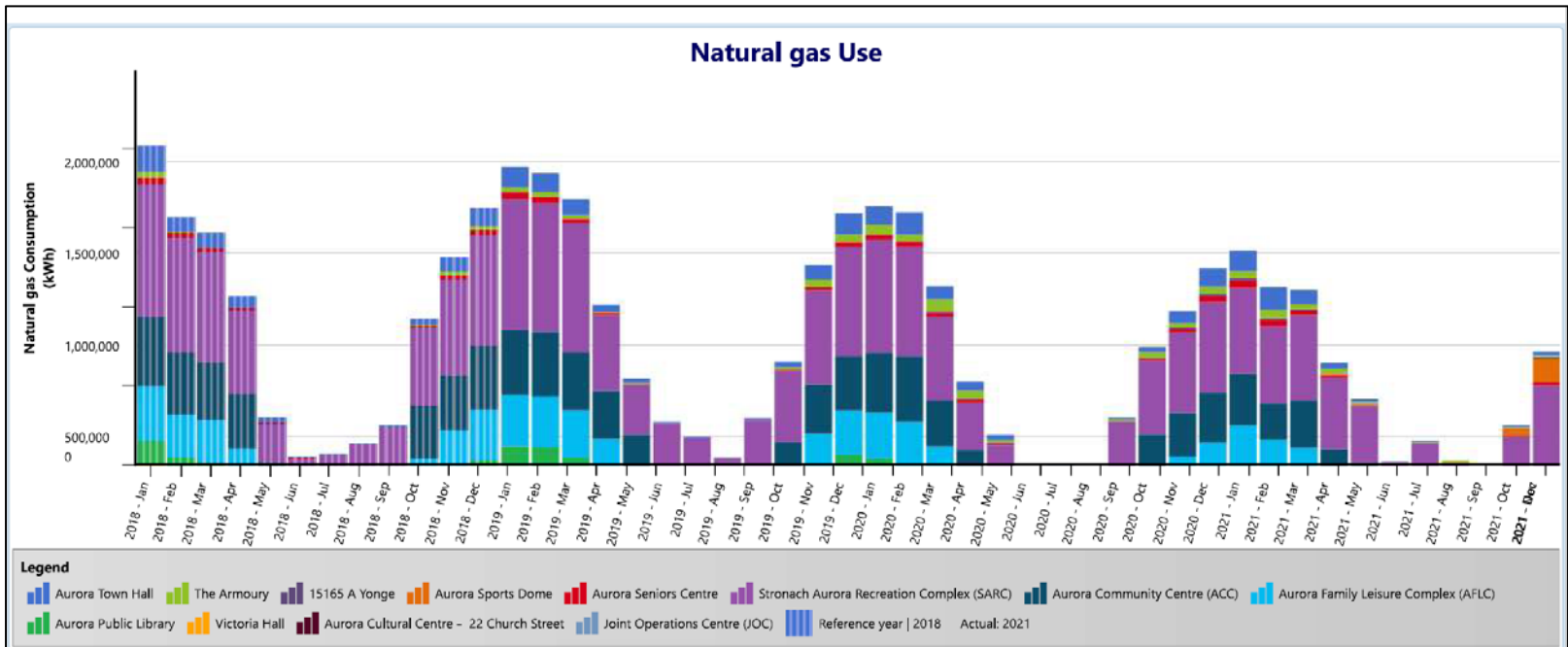




### Electricity Use Comparison (2018 and 2021)

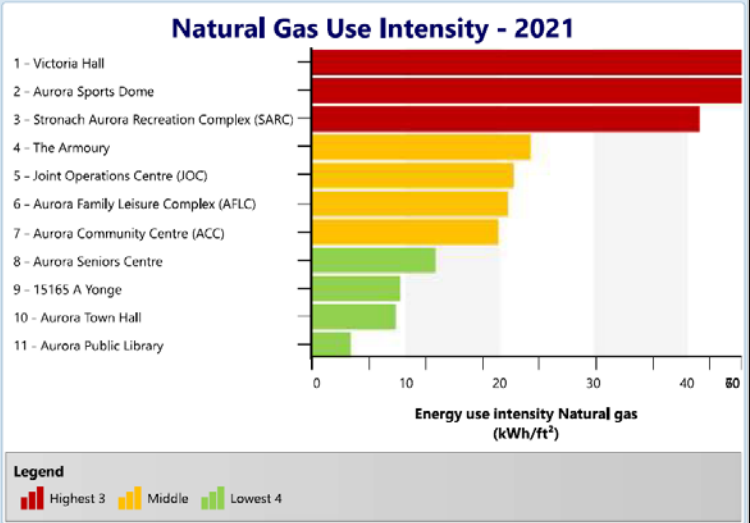
	Fuel consumption			
	Reference   2018	Actual   2021	Difference	Difference
	kWh	kWh	kWh	%
<b>Stronach Aurora Recreation Complex (SARC)</b>	3,292,409	2,794,396	498,013	15.1%
<b>Aurora Family Leisure Complex (AFLC)</b>	2,100,942	1,743,762	357,180	17%
<b>Aurora Public Library</b>	709,184	1,416,072	-706,888	-99.7%
<b>Aurora Community Centre (ACC)</b>	1,465,961	1,174,228	291,733	19.9%
<b>Joint Operations Centre (JOC)</b>	1,123,639	1,045,926	77,713	6.9%
<b>Aurora Town Hall</b>	1,872,042	978,611	893,431	47.7%
<b>Aurora Cultural Centre - 22 Church Street</b>	208,338	247,019	-38,681	-18.6%
<b>Aurora Seniors Centre</b>	264,918	204,138	60,781	22.9%
<b>Aurora Sports Dome</b>		88,208	-88,208	
<b>15171 Yonge</b>		68,677	-68,677	
<b>15165 A Yonge</b>		24,440	-24,440	
<b>Victoria Hall</b>	7,210	3,488	3,722	51.6%
<b>McMahon Club House</b>		2,476	-2,476	
<b>The Armoury</b>	14,350	630	13,719	95.6%
<b>Total</b>	<b>11,058,994</b>	<b>9,792,072</b>	<b>1,266,922</b>	<b>11.5%</b>



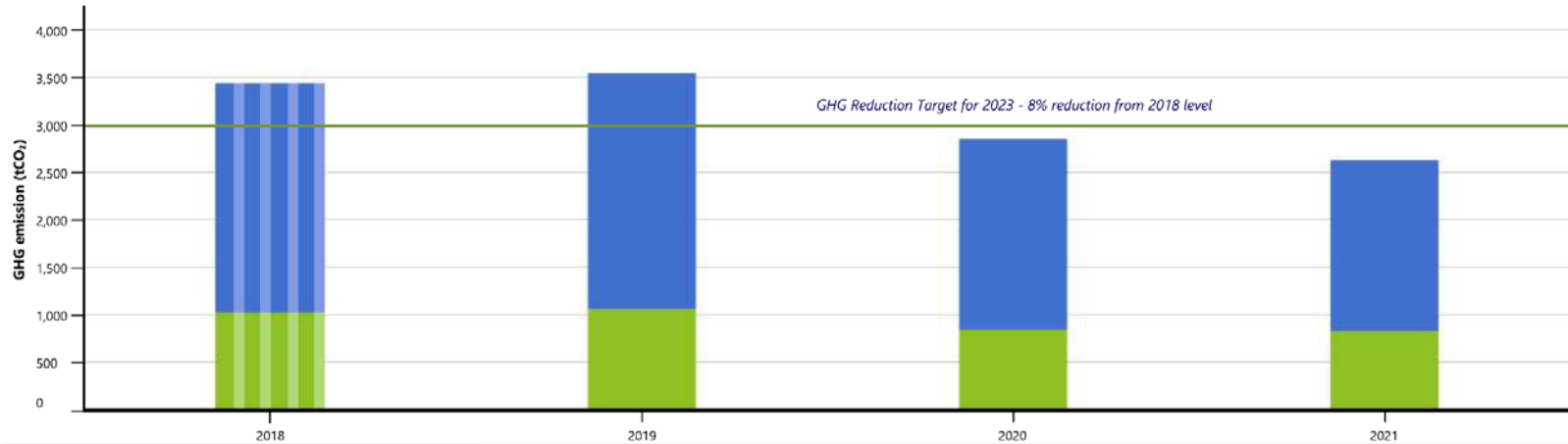


### Natural Gas Use Comparison (2018 and 2021)

	Fuel consumption			
	Reference 2018	Actual 2021	Difference	Difference %
	kWh	kWh	kWh	%
<b>Stronach Aurora Recreation Complex (SARC)</b>	5,159,204	4,292,750	866,454	16.8%
<b>Aurora Community Centre (ACC)</b>	2,753,596	1,610,660	1,142,936	41.5%
<b>Joint Operations Centre (JOC)</b>	1,506,699	1,356,879	149,820	9.9%
<b>Aurora Family Leisure Complex (AFLC)</b>	2,176,837	1,274,816	902,022	41.4%
<b>Aurora Town Hall</b>	561,685	440,854	120,831	21.5%
<b>Aurora Sports Dome</b>		367,224	-367,224	
<b>The Armoury</b>	95,403	195,783	-100,381	-105%
<b>Aurora Public Library</b>	732,276	184,835	547,442	74.8%
<b>Aurora Seniors Centre</b>	160,793	183,665	-22,873	-14.2%
<b>15165 A Yonge</b>		67,055	-67,055	
<b>Victoria Hall</b>	56,015	61,757	-5,743	-10.3%
<b>Aurora Cultural Centre - 22 Church Street</b>	205,682		205,682	100%
<b>Total</b>	<b>13,408,188</b>	<b>10,036,278</b>	<b>3,371,910</b>	<b>25.1%</b>



### GHG emissions reductions since 2018

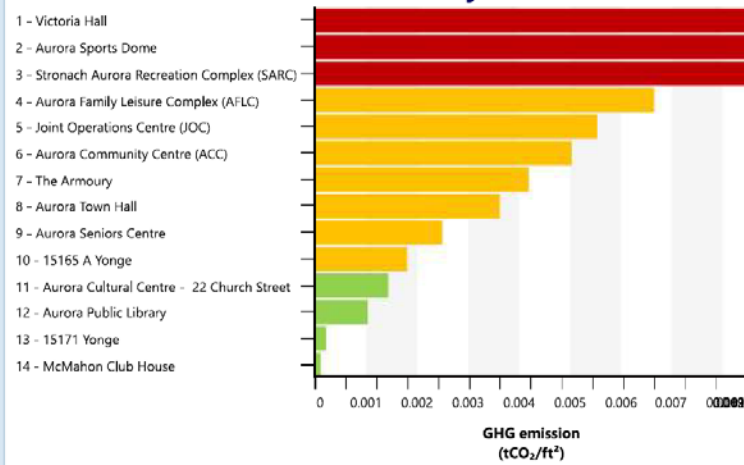


**Legend**  
 ■ Natural gas ■ Electricity ■ GHG emission - ECDMP Target - 8.28% 2,995 tCO<sub>2</sub> ■ Reference year | 2018 Actual: 2021

### GHG Emission - Target Tracking

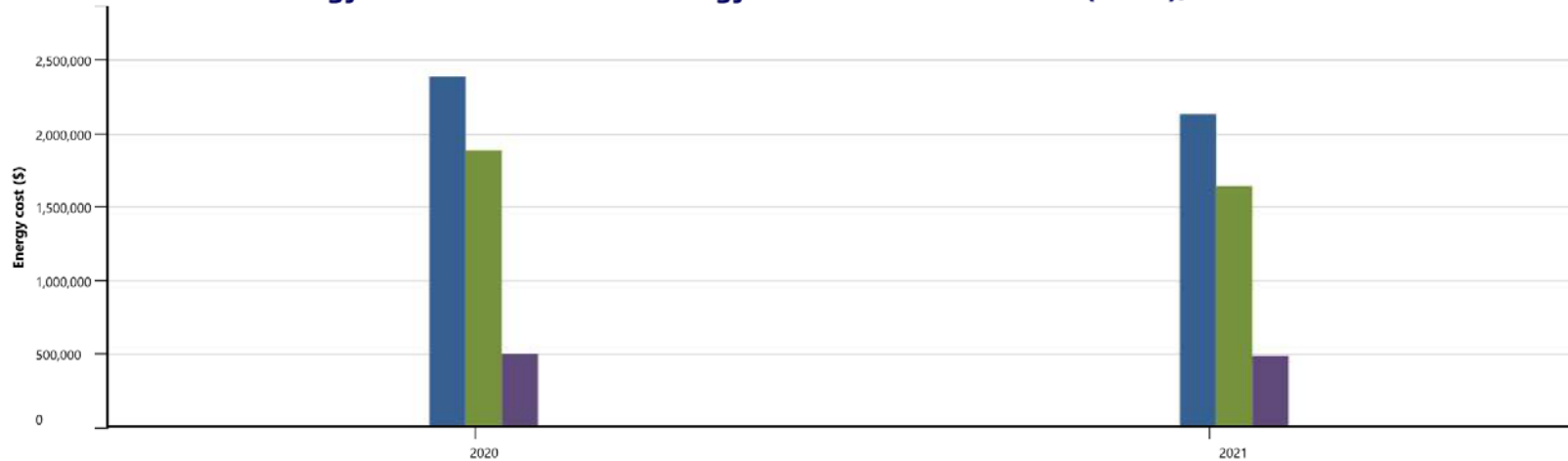
	GHG emission			
	Reference   2018	Actual   2021	Difference	Difference %
	tCO <sub>2</sub>	tCO <sub>2</sub>	tCO <sub>2</sub>	%
<b>Stronach Aurora Recreation Complex (SARC)</b>	1,260	1,054	206	16.4%
<b>Aurora Community Centre (ACC)</b>	643	408	235	36.5%
<b>Aurora Family Leisure Complex (AFLC)</b>	604	406	198	32.8%
<b>Joint Operations Centre (JOC)</b>	384	350	34.8	9%
<b>Aurora Town Hall</b>	291	179	112	38.6%
<b>Aurora Sports Dome</b>		68.7	-68.7	
<b>Aurora Public Library</b>	138	45.6	92	66.8%
<b>The Armoury</b>	18.6	35.2	-16.6	-89.5%
<b>Aurora Seniors Centre</b>	31.2	34.7	-3.6	-11.4%
<b>Aurora Cultural Centre - 22 Church Street</b>	58.1	25.1	33	56.8%
<b>15165 A Yonge</b>		12.8	-12.8	
<b>Victoria Hall</b>	10.8	11.4	-0.65	-6%
<b>15171 Yonge</b>		2.2	-2.2	
<b>McMahon Club House</b>		0.08	-0.08	
<b>Total</b>	<b>3,439</b>	<b>2,632</b>	<b>806</b>	<b>23.4%</b>

### GHG Emission Intensity - 2021



**Legend**  
 ■ Highest 3 ■ Middle ■ Lowest 4

## Energy Cost Avoided due to Energy Conservation Measures (ECMs)/ closures



**Legend**  
■ Predicted ■ Actual ■ Savings - Normalized

### Energy Cost Avoided due to ECMs/ closures

	Fuel cost			
	Predicted \$	Actual \$	Savings (Normalized) \$	Savings (Normalized) %
<b>2020</b>	2,389,087	1,885,918	503,169	21.1%
<b>2021</b>	2,133,195	1,644,516	488,679	22.9%

### List of ECMs Completed since 2019

- Council approved \$50,000 for the implementation of energy efficiency measures at Town facilities (2020).
- Town acquired an energy management software to track energy use, analyze trends, estimate energy savings from energy projects, and track GHG emissions (2019).
- Historic energy consumption from Town Facilities were acquired from utility companies for software input (2019-2020).
- Monthly Building Performance meeting with Facility staff and Energy and Climate Change Analyst, to discuss ongoing energy projects, operational changes, energy consumption, trends, best practices for energy conservation, new technologies, utility incentives etc. (ongoing since 2020)
- Integrated energy efficiency and waste disposal wording/ requirements in Facilities' procurement documents (2020).
- Investigated a new technology for improving energy efficiency at SARC using the Building Automation System (2020-2021).
- Completed LED lighting retrofits at Senior Centre, SARC and Town Hall (2021).
- Completed Light controls installation (motion sensors, occupancy sensors) at Town Hall (1st and 2nd floor), planning 3rd floor (2021).
- Performed an energy audit under Enbridge's Run it Right program at Town Hall and JOC, received \$9,000 from Enbridge to implement low cost energy conservation measures, reducing GHG emissions by 5% per year and around \$3,700 per year in operational costs (2021).
- 9 dual head electric vehicle charging stations installed at Town Hall, SARC, JOC, ACC, Armoury, AFLC, under the Ontario-wide Ivy Network, with funding from NRCAN (2021).
- Due to COVID 19, facilities made operational changes to reduce energy consumption during shutdowns, avoiding an estimate of \$488,000 in energy costs (23% avoided energy use in 2021).
- Town solar panels generated 663,550 kWh of emission free electricity in 2021.

ATTACHMENT 2 - CORPORATE ENVIRONMENTAL ACTION PLAN 2021 TRACKING SHEET									
Area	Item #	Actions	Initiatives from CEAP	Responsibility	Measures/ Key Performance Indicator (KPI)	Tasks (Target)	Timeline	KPI result for 2021, please mention updates to the listed initiatives under column "D"	
WATER CONSERVATION Objective W1: Reduce town owned facility water consumption	1	Action 1: Reduce corporate water consumption (CWC)	To reduce corporate water consumption through increased efficiency techniques such as: <ul style="list-style-type: none"> <li>Computer-automated irrigation systems;</li> <li>Water-efficient landscaping;</li> <li>Rainwater harvesting; and</li> <li>Greywater collection and reuse</li> </ul>	CMS-Facilities	CWC Facility Total	Develop annual CWC reduction targets.	Q1 2020	COVID relief fund included	
WATER CONSERVATION Objective W1: Reduce town owned facility water consumption	2	Action 1: Reduce corporate water consumption (CWC).	To reduce corporate water consumption through increased efficiency techniques such as: <ul style="list-style-type: none"> <li>Computer-automated irrigation systems;</li> <li>Water-efficient landscaping;</li> <li>Rainwater harvesting; and</li> <li>Greywater collection and reuse</li> </ul>	OPS- Parks	CWC Parks Total	Add CWC to Progress Report	Q2 2020	- In ground holding tank being installed at library square to harvest greywater off splashpad to water landscape/annual planters.	
WATER CONSERVATION Objective W1: Reduce town owned facility water consumption	3	Action 2: Implement a water loss reduction strategy	To implement a water loss reduction strategy, involving the installation of updated water meters to both residents and businesses and the relining of aged sanitary sewer incrementally each year.	OPS - Water	# of Water meters installed per year	Add KPI's to Progress Report	Ongoing	315 water meters changed	
WATER CONSERVATION Objective W1: Reduce town owned facility water consumption	4	Action 2: Implement a water loss reduction strategy	To implement a water loss reduction strategy, involving the installation of updated water meters to both residents and businesses and the relining of aged sanitary sewer incrementally each year.	OPS - Water	Sanitary sewer Km relined per year	Add KPI's to Progress Report	Ongoing	0 km The Town only relines as needed and nothing has come up in the last several years. Though some sanitary mains have been replaced through Capital Projects that are managed by Engineering.	
WATER CONSERVATION Objective W2: To reduce the uncontrolled and inadequately controlled storm water areas with respect to both quality and quantity by following recommendations of the Town's Comprehensive Storm water Management Master Plan	5	Action 1: Investigate ways to enhance and optimize the functioning of the current storm water management facility inventory	<ul style="list-style-type: none"> <li>Reducing the amount of phosphorus entering Lake Simcoe via Tannery Creek and East Holland River;</li> <li>Restoring a self-sustaining coldwater fishery, where possible;</li> <li>Improving water quality to meet Town's, LSRC, and Lake Simcoe Protection Plan requirements;</li> </ul>	PDS – Engineering	# of storm water ponds enhanced & optimized from their current function	(1 to 2 ponds enhanced & optimized from their current function)	2023 Q4	1) A comprehensive investigation undertaken by LSRC is ongoing with respect to the Town's SWM pond inventory. This will result in a series of recommendations related to the ponds' O&M, clean-up, retrofit and enhancement. 2) Tamarac Pond Retrofit to enlarge its quality control capacity to handle larger storm events should be completed in 2022. 3) Pond WC3 by Deerhorn & Kennedy Street is having sediment removed from it currently and should be completed in 2022. It is being retrofitted so that it will have larger sediment storage capacity, improved maintenance accessway, improved maintenance storm by-pass system and upstream catch basin inserts that help keep sediment captured by catch basins to remain in the catch basins. This will reduce pond cleanout maintenance frequency, causing less disturbance to the environment and potentially improving water quality released from the facility.	
WATER CONSERVATION Objective W2: To reduce the uncontrolled and inadequately controlled storm water areas with respect to both quality and quantity by following recommendations of the Town's Comprehensive Storm water Management Master Plan	6	Action 2: Improve storm water quality in all new road reconstruction projects.	To improve stormwater quality for all road reconstruction projects, where possible, by installing oil/grit separators or using Low Impact Development (LID's) to treat the road's stormwater runoff. <ul style="list-style-type: none"> <li>Implement the Stormwater Management (SWM) Rate Program</li> <li>Develop a stormwater infrastructure maintenance program and facility monitoring and inspection program</li> <li>Update SWM Design Standards</li> <li>Develop low impact development (LID) design guidelines/ incentives</li> <li>Apply LID techniques during construction/renovation of infrastructure and Town buildings</li> </ul>	PDS – Engineering	Km's of road treated by oil grit separators or Low Impact Development controls	As opportunity arises as determined during design of road reconstruction projects	Ongoing Progress to be reported yearly in Q1	Bio-swales have been constructed on Johnson Road and Holman Crescent, Davidson Road and Bailey Crescent as well as an enhanced oil/grit separator on Davidson Road, as part of 2020 road reconstruction projects. These features are currently under warranty.	
WATER CONSERVATION Objective W2: To reduce the uncontrolled and inadequately controlled storm water areas with respect to both quality and quantity by following recommendations of the Town's Comprehensive Storm water Management Master Plan	7	Action 3: Encourage at source storm water management control measures on private property.	<ul style="list-style-type: none"> <li>By developing and implementing a marketing strategy to raise awareness within the community of how they can manage their storm water within their private properties and the positive impact this can have; and</li> <li>By refining, updating or altering existing by-laws as required related to implementing source control measures on private property</li> <li>Source control measures on private properties include rain barrels and rain gardens and on private site plans include green roofs, vegetated swales, rain gardens and permeable pavement.</li> </ul>	PDS – Planning / PDS – Engineering	# of source storm water management control measures on private property installed that the Town is aware of / year	Encourage residents to install private LIDs such as rain barrels during public engagement & design of road reconstruction projects	Ongoing Progress to be reported yearly in Q1	0; Town is unaware of any stormwater management control measures on private property being installed in 2021	

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WATER CONSERVATION Objective W2: To reduce the uncontrolled and inadequately controlled storm water areas with respect to both quality and quantity by following recommendations of the Town's Comprehensive Storm water Management Master Plan	8	Action 4: Investigate new practices that may enhance pollution prevention	<ul style="list-style-type: none"> <li>• Safer Alternative Products;</li> <li>• Materials Storage Controls;</li> <li>• Pool Drainage Controls;</li> <li>• Erosion and Sediment Control;</li> <li>• Cross Connection Control Program (ensuring sanitary services do not outlet to a storm drainage system);</li> <li>• Public Education;</li> <li>• Business Education and Awareness;</li> <li>• Yellow Fish Road Program, in cooperation with York Region;</li> <li>• Salt Management measures; and</li> <li>• Snow Disposal practices.</li> </ul>	PDS – Engineering	# of new practices implemented to enhance pollution prevention	(5 new practices to enhance pollution prevention by 2023)	2023 Progress to be reported yearly in Q1	1) Town's new Site Alteration By-law was enacted in December of 2019 it regulates the quality of fill imported to sites and erosion and sediment controls used on sites to ensure no sediment contaminates adjacent properties or streams. 2)staff investigated updating the Sewer Bylaw to include restrictive provisions for pools/ hot tub discharge. Due to limited staffing resources for enforcing such an update to the Bylaw, staff have postpone the update until resources come available.
SUSTAINABLE URBAN DEVELOPMENT Objective S1: Foster a sustainable green development and alternate methods of transportation to improve the quality of life of Aurora's residents and Town staff.	9	Action 1: Promote Sustainable Transportation to Town staff	<p>Various Sustainable Transportation initiatives to reduce single occupancy vehicle use and maintain the smart commute gold designation such as:</p> <ul style="list-style-type: none"> <li>• Creating and offering flexible work hours opportunity for staff</li> <li>• Creating and supporting a telecommuting policy</li> <li>• Designating carpooling parking spots at Town hall</li> <li>• Encouraging employees to actively transport themselves to work (cycle, walk)</li> <li>• Encourage staff utilization of the e-bike share program</li> <li>• Offer discounted transit passes for Town staff</li> <li>• Increase bike parking at Town owned public facilities for both staff and residents; and</li> <li>• Improve walking / cycling network including safer grade-separated routes and cycling signals</li> </ul> <p>Continue to implement and promote the Active and Safe Routes to School Program: This program focuses on active transportation to increase physical activity of students to promote healthy, active travel to and from school in the Town of Aurora. Town staff in coordination with School Boards and York Region community and health services work with each school to develop a plan to reduce barriers to walking, reduce traffic congestion and increase walking and cycling safety skills.</p>	PDS – Engineering / CS – HR	Annual Smart Commute designation Award (Maintain Gold Standard)	Annual update on Progress Report Q1	Ongoing	The Town maintained Gold Standard status for 2021
SUSTAINABLE URBAN DEVELOPMENT Objective S1: Foster a sustainable green development and alternate methods of transportation to improve the quality of life of Aurora's residents and Town staff.	10	Action 2: Implement Sustainable features in the construction or reconstruction of Town infrastructure including buildings, facilities and roads		CMS -Facilities / PDS – Engineering	# and types of sustainable features installed on construction projects	(1 sustainable feature per construction project, when feasible)	Ongoing, as construction projects arise.	<ul style="list-style-type: none"> <li>- The JOC design includes water conservation low-flow hands-free plumbing fixtures, drought resistant plantings, rain water harvesting used in green houses and for vehicle and equipment wash bay.</li> <li>- Bio-swales have been constructed on Johnson Road and Holman Crescent, Davidson Road and Bailey Crescent as well as an enhanced oil/grit separator on Davidson Road, as part of 2020 road reconstruction projects. These features are currently under warranty.</li> <li>- Town's library square design includes 20 green design features (in line with LEED Gold) such as daylighting, high efficient HVAC, high water efficiency fixtures, thermal comfort and controls, improved thermal efficiency in the building envelope beyond the Ontario Building Code, low VOCs, electric vehicle charging stations, and LIDs such as permeable paving.</li> <li>- OGS Unit to be installed on Murray Drive as part of Culvert Replacement Construction project in 2023</li> <li>- Promot active transportation by enhancing safety through the implementation of traffic calming measures on Centre Street and Kennedy Street.</li> <li>- Request for site specific TDM measures be provided through new development applications.</li> <li>- Hallmark Ball Diamond Park construction includes LID features eg: bio swales - completion May 2022</li> </ul>
SUSTAINABLE URBAN DEVELOPMENT Objective S1: Foster a sustainable green development and alternate methods of transportation to improve the quality of life of Aurora's residents and Town staff.	11	Action 3: Set up new areas for additional community gardens in Aurora.		OPS- Parks	# of community gardens	Continue to explore opportunities to add additional community gardens as appropriate	Ongoing	Community garden is planned for a new park construction in the 2C lands - construction in 2022

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SUSTAINABLE URBAN DEVELOPMENT Objective S1: Foster a sustainable green development and alternate methods of transportation to improve the quality of life of Aurora's residents and Town staff.	12	Opportunity: Apply for green infrastructure grant funding.		FS - Finance	# of Town projects funded/year	(2 Town projects funded)	2023 Q2 Progress to be reported yearly in Q1	- The Town signed an MOU with OPG to seek NRCan funding for the installation of electric vehicle charging stations at Town properties in 2019 (50% of the cost to install and procure equipment) and the project was completed in 2021 with the installation of 18 public level 2 electric vehicle charging stations (plus another 4 at Aurora Town Square).
WASTE REDUCTION and DIVERSION Objective D1: Implement sustainable construction practices to reduce waste, incorporate sustainable design and reclaim or recycle materials.	13	Action 1: Implement sustainable construction and building practices for all Town infrastructure including buildings, facilities and roads	that considers 'Sustainable Sites Guidelines': <ul style="list-style-type: none"> <li>- Reuse/recycle existing materials and support sustainable production practices</li> <li>- Maximize the efficient use of aggregates through the recycling of recovered materials to minimize demand for new aggregates.</li> <li>- Minimize effects of construction-related activities</li> <li>- Maintain the site for long-term sustainability</li> <li>- Utilize biodegradable and low impact green building cleaning products.</li> </ul>	PDS - Engineering	# and types of sustainable construction practices implemented that will reduce waste	Development of best practices	2021 Q4	no update for 2021
WASTE REDUCTION and DIVERSION Objective D1: Implement sustainable construction practices to reduce waste, incorporate sustainable design and reclaim or recycle materials.	14	Action 1: Implement sustainable construction and building practices for all Town infrastructure including buildings, facilities and roads	that considers 'Sustainable Sites Guidelines': <ul style="list-style-type: none"> <li>- Reuse/recycle existing materials and support sustainable production practices</li> <li>- Maximize the efficient use of aggregates through the recycling of recovered materials to minimize demand for new aggregates.</li> <li>- Minimize effects of construction-related activities</li> <li>- Maintain the site for long-term sustainability</li> <li>- Utilize biodegradable and low impact green building cleaning products.</li> </ul>	CMS -Facilities	# and types of sustainable construction practices implemented that will reduce waste	Implementation of best practices	As opportunity arises	no update for 2021
WASTE REDUCTION and DIVERSION Objective D1: Implement sustainable construction practices to reduce waste, incorporate sustainable design and reclaim or recycle materials.	15	Action 1: Implement sustainable construction and building practices for all Town infrastructure including buildings, facilities and roads	that considers 'Sustainable Sites Guidelines': <ul style="list-style-type: none"> <li>- Reuse/recycle existing materials and support sustainable production practices</li> <li>- Maximize the efficient use of aggregates through the recycling of recovered materials to minimize waste volumes and utilize non-aggregate supplements (e.g. shredded tires) to minimize demand for new aggregates.</li> <li>- Minimize effects of construction-related activities</li> <li>- Maintain the site for long-term sustainability</li> <li>- Utilize biodegradable and low impact green building cleaning products.</li> </ul>	OPS - Roads	# and types of sustainable construction practices implemented that will reduce waste	Update tender specifications to promote sustainable construction practices and waste reduction where feasible	2019 Q1 Progress to be reported yearly in Q1	- Project for replacement of a retaining wall at 28 Wellington St included provisions within the tender to reuse existing stone material to rebuild the wall instead of disposing old material and replacing with new - Staff are continuing to use a stock pile of top soil for projects that was generated through shredding stockpile of organic material stored at our community gardens - - The use of different Apps for infrastructure repairs/maintenance/monitoring – reduce paper usage, printing, not producing waste or recyclable materials - The use of helical piles at Yonge and Kennedy railing replacement project– the construction part had a lower carbon footprint than the traditional concrete base, produced less disturbances to the natural environment and we did not use materials that will become waste when the structures need replacement. The helical piles will be recyclable material. -The use of CB shields for the WC3 storm pond reconstruction. The benefits of using CB shields may fit in a different category – improve stormwater quality, and extend the functioning of the pond, however it is our project. -The sidewalk inspection program and shaving of the trip hazards. It is a solution to maintain a safe infrastructure, that produces less waste than the full replacement of the sidewalk.
WASTE REDUCTION and DIVERSION Objective D1: Implement sustainable construction practices to reduce waste, incorporate sustainable design and reclaim or recycle materials.	16	Action 2: Develop a Green Procurement Policy for the Town of Aurora and its contractors.		FS - Procurement	Develop KPI as part of the Green Procurement Policy	Prepare a Green Procurement Policy for Council consideration	2020 Q1	The Modernization project for Town-wide procurement practices was kicked off in 2021. Green procurement policy included in the project, completion date in 2022.

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WASTE REDUCTION and DIVERSION Objective D2: Reduce waste going to landfill disposal.	17	Action 1: Implement Waste Reduction Strategies.	<ul style="list-style-type: none"> <li>A bag tag system and enforce 3 bag maximum</li> <li>A full recycling program with parks and open spaces</li> <li>Increase the number of multi-residential buildings within the recycling and green bin program</li> <li>Develop initiative to promote reduction and re-use with radio, e-advertising and newspaper</li> <li>Develop a video campaign to increase awareness about the current blue box and waste programs</li> <li>Amend the current by-law requiring residents to source separate recyclables and organic materials from the waste stream, including textiles, electronic waste, household hazardous waste-batteries</li> <li>Capture baseline data of 3 stream diversion and complete business case of effectiveness</li> <li>New Diversion options to be developed for public events</li> <li>Implement fee for bulky waste items and appliances</li> </ul>	OPS- Solid Waste	% reduction of waste from facilities community/ year	Develop baseline to measure the opportunities to reduce waste from Town facilities/ year	2020 Q1 Progress to be reported yearly in Q1	<p>Community Waste Diversion Tracking:</p> <p>2018 Aurora's diversion rate: 65%</p> <p>2019 Aurora's diversion rate: 65%</p> <p>2020 Aurora's diversion rate: 64%</p> <p>2021 Aurora's diversion rate: 66%</p> <p>Front end multi-residential recycling program tracking:</p> <p>2019 Multi-res participation: 28 buildings</p> <p>2020 Multi-res participation: 29 buildings</p> <p>2021 Multi-res participation: 30 buildings</p> <ul style="list-style-type: none"> <li>The Town is investigating costs to perform a waste audit of Town facilities (2021).</li> <li>January 2021 3 bag limit started enforcement, complaints and enforcement being tracked.</li> <li>Council approved in July 2021 addig the bag tag purchase option, starting in January 2022.</li> <li>Due to COVID19 pandemic, facilities waste audit was not requested until staff and programs are running in facilities.</li> </ul> <p>AJURORA, ON – Starting this month (January 2021), the Town of Aurora will be educating residents on the new Bag Tag program. Aurora residents can place up to three-bags or containers for pickup every other week on regularly scheduled collection days and any additional waste will require a bag tag, helping to further reduce the waste in our community.</p> <p>Council approved the program in July. Aurora currently has the largest per-capita waste rate amongst York Region's Northern Six municipalities and is the only municipality that doesn't have a bag tag program implemented.</p> <p>The campaign will educate residents on the program and encourage the use of the Recycle Coach app that can be downloaded to any IOS or Android device. The app provides pickup schedules, useful information on waste and a search function that tells you where a waste item belongs. Bulky items such as furniture, mattresses, box springs, plastic lawn furniture, toilets (separated) and carpeting do not require a tag. Garbage tags can be purchased for \$5 each tax included and will be sold at Aurora Town Hall, Joint Operation Centre, Aurora Family Leisure Complex and the Stronach Aurora Recreation Complex.</p> <p>All garbage should be placed in a Town approved container or a garbage bag. Waste beyond the three-bag limit will require a bag tag sticker to be placed around the neck of the bag or it will not be picked up. Residents can put up to a maximum of six bags/bins of garbage out, three free and three paid.</p>
BIODIVERSITY and NATURAL HERITAGE Objective B1: Enrich Aurora's ecology by protecting and preserving biodiversity.	18	Action 1: * Encourage ecological design in landscaping of parks and retrofit projects.	<ul style="list-style-type: none"> <li>Extending the area of natural grassland, wood edge and increasing the core areas of existing woodlands where possible</li> <li>Implement options to naturalize parks and include landscaping for shade</li> <li>Develop a maintenance protocol to improve survival of newly planted/restored areas</li> </ul>	OPS- Parks	Add 1 ecological design feature in new parks and park retrofits / year	Consideration of ecological design in all new park design and retrofits	Progress to be reported yearly in Q1	<p>1 Park Naturalized Designed</p> <p>New park in 2C designed to be a natural park including, community gardens, pollinator gardens, naturalized playgrounds and one of the main trail entry locations to Wildlife Park - construction 2022. - Hallmark Ball Doanmond Park landscaping designed to include minimal maintenance of all surrounding landscapes other than playing fields - completion May 2022. - Boardwalk constuction across flood plain in partnership with SAC to connect Lakeview/WillowFarm Trail to Yonge/St. Johns.</p>
BIODIVERSITY and NATURAL HERITAGE Objective B1: Enrich Aurora's ecology by protecting and preserving biodiversity.	19	Action 2: Improve natural heritage significant wildlife habitat.	<ul style="list-style-type: none"> <li>Re-evaluate by-laws that address wildlife feeding</li> </ul>	OPS- Parks	List existing partnerships and note partnerships as they occur	Ongoing partnerships with schools, Arboretum, Adopt-aPark and bird box program	Ongoing Progress to be reported yearly in Q1	<p>Continued the Adopt a Park Program and Partnership development: one additional adopt a park partnerships in 2021 ( Herb McKenzie Park), making a total of 13 total partnerships.</p> <p>Trees Planted on Aurora lands, included the Towns street tree planting program, planting days with Arboretum, LSRCa and Neighbourhood Network.</p>
BIODIVERSITY and NATURAL HERITAGE Objective B1: Enrich Aurora's ecology by protecting and preserving biodiversity.	20	Action 3: Implement the Urban Forest Management Plan	<ul style="list-style-type: none"> <li>Promote Conservation authorities' tree planting programs to encourage planting trees on public and private property</li> <li>Update standards and specifications for tree health, including soil</li> </ul>	OPS- Parks	Track the # of trees planted on Town property / year	Plant an average of 1000 trees or shrubs / year on Town property.	Progress to be reported yearly in Q1	<p>Planted 1900 trees and shrubs on Aurora lands, included the Towns street tree planting program, planting days with Arboretum, LSRCa and Neighbourhood Network</p>
BIODIVERSITY and NATURAL HERITAGE Objective B1: Enrich Aurora's ecology by protecting and preserving biodiversity.	21	Action 4: Implement the Invasive Species Act in partnership with York Region and the Province.	<ul style="list-style-type: none"> <li>Apply for grant funding to help annually reduce the spread of invasive plant species</li> <li>Eradicate Noxious weeds within proximity to trails and actively used public areas to make them pedestrian friendly</li> </ul>	OPS- Parks	Complete 1 invasive species pilot project per year. Apply for 1 grants per 3 years	Document partnership with other organizations.	Progress to be reported yearly in Q1	<p>Eradication Efforts of Invasive Species (species are Phragmites, Garlic mustard, Giant Hog Weed, European Buckthorn): successful removal of invasive species from Rotary Park with assistance from the Town's Adopt a Park partner. Arboretum Committee continued work on phragmites control. Staff working to control pharmites within Wildlife Park and SWMP's.</p>
CLIMATE CHANGE and ENERGY Objective C1: Prepare a Climate Change Adaptation Plan	22	Action 1: Identify climate change risks by completing a vulnerability risk assessment of key departmental priorities.		PDS – Engineering All relevant departments to contribute to risk assessment Creation	Completion date of each climate change risk assessment	Apply for funding, document proposal approvals	2020 Q3 for first risk category 2021 Q3 for second category	<p>The kicked-off the Climate Change Adaptation Plan in 2021, a risk and vulnerability assessment of the Town's infrastructure and creating a plan to increase the Town's resilience to climate change. Impelmentation plan will include a divisional-based priorities list. Expected project completion in 2022.</p>



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CLIMATE CHANGE and ENERGY Objective C1: Prepare a Climate Change Adaptation Plan	23	Action 2: Develop a Climate Change Adaptation Action Plan that will assist the Town to mitigate the risks of climate change. The Plan would benefit from climate change planning partnerships with other municipalities, conservation authorities and York Region.		PDS – Engineering	The preparation of a climate change action plan approved by Council	consultant fee - 2020 budget	2021 Q1	The Town kicked-off the Climate Change Adaptation Plan in 2021, a risk and vulnerability assessment of the Town's infrastructure and creating a plan to increase the Town's resilience to climate change. Expected project completion in 2022.
CLIMATE CHANGE and ENERGY Objective C2: Implement the Provincial Climate Change Plan Actions	24	Action 1: *Province Propose amendments to Municipal Act.		PDS - Planning	RMOY is the approval authority for Official Plan, amendments & municipal consolidation	Update the Town of Aurora's Official Plan	Ongoing	Official Plan Review project planning occurred in 2019, with plans to start in 2020. The project plans to incorporate changes to the Municipal Act.
CLIMATE CHANGE and ENERGY Objective C2: Implement the Provincial Climate Change Plan Actions	25	Action 2: *Require electric charging in surface lots.		PDS - Planning	Develop KPI as part of GDS	Add this requirement to the Town's Development Policy	2021 Q4	Minimum charging infrastructure being added under the Green Development Standard - project completion in 2022. Town Municipal Parking Lot Management Plan completed in 2022 includes requirement for any resurfacing or new parking lots to assess EV infrastructure needs within Design phase.
CLIMATE CHANGE and ENERGY Objective C2: Implement the Provincial Climate Change Plan Actions	26	Action 3: *Set green development standards.		PDS - Planning	Develop KPI as part of GDS	Prepare Green Development Standards (GDS) for Council	2020 Q4	The Green Development Standard - project started in 2021, completion in 2022.
CLIMATE CHANGE and ENERGY Objective C2: Implement the Provincial Climate Change Plan Actions	27	Action 4: *Eliminate minimum parking requirements over the next 5 years for municipal zoning bylaws.		PDS - Planning	Develop KPI as part of GDS	Add this requirement to the Official Plan policy. Encourage TDM to replace parking requirements within development approval process	2024 Q4	OP Review will consider the parking requirement. Reduced parking in the Promenade due to space restrictions.
CLIMATE CHANGE and ENERGY Objective C2: Implement the Provincial Climate Change Plan Actions	28	Action 5: *Make climate change mitigation and adaptation mandatory in municipal official plans.		PDS - Planning	Develop KPI as part of GDS	Add this requirement to the Official Plan policy	2021 Q4	Official Plan Review to start in 2020 and will incorporate recommendations from the Community Energy Plan, updates to the Municipal Act and the Green Development Standard.
CLIMATE CHANGE and ENERGY Objective C3: Reduce the town's greenhouse gas emissions by town staff and at town facilities. * Actions pulled from the Provincial Climate Change Plan	29	Action 1: Implement an anti-idling initiative.	- To implement an anti-idling initiative that will include working with schools to educate parents and public. This will also include the implementation of an anti-idling education campaign for town staff and contractors.	CS – HR: Organization of training timing OPS -Fleet FS- procurement	Full time staff completing anti-idling training / year.	Year 1 include full time staff who drive Town vehicles. Train remainder of staff.	All Staff trained by Q2 2020.	- Town launched Fall 2021 the Every Second Counts anti-idling public education campaign based on Council-approved Anti-Idling Policy. - Education campaign included: dedicated Town website on anti-idling education, business and school resources, Quiz, By-Laws provided education in the community, Mobile signs throughout the community, social media campaign, etc. - Town staff training for anti idling also included.
CLIMATE CHANGE and ENERGY Objective C3: Reduce the town's greenhouse gas emissions by town staff and at town facilities. * Actions pulled from the Provincial Climate Change Plan	30	Action 2: *Develop a Green Fleet Plan.	- To develop a corporate Green Fleet Plan that addresses new green fleet procurement and replacement to reduce greenhouse gas emissions. The Plan should consider alternative fuels, higher efficiency vehicles, hybrid and electric options that meet the required need. - Develop Electric Vehicle Charging Station usage fee Policy and maintenance plan - *Consider installing an EV charging station at SARC	PDS – Engineering / OPS - Fleet	Develop a KPI in process of preparing the Green Fleet Plan	Prepare a Green Fleet Plan Add to 2020 budget	2021 Q3	The Council approved the Town's first Green Fleet Action Plan in 2021 (completed) and staff are in the implementation phase of this plan. Council approved the Electric Vehicle Charging Station Policy and Process to outline Town requirements and best practices in implementing and expanding EV charging stations at Town facilities Staff installed 8 dual head level 2 EV chargers at Town-owned facilities including: SARC, AFLC, Town Hall, JOC and the Armoury. An addition 2 dual head chargers will be installed as part of the Library Square Project. The Town joined Ontario's largest EV charging network, Ivy.

Area	Item #	Actions	Initiatives from CEAP	Responsibility	Measures/ Key Performance Indicator (KPI)	Tasks (Target)	Timeline	KPI result for 2021, please mention updates to the listed initiatives under column "D"
CLIMATE CHANGE and ENERGY Objective C3: Reduce the town's greenhouse gas emissions by town staff and at town facilities. * Actions pulled from the Provincial Climate Change Plan	31	Action 3: Improve energy efficiency of existing building and business operations	<ul style="list-style-type: none"> <li>Engage with town owned facility operators, businesses and institutions to implement corporate sustainability initiatives aimed at reducing GHG emissions</li> <li>*Reduce emissions/ energy costs by implementing energy conservation measures</li> </ul>	CMS-Facilities	Estimated Annual energy savings of newly implemented energy retrofits in Town owned facilities	Implement facility energy and water conservation measures within the Capital Plan	Report yearly in Q1	<p>Base year: 2018 2018: 23,180,806 equivalent kilowatt-hours 2019: 24,641,678 equivalent kilowatt-hours 2020: 19,860,541 equivalent kilowatt-hours 2021: 19,828,350 equivalent kilowatt-hours*</p> <p>New properties added into the Town's portfolio thus increasing Town's emissions compared to previous years, include: Sports Dome, Yonge Street properties.</p> <p>Energy Conservation Measures in 2021:</p> <ul style="list-style-type: none"> <li>Council approved \$50,000 for the implementation of energy efficiency measures at Town facilities.</li> <li>Town acquired an energy management software to track energy and water use, analyze trends, estimate energy savings from significant energy saving projects, and track GHG emissions.</li> <li>Historic energy consumption from Town Facilities were acquired from utility companies for software input.</li> <li>Monthly Building Performance meeting setup with Facility staff and Energy and Climate Change Analyst, to discuss ongoing energy projects, operational changes, energy consumption, trends, best practices for energy conservation, new technologies, utility incentives etc. (ongoing since 2020)</li> <li>Integrated energy efficiency and waste disposal wording/ requirements in Facilities' procurement documents.</li> <li>Investigated a new technology for improving energy efficiency at SARC using the Building Automation System.</li> <li>Completed LED lighting retrofits at Senior Centre, SARC and Town Hall (2021).</li> <li>Completed installation of Light controls (motion sensors, occupancy sensors) added at Town Hall (1st and 2nd floor), planning 3rd floor (2021).</li> <li>Performed a natural gas use audit under Enbridge's Run it Right program: Town Hall and JOC (2021), receiving \$9,000 from Enbridge to implement low cost energy conservation measures and operational changes. The project reduces GHG emissions by 5% annually at those facilities, and about \$3,700 per year in operational costs.</li> <li>9 dual head electric vehicle charging stations installed at Town facilities: Town Hall, SARC, JOC, ACC, Armoury, AFLC, under the Ontario-wide Ivy Network, with funding from NRCAN (2021).</li> <li>Due to COVID 19, facilities made operational changes to reduce energy consumption during the shutdown. Using the Town's energy management software, staff estimate energy cost avoidance to be \$488,000 (23% avoided energy use in 2021).</li> </ul>
CLIMATE CHANGE and ENERGY Objective C3: Reduce the town's greenhouse gas emissions by town staff and at town facilities. * Actions pulled from the Provincial Climate Change Plan	32	Action 4: Consider all green infrastructure options as part of new corporate builds.	<ul style="list-style-type: none"> <li>Placing trees in and around Parking lots</li> <li>Redesign and retrofit water collection and conveyance infrastructure due to climate change</li> <li>Implement water quality and water and wastewater conservation strategies and incentives</li> </ul>	OPS - Parks / OPS - Roads / CMS - Facilities / PDS - Engineering	# of green infrastructure options included in new corporate projects	List chosen green infrastructure items implemented on Progress Report	Ongoing, as construction projects arise.	Aurora Town Square project is in line with LEED Gold and will include the installation of electric vehicle charging stations.
ENVIRONMENTAL AWARENESS Objective A1: Encourage the stewardship of Aurora's natural resources and advance green initiatives by promoting community involvement	33	Action 1: Promote the use of reusable water bottles in conjunction with the new water bottle filling stations. Communication campaign is aimed at the community including staff and should include but may not be limited to the following:	<ul style="list-style-type: none"> <li>Waste caused by disposable water bottles</li> <li>Promote town's municipal water as being clean, safe and drinkable</li> <li>Promotion of Blue W, web application in order to fill water bottles at no cost in participating businesses</li> <li>Town to partner with York Region's education and outreach programs for water conservation and local water source protection</li> <li>Minimize disposable water bottle usage at group organized events or meetings</li> </ul>	PDS - Engineering	# of existing community events sharing reusable water bottle information	Prepare messaging to share at existing community based events.	First awareness campaign to take place in 2018	No update for 2020 due to events being canceled due to the COVID19 Pandemic.
ENVIRONMENTAL AWARENESS Objective A1: Encourage the stewardship of Aurora's natural resources and advance green initiatives by promoting community involvement	34	Action 2: Increase overall community awareness of climate change:	<ul style="list-style-type: none"> <li>Increase awareness of natural hazards from flooding and erosion</li> <li>Increase public awareness and education on stormwater management</li> <li>Promote idling reduction and education campaigns (community/corporate)</li> <li>Public awareness campaigns encouraging good behaviour using incentives supported by corporate sponsorship</li> <li>Increase uptake of sustainable transportation options</li> <li>Promote actions to reduce the creation of GHG emissions and support our ability to adapt to climate change</li> </ul>	PDS - Engineering / CAO - Communications	# of existing community events sharing Climate Change information	Prepare messaging to share at existing community based events.	2019 Q3	<p>Due to events being canceled due to the COVID19 Pandemic, few public events occurred.</p> <ul style="list-style-type: none"> <li>Ongoing Town Website updates to include Climate Change initiatives and Town Climate Change Plans</li> <li>Every Second Counts Town Anti-Idling education campaign in fall 2021, including public awareness, quiz, dedicated Website, quiz, Bylaw providing education material to drivers, social media campaign, Town staff education program, etc.</li> <li>Community Environmental awareness challenge GO Green Challenge in Summer 2021 - promoting and environmental initiatives at home.</li> <li>Town Staff Environmental awareness challenge GO Green Challenge in Spring 2021 - promoting and environmental initiatives at home.</li> </ul>
ENVIRONMENTAL AWARENESS Objective A1: Encourage the stewardship of Aurora's natural resources and advance green initiatives by promoting community involvement	35	Action 3: Develop an urban forest communication plan that delivers key messages to target audiences within the community	<ul style="list-style-type: none"> <li>Promote "Adopt a Park" Program as "Community Stewardship Program"</li> <li>Support and promote LEAF's Backyard Planting Program</li> <li>Support stewardship programs through planting trees/shrubs/maintenance with partners LSRCA, Arboretum, and Neighbourhood work</li> </ul>	OPS - Parks / CAO - Communications	annual # of trees planted	Continue to promote planting and naturalization projects	1000 trees planted / year	<ul style="list-style-type: none"> <li>Planted 1900 trees and shrubs on Aurora lands, included the Towns street tree planting program, planting days with Arboretum, LSRCA and Neighbourhood Network. Streets trees are monitored and have a survival rate of 90-95%.</li> <li>Designed a naturalized park: New park in 2C designed to be a natural park including, community gardens, pollinator gardens, naturalized playgrounds and one of the main trail entry locations to Wildlife Park.</li> </ul>
ENVIRONMENTAL AWARENESS Objective A1: Encourage the stewardship of Aurora's natural resources and advance green initiatives by promoting community involvement	36	Action 4: Develop a community based communications strategy to help protect and enhance our biodiversity	<ul style="list-style-type: none"> <li>Provide targeted outreach for residents surrounding the natural system via stewardship and education programs</li> <li>Maintain an invasive species web page on the town website linking residents to additional informational websites</li> </ul>	OPS - Parks / CAO - Communications	# of public outreach campaigns promoting and protecting biodiversity	Increase signage Increase partnerships	Ongoing	Developed and enhanced LDD strategy that includes monitoring, robust communication plan, burlap kits, watering and injection treatments of select prominent trees.
CEAP IMPLEMENTATION	37	Action 1: CAO to support the ongoing role of the Environmental Management Team (EMT) to manage the implementation of the CEAP. The implementation team will include representatives from all departments and will report to ELT.		CAO and ELT			Ongoing	AMT reviews the CEAP progress report annually for comment.
CEAP IMPLEMENTATION	38	Individual Departments, with the assistance of EMT, will consider the implementation of this Plan when developing departmental priorities and preparing budgets.		ELT and EMT			As part of annual budget process	CEAP action items included into divisional annual operation/ capital budgets. Starting 2023 budget cycle, all capital projects will include a climate change considerations section where the environmental plan in which the project supports will be identified, including the CEAP.
CEAP IMPLEMENTATION	39	Implementation of CEAP to flow through directors and CAO, who will be responsible for assigning respective departmental staff to implement.		CAO and ELT			ongoing	CEAP stakeholder group established for annual updates and review to the annual progress report

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CEAP IMPLEMENTATION	40	Staff are strongly encouraged to reference the relevant CEAP objectives in the Link to the Strategic Plan section of all Council reports.		Staff report writers			New / ongoing	Climate Change Considerations Section added to Staff reports starting in 2022, where staff to reference any environmental plan in which report recommendations support, including CEAP.
CEAP IMPLEMENTATION	41	The Program Manager of Environmental Initiatives, to include a semi-annual informal progress update of CEAP's implementation to Council.		PDS – Engineering			*New / Annual in Q3	Annual Progress reports provided to EAC and Council.
CEAP IMPLEMENTATION	42	EMT, through department heads, to report to council by way of annual Progress Report regarding the progress of the CEAP's implementation.		ELT and EMT			Annually in Q1	Annual Progress reports provided to EAC and Council.
CEAP IMPLEMENTATION	43	The Green Initiatives Reserve Fund (the "Fund") is hereby established to receive and hold donations or budgetary contributions for purposes of funding or lending funding for projects or initiatives which further the objectives or support the strategic directions of the Town's Corporate Environmental Action Plan as amended from time to time. Council may direct that portions of revenues or savings arising from certain projects are to be contributed to the Reserve Fund. Balances in the Fund will be planned for specific projects recommended to or by Council during the annual budget process, or other times throughout the year, having consulted with the Environmental Advisory Committee. The Green Initiatives Reserve Fund was established in September of 2012.		FS- Finance			Ongoing	ongoing
CEAP IMPLEMENTATION	44	During the next (second) review and enhancement of this plan, Stakeholders are seeking to strengthen the community component which will include a thorough and varied community consultation process which engages community members, local businesses, staff and council with the renewal of this Plan.		PDS-Engineering CAO- Communications			CEAP update to be added to 2022 capital budget	Capital project planning included for 2026 to hire a consultant to put CEAP renewal together, with strong public and town stakeholder consultation elements.
CEAP IMPLEMENTATION	45	Develop, distribute and promote a staff Environmental Handbook; to be maintained and updated on the intranet and printed and distributed to new and existing staff during Earth Week annually. The handbook will highlight some new environmental initiatives as well as some basic energy saving and environmentally friendly living tips.		PDS-Engineering CAO- Communications			Complete version 1 of handbook by Q2 2020	Pending return to work to develop a Green Team at the Town, in which a handbook would be part of the work of the Green Team
CEAP IMPLEMENTATION	46	Set up a green team of staff who are passionate about specific environmental initiatives to advise the project lead until the project is being implemented. This team should also help raise awareness, promote various environmental programs and choose to help at various environmental events throughout the year.		PDS-Engineering CAO- Communications			Form green team by Q1 2020	Pending return to work to develop a Green Team at the Town.
CEAP IMPLEMENTATION	47	Youth Engagement on Environmental Topics		PDS-Engineering CAO- Communications			ongoing	The Community Energy Plan had local grade 8 students review, comment and present their comments on the CEP in 2021, delegated to Council.