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**Subject:** Climate Change Work Program Update

**Report to:** Planning and Economic Development Committee

**Report date:** Wednesday, January 13, 2021

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## Recommendations

1. That an update to the Climate Change Work Program for the Niagara Official Plan **BE ENDORSED**;
2. That staff **BE DIRECTED** to initiate research into a greening initiative for Niagara; and
3. That Council **BE INFORMED** of the Commissioner's delegated authority to enter into a contract with the Ontario Climate Consortium to complete climate modeling and projections for Niagara.

## Key Facts

- The purpose of this report is to seek Council's endorsement of an updated framework to the previously-approved Climate Change Work Program set out in PDS 22-2018.
- The updated program will focus on three key pillars: Provincial policy conformity, consultant-prepared climate change modelling and projections data, and a Regional Greening Initiative.
- Planning and Development Services are in the process of entering into a contract with the Ontario Climate Consortium ("OCC"), a not-for-profit climate science leader for climate modeling and projections. This will address the second pillar of the Climate Change Work Program noted above.
- The Climate Change work program will continue to the end of 2021, except for the staff-developed Regional Greening Initiative (third pillar) which will go beyond 2021 to ensure consultation surrounding best practice, restoration objectives and implementation of future Natural Environment Official Plan policies guide the future strategy.
- Planning staff have shared the OCC's project proposal with NPCA and they are supportive of the project.

## **Financial Considerations**

The costs associated with the Climate Change Work Program are accommodated within the Council approved Regional Official Plan project budget.

## **Analysis**

In 2018, Council endorsed the Climate Change Work Program through report PDS 22-2018. The current Work Program includes a 6-phase project focussed solely on Provincial Plan conformity and incorporates key project deliverables, a consultation program, timelines, and draft reporting milestones to Committee and Council.

The approved 6-phase work program will proceed unchanged and is not proposed for updating as part of this Report.

Staff are proposing to add two key pillars to the program:

- i) Consultant-prepared climate modeling and projections data for Niagara, and;
- ii) Staff-developed Regional Greening Initiative with a core focus of mitigating and adapting to the impacts of climate change.

## **Climate Change Work Program New Pillar II: Climate Change Modeling and Projections Data**

Staff undertook research of best practices and leaders in climate science. As a result, Staff identified an opportunity to have climate modeling and projections developed for Niagara.

This climate data will provide critical information about Niagara's changing climate over the long-term and will help to inform the future policy decisions at the Region, local municipal partners, and the Niagara Peninsula Conservation Authority. For example, climate data can be instrumental in informing climate adaptation plans, vulnerability assessments, as well as watershed and sub-watershed plans.

The modeling work will be undertaken by the not-for-profit OCC, a branch of the Toronto and Region Conservation Authority. The OCC has provided a well-designed and detailed project proposal for climate modeling and projections in Niagara. This work will be similar to a recently completed OCC project for the Regional Municipality of Durham.

The Climate Modelling and Projections Project will start in February 2021. The following will be delivered:

- a climate projections report, which includes a detailed methodology, analysis of climate projections and its impact on various economic sectors;
- climate variable mapping which is categorized into Niagara north, central, and south as climatic conditions vary in these geographies; and
- training sessions for staff to effectively understand and integrate the above-referenced knowledge and data into future Regional Climate Change Planning projects, strategies and initiatives.

The full project proposal is included as **Appendix I**.

Planning staff have shared the OCC's project proposal with NPCA and they are supportive of the project and look forward to the shared use of this data for future projects and initiatives.

### **Climate Change Work Program New Pillar III: Regional Greening Initiative**

Staff will start a Greening Initiative, the third pillar of the updated climate change work program.

Other municipal practices and initiatives in climate science demonstrate the many benefits that may be realized from increasing tree planting efforts as it relates to climate change, such as the adaptation potential of diversifying tree species, carbon sequestration potential, and mitigation of the urban heat island effect, amongst others.

Recent Official Plan consultation suggests a strong public desire to implement measures to reduce the impacts of climate change. Public and stakeholder feedback strongly agrees with development of policies and initiatives that will assist in reducing the impacts of climate change. This feedback has been heard across OP programs, including Growth Management, Natural Environment, District and Secondary Plans as well as Agriculture.

Regional staff will research different initiatives and practices relative to increasing the overall number of trees in Niagara. Staff will look to the Niagara Peninsula Conservation

Authority's re-launched restoration program for tree planting to reduce forest fragmentation and increase forest cover.

Staff will also learn more about Land Care Niagara; the Region's local delivery agent for Forest Ontario's 50 Million Tree Program and the benefits and logistics of this program. Staff will also review the City of Greater Sudbury program, which has planted over 9.8 million trees over a 40 year period, among other greening accomplishments.

Following completion of research into these initiatives, staff will present a report to Committee and Council outlining the lessons learned and opportunities for Niagara.

### **Alternatives Reviewed**

The alternative is to not endorse the updated pillars of the consultant led Climate Modeling and Projections Project and the staff-led Regional Greening Initiative as part of the Climate Change Work Program for the new Official Plan. This is not recommended as the new pillars of the program are being proposed in response to feedback heard through various work programs on the importance of tree planting. Further, the climate modeling and projections will ensure Planning and Development Services obtains critical data to support science-based future climate strategies and initiatives.

### **Relationship to Council Strategic Priorities**

The Climate Change Work Program is part of the new Niagara Official Plan, aligning with Objective 3.2 Environmental Sustainability and Stewardship:

*"A holistic and flexible approach to environmental stewardship and consideration of the natural environment, such as infrastructure, planning and development, aligned with a renewed Official Plan".*

### **Other Pertinent Reports**

- PDS 22-2018                      Climate Change Framework
- CWCD 421-2019                New Niagara Official Plan Updates

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**Appendices**

Appendix 1            Ontario Climate Consortium Work Plan