



Ontario Public Health Association
 l'Association pour la santé publique de l'Ontario
 Established/Établi 1949

The mission of OPHA is to provide leadership on issues affecting the public's health and to strengthen the impact of people who are active in public and community health throughout Ontario.

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Constituent Societies

Association of Ontario
 Health Centres

Association of Public Health
 Epidemiologists in Ontario

Association of Supervisors of
 Public Health Inspectors of Ontario

Canadian Institute of Public Health
 Inspectors (Ontario Branch)

Community Health Nurses'
 Initiatives Group (RNAO)

Health Promotion Ontario

Ontario Association of Public
 Health Dentistry

Ontario Society of Nutrition
 Professionals in Public Health

The Ontario Association of Public Health
 Nursing Leaders

Charitable Registration
 Number 11924 8771 RR0001

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 Priorities and Planning Section
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**RE: EBR # 012-9499 – Naturally Resilient: MNR Natural Resource
 Climate Adaptation Strategy**

The Ontario Public Health Association appreciates the opportunity to comment on Naturally Resilient, the Ministry of Natural Resources and Forestry's Natural Resource Climate Adaptation Strategy. With a mandate under the Ontario Public Health Standards to increase awareness of climate change health impacts and manage health hazards, the public health sector plays an important role in supporting climate resiliency as well as identifying and mitigating community vulnerabilities.

Created in 1949, the Ontario Public Health Association (OPHA) is a not-for-profit organization committed to providing leadership on issues affecting the public's health and strengthening the impact of people who are active in public and community health throughout Ontario. Our mission is achieved by providing professional development, timely information and analysis on public health issues, access to multi-disciplinary networks, advocacy on healthy public policy and expertise and consultation.

As noted in MNR's Natural Resource Climate Adaptation Strategy, "The impacts of climate change on the landscapes, ecosystems, species, and natural resources of Ontario are becoming increasingly visible." As a species that is dependent on these ecosystem services for our health and well-being, it is important that the breadth of human

health impacts is considered in the Natural Resource Climate Adaptation Strategy.

As noted in the Strategy, climate change has the potential to negatively impact the ecosystem services that natural systems provide for human health. These ecosystem services include provision of clean air, safe water, cooling for protection from extreme heat, shade for protection from solar radiation, flood prevention, and green spaces for physical and mental health. It is important to identify and assess these multitude public health benefits when assessing the vulnerability of natural systems and climate change impacts. OPHA is pleased to see mention of public health risks associated with flooding and the spread of Lyme disease habitat in the Strategy. We recommend that the MNRF climate change assessment also include the value of ecosystems for other public health benefits such as mitigating impacts of extreme heat (e.g. reducing urban heat islands, providing cooling); air quality; and while harder to quantify, physical and mental health.

As co-chair of EcoHealth Ontario, the OPHA has worked with partners to build the evidence on specific physical and mental health benefits of healthy ecosystems. EcoHealth Ontario is a collaboration of professionals in the fields of public health, education, planning and the environment, working together to increase knowledge and awareness of the relationship between environment and health and to influence policy to protect and enhance greenspace. With the growing evidence of the impact of climate change on natural systems, and recognizing the linkages between natural systems and human health, EcoHealth supported research that specifically looked at two related climate drivers – *The impact of greenspace on heat and air pollution in urban communities: A metanarrative systematic review*. The report found that urban green spaces generally provide significant health benefits for residents and the community.

http://www.ecohealth-ontario.ca/files/The_impact_of_green_space_on_heat_and_air_pollution_in_urban_communities_a_meta_narrative_systematic_review.pdf

A second report that EcoHealth supported was Toronto Public Health's *Urban green space, health and well-being: A review*. This review identified that green space is associated with several positive health outcomes including wellbeing, mental health, and social cohesion, and that access to greenspace may offer opportunities for reducing health inequities.

http://www.ecohealth-ontario.ca/files/Green_City_Why_Nature_Matters_to_Health_An_Evidence_Review.pdf

OPHA is also encouraged to see that the Natural Resources Climate Adaptation Strategy will build on and support Ontario's broader Climate Ready Adaptation Plan. One of the actions

under the Climate Ready Plan is to support the development of risk-management tools and work with Public Health Units to raise public awareness about health hazards of climate change, such as the increased risk of heat-related illness and Lyme disease. These are just a couple of examples of climate change impacts that can be addressed through collaboration of various agencies including natural resource agencies and public health agencies.

In reviewing the Strategy's five goals and 23 specific actions that MNRF will take to reach these goals, OPHA sees opportunities to engage and support the public health sector, in the various ways outlined below:

Goal 1: Mainstream Adaptation

- Planning and Strategy (1.2): In considering climate impacts in strategies and land-use plans, work with local public health agencies to ensure that climate change health impacts are included.
- Technical Guidance (1.4): When developing or updating technical guides such as those relating to flood hazards, consult with local public health agencies to ensure that public health and vulnerable populations are addressed.
- By mainstreaming adaptation into daily business, the Natural Resource Climate Adaptation Strategy commits to managing natural resources while addressing the implications of a changing climate such as increased prevalence of invasive species and threats to biodiversity. Public health is witness to some of these threats, for example, lake warming and resultant changes such as fish die-off and the increase in blue-green algae blooms and toxins that can also impact human health.

Goal 2: Build Resilience and Biodiversity

- Ecosystem Resilience (2.1): Public health agencies recognize the importance of conserving biodiversity and the links between biodiversity and human health. As identified earlier, OPHA along with our EcoHealth Ontario partners supports research to strengthen evidence and increase awareness of these linkages.

Goal 3: Increase Science, Research and Knowledge

- Monitoring and Modelling (3.2 and 3.3): Include human populations when looking at predicted impacts and potential indicators
- Partnerships (3.4): Include Public Health agencies and other human services when exploring climate change impacts and opportunities for adaptation

- Vulnerability Assessment (3.5): It is important to include human health impacts when conducting a climate change vulnerability assessment. Public Health agencies across Ontario are initiating climate change health vulnerability assessments. An important component of this assessment involves natural systems and ecosystem services, and several health units have engaged local conservation authorities in this health assessment. OPHA recommends that MNR engage local public health agencies and provincial health agencies such as Public Health Ontario in their vulnerability assessments in order to ensure that human health impacts are considered. In addition to identifying future climate change impacts it is also important to understand current vulnerabilities that exist.
- Page 15 sidebar: Economics of Climate Change and Natural Resource Management: correction. Sentence should read “human hhealth and well-being” rather than “human wealth and well-being”.
- Local, Community and Traditional Ecological Knowledge (3.7): OPHA agrees that community and traditional knowledge is vital to inform understanding of current climate change trends and future impacts, and to plan for climate change adaptation. Stakeholders with this local and traditional knowledge should be part of the development process for this strategy and at every stage of its implementation.

Goal 4: Increase Awareness and Motivation

- The Strategy identifies the potential impact of climate change on ecological services such as clean air and water. Given the direct impact of these services to human health, it is important to communicate the public health message. OPHA and local public health agencies would be a good source of information and partner for this action area.
- It is important to not only increase awareness of the role of natural resources and ecosystems in climate change but also how these services and impacts directly relate to human health.

Goal 5: Optimize Services and Response

- Interjurisdictional Cooperation (5.2): OPHA supports resource sharing and multi-jurisdictional response. Public Health agencies are actively engaged in health emergency planning and response. Resource sharing with these agencies would be a valuable asset in optimizing services and response to climate change emergencies.
- As identified above, several Public Health agencies across Ontario have embarked on a Climate Change & Health Vulnerability and Adaptation Assessment. With the release of

the Ministry of Health & Long Term Care's Climate Change and Health Toolkit in 2016, more public health units are exploring ways to measure and assess climate change and health risks. Part of this work includes identifying data sources on both local climate drivers and population vulnerabilities. Data sharing amongst agencies would help all agencies working on vulnerabilities, whether from a human health, economic or environmental perspective.

OPHA commends the Ministry of Natural Resources and Forestry for taking a holistic approach to protecting natural resources from the impacts of climate change. We were also encouraged to see the ministry's recognition of the impacts of climate change on Indigenous communities and the government's commitment to bringing Indigenous perspectives forward and seeking opportunities for collaboration.

The goals and actions identified in the Natural Resource Climate Adaptation Strategy represent opportunities for various agencies to work collaboratively to protect the natural systems that we rely on for the health and well-being of our communities. We look forward to building on those opportunities that can advance our shared goal of maintaining healthy and resilient natural environments.

Thank you for your consideration of our comments.

A handwritten signature in black ink, appearing to read 'P. Walsh', with a stylized, cursive script.

Pegeen Walsh

Executive Director, Ontario Public Health Association