

The Gateway: Connecting Dundas and the C2EP

A white paper by Nicole Graziano and Brian Baetz



(Mahoney, 2011)

Introduction:

The Cootes to Escarpment EcoPark system (C2EP) is largely recognized as one of the most biologically diverse natural lands in Canada. The Dundas EcoPark is the gateway to this vast collection of animal and plant life. However, the restored natural lands are underutilized by much of the Hamilton-Burlington community, partially due to the disconnected nature of many of the trails. In order to simultaneously support recreation and conservation, trails should be enhanced and developed along the western end of Cootes Paradise, particularly around Lake Jojo and the Delsey Wetlands area. This natural space is a mosaic of forests and marshes, and should be better connected to the existing Urqhart Butterfly Garden. In turn, this will result in the creation of a complete and welcoming gateway to the C2EP system. Moreover, a completed trail system will encourage healthy living and support wellness in a post-COVID19 world. The ongoing COVID-19 pandemic, coupled with the worsening climate crisis, illustrates the need for the protection of natural lands and their role in human health.

Reactive Vs Preventive Medicine:

In the wake of the COVID-19 Global Pandemic, people are understandably concerned about their health and wellbeing. The desire to survive, which is rarely consciously considered, has become paramount and now colours our worldviews. As businesses slowly begin to reopen and a sense of normalcy begins to return, the need to stay healthy is of the utmost importance. In addition to practicing good hygiene and social distancing, leading a healthy lifestyle may increase your ability to fight and survive the coronavirus. Those most at risk of developing severe complications from COVID-19 suffer from underlying health conditions, weakened immune systems or are older adults (Government of Canada, 2020). Although some variables cannot be controlled, spending sufficient time outdoors and exercise has been linked to reduced heart disease, hypertension and diabetes (Government of Canada, 2011). Notably, people who suffer from any of these conditions are more likely to suffer severe illness from COVID-19 (Government of Canada, 2020). The need to manage existing illnesses, avoid worsening conditions and protect oneself from COVID-19 highlights the importance of proactive and preventive healthcare. Proactive healthcare “seeks to protect, promote, and maintain the health and well-being of individuals and defined populations and to prevent disease, disability, and premature death” by not only preventing infections, but also improving the environment and community wellbeing (DeHart, 2019). This is coupled with the traditional, reactive healthcare system, which reacts to

and treats infections and chronic illnesses once they have already been contracted (DeHart, 2019; Wise, MacIntosh, Rajaklendran, Khayat, 2016). Although both healthcare models are important and necessary, ensuring people are healthy through preventive medicine and care reduces their potential to contract serious illnesses, increases their ability to fight infections like COVID-19, and directly leads to financial benefits as having less sick people reduces strain on the healthcare system.

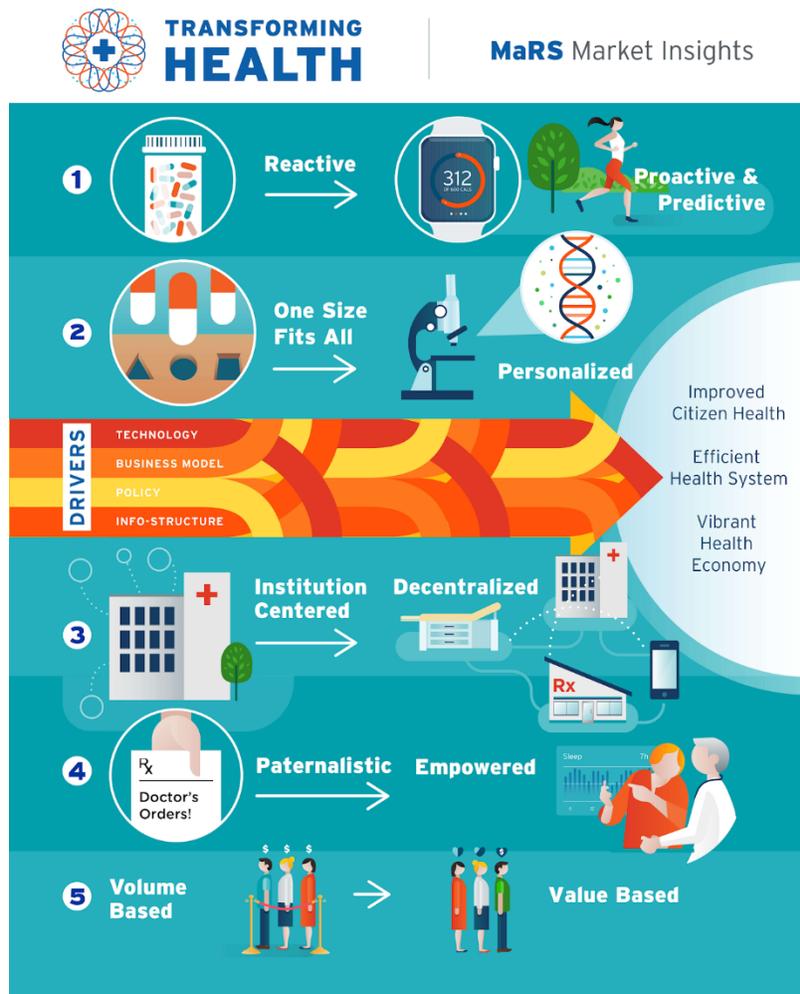


Figure 1: The differences between reactive and proactive healthcare (Wise, MacIntosh, Rajaklendran, Khayat, 2016).

Conservation and Protection: The benefits of protected natural space to the environment are bountiful. In addition to leading conservation efforts, formally protected natural space ensures that

biodiversity and vulnerable plant and animal species are safe guarded from aggressive urbanization (Cootes to Escarpment EcoPark System, n.d.). C2EP is a habitat for more than 50 species at risk, known for its nationally-recognized biological diversity and encompasses the Niagara Escarpment which is a UNESCO World Biosphere Reserve (Cootes to Escarpment EcoPark System, n.d.). Hamilton can enhance its commitment to this partnership by purchasing and protecting more land in the C2EP.

Climate Change Mitigation: Although meaningfully addressing climate change requires extensive and diverse work and serious changes in human and corporate behaviour, trees are a well-known means of trapping pollutants. Protecting the trees around the Delsey Wetlands and Lake Jojo can assist Dundas' continual fight against climate change. By removing emissions from the air and producing oxygen, trees act as powerful air purifiers (Buis, 2020). Greenhouse Gas Emissions are directly tied to climate change and their reduction is an important part of protecting people and the planet from the dangerous effects of climate change (Buis, 2020).

Proposed Trail Design:

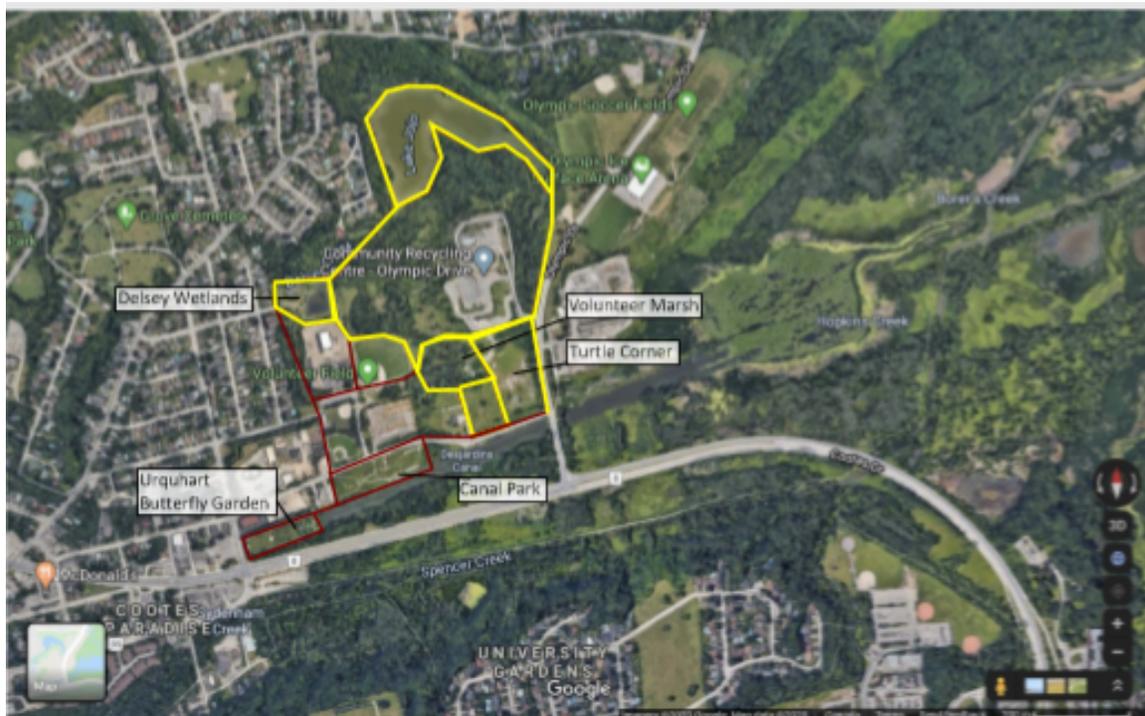


Figure 2: Proposed Trail System for the C2EP Gateway (existing trails are shown in red and the proposed trails are shown in yellow). [Image credit to Shawn Shi].

The existing trail spans across the Urquhart Butterfly Gardens and Canal Park but stops short of encompassing Volunteer Marsh, Turtle Corner, Delsey Wetlands and Lake Jojo. In order to encourage the ongoing protection of this land and support recreation in Dundas and Hamilton, more broadly, the trail should be expanded along Lake Jojo and the Delsey Wetlands. This novel trail will first loop around the Community Recycling Centre on Olympic Drive, continuing from the abrupt end of the existing trail. This new trail system will run from the Desjardins Canal to Lake Jojo before wrapping around the Delsey Wetlands and linking with the existing trail. Smaller trails will cut across the open space and connect the perimeter of this trail system. The new trail will span approximately 3.4 km and create a more complete trail system.

Currently, many trails are underutilized by the local community. This is largely due to their poor accessibility and lack of knowledge regarding natural spaces. By creating straightforward, local trails, residents will be able to enjoy nature without leaving the city. Rather than driving out of town, beautiful and accessible natural lands will be located a short walk or bus ride from your home. Dundas is surrounded by natural lands and it is our role as stewards of the earth and wellness-conscious citizens to support the conservation of natural lands and recreation.

Project Cost Estimation:

- Assuming this project requires approximately five new signs with two at the southernmost portions where the trails meet, one at the eastern portion of the novel trail, and two located on the north and south sides of Lake Jojo, the cost for signage is approximately \$1500. This price accounts for the cost of designing and constructing signage and posts, plus the cost of labour.
- Assuming all proposed novel trails are constructed, there will be approximately 3.4km of new trails. This accounts for the eastern portions and the western portion that runs on the west side of the Spencer Creek that is bordered by industrial land. Lining the trails with crushed stone is a cost-effective alternative to pavement. If there is approximately 4146 square meters of trail and the cost of gravel is \$20/square meter, the placement of gravel will cost approximately \$83,000
- Assuming only 500m of existing trails need to be cleared and improved it will cost about \$1000 for a two person crew to enhance existing trails.

The total estimated cost for this project is approximately \$86,000. However, Minister of Infrastructure and Communities, Katherine McKenna, announced on August 5th that there will be renewed support of the Investing in Canada Infrastructure Program, so that more communities can act quickly to develop a wider range of pandemic-resilient infrastructure. This program is worth up to \$3.3 billion and funds “building new parks, cycling and walking paths to help Canadians get access to nature to stay healthy, active and safe, or disaster mitigation projects that protect against floods and fires” (Infrastructure Canada, 2020). Enhancing trail systems will provide preventive healthcare, encourage mental and physical health, and create more resilient and protected ecosystems.

Summary:

Lake Jojo and the Delsey Wetlands offer a serene escape to nature, without straying far from the city. Unfortunately, these natural lands are inaccessible and are underutilized. As a result, the benefits of natural lands are not broadly or fully experienced. In order to support holistic, well-rounded healthcare, encourage healthy living in a post-COVID19 world, mitigate climate change and conserve plant and animal life, trails in and around the Dundas Gateway to the C2EP should be expanded and the importance of the land around them should be recognized. By enhancing the gateway and making it more accessible by trails, the beauty of the Delsey Wetlands and Lake Jojo become more accessible to a much broader group of visitors. Through trail creation, recreation and conservation can be amalgamated into one connected and complete trail system.

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