

**ONTARIO
SUPERIOR COURT OF JUSTICE**

B E T W E E N:

**SOPHIA MATHUR, a minor by her litigation guardian CATHERINE ORLANDO, ZOE
KEARY-MATZNER, a minor by her litigation guardian ANNE KEARY, SHAELYN
HOFFMAN-MENARD, SHELBY GAGNON, ALEXANDRA NEUFELDT and LINDSAY
GRAY**

Applicants
(Respondents to motion)

- and -

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO

Respondent
(Moving party)

MOTION RECORD

April 15, 2020

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Court File No.: CV-19-00631627-0000

**ONTARIO
SUPERIOR COURT OF JUSTICE**

B E T W E E N:

SOPHIA MATHUR, a minor by her litigation guardian CATHERINE ORLANDO, ZOE
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HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO

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NOTICE OF MOTION

The Respondent, the Attorney General of Ontario (incorrectly named as “Her Majesty the Queen in Right of Ontario”), will make a motion to the Court on July 13, 2020 at the courthouse at 393 University Avenue, 10th floor, Toronto.

PROPOSED METHOD OF HEARING: The motion is to be heard orally.

THE MOTION IS FOR:

- (a) An order striking out the Notice of Application without leave to amend and dismissing the application;
- (b) In the alternative, if any of the claims for relief in the Notice of Application are not struck out, an order under s. 110 of the *Courts of Justice Act* transferring the

proceeding to the Divisional Court; and

(c) Any further or other order that this Court deems just.

THE GROUNDS FOR THE MOTION ARE:

a) The Notice of Application seeks declarations that:

- (i) Ontario's target for the reduction of greenhouse gas emissions in the province by the year 2030 violates the rights of Ontario youth and future generations under sections 7 and 15 of the *Charter*;
- (ii) Ontario's target for the reduction of greenhouse gas emissions in the province by the year 2030 violates the unwritten constitutional principle that governments are prohibited from engaging in conduct that will or reasonably could be expected to result in the future harm, suffering or death of a significant number of its own citizens;
- (iii) Section 7 of the *Charter* includes a right to a stable climate system, capable of providing youth and future generations with a sustainable future; and
- (iv) The repeal of the former *Climate Change Mitigation and Low-carbon Economy Act, 2016* violates the rights of Ontario youth and future generations under sections 7 and 15 of the *Charter*;

b) The Notice of Application also seeks mandatory orders requiring:

- (i) That Ontario forthwith set a science-based target for the reduction of greenhouse gas emissions; and
- (ii) That Ontario revise its climate change plan in accordance with this science-based greenhouse gas emissions reduction target;

c) The Notice of Application discloses no reasonable cause of action;

d) It is plain and obvious that this application will fail;

e) The allegations of harms attributed to Ontario's actions are manifestly incapable of being proven;

f) The issues raised and the relief sought in the Notice of Application are not justiciable;

g) The relief sought is vague, judicially unmanageable and unbounded in scope, particularly to the extent that it seeks declarations and orders in relation to a "stable climate system", a "sustainable future", and "science-based" targets for the reduction of greenhouse gas emission reductions;

h) The applicants have no standing to seek legal remedies on behalf of future generations;

- i) The *Charter* does not guarantee a right to a particular greenhouse gas emission reduction target or to a “stable climate system”;
- j) There is no constitutional obligation to maintain and not repeal the former *Climate Change Mitigation and Low-carbon Economy Act, 2016*;
- k) Unwritten constitutional principles do not invest the judiciary with a free-standing power to invalidate legislation;
- l) In the alternative, if it is not plain and obvious that any of the claims for relief sought will fail, the surviving claims for relief are orders in the nature of *mandamus*, prohibition or *certiorari* in relation to the legality of state decision-making and therefore fall within the exclusive jurisdiction of the Divisional Court;
- m) *Courts of Justice Act*, R.S.O. 1990, c. C.43;
- n) *Judicial Review Procedure Act*, R.S.O. 1990, c J.1;
- o) Rules 14.09 and 21.01(1)(b) of the *Rules of Civil Procedure*, R.R.O. 1990, Reg. 194; and
- p) Such further and other grounds as counsel may advise and this Honourable Court may accept.

THE FOLLOWING DOCUMENTARY EVIDENCE will be used at the hearing of the motion:

- (a) The Notice of Application dated November 25, 2019.
- (b) Ontario, Ministry of the Environment, Conservation and Parks, *Made-in-Ontario Environment Plan*.
- (c) Such further and other evidence as counsel may advise and this Court may deem just.

ESTIMATED TIME FOR ORAL ARGUMENT: One day.

April 15, 2020

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Court File No.: CV-19-00631627-0000

SOPHIA MATHUR et al. and

Applicants

**HER MAJESTY THE QUEEN IN RIGHT
OF ONTARIO**

Respondent

ONTARIO
SUPERIOR COURT OF JUSTICE
Proceeding commenced at Toronto

NOTICE OF MOTION

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**Of Counsel for the Attorney General of
Ontario**

2-19-00631627-0000

Court File No. _____

**ONTARIO
SUPERIOR COURT OF JUSTICE**

BETWEEN:

**SOPHIA MATHUR, a minor by her litigation guardian CATHERINE ORLANDO,
ZOE KEARY-MATZNER, a minor by her litigation guardian ANNE KEARY,
SHAELYN HOFFMAN-MENARD, SHELBY GAGNON, ALEXANDRA
NEUFELDT, MADISON DYCK and LINSLEY GRAY**

Applicants

- and -

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO

Respondent

APPLICATION UNDER r. 14.05(3)(h) and (g.1) of the *Rules of Civil Procedure*

NOTICE OF APPLICATION

TO THE RESPONDENT:

A LEGAL PROCEEDING HAS BEEN COMMENCED by the Applicants. The claim made by the Applicants appears on the following pages.

THIS APPLICATION will come on for a hearing on a date and time to be fixed by the Registrar, at the City of Toronto.

IF YOU WISH TO OPPOSE THIS APPLICATION, to receive notice of any step in the application or to be served with any documents in the application, you or an Ontario lawyer acting for you must forthwith prepare a notice of appearance in Form 38A prescribed by the Rules of Civil Procedure, serve it on the Applicants' lawyer or, where the Applicants do not have a lawyer, serve it on the Applicants, and file it, with proof of service, in this court office, and you or your lawyer must appear at the hearing.

IF YOU WISH TO PRESENT AFFIDAVIT OR OTHER DOCUMENTARY EVIDENCE TO THE COURT OR TO EXAMINE OR CROSS-EXAMINE WITNESSES ON THE APPLICATION, you or your lawyer must, in addition to serving your notice of appearance,

serve a copy of the evidence on the Applicants' lawyer or, where the Applicants do not have a lawyer, serve it on the Applicants, and file it, with proof of service, in the court office where the application is to be heard as soon as possible, but at least four days before the hearing.

IF YOU FAIL TO APPEAR AT THE HEARING, JUDGMENT MAY BE GIVEN IN YOUR ABSENCE AND WITHOUT FURTHER NOTICE TO YOU. IF YOU WISH TO DEFEND THIS PROCEEDING BUT ARE UNABLE TO PAY LEGAL FEES, LEGAL AID MAY BE AVAILABLE TO YOU BY CONTACTING A LOCAL LEGAL AID OFFICE.

Nov 25
Date: _____, 2019

Issued By 
Local Registrar
Address of court office Superior Court of Justice
393 University Ave
Toronto, ON M5G 1E6

TO: ATTORNEY GENERAL OF ONTARIO
Crown Law Office – Civil
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APPLICATION

OVERVIEW

1. Climate change is an existential threat to all people living in all nations. There is a scientific consensus that failure to take urgent steps over the next 11 years will lead to catastrophic consequences. Governments must act now to avoid disaster. Ontario has not met this challenge. To the contrary, it has abdicated a responsibility that it owes to all Ontarians, and in so doing, has violated Ontarians' constitutional rights protected under the *Canadian Charter of Rights and Freedoms* (the "*Charter*").
2. The public interest youth applicants Sophia Mathur, Zoe Keary-Matzner, Shaelyn Hoffman-Menard, Shelby Gagnon, Alexandra Neufeldt, Madison Dyck and Lindsay Gray (the "Applicants") are a part of a generation whose future faces an existential threat from the catastrophic impacts of climate change. They are alarmed that Canada is rapidly warming at twice the rate of the global average. They know that there is a scientific consensus that climate change is leading to more frequent and severe wildfires, more intense and numerous heatwaves and floods, an increased risk of dangerous and often fatal infectious disease, rapidly melting northern landscapes, and cascading environmental destruction. They understand the cost of these increasing impacts on the health and lives of Canadians. They understand that these impacts will soon reach calamitous levels if urgent corrective measures are not taken, and that the window of opportunity to correct course is quickly closing. They are angered by the fact that their governments have known about these risks for decades but have failed to take adequate action to remedy this threat.

3. They also know that there are viable solutions to this existential problem but what is lacking is the political will of governments to immediately take bold and decisive action. A global climate catastrophe can still be avoided if countries ensure rapid reductions in greenhouse gas (“GHG”) emissions before 2030 and reach net zero emissions by 2050. There is an international scientific consensus that global emissions of climate-warming GHGs must be reduced to “net zero” — or the point at which the “flow” of human caused GHG emissions (chiefly, carbon dioxide) into the atmosphere is balanced with human removals of GHGs — as soon as possible. The international scientific community also agrees that global warming must be held to below 1.5°C above pre-industrial temperature in order to avoid some of the worst impacts of climate change, and that the impacts of climate change become even more devastating if temperatures rise beyond 2°C.
4. In a global effort to curb this existential threat, 194 countries and the European Union have signed the Paris Agreement within the United Nations Framework Convention on Climate Change (the “**Paris Agreement**”). The Paris Agreement commits parties to holding the increase in global average temperature to “*well below* 2°C above pre-industrial levels” (emphasis added) and with best efforts made to limit the temperature increase to 1.5°C.
5. Owing in large part to Ontario’s dangerously inadequate GHG reduction target, Canada is not on track to meet the Paris Agreement temperature standard. Even on the most generous projection, Ontario’s emissions reduction target will lead to a dangerous level of climate change. As a result, Ontarians will face a range of devastating consequences to their lives, health, livelihood and ability to make

fundamental life choices, including (but not limited to) increased death and illness from extreme heat events and overall warming temperatures; the spread of infectious diseases spread through ticks, mosquitos and other vectors; more frequent and intense forest fires; more frequent and intense flooding events; the spread of harmful algal blooms in waterways; an increase in toxic contamination; and an increase in mental health impacts. These impacts will be visited disproportionately on Ontario's youth and future generations, as well as vulnerable and marginalized communities.

6. The Applicants therefore bring this challenge in solidarity with millions of youth in Ontario and around the world who are aware of the short period left to fight for their futures and who recognize the scientific consensus that there are just over 11 years left to ensure that temperatures do not increase above unsafe levels.
7. The focus of this Application is the 2030 GHG reduction target set by Ontario under s. 3(1) of the *Cap and Trade Cancellation Act, 2018*, S.O. 2018, c. 13 ("*CTCA*"), and articulated in "Preserving and Protecting our Environment for Future Generations, A Made-in-Ontario Environmental Plan" (the "**Plan**"), which is to reduce GHG emissions by only 30% below 2005 levels by 2030 (the "**Target**"). The Target will lead to climate catastrophe and thus will violate the Applicants' rights under s. 7 of the *Charter*. Given the dire threats posed by climate change to the Applicants and other Ontarians and the role of the Ontario government in causing GHG emissions, only a target that avoids, rather than promotes, irreversible climate catastrophe can withstand constitutional scrutiny.

RELIEF SOUGHT

8. The Applicants seek the following relief on behalf of their generation and future generations of Ontarians:
 - a. A declaration, under s. 52(1) of the *Constitution Act, 1982*, that the Target violates the rights of Ontario youth and future generations under sections 7 and 15 of the *Charter* in a manner that cannot be saved under s. 1, and is therefore of no force and effect;
 - b. A declaration, under s. 52(1) of the *Constitution Act, 1982*, that the Target violates the unwritten constitutional principle that governments are prohibited from engaging in conduct that will, or reasonably could be expected to, result in the future harm, suffering or death of a significant number of its own citizens;
 - c. A declaration that section 7 of the *Charter* includes the right to a stable climate system, capable of providing youth and future generations with a sustainable future;
 - d. A declaration, under s. 52(1) of the *Constitution Act, 1982*, that ss. 3(1) and/or 16 of the *CTCA*, which repealed the *Climate Change Mitigation and Low-carbon Economy Act, 2016*, S.O. 2016, c. 7 ("*Climate Change Act*") and allowed for the imposition of more lenient targets without mandating that they be set with regard to the Paris Agreement temperature standard or any kind of science-based process, violates sections 7 and 15 of the *Charter*

in a manner that cannot be saved under s. 1, and is therefore of no force and effect;

- e. In the alternative, the same declaratory relief sought in the paragraphs above pursuant to s. 24(1) of the *Charter* and/or this Court's inherent jurisdiction;
- f. An order that Ontario forthwith set a science-based GHG reduction target under s. 3(1) of the *CTCA* that is consistent with Ontario's share of the minimum level of GHG reductions necessary to limit global warming to below 1.5°C above pre-industrial temperatures or, in the alternative, well below 2°C (*i.e.* the upper range of the Paris Agreement temperature standard);
- g. An order directing Ontario to revise its climate change plan under s. 4(1) of the *CTCA* once it has set a science-based GHG reduction target;
- h. Costs of this Application; and
- i. Such further and other relief as counsel may advise and this Honourable Court may deem just.

GROUND

The Applicants

9. The Applicants are Ontario residents with genuine interests in preventing catastrophic climate change that will pose pervasive and serious risks to the health and wellbeing of those in their generation and future generations of Ontarians. They range in age from 12 to 24 years old. Their generation has done the least to cause

climate change but will bear the burden of its worst impacts, including catastrophic impacts if emissions are not rapidly reduced.

10. The Applicants have demonstrated commitment to pushing for rapid and effective government action through individual and collective action. They have significant concerns over the risks that climate change poses to their health and wellbeing, their futures, their lives, their communities as well as the environment. They are worried that Ontario is not doing its part to prevent the catastrophic impacts of climate change.
11. Sophia, who is 12 years-old and lives in Sudbury, is the first youth outside of Europe to strike from school in solidarity with Greta Thunberg and has played an active role within the Fridays for Future movement in Ontario.
12. Zoe, who is 13 years-old and lives in Toronto, has also been actively involved in the Fridays for Future movement and has spoken at many climate change-related rallies, press conferences and other events within Ontario.
13. Shaelyn, who is 22 years-old and lives in Peterborough, works on the issues of climate change, biodiversity, Indigenous-led conservation, youth and community engagement on environmental issues and cultural and language revitalization.
14. Shelby, who is a 23 year-old artist and lives in Thunder Bay, works on Indigenous food sovereignty in northern Ontario communities and has taken local action to help her own community become more sustainable in response to climate change.

15. Alexandra, who is 23 years-old and lives in Ottawa, has been actively involved with Citizens Climate Lobby Canada through lobbying elected officials and doing public outreach to promote effective climate action.
16. Madison, who is 23 years-old and lives in Thunder Bay, has sailed throughout Lake Superior giving presentations on climate change impacts in surrounding communities and to youth.
17. Lindsay, who is 24 years-old and two-spirit, goes by the name Beze and lives in the Township of Tiny, is a community organizer focused on environmental, climate and Indigenous issues, including in their home community of Aamjiwnaang First Nation.
18. The Applicants have demonstrated a serious and genuine interest in the subject matter of this litigation. This Application is a reasonable and effective way to bring these issues to the court for reasons that include: (i) the claim at issue impacts all Ontario youth and future generations; (ii) the Applicants have the support of counsel with the expertise, resources and commitment to bring this Application forward; and (iii) the Applicants are well-placed to bring this Application and it is unreasonable to expect that other children (or future generations) will bring a similar application now.

The Respondent

19. Ontario has (at the very least) shared constitutional responsibility with Canada for controlling GHG emissions within the province.
20. Ontario exercises its authority over GHG emissions by setting the Target that will govern the amount of GHG emissions in the province, and by regulating the conduct

and consequences of emitters and emissions under a variety of statutory schemes, including but not limited to the *Environmental Protection Act*; *Electricity Act*; *Gasoline Tax Act*; *Fuel Tax Act*; *Oil, Gas and Salt Resources Act*; *Mining Act*; *Environmental Assessment Act* and the *Environmental Bill of Rights*. More generally, Ontario exercises regulatory authority over a broad range of sectors that contribute to GHG emissions, including the transportation, industrial, building, land use and forestry, electricity, energy and waste sectors.

21. Previously, Ontario legislated in areas relating to GHG emissions by instituting a cap-and-trade system under the *Climate Change Act* and through the incentives set out in the *Green Energy Act, 2009*. (Both of these statutory schemes have since been repealed.)
22. Ontario also impacts the extent of GHG emissions through subsidies, direct spending programs, investments, tax exemptions and other incentives provided to emitters in Ontario, including but not limited to in the natural gas, heavy industry, manufacturing, oil and gas and mining sectors.
23. Finally, Ontario itself contributes to GHG emissions through its own facilities and activities.

Climate Change: Caused by Human Life and Urgently Requires Human Intervention

24. "Climate change" describes the shift in worldwide weather phenomena and physical states of the Earth system (e.g. melting polar regions, rising oceans, etc.) associated with an increase in global average temperatures. It encompasses both global warming and the climatic changes caused by this increase in global temperature.

While the Earth's climate is always changing over geological time periods, "climate change" as used in this pleading refers to the human-caused climate change that has been evident since at least the 20th century and continues to accelerate in the 21st century.

25. The development of human life on Earth has depended upon the atmosphere functioning as a "greenhouse", in which a layer of gases in the lower atmosphere — including GHGs — trap heat from the sun as it is reflected back from the Earth into space, keeping our planet at a temperature that supports life for humans and other species. Human civilization and the elements on which it depends have developed over the last 10,000 years within a narrow set of climatic conditions that have been neither too hot nor too cold to support the flourishing of our species.
26. GHGs are present in the atmosphere due to a combination of human activities and naturally occurring processes. The GHGs emitted as a result of human activities include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and other gases. The most important GHG for climate change is CO₂ because of its prevalence and long residence time in the atmosphere. A molecule of CO₂ emitted into the atmosphere will exert a warming effect for centuries, on average. For this reason the cumulative "stock" of CO₂ in the atmosphere is the primary driver of long-term global warming.
27. Since the Industrial Revolution, and particularly since the 1980s, human activity has created an unprecedented and dangerous buildup of CO₂ and other GHGs in the atmosphere. About three quarters of this buildup has been due to the combustion of

fossil fuels, including coal, oil, and natural gas, with the remainder caused mostly by deforestation and other land-use activities. The total “stock”, or level of CO₂ in the atmosphere is rising and is now around 410 ppm — far above the approximately 280 ppm level that was present through the relatively stable climate of the last 10,000 years.

28. The buildup of CO₂ and other GHGs in the atmosphere has warmed the planet by approximately 1°C on average since the pre-industrial period (1850-1900), with global temperature now increasing at the rate of 0.2°C per decade. Human-caused GHG emissions — including those allowed under the Target — are responsible for virtually all of the observed increase in global temperatures since the late 19th century and will likely be the dominant cause of further warming over the coming century.
29. If all human-caused GHG emissions ceased immediately, the Earth’s climate would still heat up by several tenths of a degree Celsius because of the latency time between GHG accumulation in the atmosphere and warming in the Earth’s climate system. Continued GHG emissions will cause the Earth’s climate to heat up further.
30. The Earth’s climate will continue to heat up until the “flow” of human-caused GHG emissions (chiefly, CO₂) into the atmosphere is balanced with human removals of GHGs, a concept known as “net zero”. Maintaining net zero GHG emissions is expected to cap the “stock” of CO₂ in the atmosphere and stabilize global average temperature at some higher level. The extent of this new normal temperature will depend on how long it takes the world to reduce CO₂ emissions down to the point of

net zero. The new normal temperature will dictate the climatic extremes in which the future of human civilization will have to exist as it is expected to be effectively irreversible on human timescales — a millennium or more — absent highly uncertain and speculative future large-scale technological interventions to remove CO₂ from the atmosphere.

31. Simply put, the world that the Applicants' generation and future generations will inherit will be drastically different from the one their parents and grandparents experienced. Whether that world is liveable will depend largely on how effectively humanity chooses to address climate change in the coming decade.

The Target: A Significant Step in the Wrong Direction

32. The Target represents Ontario's allowable GHG emissions over the next 11 years across all sectors, actors and individuals in the province.
33. Pursuant to s. 3(1) of the *CTCA*, Ontario "shall establish targets for the reduction of greenhouse gas emissions in Ontario and may revise the targets from time to time". Ontario fulfilled this requirement by establishing the Target in the Plan.
34. The Target requires GHG reductions of 30% from 2005 levels by 2030.
35. This represents a significant *increase* in Ontario's Target for the allowable level of GHG emissions over the previous Ontario targets. In particular, the Target allows for 30 Megatonnes (MT) more in annual GHG pollution by 2030 than the 2030 target that was previously in place, or a total of 190 MT of GHGs into the atmosphere's CO₂ stock between 2018 and 2030 (assuming a linear annual decline from current annual emissions to the Target amount in 2030).

36. The Target's annual increase of 30 MT is equal to the annual emissions of more than 7 million passenger vehicles.
37. Prior to the coming into force of the *CTCA*, Ontario had three point-in-time targets for GHG reductions enshrined in legislation. Subsection 6(1) of the *Climate Change Act* set out targets for GHG emission reductions over time. Unlike the Target (which is set relative to Ontario's 2005 GHG emissions), the targets set out in the *Climate Change Act* were set relative to Ontario's GHG emissions in 1990, which were lower than 2005 levels, at 180 MT of CO₂ equivalent ("CO₂e") — a measure that includes both CO₂ and other GHGs.
38. The targets in the *Climate Change Act* called for:
- a. 15% reduction by 2020 (153 MT of CO₂e);
 - b. 37% reduction by 2030 (113 MT of CO₂e);
 - c. 80% reduction by 2050 (36 MT of CO₂e).
39. With the *CTCA*, Ontario has set a significantly weaker GHG reduction target for 2030 and failed to provide any GHG reduction target for 2050.
40. The *CTCA* is also a major step backwards in other ways. The *Climate Change Act* reflected the international environmental law principle of non-regression with respect to GHG reduction targets, which dictates that efforts to reduce GHG emissions must strengthen progressively over time — not weaken — given the urgency of stabilizing the Earth's climate by reaching net zero emissions (as discussed further below). Non-regression is a cornerstone principle of the international approach to combatting

climate change and is codified in the Paris Agreement. The *Climate Change Act* specifically incorporated this principle and required that the Lieutenant Governor in Council consider any temperature standards recognized under the Paris Agreement or any successor temperature standard in setting GHG reduction targets.

41. On November 14, 2018, the *CTCA* came into force and repealed the *Climate Change Act*, including the legislated targets for GHG reductions. The *CTCA* places a mandatory duty on Ontario to establish targets for the reduction of GHG emissions (s. 3(1)). However, the Act does not require that these targets be at least as strong as those previously in place. Nor does the Act require that Ontario have any regard to the Paris Agreement temperature standard, or any kind of science-based process, in setting GHG reduction targets.

Catastrophic Impacts of Climate Change in Ontario

42. Ontario has warmed about twice as fast as the global average since the pre-industrial period (1850-1900), at approximately 1.7°C. Ontario will continue to experience the impacts of global warming at an above-average rate.
43. The catastrophic impacts of global warming for Ontarians are not controversial. In the Plan and in its submissions before Ontario courts, Ontario concedes that:
- a. The climate is changing.
 - b. Human activities are a major cause of climate change.
 - c. Climate change is already having a disruptive effect across Canada and that, if left unchecked, its potential impact will be even more severe.

- d. Further climate change threatens Ontarians' natural resources, homes, communities, businesses, infrastructure, locally grown food and crops, food security and road access for remote First Nations, as well as the health of ecosystems across Ontario.
- e. Severe rain, ice and wind storms, prolonged heat waves and milder winters are much more common. Forests, waters and wildlife across the province are and will continue to be significantly impacted by these changes. People across the province – especially Northern communities – and all sectors of the economy are feeling the impacts of climate change and paying more and more for the costs associated with those impacts.
- f. Extreme weather events have flooded houses, buildings and roads, overwhelmed aging stormwater and wastewater systems, damaged crops, and brought heavy ice and wind storms that have knocked out power for hundreds of thousands of people, including those who are most vulnerable.
- g. Heat waves and recent drought conditions in some areas of the province, coupled with anticipated impacts of climate change and population growth, have intensified concerns related to water security for farmers, Indigenous communities, industry and municipalities.
- h. Proactive action to address climate change is required.

44. Governments and courts across Ontario and Canada have recognized the dire implications of climate change. On June 17, 2019, the federal government declared that Canada was in a national climate emergency. Municipal governments across the

country have similarly declared that there is a climate change emergency, including but not limited to those of Vancouver, Edmonton, Whitehorse, Halifax, St. John's Montreal approximately 400 other cities and towns in the province of Quebec, as well as the province of Quebec itself. In Ontario, many municipal governments have declared a climate emergency, including but not limited to Toronto, Kingston, Hamilton, Burlington, West Nipissing, London, Ottawa, St. Catharines, Greater Sudbury, Vaughan, Brampton, Sarnia, Mississauga, Kitchener, Oakville, Whitby, Windsor, Waterloo, Peterborough and Kenora. Climate emergency declarations have also been made by Indigenous governing bodies and organizations such as Grand Council Treaty #3 (Ontario) and the Assembly of First Nations.

45. Courts have reached the same conclusion. A majority of the Court of Appeal for Saskatchewan recently stated that: "Climate change is doubtless an emergency in the sense that it presents a genuine threat to Canada." A majority of the Court of Appeal for Ontario recently described the situation as follows:

The uncontested evidence before this court shows that climate change is causing or exacerbating: increased frequency and severity of extreme weather events (including droughts, floods, wildfires and heat waves); degradation of soil and water resources; thawing of permafrost; rising sea levels; ocean acidification; decreased agricultural productivity and famine; species loss and extinction; and expansion of the ranges of life-threatening vector-borne diseases, such as Lyme disease and West Nile virus... The recent major flooding in Ontario... in 2019 was likely also fueled by climate change.¹

46. There are myriad ways that climate change impacts the health, lives, liberty and livelihood of current and future generations of Ontarians. If global warming exceeds

¹ Reference re Greenhouse Gas Pollution Pricing Act, 2019 ONCA 544 at para. 11.

1.5°C above pre-industrial temperatures, the impacts of climate change in Ontario will include (but will not be limited to):

- a. an increase in the frequency and intensity of acute extreme heat events (*e.g.* one-in-30 year extreme “heat waves”), with a resulting increase in fatalities (in the hundreds, if not thousands), serious illness and severe harm to human health;
- b. an increase in overall temperatures and heat waves (separate and apart from acute extreme heat events), with a resulting increase in fatalities, serious illness and severe harm to human health;
- c. an increase in the spread of infectious diseases such as Lyme disease and West Nile Virus (along with other diseases spread by ticks, mosquitos and other vectors, as well as food and waterborne diseases), with a resulting increase in fatalities, serious illness and severe harm to human health;
- d. an increase in the frequency and intensity of fire activity (including forest wildfires), with a resulting increase in fatalities, serious illness, displacement and severe harm to human health;
- e. an increase in the frequency and intensity of flooding and other extreme weather events, with a resulting increase in fatalities, serious illness, displacement, loss of livelihood and severe harm to human health;

- f. an increase in the spread of harmful algal blooms in water that Ontarians use for drinking and recreational purposes, with a resulting increase in serious illness, loss of livelihood and severe harm to human health;
- g. an increase in exposure to contaminants such as mercury through food webs, with a resulting increase in severe harm to human health and negative impact on food security and sovereignty of certain Ontario communities;
- h. an increase in harms to Indigenous peoples, including increased impacts on health, access to essential supplies, ability to carry out traditional activities, loss of livelihood and displacement; and
- i. an increase in serious psychological harms and mental distress arising from the impacts of climate change, including but not limited to, the impacts set out in the paragraphs above.

47. These devastating impacts of climate change will be felt in a particularly acute way by vulnerable populations and marginalized communities, including youth, the elderly, those with pre-existing health issues and Indigenous peoples. Youth and future generations, in particular, will bear the brunt of the impacts of climate change, given that these impacts will significantly increase in severity and intensity as the years progress, and that they are among the most vulnerable to these impacts, both physically and mentally.

48. All of these devastating impacts of climate change will become even more pronounced in Ontario as the Earth's climate warms to levels approaching and exceeding 2°C above pre-industrial levels.

49. The Intergovernmental Panel on Climate Change (“IPCC”) — a comprehensive and authoritative assessment of climate science research — has confirmed the devastating impacts of climate change in a world where global average temperatures rise to 1.5°C above pre-industrial levels, and has confirmed that these impacts would be significantly worse if temperatures rise to and exceed 2°C above pre-industrial levels.
50. Temperatures rising to, and beyond, 1.5°C also increases the risk that large-scale singular events and/or natural feedback loops (such as melting permafrost in northern regions that releases methane and CO₂, further heating the climate which leads to more permafrost to melt) are triggered, which could lead to runaway and irreversible climate change that can no longer be controlled by humans, bringing devastating impacts to the lives, health and livelihoods of current and future generations of Ontarians.

The International Imperative: Act Quickly To Reduce and Limit GHG Emissions

51. In 1992, Canada and 177 other countries signed the United Nations Framework Convention on Climate Change (“UNFCCC”). It was ratified by Canada on March 21, 1994. The UNFCCC had 197 parties as of December 2015.
52. Article 2 of the UNFCCC sets the international community’s “ultimate objective” with respect to climate change: to achieve the stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

53. The UNFCCC recognizes that the largest share of historical GHGs that have accumulated in the atmosphere were emitted by developed countries like Canada, giving rise to “common but differentiated responsibilities” between developed and developing countries (whereby advanced countries that have already made significant contributions to total GHG emissions, and/or are in a better position to implement and bear the costs of GHG reductions, bear a greater share of GHG reductions moving forward).
54. Canada and almost every other country in the world has signed the Paris Agreement. The Paris Agreement’s core objective is the temperature standard whereby the international community commits to holding the increase in global average temperature to “*well below 2°C above pre-industrial levels*” (emphasis added) and pursues efforts to limit the temperature increase to 1.5 C (the “**Paris Agreement Temperature Standard**”). The Paris Agreement also recognizes that developed countries should take the lead in emissions reductions, consistent with the notion of common but differentiated responsibilities.
55. Scientists use the concept of a global “carbon budget” to define how much more CO₂ can be emitted into the atmosphere before certain levels of global temperature warming, e.g. 1.5°C or 2°C, will be locked in and irreversible. Once the carbon budget is used up or exceeded, global temperatures will stabilize at a new, dangerously high global temperature *even if* measures are later taken to reduce global emissions of CO₂ to net zero. To put it bluntly: once the carbon budget is used up, it will be too late to fix the problem.

56. The remaining global carbon budget available to have a “likely” chance (67% confidence or greater) of stabilizing global temperatures depends on the temperature goal, as follows:

- a. to stabilize at 1.5°C, the remaining global carbon budget is 420,000 MT of CO₂. At current global rates of CO₂ emissions, this budget would be exceeded in 10 years.
- b. to stabilize at 1.75°C, the remaining carbon budget is 800,000 MT of CO₂. At current global rates of CO₂ emissions, this budget would be exceeded in 19 years.
- c. to stabilize at 2°C, the remaining global carbon budget is 1,170,000 MT of CO₂. At current global rates of CO₂ emissions, this budget would be exceeded in 28 years.

57. These carbon budget figures reflect a number of conservative assumptions. For example, they assume significant reductions of other non-CO₂ GHG emissions, some of which are emitted from the same activities that cause CO₂ emissions. If non-CO₂ GHG emissions are not strictly reduced in tandem with CO₂, the remaining carbon budgets for stabilizing global average temperature at 1.5°C or 2°C would be even smaller.

58. To combat the existential threat, every jurisdiction around the world must significantly reduce GHG emissions rapidly because the climate will continue to warm at the global, national, and provincial scale until global emissions of CO₂ and other GHGs are reduced to net zero. The preamble to the Paris Agreement

recognizes “the importance of the engagement of all levels of government and various actors, in accordance with respective national legislations of Parties, in addressing climate change.”

59. In this context, national and subnational governments must pursue GHG targets that reflect their obligation in terms of global GHG emissions, so that the catastrophic impacts of an increase in global temperatures beyond 1.5 C above pre-industrial levels are avoided.

The Target Falls Short of Meeting Ontario's Obligation

60. Regardless of how one approaches the question of calculating Ontario's fair share of the global GHG reductions required to avoid the catastrophic effects of climate change, the answer is the same: Ontario is not doing enough.
61. Canada's share of the remaining global carbon budget is (at most) 2,000 MT of CO₂, in order to likely avoid the catastrophic consequences of global temperatures rising beyond 1.5 C above pre-industrial levels.
62. This calculation provides Canada with a very generous allocation of the global carbon budget. It ignores any considerations of equity, any sense of historic responsibility, and any application of the “common but differentiated responsibilities” principle — all recognized principles under the UNFCCC. Incorporating any of these considerations would reduce Canada's share of the global carbon budget to a number close to, or equal to, net zero today.
63. Ontario's actual share of Canada's emissions has been in the range of between 23% (in 2017) and 30% (in 2005). Applying these figures to Canada's (generous) 2,000

MT carbon budget provides Ontario with a maximum carbon budget of between 460 MT (23%) and 670 MT (30%) of CO₂. Because these figures are based on Canada's 2,000 MT carbon budget, they do not account for any considerations of equity, historic responsibility, or common but differentiated responsibilities.

64. Under the Target, Ontario's total CO₂ emissions from now until 2030 will be 1,670 MT, or between 250-363% greater than Ontario's share of the global carbon budget, and almost *all* of Canada's budget. In fact, Ontario's total emissions beyond 2030 will exceed its share of the global carbon budget by an even greater amount, since Ontario has no longer term plans for further emissions reductions following 2030 and it is unrealistic to expect that Ontario will go from 142.8 MT in 2030 to net zero emissions following 2030. In other words, Ontario will almost certainly continue emitting CO₂ after 2030 — even after already surpassing its maximum carbon budget for CO₂ by between 250-363%.

65. If the carbon budgets described above are adjusted to avoid global temperatures rising beyond 2°C above pre-industrial levels (rather than 1.5°C), Ontario will still exceed — or, at best, barely meet — its maximum carbon budget by 2030. But even meeting (or being slightly less than) the maximum carbon budget represents a failure by Ontario to guard against catastrophic climate change, as Ontario will inevitably continue to emit CO₂ in the years following 2030, and thereby surpass its share of the global carbon budget.

66. If other jurisdictions followed Ontario's level of ambition with the Target and adopted GHG reduction targets that exceeded their carbon budgets and failed to

incorporate common but differentiated responsibilities, equity and historic responsibility, then this would result in catastrophic climate change of at least 3°C and potentially as much as 5°C over pre-industrial temperatures by 2100 — well above the Paris Agreement Temperature Standard, and squarely within a zone of devastating impacts on human civilization.

The Target is Unconstitutional

67. Ontario's repeal of the *Climate Change Act* and its Target pursuant to the *CTCA* violates the rights of Ontario's youth under s. 7 of the *Charter* by compromising their right to life, liberty and security of the person, in a serious and pervasive manner that does not accord with the principles of fundamental justice.

68. The Target is wholly inadequate to hold global average temperatures increases to 1.5°C above pre-industrial levels (or, for that matter, 2°C above pre-industrial levels) and thereby avoid catastrophic climate change impacts. Rather than maintain or increase the pre-existing commitment to GHG reductions, the Target will ensure a higher level of GHG emissions that will cause or contribute to death, serious illness and severe harm to human health of Ontario's youth and future generations, interfering with their right to life and security of the person.

69. The Target also violates the right to liberty of Ontario's youth and future generations because the impacts of climate change interfere with their ability to choose where to live, their right to personal autonomy, and their right to make other decisions of fundamental importance.

70. At the very least, the Target will materially increase the risk that Ontario's youth and future generations will suffer from the many harmful impacts of climate change. This is sufficient to ground a s. 7 violation for breaching the life, liberty and security of the person rights, as outlined above.
71. Ontario's deprivation of the life, liberty and security of the person rights of Ontario's youth and future generations is not in accordance with the principles of fundamental justice. Indeed, there is no principle of fundamental justice that can justify the Target, given its attendant risks and consequences. Climate change presents an unprecedented and existential threat, unlike anything seen in human history. The reaction of national and subnational governments to this issue — in particular, over the next 11 years — will determine whether, and in what form, human civilization confronts that threat.
72. The Target is grossly disproportionate to Ontario's stated objective of taking proactive action to address climate change. Even if the Target's objective is characterized differently by the Respondent, it remains grossly disproportionate, given the severity and extent of the harm caused by such a high level of GHG emissions, as explained above.
73. The Target is also arbitrary. Ontario's objective in adopting the Target was to take proactive action to address climate change. The Target bears no relation to and is inconsistent with that objective, as explained above.
74. To the extent Ontario may rely on economic justifications, such justifications ring hollow. For example, the societal cost of an additional 190 MT of GHG emissions

between 2018 and 2030 is at least \$7.7 billion and likely much higher. More generally, Ontario has chosen economically inefficient means of reducing GHG emissions and inaction on climate change now will prove to be increasingly costly to Ontarians in the future, including to Ontario's youth and future generations.

75. The Target also violates the principle of fundamental justice that governments are prohibited from engaging in conduct that will contribute to, or reasonably could be expected to, lead to future harm, suffering or death of a significant number of its own citizens. This principle of "societal preservation" is a legal principle that enjoys significant social consensus (both domestically and internationally), is fundamental to the way in which the legal system ought to fairly operate, and is sufficiently precise to yield a manageable standard against which to measure s. 7 deprivations. The principle of societal preservation reflects and encapsulates many other legal and societal values recognized in Canadian jurisprudence, including human dignity, the sanctity of human life and the protection of the public. It is also an unwritten constitutional principle, which binds Ontario, and which Ontario has violated.

76. Section 7 of the *Charter* must also include the right to a stable climate system, capable of providing youth and future generations with a sustainable future, as this directly implicates their rights to life, liberty and security of the person, for all of the reasons explained above. The Target violates s. 7 for this reason as well.

77. The Target violates s. 15 of the *Charter* because Ontario's youth and future generations:

- a. are a uniquely vulnerable population by virtue of their age and, for some, their inability to influence political decisions at the ballot box;
- b. will be disproportionately impacted by the devastating impacts of climate change, which (if Ontario maintains its current trajectory) will significantly increase in severity and intensity as the years progress; and
- c. are among those who will suffer the most from the climate change impacts covered at paragraph 46, including (but not limited to) extreme heat events, warming temperatures and heat waves, infectious diseases, fires, flooding, algal blooms, toxic contamination and mental health challenges;
- d. will have their pre-existing vulnerability and disadvantage heightened as a result of these impacts.

78. In addition to quashing the Target, Ontario ought to be required to adopt a new science-based GHG reduction target that is consistent with Ontario's fair share of the minimum level of GHG reductions necessary to limit global warming to below 1.5°C above pre-industrial temperature (or, in the alternative, the Paris Agreement Temperature Standard), and Ontario ought to adopt a new environmental plan that incorporates this new target. The dangers of climate change are extraordinary and existential, and require an equally extraordinary remedy in order to effectively prevent the devastating consequences that Ontario's youth and future generations will face once global average temperatures rise beyond 1.5°C above pre-industrial temperatures.

79. The *Charter* violations set out above cannot be justified pursuant to s. 1 of the *Charter*.

80. The Applicants rely on relief under s. 24 of the *Charter* or s. 52 of the *Constitution Act, 1982*. In the alternative, and in any event, this Court has the inherent jurisdiction to grant declaratory and other relief, to the extent such relief may be unavailable under s. 24 of the *Charter* or s. 52 of the *Constitution Act, 1982*.

STATUTORY INSTRUMENTS RELIED UPON

In addition to the various statutory instruments described in the preceding paragraphs, the Applicants rely on:

1. *Courts of Justice Act*, RSO 1990, c C.43.
2. *Rules of Civil Procedure*, RRO 1990, Reg 194 and, in particular, rules 2.03, 14.05, 38 and 39.
3. Such further and other grounds as counsel may advise and this Honourable Court may deem just.

DOCUMENTARY EVIDENCE

1. The following documentary evidence will be used at the hearing of the application:
 - (a) The affidavit of Catherine Orlando, sworn November 23, 2019;
 - (b) The affidavit of Anne Burnett Keary, affirmed November 23, 2019;
 - (c) The affidavit of Sophia Mathur, to be sworn;

- (d) The affidavit of Zoe Keary-Matzner, to be sworn;
- (e) The affidavit of Shaelyn Hoffman-Menard, to be sworn;
- (f) The affidavit of Shelby Gagnon, to be sworn;
- (g) The affidavit of Alexandra Neufeldt, to be sworn;
- (h) The affidavit of Madison Dyck, to be sworn;
- (i) The affidavit of Lindsay Gray, to be sworn;
- (j) The affidavits of expert witnesses, to be determined;
- (k) Such other affidavit material and evidence as counsel may advise and this Honourable Court may deem proper.

Dated November 25, 2019

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and HER MAJESTY THE QUEEN IN
RIGHT OF ONTARIO

Court File No.

Applicants

Respondent

**ONTARIO
SUPERIOR COURT OF JUSTICE**

Proceeding commenced at TORONTO

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Preserving and Protecting our Environment for Future Generations

A Made-in-Ontario Environment Plan



Minister's Message



Rod Phillips

Minister of the Environment,
Conservation and Parks

The people of Ontario are passionate about the great outdoors and the natural spaces our communities offer. We recognize the importance of a clean environment to our health, our wellbeing and our economic prosperity for future generations. We also recognize the important responsibility we all have to our environment.

Ontario boasts hundreds of thousands of parks, hiking trails and forests to explore with our families and friends. Ontarians can camp in protected areas like Quetico Provincial Park in Northern Ontario and see firsthand the magnificence of a moose. We can also enjoy a family picnic at Victoria Park in Kitchener and enjoy local fresh fruits, vegetables and dairy products that were grown and produced on nearby farms. Ontario is home to hundreds of thousands of lakes, rivers and waterways that are the lifeblood of our province, where people fish, kayak and swim. We also rely on our waters to transport goods, feed our crops, and have a safe, reliable source of drinking water.

These waterways are under increasing pressure as urban development expands along their shorelines, invasive species expand on land and in water, and climate change causes changing weather patterns that can bring heavier rains resulting in damage to homes, businesses and public infrastructure.

Preserving and protecting our environment begins with a new vision for Ontario. One where hardworking taxpayers are protected and respected, and where environmental stewardship connects with the people of this province.

I am pleased to present the following made-in-Ontario plan to keep our province beautiful by protecting our air, land and water, preventing and reducing litter and waste, supporting Ontarians to continue to do their share to reduce greenhouse gas emissions, and helping communities and families prepare for climate change.

This plan will ensure we balance a healthy environment with a healthy economy, and will be reviewed on a four-year basis.

This is a plan that represents a clean break from the status quo.

We understand the pressure Ontarians feel with rising costs of living as well as skyrocketing energy costs that have hurt our economy and our competitiveness. They are understandably frustrated to see their hard-earned tax-dollars being put towards policies and programs that don't deliver results.

That's why a cap-and-trade program or carbon tax that seeks to punish people for heating their home or driving their cars remains unacceptable to the people of Ontario.

When the government does invest in environmental programs, taxpayers should not have to watch their hard-earned dollars be diverted towards expensive, ineffective policies and programs that do not deliver results.

The people of Ontario deserve recognition for the sacrifices they have made and the ones they continue to pay for.

Our plan reflects our province's specific needs and opportunities, and it does not include a carbon tax. We will continue to do our share to reduce greenhouse gases and we will help communities and families prepare to address climate change. With hard work, innovation and commitment, we will ensure Ontario achieves emissions reductions in line with Canada's 2030 greenhouse gas reduction targets under the Paris Agreement.

We will tap into the resourcefulness and creativity of our diverse and thriving private sector by helping them invest in and develop clean solutions to today's environmental challenges.

We have consulted extensively with the public, receiving more than 8,000 ideas and recommendations through our online portal. These comments have been considered alongside submissions from stakeholders and information from Indigenous communities who provided feedback on fighting climate change and other areas of environmental focus. We will continue to consult and engage on the proposals contained within this plan in the coming weeks and months.

All of us have a role to play in protecting the environment, and there are many great ideas across our province and country. It will be important that we continue to have constructive dialogue with other jurisdictions to tackle these environmental challenges together. One thing that has become particularly clear over the past few months is the fact that no one solution fits all provinces, regions or communities.

Our plan describes the actions Ontario is proposing to take and the ways we will enable industry, business, communities and people to continue to do their part.

Ontario families understand that we have a personal responsibility to leave behind a province better off than the one we inherited; not just environmentally, but financially as well.

I invite you to read our plan and join with us today, and every day, to create a better future for Ontario.

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Our Province Today

Those of us who call Ontario home couldn't ask for a better place to live, work and raise a family. The quality of life in our communities and the success of our businesses depends to a great extent on the clean air we breathe, the safe water we drink, and the well-protected lands and parks we enjoy.

Today, the people of Ontario are breathing cleaner air with large reductions in levels of many harmful pollutants. In 2001, Ontario began the process of closing its coal plants and in the years since, we have significantly reduced pollutants such as nitrogen dioxide, sulphur dioxide, mercury and particulate matter.

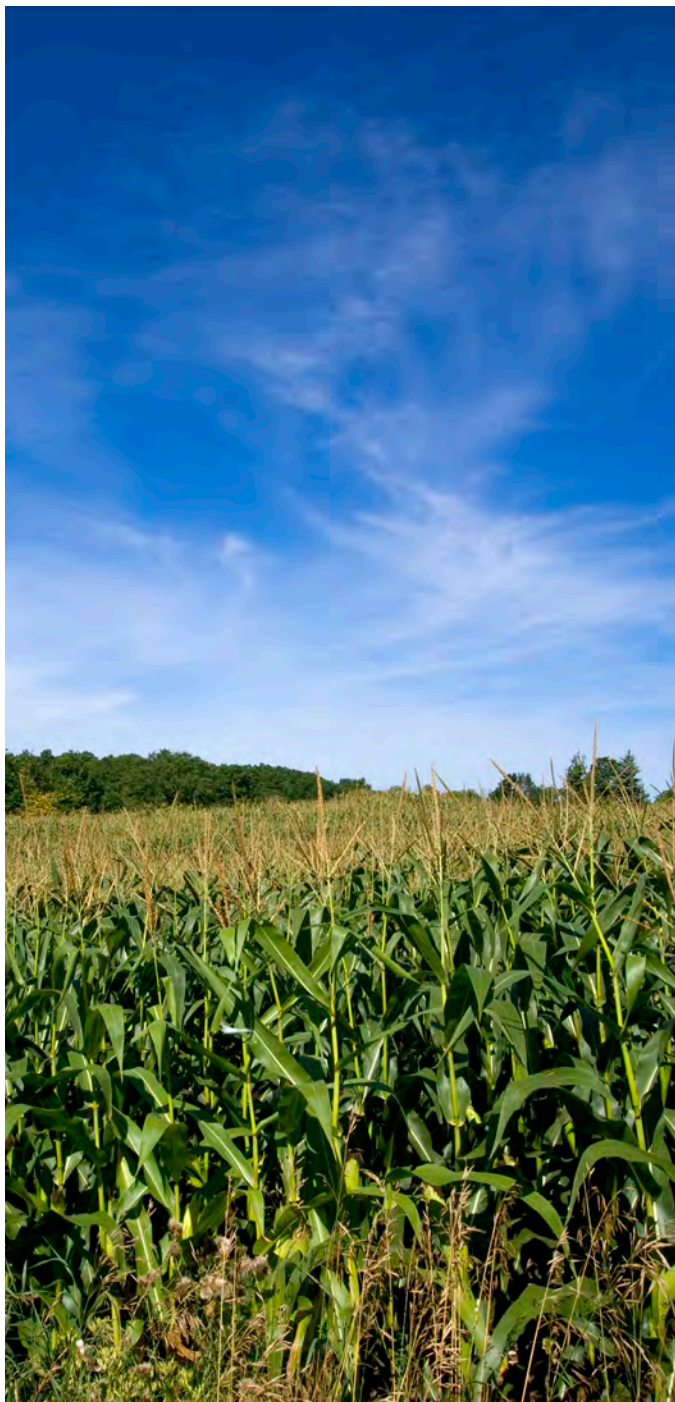
Our Great Lakes attract millions of residents and visitors to waterfront communities around the province each year. These lakes provide safe drinking water to more than 70% of Ontarians and their watersheds are home to more than 4,000 species of fish, birds and other living things. They, along with all of our waterways and groundwater, underpin our province's economic prosperity and wellbeing – supporting Ontario's manufacturing, power generation, fisheries, tourism, agriculture and drinking water.

Parks and greenspace across our province provide individuals, families and tourists with opportunities to canoe in lakes, hike in forests and camp on protected lands.



THE CHALLENGE AHEAD

At the same time, climate change threatens these resources and our homes, communities and businesses, infrastructure, and our locally grown food and crops. It also threatens food security and road access for remote First Nations, as well as the health of ecosystems across our great province.



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We can do more to protect ourselves from the extreme weather events that have flooded houses, buildings and roads, overwhelmed aging stormwater and wastewater systems, damaged crops, and brought heavy ice and wind storms that knocked out power for hundreds of thousands of people, including those who are most vulnerable.

Heat waves and recent drought conditions in some areas of the province, coupled with anticipated impacts of climate change and population growth, have intensified concerns related to water security for farmers, Indigenous communities, industry and municipalities.

We also recognize that there is much more that can still be done to keep our lands and waterways clean and free of litter. Nobody wants to see plastic and litter polluting our waterways, neighbourhoods and parks. No one wants sewage and wastewater overflowing into our lakes and rivers or salt making its way into our waterways. These issues are happening now and need to be addressed. There is also a need to address specific air quality concerns in communities that continue to face air quality challenges. True environmentalism begins with a sense of civic responsibility that we foster through meaningful action close to home.

Our environment plan reflects our government's commitment to addressing these pressing challenges. We will use the best science, real-time monitoring where available, and strong, transparent enforcement to protect our air, land and water, prevent and reduce litter and waste, support Ontarians to continue to do their share to reduce greenhouse gas emissions, and help communities and families prepare for climate change.

DOING OUR PART

In 2001, the government of the day announced the closure of the Lakeview Generating Station, setting the stage for the phase out of coal-fired electricity generation which remains the largest single greenhouse gas reduction in Canadian history. Ontario's low-emission combination of hydroelectric, nuclear, natural gas and non-hydro renewable generating capacity has enabled the province to avoid up to 30 megatonnes of annual greenhouse gas emissions, equivalent to taking up to seven million vehicles off our roads. In 2017, approximately 96% of the electricity generated in Ontario was emissions-free.

The combination of nuclear, hydro, other renewables and efficient natural gas has given Ontario one of the cleanest energy grids in North America. Ontario's supply of clean electricity is one of its unique strengths. Ontario is currently a net exporter of electricity, with our clean power offsetting a higher emitting mix of coal and natural gas generation in neighbouring states, such as Michigan and New York.

Measured against the same base year of Canada's target under the Paris Agreement (2005), the province's total greenhouse gas emissions have dropped by 22% – even while the rest of Canada saw emissions increase by 3% during that same time.

Doing Canada's heavy lifting on greenhouse gas emission reductions came at a cost that was too high for Ontario families and businesses. In 2017, prior to the introduction of the Fair Hydro Plan Act, 2017, the cost associated with transitioning to Ontario's low emission electricity system was an estimated \$33 per month for a typical residential electricity consumer and about \$435 per month

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for a small business, such as a restaurant. Since 2005, about \$40 billion has been spent in capital investments to transition the province to an electricity system that is virtually emissions-free. Now is not the time to add further costs to the price of electricity that is already very clean.

We will continue to do our share to address climate change and protect our environment. We will do so in a way that protects our economy and respects the people.

We will hold polluters accountable by ensuring strong enforcement with real consequences and penalties, especially for repeat offenders.

We will also help our urban and rural communities and landscapes become more sustainable and resilient. We will help others do their part, whether it's leveraging private sector investments to drive environmental solutions or making it easier for people and companies to go the extra mile to reduce emissions, clean up their communities, protect waterways, conserve lands and restore habitats.

Ontario has a long history of working cooperatively with other provinces and territories, as well as with the federal government through formal agreements such as the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health and through intergovernmental forums such as the Canadian Council of Ministers of the Environment. There are also global environmental issues on which Ontario will continue collaborating with the federal government and participating in international meetings and agreements.

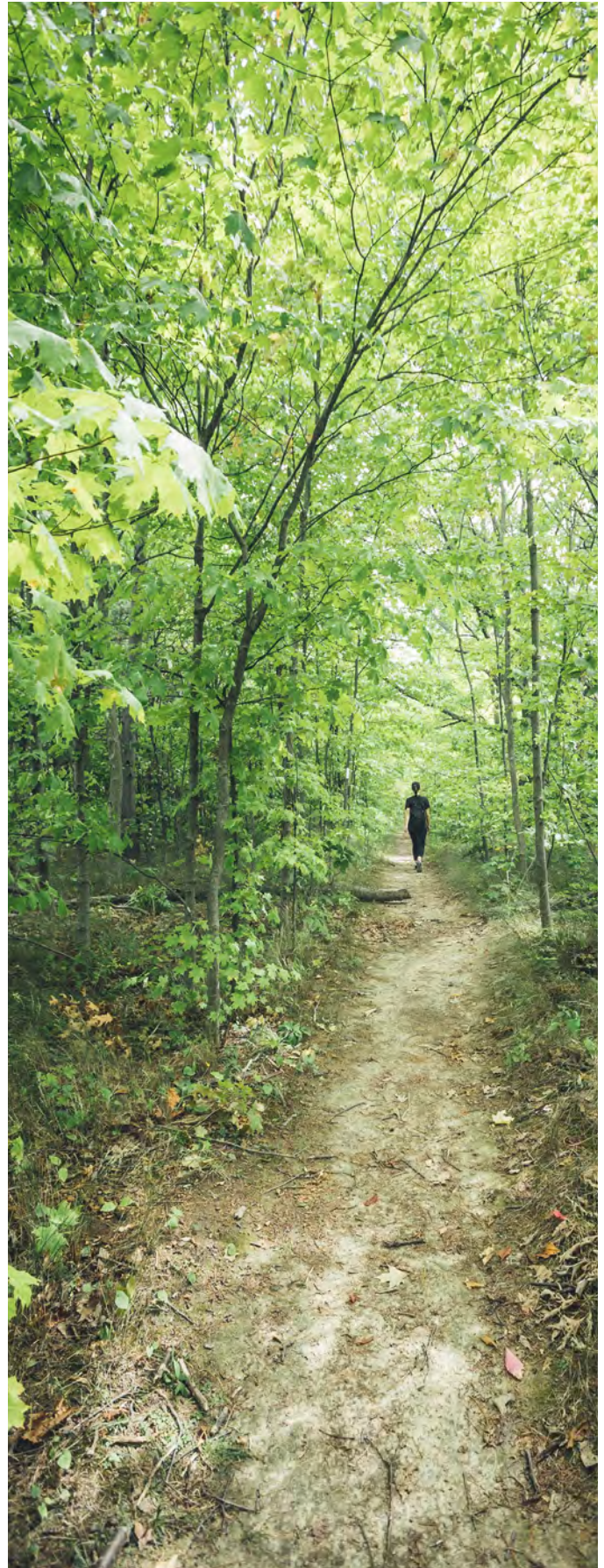
Protecting the environment is a responsibility of all of us who call Ontario home.

We will continue to work in partnership with other provinces, neighbouring jurisdictions, the federal government, municipalities, Indigenous communities, business and local partners to help protect our environment and ensure we pass on a cleaner environment to future generations.

GUIDING PRINCIPLES

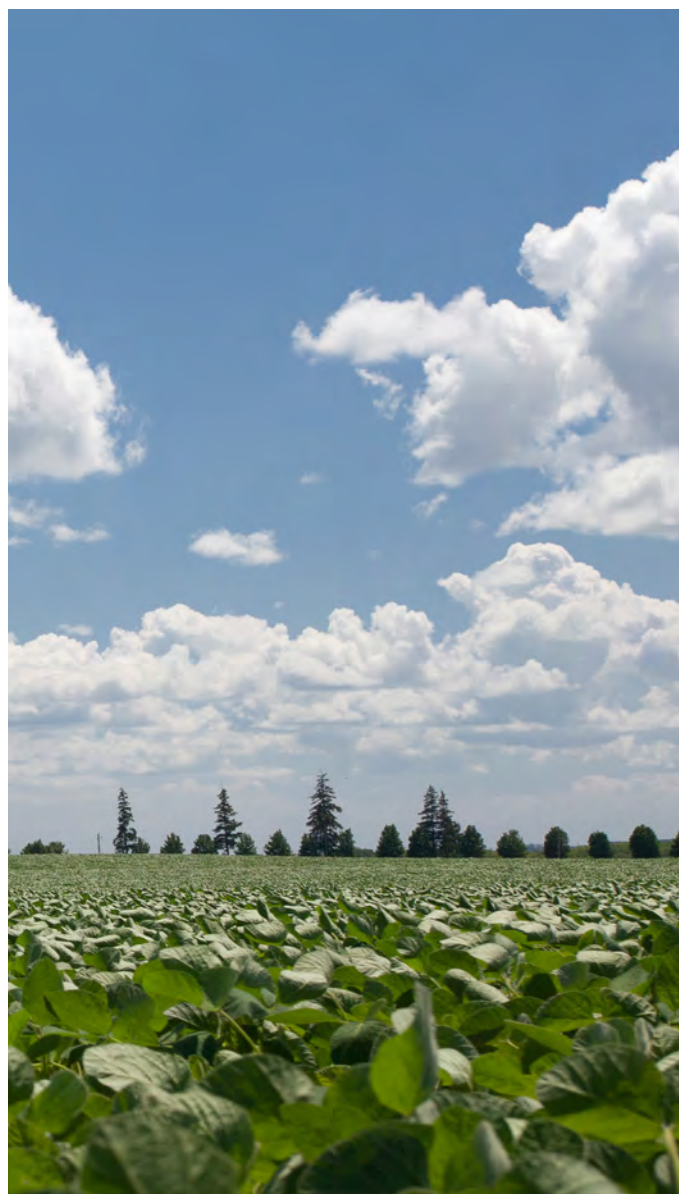
Our guiding principles will help us address our most serious environmental challenges in a responsible, effective, measurable and balanced way.

- **Clear Rules and Strong Enforcement:** We will ensure that polluters are held accountable with tougher penalties, while reducing regulatory burden for responsible businesses.
- **Trust and Transparency:** We will provide Ontarians with the information and tools required – with a particular focus on real-time monitoring – to understand the current environmental challenges we face and how these challenges impact individuals, businesses and communities across the province.
- **Resilient Communities and Local Solutions:** We recognize that environmental impacts faced by communities across Ontario may be very different. We will work with these communities and use best scientific practices and other evidence-based methods to develop unique solutions to their challenges.



Protecting our Air, Lakes and Rivers

Ontario's water and air are life support systems for our province and our people. Pollution in our air and water increases healthcare costs, affects the enjoyment of our outdoors and contributes to lost economic opportunity. We will protect these critical systems by keeping our water and air clean while growing our economy.



Our plan will make it easier for people to report pollution that is impacting their lives by developing an online platform for reporting incidents that allows photos or video to be sent in, as well as reporting an incident by e-mail, phone or through an app.

Additionally, we will put in place an improved complaint response system that sets out the services Ontarians can expect from inspectors and investigators when they file a complaint, and new standards on the response time they can expect based on the type of incident they report. We will be transparent about pollution incidents and spills, and provide real-time information where it is available so that people can see if a spill or incident has already been reported, as well as the status of the ministry's response.

CLEAN AIR

Although Ontario's air quality has improved significantly, some areas of the province still experience poorer air quality due to pollution. We are committed to protecting our air, ensuring we have strong environmental standards that are protective of human health and the environment, and taking action to enforce local air quality standards.

Quick Fact: Ontario initiated the first closure of a coal plant in 2001. This action and the subsequent closure of 19 coal-fired units in five plants contributed to reducing the number of smog days in Ontario from a peak of 53 in 2005 to zero in 2017.

Actions

Improve air quality in communities by creating unique solutions to their individual challenges

- Focus on parts of the province that continue to experience air quality challenges due to pollution from transportation, industry and other sources.
- Work in partnership with municipalities, industry, public health units, other community stakeholders and Indigenous communities to address local air quality concerns and achieve clean air objectives.

Reduce emissions from heavy-duty vehicles

- Redesign the emissions testing program for heavy-duty vehicles (e.g. commercial transport trucks) and strengthen on-road enforcement of emissions standards.

Improve understanding of different sources of air pollution and their impact

- Monitor pollutants to evaluate long-term trends so we can gather the information we need to take action on air pollution.

- Increase road-side monitoring of traffic pollution and expand road-side monitoring of pollutants beyond the Greater Toronto Area to other heavily urbanized communities such as Sarnia, Sudbury and Hamilton.

Strengthen collaboration on addressing air pollution that comes from outside of Ontario's borders

- Call on the federal government to proactively address the impacts of air pollution from outside Ontario, including from the United States and international sources, and ensure continued cooperation and commitment to improve air quality.
- Expand collaboration with Michigan and Ohio to reduce the emission of contaminants of concern that impact southern Ontario, Michigan and Ohio airsheds.



Success story: Sarnia's air quality is improving

In partnership with industry, the Clean Air Sarnia and Area (CASA) advisory panel launched the website cleanairsarniaandarea.com so users could view contaminant levels from seven air monitoring stations in the Sarnia community. Air quality information is refreshed every hour on an interactive map so users can find out whether air quality is good, moderate or poor compared to provincial standards. While Ontario and industry have been monitoring air quality in the Sarnia area for decades, the CASA initiative marks the first time that data has been accessible to the public in real-time and in one location.

CLEAN WATER

Ontario is also moving forward with a Sarnia Area Environmental Health Project to help address concerns about air pollution and other environmental stressors from local industries in the Sarnia area. The project will help enhance our understanding of the links between the environment and health in the community, with a focus on assessing exposures to air contaminants.

These projects are great examples of the collaborative efforts of local industry, the municipality, the Aamjiwnaang First Nation and interested community groups.

Our lakes, waterways and groundwater are the foundation of Ontario's economic prosperity and wellbeing – supplying water to our communities, sustaining traditional activities of Indigenous peoples, supporting Ontario's economy, and providing healthy ecosystems for recreation and tourism.

Over past decades, Ontario has seen significant improvements in Great Lakes water quality due to efforts by governments and other partners. These partnerships have achieved a 90% reduction in releases of mercury, dioxins and polychlorinated biphenyls (PCBs), resulting in fish that are safer to eat, clean-up of polluted areas and the restoration of species.



Water resources in Ontario are facing many pressures. Population growth, rapid urban development, aging infrastructure and invasive species are threatening our waterways through pollution and loss of natural heritage. For example, excess road salt can damage roads, cause vehicle corrosion and be harmful to fish in our waterways. The changing climate is compounding these stresses with droughts, floods and extreme storms. Declining ice cover is causing shoreline erosion, warmer water is creating conditions for blooms of harmful algae, and shifting water conditions are changing when and where fish spawn.

Working together, we can help conserve and manage our water resources. Ontario's drinking water, for example, is among the best protected in the world as a result of the province's strong monitoring, reporting and enforcement activities and programs.

We will take strong enforcement action to protect our lakes, waterways and groundwater from pollution.

We will also work with municipalities and other partners to increase transparency through real-time monitoring of the sewage overflows from municipal wastewater systems, which too often flow into Ontario's lakes and rivers. We must step up efforts to ensure the public is aware and that proper monitoring occurs.

Quick Fact: 99.8% of more than 518,000 test results from municipal residential drinking water systems meet Ontario's strict drinking water quality standards.

Our plan focuses on key areas of action to protect our waters and keep our beaches clean for swimming, recreation, enjoyment and traditional use.

Actions

Continue work to restore and protect our Great Lakes

- Build on previous successes and continue efforts to protect water quality and ecosystems of the Great Lakes. This includes keeping coastlines and beaches clean, protecting native species and safeguarding against invasive species such as Asian carp or Phragmites, and reducing harmful algae by continuing partnerships and negotiations with the federal government under agreements and plans such as the [Canada-Ontario Great Lakes Agreement](#) (COA) and the [Canada-Ontario Lake Erie Action Plan](#). Since signing the eighth COA in 2014, Ontario has directly invested \$15.3 million per year in programs. This includes supporting the Lake Erie Action Plan and restoring geographic areas, known as areas of concern, where significant impairment or contamination has occurred as a result of human activities at the local level.
- Review and update [Ontario's Great Lakes Strategy](#) to continue to protect fish, parks, beaches, coastal wetlands and water by reducing plastic litter, excess algae and contaminants along our shorelines, and reducing salt entering waterways to protect our aquatic ecosystems.

Continue to protect and identify vulnerable waterways and inland waters

- Build on previous successes and continue to implement the [Lake Simcoe Protection Plan](#) to protect and restore important natural areas and features of the lake. Ontario has invested annually in the implementation of the Lake Simcoe Protection Plan.
- Protect the quality of the Lake of the Woods by continuing to work with partners on reducing phosphorus that, in excessive quantities, can cause toxic blue-green algae.
- Build on the ministry's monitoring and drinking water source protection activities to ensure that environmental impacts from road salt use are minimized. Work with municipalities, conservation authorities, the private sector and other partners to promote best management practices, certification and road salt alternatives.
- Work with Indigenous communities and stakeholders, including the public, on the remediation of mercury contaminated sediments in the St. Clair and English-Wabigoon Rivers, including efforts such as:
 - ensuring clean-up of the remaining mercury contaminated sediments located in three areas downstream of the former Dow Chemical site.
 - participating in the work of the English and Wabigoon Rivers Remediation Panel to fund remediation activities from a trust that was established with \$85 million under the *English and Wabigoon Rivers Remediation Funding Act, 2017*.

Asian Carp:

A threat to the Great Lakes Fisheries and Economy

Asian carp typically weigh two to four kilograms but can weigh up to 50 kilograms and can grow to a length of more than one metre. They consume a significant amount of food and can eat up to 20% of their body weight each day, which harms the Great Lakes ecosystem. Asian carp were introduced to aquaculture facilities in the southern U.S. in the 1970s to remove algae and suspended solids from their ponds. They escaped when the Mississippi River flooded and have spread northward in the Mississippi watershed towards the Great Lakes.

Asian carp pose a significant threat to recreational and commercial fisheries in Ontario which are worth almost \$2.5 billion combined. Ontario is working with many partners including the Asian Carp Regional Coordinating Committee, a committee including all Great Lakes states and provinces, U.S. federal agencies, and Fisheries and Oceans Canada to facilitate collaboration on prevention, early detection, response, and monitoring activities.

Quick Fact: Ontario's more than 250,000 lakes, including the Great Lakes, contain about one fifth of the world's fresh water.

Action in Progress:

Protecting the Muskoka watershed

Through the Muskoka Watershed Conservation and Management Initiative, the community and province will work together to protect this vital area by identifying the issues facing the region. Ontario will invest \$5 million and commit up to an additional \$5 million in matching contributions.



Effective watershed management is important to the people in our communities, especially at times when watersheds are facing stresses such as increased development and flooding caused by severe weather events.

This initiative will also help us develop a more comprehensive approach to watershed management, which can inform current actions and future development.

Success story: Celebrating recovery of freshwater fish in Lake Simcoe



Over the years, many organizations alongside the provincial and federal governments have worked hard to protect and restore the Lake Simcoe watershed against contaminants and excess nutrients like road salt and phosphorus that have had a negative effect on water quality. The Lake Simcoe ecosystem is showing encouraging signs of recovery and demonstrating that efforts to restore and protect the lake are having an impact. For example, populations of sensitive aquatic life such as lake trout, lake whitefish and cisco are trending upward.

Ensure sustainable water use and water security for future generations

- Thoroughly review the province's water taking policies, programs and science tools to ensure that vital water resources are adequately protected and sustainably used.
- Enhance how we manage water takings to ensure we have sustainable water resources in the face of a changing climate and continued population growth. We will do this by examining approaches to assessing and managing multiple water takings, establishing priorities for different water uses, and preparing and responding to drought conditions.
- Ensure the knowledge gained through the drinking water source protection program helps inform our water management programs.

Quick Fact: Thanks to local source protection committees and conservation authorities, Ontario has source protection plans being implemented across 38 watershed-based areas. These locally developed plans identify and protect areas where drinking water is vulnerable to contamination and depletion.

- Encourage targeted investment and innovation in managing wastewater that overflows into our lakes and rivers.

Quick Fact: There were a total of 1,327 bypasses and/or overflows from all municipal wastewater sources in the 2017/18 fiscal year, as reported to the Ministry of the Environment, Conservation and Parks.

Help people conserve water and save money

- Promote the use of technologies and practices to ensure water is used more efficiently. This includes water conservation planning; water use tracking and reporting; improving standards for household fixtures and appliances, such as dishwashers or washing machines; and profiling provincial and broader public sector leadership in this area.

Improve municipal wastewater and stormwater management and reporting

- Increase transparency through real-time monitoring of sewage overflows from municipal wastewater systems into Ontario's lakes and rivers. Work with municipalities to ensure that proper monitoring occurs, and that the public is aware of overflow incidents.
- Update policies related to municipal wastewater and stormwater to make them easier to understand. We will consider how wastewater and stormwater financing could be updated to improve investment and support new and innovative technologies and practices.

Success story: City of Kingston shows environmental leadership



Utilities Kingston and the City of Kingston have shown leadership by providing real-time public reporting of sewage overflows, reducing pollution, and working with partners such as Swim Drink Fish Canada and the W. Garfield Weston Foundation to create the Gord Edgar Downie Pier at Breakwater Park, giving the community a new place to swim and enjoy a cleaner Lake Ontario waterfront.

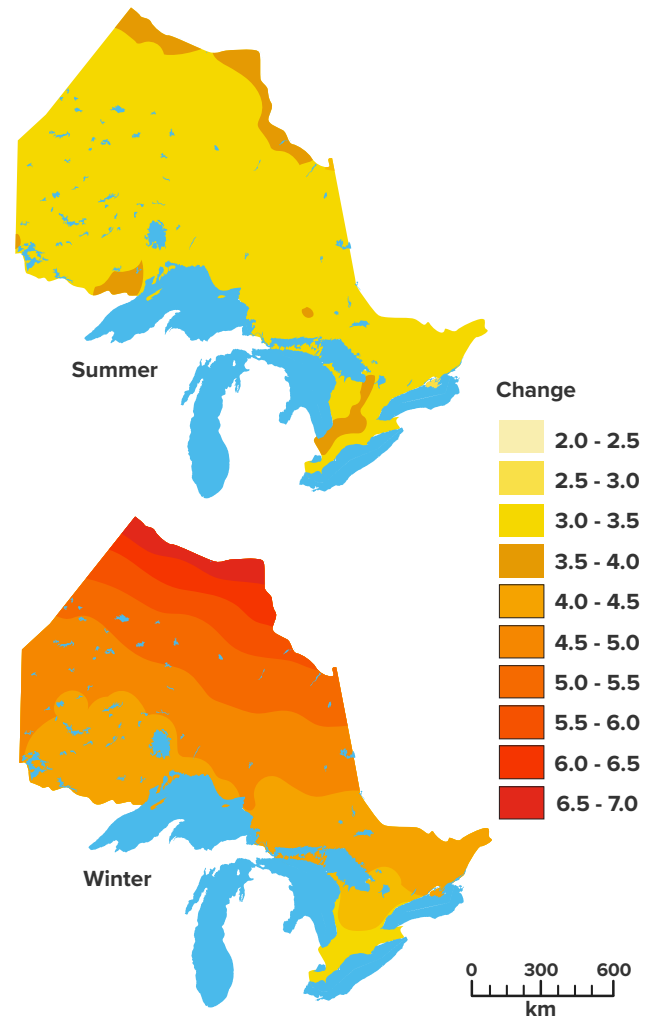
Addressing Climate Change

Quick Fact: As of 2013, Canada is responsible for 1.6% of global emissions, with Ontario responsible for less than 0.4% of global emissions.

The climate is changing. Severe rain, ice and wind storms, prolonged heat waves and milder winters are much more common. Forests, waters and wildlife across the province are and will continue to be significantly impacted by these changes. People across the province – especially Northern communities – and all sectors of the economy are feeling the impacts of climate change and paying more and more for the costs associated with those impacts.



The following graph shows projected seasonal summer and winter temperature changes in Ontario by the 2050s.



Source: Ontario Climate Data Portal – http://lamps.math.yorku.ca/OntarioClimate/index_v18.htm. Projected seasonal (summer and winter) temperature changes by the 2050s (relative to the average of 1986-2005), under the Inter-governmental Panel for Climate Change (IPCC) 5th assessment report (AR5) business as usual emission scenario (RCP8.5).

The people of Ontario have already made significant contributions to meaningful climate action. We have played an important role in fighting climate change and mitigating the threats to our prosperity and way of life, implementing significant changes to drastically reduce our greenhouse gas emissions.

The government of the day initiated the first closure of a coal plant in 2001. This action and the subsequent closure of 19 coal fired units in five plants by 2014 led to the largest single reduction of greenhouse gas emissions, not just in Ontario, but across Canada. It was also one of the largest actions to reduce emissions in North America.

Emission-free electricity generation also plays a significant role in Ontario. Nuclear power, along with our hydroelectric fleet, continues to generate the lion's share of our clean electricity.

Today, Ontario has one of North America's cleanest electricity grids. We also have effective natural gas conservation programs, helping homeowners, businesses and industry reduce their carbon footprint.

Quick Fact: Almost all of Canada's progress towards its 2030 Paris Agreement targets has been driven by Ontario.

But doing Canada's heavy lifting on greenhouse gas emission reductions has come at a cost to Ontario families. Our government understands the part that Ontarians have played and continue to play in reducing their emissions.

We have already been a leader when it comes to climate. **Indeed, we are on track to meet Canada's commitment under the Copenhagen Accord of 17% below 2005 levels by 2020.**

Now, we must look to find a balanced approach to reducing our emissions and prepare families for the impact of climate change in order to maintain both a healthy economy and healthy environment. This plan is our alternative to a carbon tax. It means finding effective and affordable ways to slow down climate change and build more resilient communities to prepare for its effects.

Ontario and the Rest of Canada's Greenhouse Gas Emissions from 2005 to 2016



We will work to unlock private capital to give Ontario businesses and residents new and more affordable ways to invest in energy efficiency, save money and reduce greenhouse gas emissions. One of the most effective ways we can combat climate change is encouraging innovation and reducing regulatory barriers to climate solutions. Through this plan, our government will focus on smart regulatory and policy approaches to facilitate and enable innovation rather than hindering it.

The following chapter of our environment plan acts as Ontario's climate change plan, which fulfills our commitment under the *Cap and Trade Cancellation Act, 2018*.

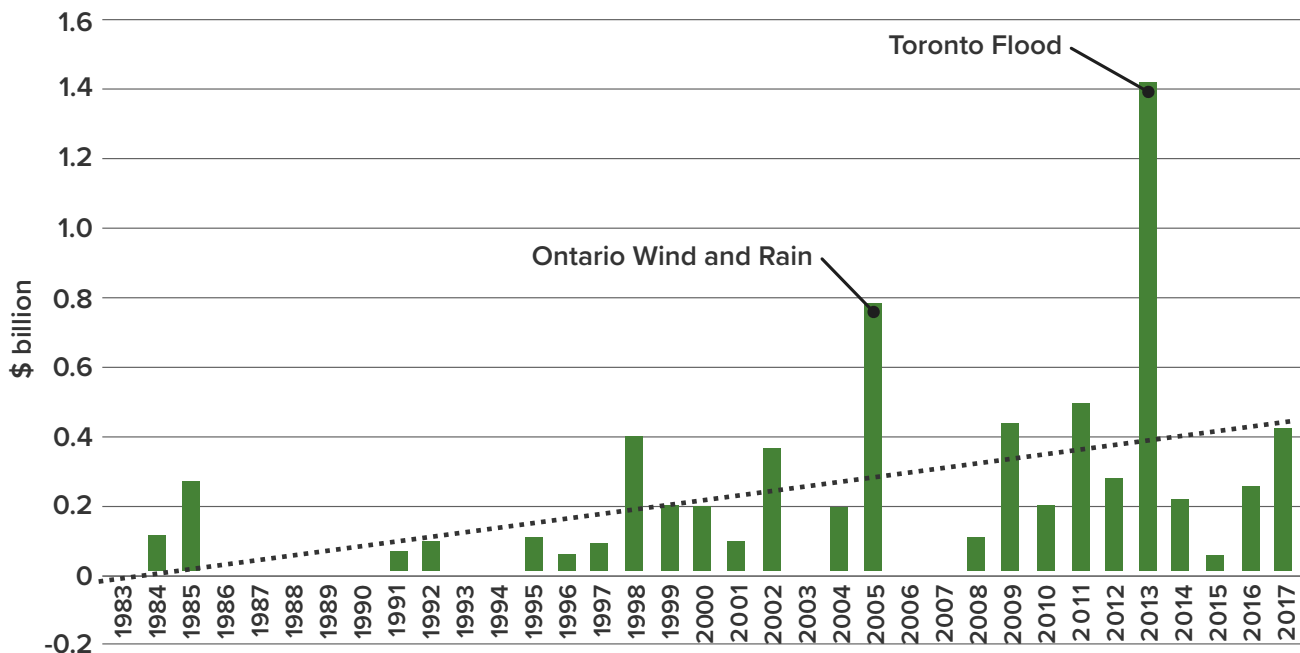
BUILDING RESILIENCE: Helping Families and Communities Prepare

We are committed to preparing families and communities for the costs and impacts of climate change, and to protecting our natural environment, communities, businesses and municipalities.

While our actions are important in the global fight to reduce emissions, we all understand the need to strengthen our resilience to the impacts of climate change such as more frequent extreme weather events.

The following graph shows the rising costs of insured property damage in Ontario between 1983 and 2017, providing an indication of the costs of climate change. The financial costs associated with extreme weather events in Ontario have increased over this period. Chief among factors affecting the increasing costs to Ontarians is the phenomenon of flooding, and more specifically, residential basement flooding.

Costs of Insured Property Damage in Ontario Between 1983 and 2017



Source: Insurance Bureau of Canada.

Building resilience is about having the right information, tools and resources to adapt and respond to our changing climate. We will access the best science and information to better understand where the province is vulnerable and know which regions and economic sectors are most likely to be impacted. Through this enhanced understanding, the province, local communities, businesses, Indigenous communities and the public will be more prepared for the impacts of a changing climate.

Case study: **Climate change impact assessments**

Ontario has never completed a provincial-level climate change impact assessment. Since 2008, the United Kingdom has conducted two assessments using best available data and an up-to-date understanding of climate science and future climate impacts. Each assessment provides detailed analysis of the risks, vulnerabilities and impacts of climate change on key economic sectors, infrastructure, the environment and societal health and well-being.

Each assessment gives the government a roadmap to “high” and “low” climate change risks now and in future years.

Improve our understanding of how climate change will impact Ontario

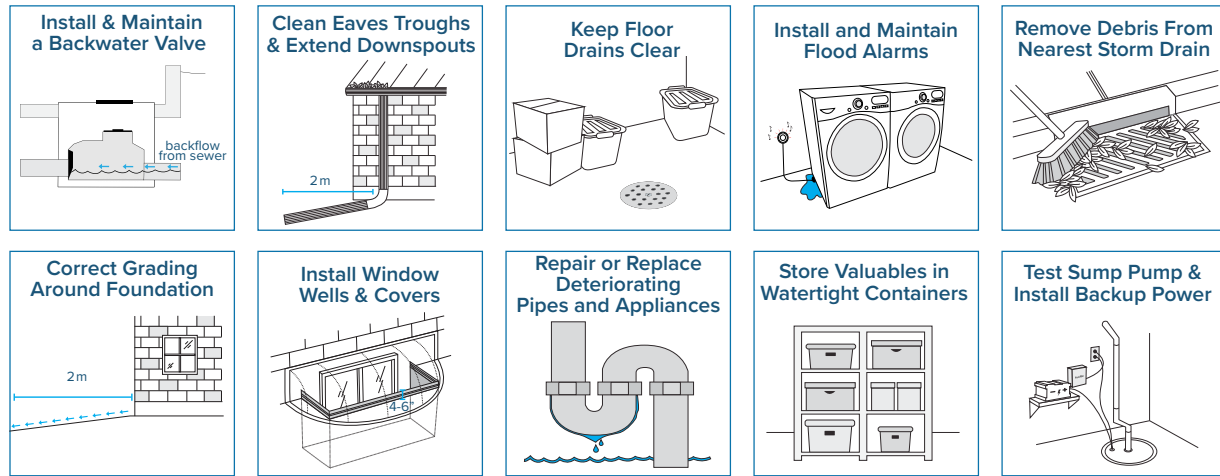
- Undertake a provincial impact assessment to identify where and how climate change is likely to impact Ontario’s communities, critical infrastructure, economies and natural environment. The assessment would provide risk-based evidence to government, municipalities, businesses, Indigenous communities and Ontarians and guide future decision making.
- Undertake impact and vulnerability assessments for key sectors, such as transportation, water, agriculture and energy distribution.

Help Ontarians understand the impacts of climate change

- Develop a user-friendly online tool that makes practical climate change impact information available for the public and private sectors. This tool will help developers, planners, educators, homeowners and others understand the potential impacts of climate change in their communities.
- Work closely with climate science modelling experts, researchers, Indigenous communities, and existing climate service providers to identify and create adaptation solutions.
- Support communities by demonstrating how climate science can be applied in decision making to improve resilience.

The graphics below illustrate practical actions that homeowners can take – simply and affordably – to lower their risk of basement flooding. Home flood protection can include property level initiatives such as disconnecting downspouts from weeping tile systems, placing plastic covers over window wells, outfitting sump pumps with battery back-up supply, and installing back water valves on drain lines.

10 Ways to Prevent Home Basement Floods



Source: Home Flood Protection Program, Intact Centre on Climate Adaptation, University of Waterloo

Ontario will work with the real estate and insurance industries to raise awareness among homeowners about the increasing risk of flooding as we experience more frequent extreme weather events. Flooding damage is the leading cause of insured property damage in Ontario. The risk of home flooding is also increasingly the reason why homeowners are unable to adequately insure their homes.

Flood damages can cost homeowners tens of thousands of dollars to repair. According to the National Flood Insurance Program in the U.S., a 15-centimetre flood in a 2,000-square-foot home is likely to cause about USD \$40,000 in flood damage. Once flooding occurs, securing insurance will become more difficult and may become unaffordable for individual homeowners.

However, simple steps, such as removing debris from nearby storm drains, ensuring correct grading around home foundations, clearing eaves troughs, and installing extended downspouts and window well covers can significantly mitigate basement flood risks.

Update government policies and build partnerships to improve local climate resilience

- Modernize the Building Code to better equip homes and buildings to be better able to withstand extreme weather events. This could include affordable adaptation measures such as requiring backwater valves in new homes that are at risk of backflow, which would significantly reduce the impacts of basement flooding.
- Review the Municipal Disaster Recovery Assistance program to encourage municipalities to incorporate climate resilience improvements when repairing or replacing damaged infrastructure after a natural disaster. Since the Municipal Disaster Recovery Assistance program was launched in 2016, over \$2.6 million has been provided to 11 municipalities.
- Consult on tax policy options to support homeowners in adopting measures to protect their homes against extreme weather events, such as ice and wind storms and home flooding.

- Review land use planning policies and laws to update policy direction on climate resilience. This will help make the way our communities are planned and designed more responsive and adaptive to changing weather conditions, such as improving the way that stormwater is managed.
- Build resilience in the province's critical infrastructure, through better technology as well as back-up generation and energy storage options, so that our vital services and infrastructure, such as hospitals, can better withstand and remain operational during extreme weather events.
- Support improvements to existing winter roads where they may be required to replace roads that are deteriorating as a result of changing weather conditions and shortened winter seasons, and develop a strategy to enhance all-season road connections to northern communities.
- Continue to support programs and partnerships intended to make the agriculture and food sectors more resilient to current and future climate impacts. We will support on-farm soil and water quality programming and work with partners to improve agricultural management practices.

Lake Erie Action Plan and 4R Nutrient Stewardship

Ontario's farmers continue to demonstrate leadership in environmental stewardship, which is important to their livelihood. Farmers are also embracing and championing innovative farming practices, such as 4R Nutrient Stewardship (Right Source @ the Right Rate, Right Time, and Right Place®), and other initiatives under the [Canada-Ontario Lake Erie Action Plan](#), that are designed to enhance environmental protection and improve sustainability.

CONTINUING TO DO OUR SHARE: Achieving the Paris Agreement Target

One of the key ways we are defining our vision for climate action in Ontario is by setting an achievable greenhouse gas reduction target. This will help us focus our efforts and provide a benchmark for our province to assess its progress on the climate change mitigation components of our plan.

Ontario will reduce its emissions by 30% below 2005 levels by 2030.

This target aligns Ontario with Canada's 2030 target under the Paris Agreement.

This is Ontario's proposed target for the reduction of greenhouse gas emissions, which fulfills our commitment under the *Cap and Trade Cancellation Act, 2018*.

Quick Fact: The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change. Its goal is to keep the increase in global average temperature to well below 2 °C above pre-industrial levels, and pursue efforts to limit the increase even further to 1.5 °C, in order to reduce the risks and impacts of climate change.

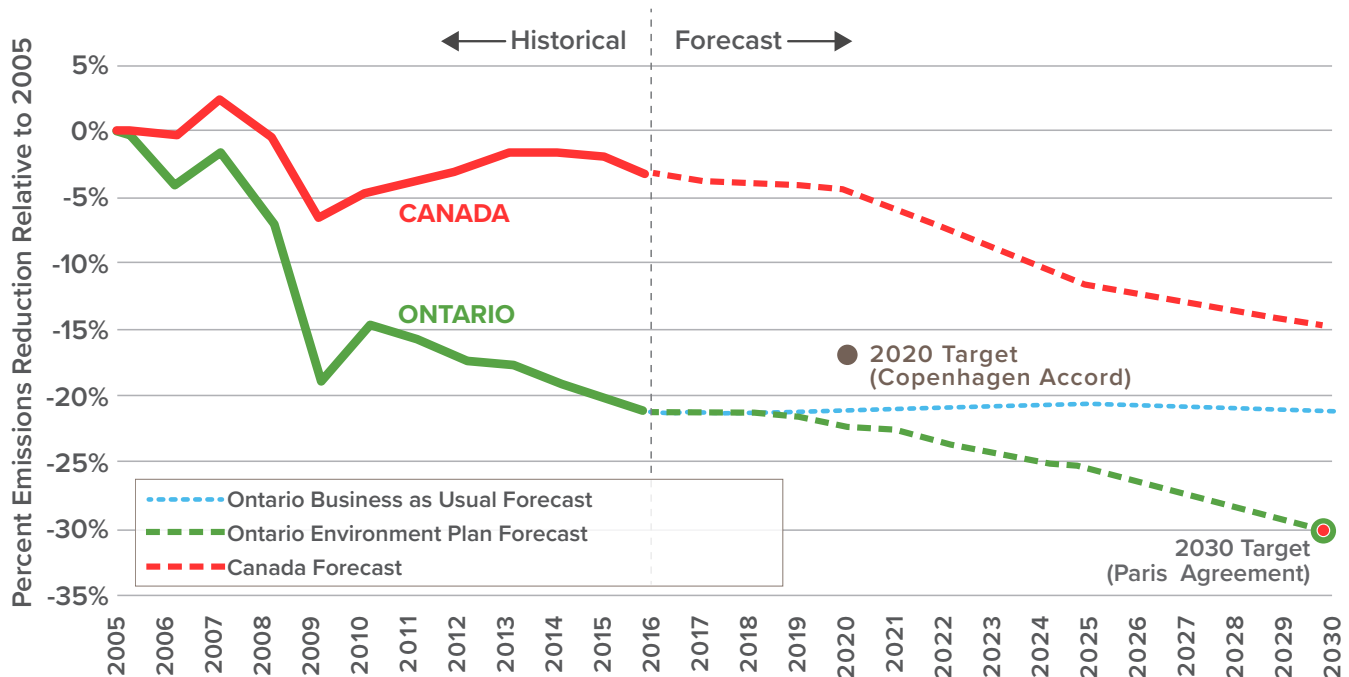
This target takes into consideration the commitment the people of Ontario have already shown in reducing emissions, as well as our commitment to growing Ontario's economy while doing our part to tackle climate change.

There has been a steep decline in emissions from 2005, driven in large part by improvements in the electricity sector, including closing coal-fired

electricity generation. As a result, we are on track to do better than the federal 2020 target set under the Copenhagen Accord in 2010.

The following graph shows our 2030 target is achievable. The policies within this plan will put us on the path to meet our 2030 target, and we will continue to develop and improve them over the next 12 years. This plan will be reviewed and revised on a four-year basis.

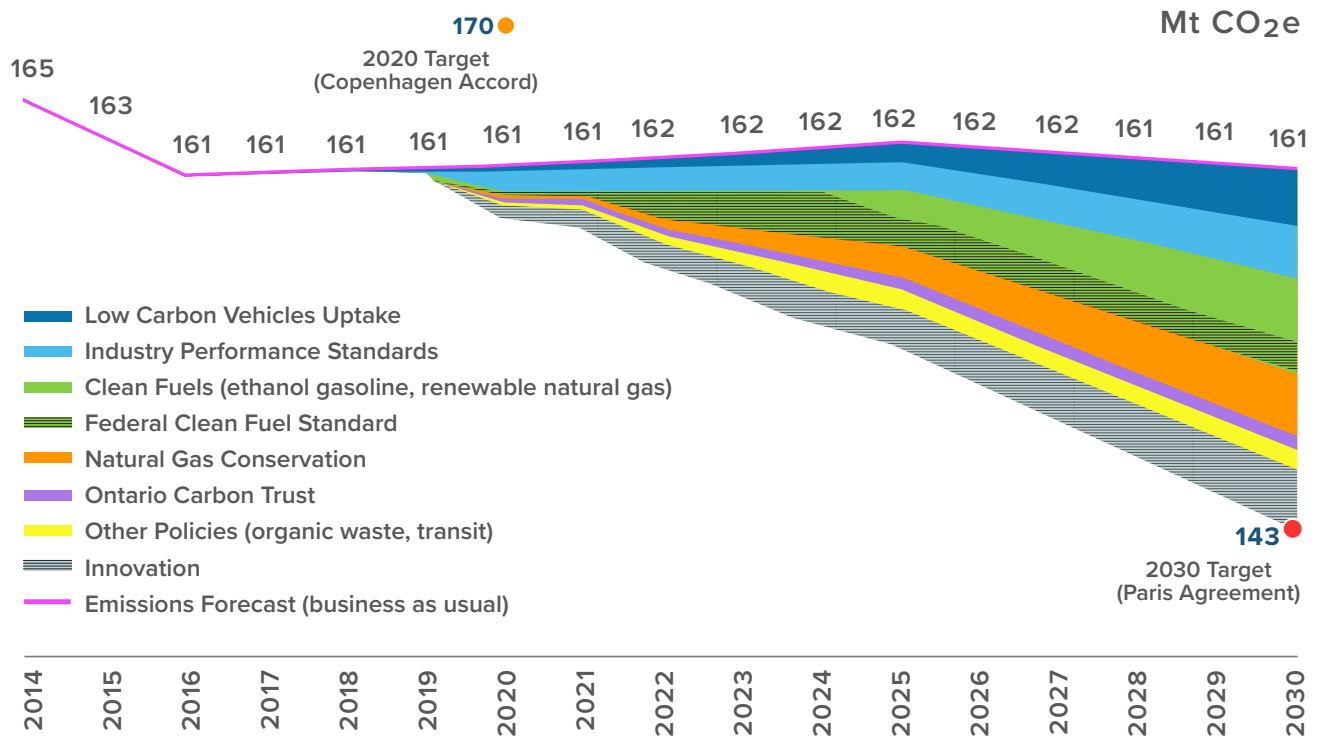
Past and Projected Greenhouse Gas Emission Reductions for Canada and Ontario



Source: Environment and Climate Change Canada (2018) National Inventory Report 1990-2016: Greenhouse Gas Sources and Sinks in Canada. Canada 2017 Biennial Report and internal Ontario modelling.



Path to Meeting Ontario's 2030 Emission Reduction Target



The chart above shows where we expect Ontario's emissions to be if we take no action (161 megatonnes) compared to where we expect our emissions to go if we take actions in specific sectors. Our target is equivalent to 143 megatonnes in 2030 and we will need reductions in key sectors identified in the graph to get there.

The coloured portions of the chart above refer to emissions reductions we expect to see from actions in this plan and the shaded portions represent the potential we have to enhance some of those actions.

The actual reductions achieved will depend on how actions identified in our plan are finalized based on feedback we get from businesses and communities. The estimated reductions are explained in more detail below.

The **Low Carbon Vehicles** uptake portion refers primarily to electric vehicle adoption in Ontario and in small part to the expansion of compressed natural gas in trucking.

Industry Performance Standards refer to our proposed approach to regulate large emitters of greenhouse gas emissions, as described later in this plan. The final impact of this approach will depend on consultation with industry partners.

Clean Fuels refer to increasing the ethanol content of gasoline to 15% as early as 2025, and encouraging uptake of renewable natural gas and the use of lower carbon fuels.

The Federal **Clean Fuel Standard** is an estimate of the additional impact of the proposed federal standards, which could expand the use of a broad range of low-carbon fuels, energy sources and technologies, such as ethanol, renewable natural gas, greener diesel, electricity, and renewable hydrogen.

The Natural Gas Conservation action reflects programs that are well established in Ontario to conserve energy and save people money. This case assumes a gradual expansion of programs delivered by utilities, which would be subject to discussions with the Ontario Energy Board.

■ The **Ontario Carbon Trust** is an emission reduction fund that will use public funds to leverage private investment in clean technologies that are commercially viable. For this action we estimate a fund of \$350 million will be used to leverage private capital at a 4:1 ratio. Estimates will depend on the final design and mandate of the trust. The estimates also include the potential emission reductions associated with a \$50 million Ontario Reverse Auction designed to attract lowest-cost greenhouse gas emission reduction projects.

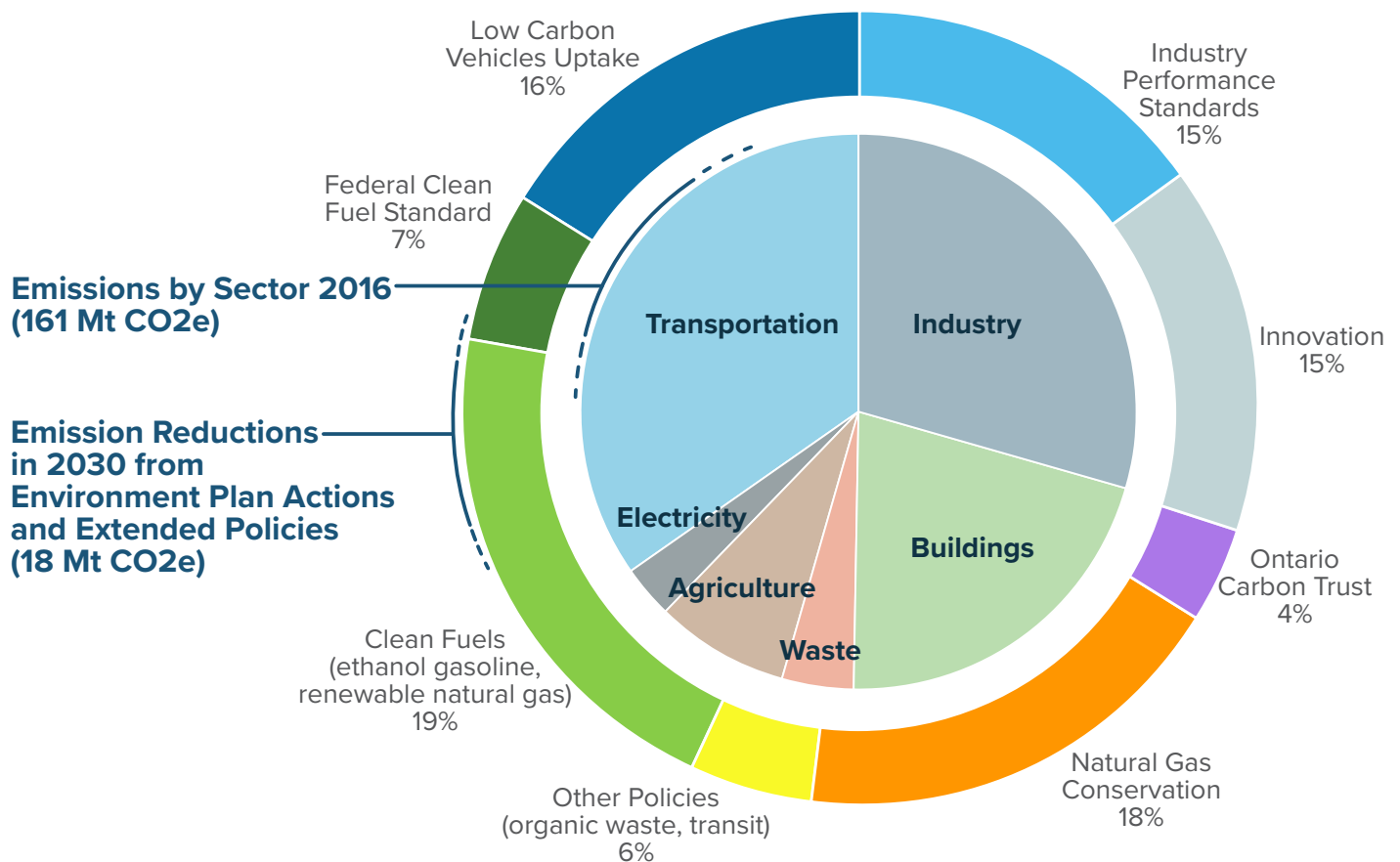
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■ **Other policies** include the emission reductions associated with investments in public transit, and our commitment to improve diversion of food and organic waste from landfills, as described later in this plan.

■ **Innovation** includes potential advancements in energy storage and cost-effective fuel switching from high intensive fuels in buildings to electricity and lower carbon fuels.

As part of our commitment to transparency, the government is committed to updating and reporting on these estimates once program details are finalized to ensure we are making progress to the 2030 targets.

Planned Emission Reductions in 2030 by Sector



The chart above shows how the plan is tailored to address Ontario's greenhouse gas emissions. The inner pie shows the breakdown of Ontario's 2016 greenhouse gas emissions by sector. The outer ring colours show the policies from the environment plan that are targeted at reducing emissions in each sector.

MAKE POLLUTERS ACCOUNTABLE

The government is committed to balancing emissions reductions and economic growth. Ontario's economy has been growing, even as emissions are declining.

Tracking this improvement is an important part of Ontario's climate change plan. In coming months we will consult on the development of an economy wide carbon intensity target as a complementary metric to our absolute emissions target and to ensure that our climate change plan helps us to continue this positive trend.

The below areas are where we will focus our initiatives and actions to tackle and be more resilient to climate change and to meet our balanced target.

We know job creators in this province have made great strides to reduce greenhouse gas emissions, some leading their industry globally. We will ensure polluters pay their fair share for their greenhouse gas emissions, while also ensuring industry continues to make advances to help Ontario achieve its share of reductions.

Greenhouse gas emissions from the industrial sector, including smaller industrial facilities, accounted for 29% of Ontario's total emissions in 2016. We plan to regulate large emitters with a system that is tough but fair, cost-effective and flexible to the needs and circumstances of our province and its job creators. We will also ensure strong enforcement of these rules.

This system will recognize the unique situation of Canada's manufacturing and industrial heartland. Ontario depends on many industries that compete internationally. Our made-in-Ontario standards will consider factors such as trade-exposure, competitiveness and process-emissions, and allow the province to grant across-the-board exemptions for industries of particular concern, like the auto sector, as needed.



Actions

Implement emission performance standards for large emitters

We will create and establish emission performance standards to achieve greenhouse gas emissions reductions from large emitters. Each large industrial emitter will be required to demonstrate compliance on a regular basis. The program may include compliance flexibility mechanisms such as offset credits and/or payment of an amount to achieve compliance.

An emissions performance standard establishes emission levels that industrial facilities are required to meet and is tied to their level of output or production. This approach does not enforce a blanket cap on emissions across Ontario and takes into consideration specific industry and facility conditions while allowing for economic growth. It also recognizes industries in Ontario that are best-in-class while requiring improvements from sectors that have room to improve.

Case study: Saskatchewan's output-based performance standards (OBPS) system



In December 2017, Saskatchewan introduced a comprehensive Prairie Resilience climate change strategy, which included a plan to implement an OBPS system in 2019. The OBPS will apply to facilities in regulated sectors that emit more than 25,000 tonnes of greenhouse gas emissions per year. The OBPS is expected to be implemented by January 1, 2019, and the Government of Saskatchewan estimates it will cut annual emissions of covered sectors by 10% by 2030.

In addition, Saskatchewan is regulating emissions from electricity generation to achieve a 40% reduction in electricity emissions, and is regulating flared and vented methane emissions in the upstream oil and gas sector, which will lead to additional annual reductions of 40 to 45% in that sector by 2025.



ACTIVATE THE PRIVATE SECTOR

Ontario is home to the hub of the Canadian financial industry – banks, investment firms, pension funds and insurance companies. Ontario hosts the head offices of Canada's five largest banks, three of which rank among the world's largest 25 banks by market capitalization.

We recognize that our private sector has the capital, capability and know-how to transform clean technology markets and transition Ontario to a low-carbon economy. This is why we intend to help facilitate the private sector's best projects and ideas to drive emission reductions at the lowest cost to taxpayers. Our plan will ensure the prudent and responsible use of public resources to drive private sector investment.

We also want to enable consistent disclosure about financial risks associated with climate change so that companies can provide information to investors, lenders, insurers and other stakeholders.

Together, these actions will help improve the capacity of the sustainable finance sector in Ontario and position us as a global leader in this area.

Actions

Launch an emission reduction fund – The Ontario Carbon Trust – and a reverse auction to encourage private investment in clean technology solutions

Ontario will commit to ensuring funding of \$400 million over four years. These funds will complement penalties paid into The Ontario Carbon Trust by polluters. This will ensure that over the next four years, The Ontario Carbon Trust should be able to leverage over \$400 million to unlock over \$1 billion of private capital.

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If Canada's federal government returns to the Pan-Canadian Framework agreement with the people of Ontario, The Ontario Carbon Trust could be increased by \$420 million through the Low Carbon Economy Leadership Fund. This would increase the fund to \$820 million and unlock more than \$2 billion of private capital. It would also ensure that the people of Ontario are provided the most cost-effective approach to reducing greenhouse gas emissions. Canada's commitment to partner with the people of Ontario through supporting The Ontario Carbon Trust would allow Ontario to reduce emissions beyond what is forecasted in this plan, and help Canada meet its Paris target.

The Ontario Carbon Trust will use innovative financing techniques and market development tools in partnership with the private sector to speed up the deployment of low-carbon solutions. It will use public funds to leverage private investment in clean technologies that are commercially viable and will have a widespread presence. It will also seek to reduce energy costs for ratepayers, stimulate private sector investment and economic activity, and accelerate the transition to a low-carbon economy.

The Ontario Carbon Trust could consider investing in cost-effective projects from various sectors, such as transportation, industry, residential, business and municipal.

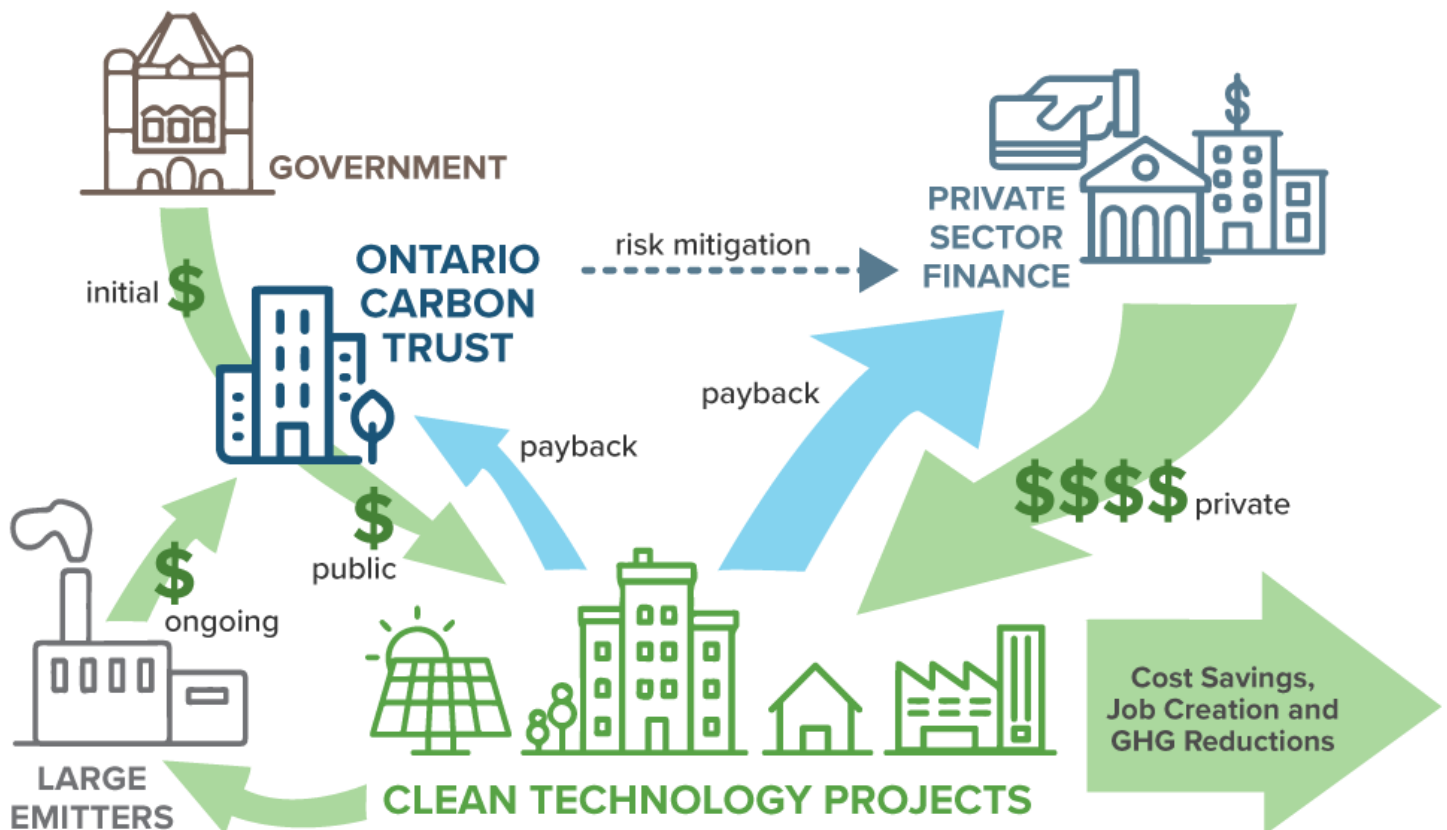
We will establish an independent board with the appropriate expertise, with a mandate to form The Ontario Carbon Trust, which will be tasked with working with the private sector to identify projects that will reduce emissions and deliver cost savings. We will:

- Create an emission reduction fund to support and encourage investments across the province for initiatives that reduce greenhouse gas emissions. The fund will leverage an initial

investment from the government (\$350 million) to attract funds from the private sector in order to drive investment in clean technologies.

- Launch an Ontario Reverse Auction (\$50 million), allowing bidders to send proposals for emissions reduction projects and compete for contracts based on the lowest-cost greenhouse gas emission reductions.

The Ontario Carbon Trust



Source: Adapted from Coalition for Green Capital, Growing Clean Energy Markets with Green Bank Financing: White Paper, page 2, <http://coalitionforgreencapital.com/wp-content/uploads/2015/08/CGC-Green-Bank-White-Paper.pdf>.

Enhance corporate disclosure and information sharing

- Work with the financial sector to promote climate-related disclosures in Ontario.
- Encourage the Ontario Securities Commission to improve guidance on climate-related disclosures.

Globally, many financial institutions are adopting the recommendations of the Task Force on Climate-Related Financial Disclosures. Ontario's financial sector is also working to improve disclosures.

Case study: NY Green Bank

Created as a division of the New York State Energy Research and Development Authority, NY Green Bank is a state-sponsored, specialized financial entity that works with the private sector to increase investments in clean energy markets.

NY Green Bank's flexible approach to clean energy financing helps reduce the need for government support and increase investments into New York's clean energy markets, creating a more efficient, reliable and sustainable energy system.

By investing funds at market rates, NY Green Bank is able to cover its own costs and keep its funding base for future projects. As of September 30, 2018, NY Green Bank has committed \$580.1 million to support clean energy projects with a total cost of between \$1.44 and \$1.68 billion.

What is a reverse auction? The buyer, in this case government, sends out a request for proposals, services or contracts. Bids are assessed and chosen based on the lowest cost, which in this case is the lowest cost per tonne of greenhouse gas emission reductions. The "bidders" in the auction compete to win the project or contract, often underbidding each other, resulting in lower costs for the buyer.

Encourage private investments in clean technologies and green infrastructure

- Ontario will parallel federal changes to the Accelerated Capital Cost Allowance, which will make technology investments in clean energy generation and energy conservation equipment more attractive.
- Work with the Ontario Financing Authority to issue Green Bonds by the end of the fiscal year, after realigning the Green Bond program to support our approach to addressing environmental challenges. This action was included in the Fall Economic Statement.
- Consider tax policy options to encourage the creation of clean technology manufacturing jobs in Ontario.

Green Bonds serve as an important tool to help finance projects that will help us address our environmental challenges. Project categories include transit initiatives, extreme-weather resistant infrastructure, and energy conservation and efficiency projects (including health and education-related projects). By capitalizing on low interest rates, Ontario's Green Bonds enable the Province to raise funds while respecting the taxpayers of Ontario and without adversely impacting businesses.

Success story: Algae carbon capture



In 2012, Pond Technologies, an Ontario technology company, partnered with St. Marys Cement to run a pilot using CO₂ generated by its cement plant to grow algae. Like plants, algae absorb carbon as they grow. Revenue generated from the sale of algae-derived bioproducts provide the economic basis for the adoption of this technology. Pond's pilot proved that reducing greenhouse gas emissions can generate revenue.



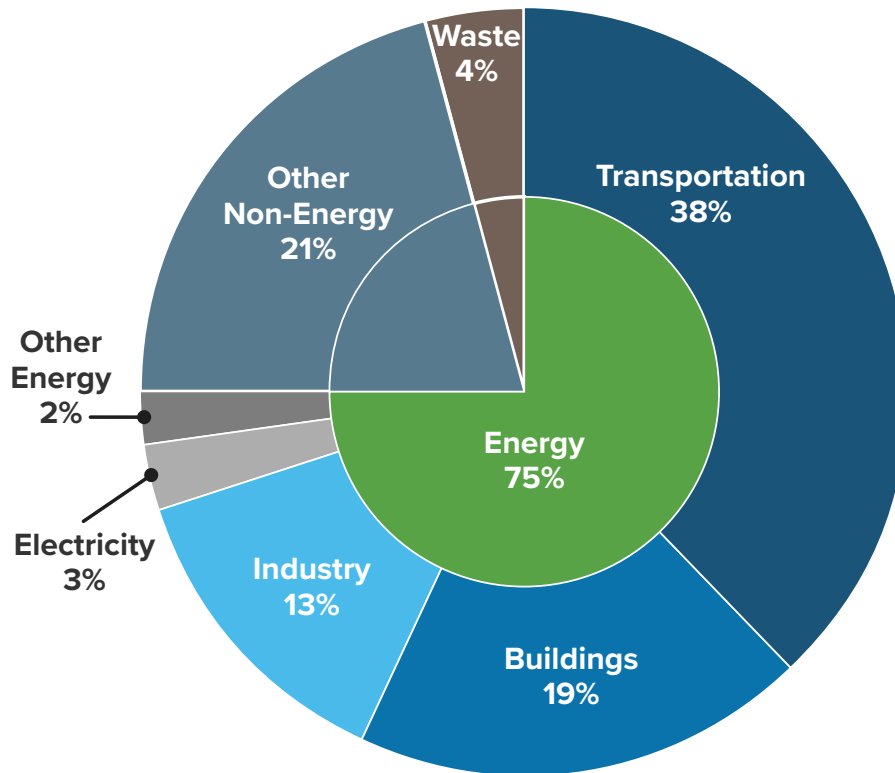
USE ENERGY AND RESOURCES WISELY

We will develop climate solutions that will save energy, resources and money.

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About 75% of Ontario's greenhouse gas emissions come from using energy in our homes, buildings, vehicles and industry while 4% comes from waste.

Ontario's Energy Use by Sector



Source: Data from Environment and Climate Change Canada, 2018 National Inventory Report

We use gasoline and diesel fuel almost exclusively for transportation, while our main energy source for space and water heating is natural gas. Even though Ontario's vehicles have become more efficient, the number of vehicles on the road has increased.

Today, the transportation sector remains our largest source of emissions. That means we need to focus on using energy more efficiently, including in transportation, on expanding access to cleaner energy.

Our government will ensure the Ontario Energy Board keeps pace with consumer demands and the adoption of innovative energy solutions in this time of unprecedented technological change.

We also know that just over 60% of Ontario's food and organic waste is sent to landfills. In a landfill, it breaks down to create methane, a potent greenhouse gas that contributes to climate change. In fact, methane is 25 times more potent as a greenhouse gas than carbon dioxide. When food and organic waste is sent to landfill, opportunities are lost to preserve valuable resources that could be used to heat our homes, support healthy soils and reduce greenhouse gas emissions.

We will work with partners on ways to make it easier for residents and businesses to waste less food or reuse it for beneficial purposes such as compost.

Quick Fact: About 60% of Ontario's food and organic waste is sent to landfills which emits methane – a potent greenhouse gas – when it decomposes. Efficient diversion of household waste from landfills is an important tool in the fight against climate change. To read more about our plan to fight litter and waste, see page 40.

Actions

Conserve energy in homes and buildings to cut costs and reduce emissions

- Increase the availability and accessibility of information on energy and water consumption so that households, businesses and governments understand their energy use (e.g. collection of data related to electric vehicles, household-level energy and water consumption data). For example, provide customers with access to their energy data by working with electricity and natural gas utilities to implement the [Green Button data standard](#). We will support water utilities to implement Green Button on a voluntary basis.
- Work with the Ontario Real Estate Association to encourage the voluntary display of home energy efficiency information on real estate listings to better inform buyers and encourage energy-efficiency measures.

- Review the Building Code and support the adoption of cost effective energy efficiency measures that can lower the cost of electricity and natural gas needed to operate buildings. Ontario is currently a leading jurisdiction in Canada when it comes to energy efficiency standards in its Building Code. Today, Ontario's Building Code ensures new homes built after 2017 use 50% less energy to heat and cool than houses built before 2005, resulting in a much lower carbon footprint than older homes.
- Work with the Ontario Energy Board and natural gas utilities to increase the cost-effective conservation of natural gas to simultaneously reduce emissions and lower energy bills.
- Ensure Ontario's energy-efficiency standards for appliances and equipment continue to be among the highest in North America.

Quick Fact: Enbridge Gas Distribution and Union Gas offer gas conservation programs that offer incentives for homeowners to complete upgrades that make their homes more energy efficient. Each dollar spent results in up to \$2.67 in reduced energy bills for program participants.

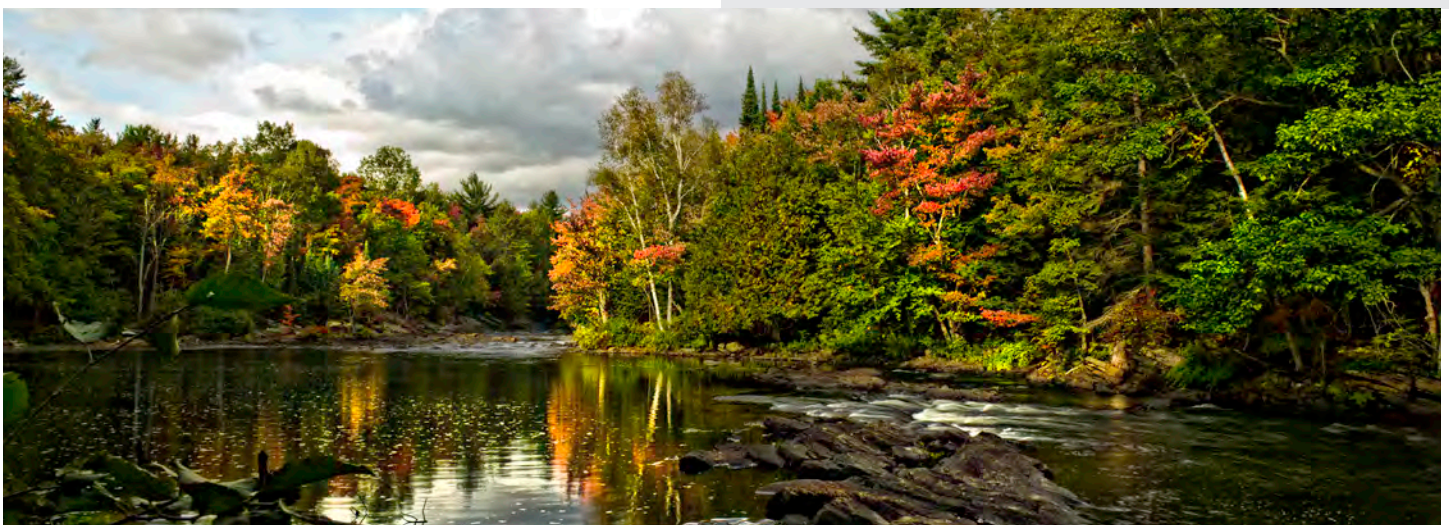
Increase access to clean and affordable energy for families

- Continue to support connecting Indigenous communities in Northern Ontario to Ontario's clean electricity grid, to replace local diesel and other types of electricity generation.
- Increase the renewable content requirement (e.g. ethanol) in gasoline to 15% as early as 2025 through the Greener Gasoline regulation, and reduce emissions without increasing the price at the pump, based on current ethanol and gasoline prices.
- Encourage the use of heat pumps for space and water heating where it makes sense, as well as innovative community-based systems like district energy.
- Require natural gas utilities to implement a voluntary renewable natural gas option for customers. We will also consult on the appropriateness of clean content requirements in this space.
- Consult on tax policy options to make it easier for homeowners to increase energy efficiency and save money.
- Streamline and prioritize environmental approvals for businesses that use low-carbon

technology, while maintaining high standards for environmental protection.

- Support the integration of emerging smart grid technologies and distributed resources – including energy storage – to harness and make best use of Ontario's clean electricity.
- Improve rules and remove regulatory barriers that block private investors from deploying low-carbon refueling infrastructure that will help increase the uptake of electric, hydrogen, propane, autonomous and other low-carbon vehicles without government subsidies.
- Collaborate with the private sector to remove barriers to expanding 24/7 compressed natural gas refueling stations for trucks along the 400-series highways, and maintain the existing tax exemption (gasoline and fuel tax) on natural gas as a transportation fuel. This will provide heavy-duty vehicles (such as transport trucks) with a cost-effective path to lower on-road transportation emissions.

Quick Fact: Natural gas is exempt from the fuel tax in Ontario, and natural gas trucks have a smaller carbon footprint compared to diesel trucks.





Success story:
**Niagara Falls pump
generating station produces
zero-emissions power**

Ontario Power Generation's Sir Adam Beck Pump Generating Station is an important source of flexible zero-emissions power for Ontarians. The station fills a 750-acre reservoir when demand for power is low, storing the equivalent amount of energy as 100,000 electric car batteries. The filled reservoir can then be used to generate hydroelectric power when needed, displacing 600 megawatts of fossil fuel generation for up to eight hours.



Success story:
**Partnering to fuel lower-
carbon heavy-duty
transportation**

In April 2018, Union Energy Solutions Limited Partnership, an unregulated affiliate of Union Gas Limited (an Enbridge Company), announced a partnership with Clean Energy to build three compressed natural gas fueling stations along Ontario's Highway 401. The initiative will enable heavy-duty vehicles (such as transport trucks) that use natural gas as a transportation fuel to travel and refuel along the 401, leading to lower on-road transportation emissions.

Case study:
**Electrify Canada building an electric vehicle
charging network**

Electrify Canada is a new company that will build ultra-fast charging networks for electric vehicles across Canada, which are anticipated to be operational starting in 2019. This includes the installation of 32 electric vehicle charging sites near major highways and in major metro areas in British Columbia, Alberta, Ontario and Quebec.

DOING OUR PART: Government Leadership

Ontario is committed to doing its part to address climate change. This includes leading by example. We will encourage local leadership on climate change, including municipal governments, the broader public sector, business associations, community groups, Indigenous communities and voluntary organizations to develop and promote climate solutions for their members and communities. We will continue to engage on international climate issues by providing Ontario's perspective to Canada's international climate negotiations.

As part of the government's commitment to curriculum renewal we will explore changes that embed learning about the environment in the classroom. Learning about protecting our air,



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land and water, addressing climate change, and reducing the amount of litter and waste in our communities will not only raise awareness in schools, it will also enable students to pass on this knowledge to their families.

Partnering with and enabling people, businesses, municipalities and schools will help us find ways to address local issues and needs, save energy and costs, and minimize climate risks to our schools, hospitals, highways and critical infrastructure.

Actions

Make climate change a cross-government priority

- Improve our ability to consider climate change when we make decisions about government policies and operations by developing a Climate Change Governance Framework that will:
 - Establish clear responsibilities and requirements for ministries to track and report on climate change measures.
 - Consider climate change when we purchase goods and services across government, where it is cost-effective (i.e. low-carbon intensity steel and cement).
 - Explore opportunities to enhance coordination and guidance for municipalities to help them consider climate change in their decision-making.
 - Update Statements of Environmental Values to reflect Ontario's environmental plan.

- Continue to execute a high-performance building automation strategy for government buildings. This strategy uses advanced automation and integration to measure, monitor, and control operations and maintenance at the lowest cost, also reducing greenhouse gas emissions during day-to-day building operations. The strategy includes, but is not limited to, HVAC and lighting controls, security, elevators, fire protection, and life safety systems in order to improve performance and to reduce energy consumption.
- Ensure investments in future renovations of government buildings maximize energy cost savings. For instance, Ontario is building new correctional facilities to meet LEED standards, which ensures high environmental performance and will improve efficiency while saving money.
- Undertake a review of government office space, with an eye to optimizing our physical and carbon footprint. Ontario will reduce its per employee real estate footprint to reduce energy costs and emissions, as recommended in the Auditor General's 2017 Report.
- Support the adoption of low-carbon technologies and climate resilience measures by working to reduce costly and time-consuming regulatory and operational barriers.
- Encourage the federal government to ensure that climate negotiations under Article 6 of the Paris Agreement improve our cleantech sector's access to emerging global markets for low-carbon technologies. Ontario is a leader in clean technology and more access to global markets will help our local companies create new green jobs in Ontario.
- Develop tools to help decision makers

understand the climate impacts of government activities. For example, we will identify and report on emissions reductions from school capital investments and enable school boards to access energy efficiency data to inform their investment decisions.

- Provide guidance to public property owners of heritage buildings to help them reduce their energy use and save on operating costs while continuing to conserve these important cultural heritage resources for future generations.
- Continue to support the purchase of electric ferries which will be in service in 2020 and 2021 connecting Wolfe and Amherst Islands to the mainland.

Quick fact: The government's annual procurement budget to purchase goods and services is \$6 billion.

**Success story:
Ontario's private sector
leads the country in
cleantech**



Ontario has the largest and fastest-growing cleantech sector in Canada, with \$19.8 billion in annual revenues and over 5,000 companies employing 130,000 people.

Ontario is home to 35% of Canada's innovative cleantech companies.

Ontario is a leading hub for water technologies with over 900 companies and 22,000 employees.



Success story:
**Government building
 renovations to save energy
 and money**

The Queen's Park Reconstruction Project is an eight-year initiative that involves the extensive reconstruction of the Macdonald Block Complex, which is located in downtown Toronto and includes the Macdonald Block Podium, Hearst, Hepburn, Mowat and Ferguson Towers.

The 47-year-old Macdonald Block Complex is home to the largest concentration of political and public service individuals in the province. It has never undergone a major renovation and the building's core systems, including electrical, water, cooling and heating, have reached the end of their useful life.

Following advice from an independent third-party expert panel, the government's Macdonald Block Complex is undergoing extensive reconstruction to achieve significant long-term cost and energy savings for the province over the next 50 years. Those savings will be achieved through reduced operating costs, lower energy and capital maintenance expenditures, and the reduction of costly third-party leases across the downtown Toronto core. The reconstructed Macdonald Block Complex will meet LEED silver certification.



Success story:
City of Toronto Green Fleet

The City of Toronto's Green Fleet Plan focuses on reducing emissions from almost 10,000 vehicles as well as by equipment owned and operated by the city. The consolidated plan, led by the Fleet Services Division, brings together all five major City of Toronto fleets – City of Toronto Fleet Services Division, Emergency Medical Services, Toronto Fire Services, Toronto Police Service, and Toronto Transit Commission – under one plan.

As of 2017, the city had 2,091 green vehicles and pieces of equipment in its fleet, representing 24% of the total number of vehicles in the city's fleet.

Empower effective local leadership on climate change

- Work with municipalities to develop climate and energy plans and initiatives to support building climate resilience and transformation to the low-carbon future.
- Support the efforts of Indigenous communities to integrate climate action into local plans and initiatives for community power, economic development, health and sustainability.
- Encourage local leadership by forming stronger partnerships and sharing best practices with community groups and business associations.

Improve public transportation to expand commuter choices and support communities

Commit \$5 billion more for subways and relief lines. Ontario will also invest in a two-way GO transit service to Niagara Falls, as part of the existing plan to build a regional transportation system.

- Establish a public education and awareness program to make people more aware of the environmental, financial and health impacts of their transportation choices.
- Develop a plan to upload the responsibility for Toronto Transit Commission (TTC) subway infrastructure from the City of Toronto to Ontario. An upload would enable the province to implement a more efficient regional transit system, and build transit faster. Moreover, this would allow the province to fund and deliver new transit projects sooner.



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Support green infrastructure projects

We're also greening the government's fleet of vehicles. The Ontario Public Service currently has 1,632 hybrid, plug-in hybrid and full battery electric vehicles, which represent 70% of its entire passenger vehicle fleet.

Work with federal and municipal governments through the green stream of the Investing in Canada Infrastructure Program to invest up to \$7 billion in federal, provincial and municipal funding over the next 10 years. Funding could be for projects that lower greenhouse gas emissions, reduce pollution, and help make community infrastructure more resilient. Example investments could include improvements to transit and transportation infrastructure and improved local water, wastewater and stormwater systems.

Early actions: GO Train Service Increase

This government is expanding GO service and making it easier for commuters and members of the community to move around the GTHA. More riders in seats relieves congestion on the roads. We're providing more reliable, predictable journeys across the region – greatly improving the daily transit experience. These improvements bring us a step closer to our vision to deliver two-way, all-day GO service.

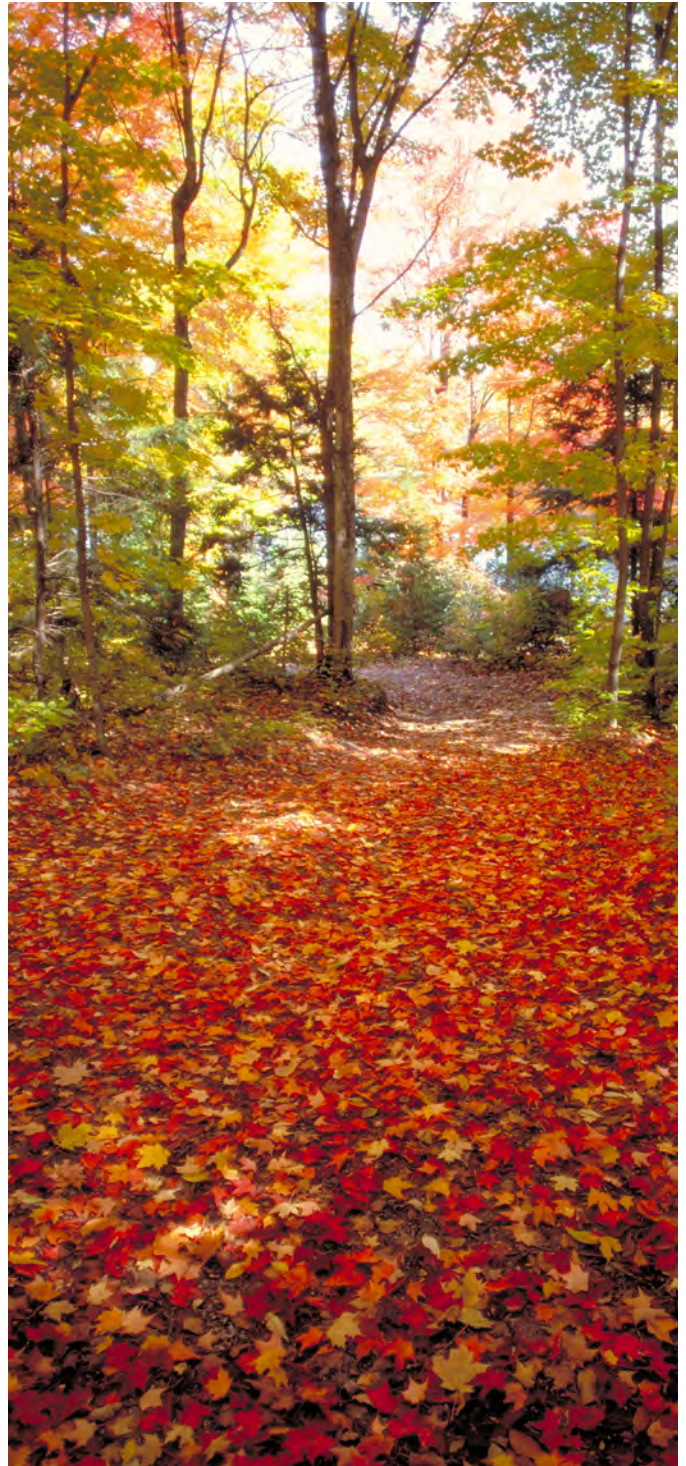
Reducing Litter and Waste in Our Communities & Keeping our Land and Soil Clean

Currently, Ontario generates nearly a tonne of waste per person every year and our overall diversion rate has stalled below 30% over the last 15 years. Ontario needs to reduce the amount of waste we generate and divert more waste from landfill through proven methods like Ontario's curbside Blue Box Program, existing and emerging municipal green bin programs and other waste recovery options. Existing and emerging technologies are increasingly allowing us to recover and recycle materials back into our economy rather than sending them to landfills. This is helping us to better protect our communities and keep our air, land and water clean and healthy.

To keep our land and water clean, we will take strong enforcement action to ensure waste, including hazardous waste, is properly stored, transported, recycled, recovered or disposed.

We are looking at proposed ways to:

- Reduce the amount of waste going to landfills or becoming litter
- Increase opportunities for Ontarians to participate in efforts to reduce waste
- Increase opportunities to use technologies, such as thermal treatment, to recover valuable resources in waste
- Manage excess soil and hauled sewage
- Redevelop brownfield sites to better protect human health and the environment



REDUCE LITTER AND WASTE

Today, some of the highest waste diversion rates in the province are in our homes. Ontarians divert almost 50% of their own household waste, through sorting what they throw away into their blue bin and, increasingly, their green bin.

However, Ontario's general waste diversion rate (residential, commercial and industrial) has been stalled at below 30% over the past 15 years – meaning that over 70% of our waste materials continue to end up in landfills. Such heavy reliance on landfills will require the province to either focus on siting new landfills or look for new ways to reduce what we send to them.

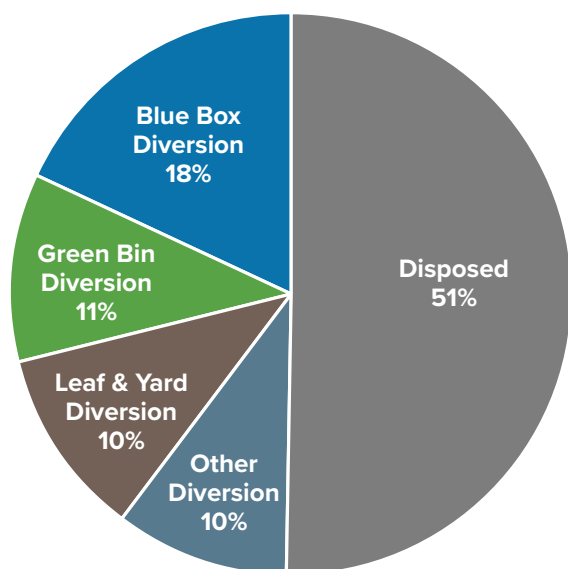
While some individual municipalities and businesses have shown leadership, Ontarians

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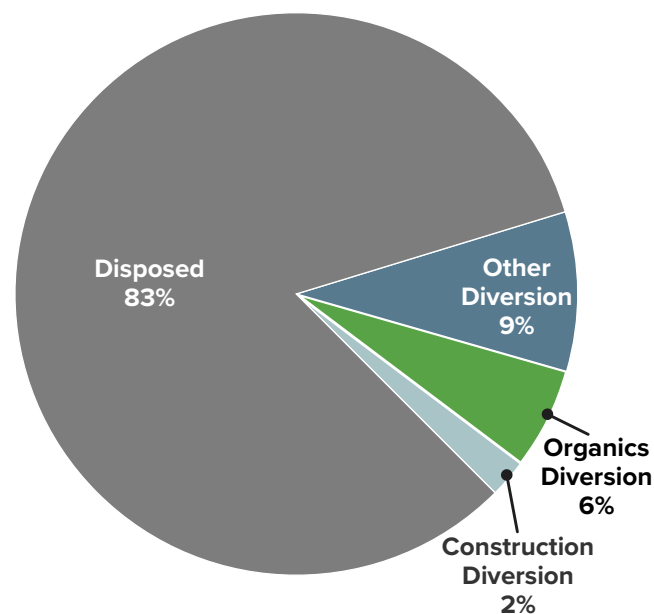
know there is still a lot more that can be done to reduce the amount of waste we produce, recover valuable resources from our waste and better manage organics.

We believe that producers should be responsible for managing the waste they produce. Placing responsibility squarely on those who produce the waste will help unleash the creative talents and energies of the private sector. Making producers responsible for the full life-cycle of their products and the waste they produce will help companies to consider what materials they use in and to package their products, and find new and innovative cost-effective ways to recycle them and lower costs for consumers. It can also make recycling easier and more accessible right across the province, keeping it clean and beautiful.

Ontario's Residential and Industrial, Commercial and Institutional Waste Management



Residential Waste: Managed by municipalities. Includes waste generated by residents in single-family homes, some apartments and some small businesses. Mix of mandatory and voluntary diversion programs.



Business Waste: Managed by the private sector. Includes food processing sites, manufacturing facilities, schools, hospitals, offices, restaurants, retail sites and some apartments. Largely voluntary diversion programs.

Sources: Statistics Canada, Waste Management Industry Survey 2016 for non-residential data; Resource Productivity and Recovery Authority, Datacall data and residential diversion rates for residential data. Data on organic waste from 2018 study prepared for MECP by 2cg.

Actions

Reduce and divert food and organic waste from households and businesses

- Expand green bin or similar collection systems in large cities and to relevant businesses.
- Develop a proposal to ban food waste from landfill and consult with key partners such as municipalities, businesses and the waste industry.
- Educate the public and business about reducing and diverting food and organic waste.
- Develop best practices for safe food donation.



Success story: Farmers receive support for food donations

The rescue of surplus food helps ensure food does not go to waste. Ontario supports these efforts through the following mechanisms:

- The Ontario Community Food Program Donation Tax Credit for Farmers provides tax credits up to 25% to farmers who recover and donate agricultural products to eligible programs.
- The Ontario Donation of Food Act, 1994, encourages donations, with certain limitations, and protects food donors from liability as a result of injuries caused by the consumption of donated food.



Success story: City of Stratford turning organic waste into natural gas

Stratford, Ontario, is improving its wastewater treatment infrastructure to produce renewable natural gas from organic waste and feed it back into the local gas distribution system. Renewable natural gas is a clean, carbon-neutral energy source.

Reduce plastic waste

- Work with other provinces, territories and the federal government to develop a plastics strategy to reduce plastic waste and limit micro-plastics that can end up in our lakes and rivers.
- Seek federal commitment to implement national standards that address recyclability and labelling for plastic products and packaging to reduce the cost of recycling in Ontario.
- Work to ensure the Great Lakes and other inland waters are included in national and international agreements, charters and strategies that deal with plastic waste in the environment.

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Reduce litter in our neighbourhoods and parks

Our environment plan reflects our government's commitment to keep our neighbourhoods, parks and waterways clean and free of litter and waste. When Ontarians walk their dog or take their children to the park they expect their time outdoors to be litter-free.

Ontario will establish an official day focused on cleanup of litter in Ontario, coordinated with schools, municipalities and businesses, to raise awareness about the impacts of waste in our neighbourhoods, in our waterways and in our green spaces.

- Work with municipal partners to take strong action against those who illegally dump waste or litter in our neighbourhoods, parks and coastal areas.



- Develop future conservation leaders through supporting programs that will actively clean up litter in Ontario's green spaces, including provincial parks, conservation areas and municipalities.
- Connect students with recognized organizations that encourage environmental stewardship so they could earn volunteer hours by cleaning up parks, planting trees and participating in other conservation initiatives.

Increase opportunities for Ontarians to participate in waste reduction efforts

- Work with municipalities and producers to provide more consistency across the province regarding what can and cannot be accepted in the Blue Box program.
- Explore additional opportunities to reduce and recycle waste in our businesses and institutions.

Make producers responsible for the waste generated from their products and packaging

- Move Ontario's existing waste diversion programs to the producer responsibility model. This will provide relief for taxpayers and make producers of packaging and products more efficient by better connecting them with the markets that recycle what they produce.

Explore opportunities to recover the value of resources in waste

- Investigate options to recover resources from waste, such as chemical recycling or thermal treatment, which have an important role – along with reduction, reuse and recycling – in ensuring that the valuable resources in waste do not end up in landfills.
- Encourage increased recycling and new projects or technologies that recover the value of waste (such as hard to recycle materials).

Provide clear rules for compostable products and packaging

- Ensure new compostable packaging materials in Ontario are accepted by existing and emerging green bin programs across the province, by working with municipalities and private composting facilities to build a consensus around requirements for emerging compostable materials.
- Consider making producers responsible for the end of life management of their products and packaging.



Success story: Making products compostable to reduce waste

Club Coffee makes a compostable coffee pod used by brands including Loblaw Companies Limited (President's Choice), Ethical Bean, Muskoka Roastery, Melitta Canada and Jumping Bean. Club Coffee works with municipalities so coffee drinkers can put these pods in their green bins; however they are not yet accepted in every program. We will work to support businesses that are trying to do the right thing and with leading municipalities that are working to reduce waste going to landfills. This will include working with industry and municipal partners to help ensure contamination of the Blue Box and green bin programs is minimized and that the public is provided with accurate information on how to properly manage compostable products and packaging.

Support competitive and sustainable end-markets for Ontario's waste

- Cut regulatory red tape and modernize environmental approvals to support sustainable end markets for waste and new waste processing infrastructure.
- Provide municipalities and the communities they represent with a say in landfill siting approvals. While we work to reduce the amount of waste we produce, it is recognized that there will be a need for landfills in the future. The province will look for opportunities to enhance municipal say while continuing to ensure that proposals for new and expanded landfills are subject to rigorous assessment processes and strict requirements for design, operation, closure, post-closure care and financial assurance.

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CLEAN SOIL

Rural and urban communities benefit from healthy soil and land. Soils with contaminants need to be cleaned up to ensure new home owners or property users are safe, and contaminated soils are not relocated to farms where our food is grown. Having clear rules and standards around how extra soil from construction projects is managed, relocated and reused makes it easier for construction businesses to know what soils they can reuse and what soils need to be disposed of or treated before reusing.

Proper management of excess soil can reduce construction costs and unnecessary landfilling while ensuring soil from construction projects is safe for the environment and human health. By clarifying what soil can be reused locally, we can also reduce greenhouse gas emissions generated by trucking soil from place to place unnecessarily.



Redevelopment of underused, often contaminated sites (brownfields) also provides an opportunity to clean up historical contamination and put vacant prime land back into good use.

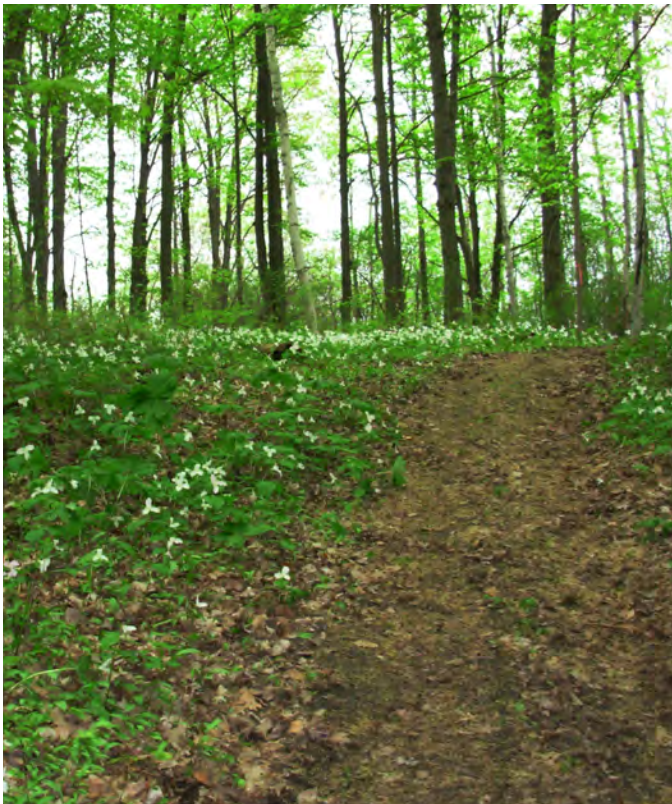
Actions

Increase the redevelopment and clean-up of contaminated lands in Ontario to put land back into good use

- Revise the brownfields regulation and the record of site condition guide to reduce barriers to redevelop and revitalize historically contaminated lands, putting vacant prime land back to good use.

Make it easier and safer to reuse excess soil

- Recognize that excess soil is often a resource that can be reused. Set clear rules to allow industry to reduce construction costs, limit soil being sent to landfill and lower greenhouse gas emissions from trucking by supporting beneficial reuses of safe soils.



- Work with municipalities, conservation authorities, other law enforcement agencies and stakeholders to increase enforcement on illegal dumping of excess soil.

Economic benefits of reusing soil

Traditional excess soil management using “dig and dump” approaches is substantially more expensive than using best practices for reusing soil from construction. According to a recent industry study, projects that use excess soil management best practices for reuse experienced an average of 9% in cost savings (Ontario Society of Professional Engineers, Greater Toronto Sewer and Watermain Contractors Association, Residential and Civil Construction Alliance of Ontario). Savings are due to reduced hauling distances and diverting soils away from landfills.

Improve management of hauled sewage

- Consider approaches for the management and spreading of hauled sewage to better protect human health and the environment (including land and waterways) from the impacts of nutrients and pathogens.

Conserving Land and Greenspace

People travel from around the world to experience the natural wonders that we often take for granted in the province of Ontario. The natural spaces across Ontario, such as forests, wetlands and parks purify our air and water, protect biodiversity and natural heritage, provide recreational opportunities and support Indigenous traditional practices.

We as Ontarians have a long history of putting a strong focus on expanding Ontario's parks and protected areas. In 1999, Ontario's Living Legacy Land Use Strategy was announced. A clear and major goal of this plan was to complete Ontario's

system of parks and protected areas. Our government remains dedicated to maintaining the natural beauty of our province.

As mentioned earlier in the plan, we know that climate change poses a serious threat to Ontario's natural areas and that conservation of these areas can play an important role in mitigating and adapting to climate change. We will protect and enhance our natural areas, support conservation efforts, continue to conserve species at risk, develop adaptation strategies, and promote the importance of healthy natural spaces for future generations to use and enjoy.



Quick Fact: Ontario's Living Legacy commitment was one of the greatest expansions of Ontario's provincial parks and conservation reserves in recent history. Over the immediate years that followed, the commitment resulted in the creation of 58 new provincial parks and 268 new conservation reserves, a total area of 1,996,214 hectares.

Action Areas

Improve the resilience of natural ecosystems

- Collaborate with partners to conserve and restore natural ecosystems such as wetlands, and ensure that climate change impacts are considered when developing plans for their protection.
- Strengthen and expand grassland habitats by implementing the province's Grassland Stewardship Initiative that supports on-farm conservation activities to benefit grassland birds at risk.
- Protect against wildland fire incidents through the ongoing development of Community Wildfire Protection Plans and update technical guidance to protect people and property from flooding and water-related hazards.

- Work with leaders in land and water conservation, like Ducks Unlimited Canada and the Nature Conservancy of Canada, to preserve areas of significant environmental and ecological importance.

Success story:

Innovative Wetland in Middlesex County protects Lake Erie



Ducks Unlimited Canada, the Municipality of Southwest Middlesex, Ontario NativeScape and the Ministry of Natural Resources and Forestry built three retention ponds to capture water draining from more than 200 acres of farmland. The wetland acts as a filter to reduce excess nutrients (such as phosphorus that can create harmful algal blooms in water) reaching the Thames River and eventually Lake Erie.

Forest fires increase in Ontario in 2018

Prolonged dry conditions throughout Ontario made 2018 one of the most active forest fire seasons in recent years, with more than 1,300 forest fires burning over 265,000 hectares of forest, nearly double the 10-year average. While the number and intensity of fires varies greatly from year to year and it is difficult to connect any given forest fire to the effects of climate change, most research suggests that Ontario will experience more fires and longer fire seasons in the years ahead. While forest fires pose a serious threat to public safety, communities, and infrastructure, they are also an important natural process in Ontario's forest ecosystems. Managing forest fires in Ontario is about balancing the benefits of forest fires, and protecting public safety and communities.

Support conservation and environmental planning

- Work in collaboration with municipalities and stakeholders to ensure that conservation authorities focus and deliver on their core mandate of protecting people and property from flooding and other natural hazards, and conserving natural resources.
- Look to modernize Ontario's environmental assessment process, which dates back to the 1970s, to address duplication, streamline processes, improve service standards to reduce delays, and better recognize other planning processes.
- Protect vulnerable or sensitive natural areas such as wetlands and other important habitats through good policy, strong science, stewardship and partnerships.
- Improve coordination of land use planning and environmental approval processes by updating ministry guidelines to help municipalities avoid the impacts of conflicting land uses.

The Ontario government is committed to protecting the Greenbelt for future generations. The Greenbelt consists of over two million acres of land in the Greater Golden Horseshoe including farmland, forests, wetlands and watersheds. It includes the Oak Ridges Moraine and the Niagara Escarpment, and provides resilience to extreme weather events by protecting its natural systems and features.





Promote parks and increase recreational opportunities

- Support the creation of new trails across the province.
- Provide Ontario families with more opportunities to enjoy provincial parks and increase the number of Ontarians taking advantage of parks by 10% or approximately one million more visitors while protecting the natural environment.
- Look for opportunities to expand access to parks throughout the province, but ensure Ontario Parks has the tools it needs to conduct its business and create a world-class parks experience.
- Work to ensure that all fish and wildlife licence fees, fines and royalties collected in the Special Purpose Account go towards its stated purpose of conservation, with transparency for hunters and anglers in Ontario.
- Promote the link between nature and human health by supporting the worldwide movement for Healthy Parks Healthy People through

Ontario Parks' events, education, and the development of a discussion paper to engage the public.

- Review management of provincial parks and conservation reserves to ensure effectiveness by exploring internationally recognized tools and best practices.
- Share the responsibility of conserving Ontario's protected lands by continuing to partner with municipalities, conservation authorities, Indigenous communities, conservation organizations and other community groups such as trail groups.

Conservation of Ontario's rich biodiversity and natural resources is a shared responsibility - success relies on Ontario working together with First Nation and Métis communities, hunters and anglers, conservation groups and other partners to achieve positive outcomes for our environment.

Quick Fact: Ontario manages and protects 340 provincial parks and 295 conservation reserves totalling 9.8 million hectares or 9% of the province – an area larger than the entire province of New Brunswick. In 2018, Ontario celebrated the 125th anniversary of the provincial parks system and of Algonquin Provincial Park.

- Increase the use of Ontario timber in building, construction and renovation to reduce emissions and increase long-term carbon storage.

What is carbon storage? Carbon storage refers to capturing carbon dioxide – and other greenhouse gases in the atmosphere – through vegetation and soils. Practices that remove carbon dioxide from the atmosphere include sustainable forest management, conserving and restoring natural ecosystems, and enhancing soil carbon in agriculture.

Forests begin to emit greenhouse gases as the trees age and die, while younger forests that are growing vigorously sequester carbon from the atmosphere. Sustainable forestry practices can encourage forests to grow and to increase carbon stored in forests and harvested wood products.

Sustainable Forest Management

- Work with Indigenous organizations, the forestry industry and communities involved in managing Ontario's forests under sustainable forest management plans. Ontario will support forest managers to further reduce emissions and increase carbon storage in forests and harvested wood products. Ontario's sustainable forest management provides for the long-term health of Ontario's forests by providing potential opportunities to reduce and store greenhouse gases as trees capture and store carbon dioxide.
- Promote the use of renewable forest biomass, for example, in the steel industry and as heating fuel for northern, rural and Indigenous communities.
- Improve data and information, informed by Indigenous Traditional Knowledge where offered, on greenhouse gas emissions and carbon storage from forests, the changing landscape and permafrost.

Quick Fact: Sandbanks Provincial Park is one of the busiest parks in the province, welcoming over 750,000 visitors every summer. To meet a growing demand for camping, Ontario Parks opened a new campground in Sandbanks Provincial Park in May 2017, featuring 75 campsites.

Protect species at risk and respond to invasive species

- Reaffirm our commitment to protect species at risk and their habitats, as we mark the 10th anniversary of Ontario's Endangered Species Act. We are committed to ensuring that the legislation provides stringent protections for species at risk, while continuing to work with stakeholders to improve the effectiveness of the program.
- Protect our natural environment from invasive species by working with partners and other governments and using tools to prevent, detect and respond to invasions.



Invasive species impact fish and wildlife, and hurt Ontario's economy

Invasive species like the emerald ash borer are killing our trees, phragmites (a type of grass) are taking over wetlands, and zebra mussels are clogging water intakes for industry and cottagers. Second to habitat loss, invasive species are recognized as the second leading global cause to the loss of biodiversity. In addition, invasive species are impacting our recreational opportunities such as boating, swimming, angling, and hunting, and their economic costs are staggering. A recent study estimated impacts of invasive species in Ontario at \$3.6 billion annually with municipalities spending at least \$38 million in 2017/18.

Preventing invasive species from arriving and establishing themselves is the single most effective and least costly method to manage invasive species. Ontario is working with a number of conservation partners to coordinate prevention, control, research and management activities to help address this serious threat. Raising public awareness and engaging individuals in taking preventive action is key in preventing new species from arriving and surviving.

Next Steps

IMPLEMENTING OUR PLAN

Ontario's environment plan presents new direction for addressing the pressing challenges we face to protect our air, land and water, clean up litter and waste, build resiliency and reduce our greenhouse gas emissions.

Our plan includes proposed incentives to stimulate growth in clean technologies, enhance leadership and collaboration to build a province-wide commitment to protecting the environment, and take action on climate change.

Our plan will help people and businesses across Ontario take actions that will save money, enhance communities, create new jobs and grow the economy.

Next steps

As part of our work on this plan, we are also undertaking several important steps to finalize our environment actions for Ontario. Over the coming months, we will:

- **Continue to consult with the public and engage with Indigenous communities**

Throughout the environment plan we have identified areas of action and key initiatives. These are areas where we are engaging with stakeholders and Indigenous communities to develop new approaches that support our common goals for environmental and climate leadership.



- **Establish an advisory panel on climate change**

An advisory panel on climate change will be established to provide advice to the Minister on implementation and further development of actions and activities in our plan specific to climate change.

- **Begin implementing priority initiatives**

In the plan we have identified a number of priority initiatives. Some of these initiatives are already underway and we will begin implementation of the remaining initiatives following consultation.

- **Measure and report on progress**

We want Ontarians to see how our plan is helping them save money and improve the quality of their lives and communities. We are committed to reporting regularly on the progress we make on our plan and to developing key indicators of progress because we believe that transparency is important to the success of this plan. We are also committed to reviewing the environment plan every four years.

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Our consultations and engagement with various stakeholders, Indigenous communities and the public will help refine our environment initiatives by incorporating valuable insights that ensure the actions we adopt reflect the needs of Ontarians.

Comments, ideas and suggestions on the actions and initiatives in Ontario's plan to protect the environment can be made on the [Environmental Registry](#).



Court File No.: CV-19-00631627-0000

SOPHIA MATHUR et al
Applicants (Respondents)

**- and - HER MAJESTY THE QUEEN IN RIGHT OF
ONTARIO**
Respondent (Moving Party)

ONTARIO
SUPERIOR COURT OF JUSTICE

Proceedings commenced at Toronto

MOTION RECORD

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