Published plan and annual report 2017-2018: Ministry of the Environment and Climate Change

Plans for 2017-2018, and results and outcomes of all provincial programs delivered by the Ministry of the Environment and Climate Change in 2016-2017.

On this page

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Part I: 2017-18 Published Plan

Ministry Overview

The Ministry of the Environment and Climate Change (MOECC) protects and improves the quality of the environment and leads Ontario's actions on climate change leading to healthier communities, ecological protection and economic prosperity for present and future generations. The ministry does this by:

- Using best available science and research to develop and deliver policies, legislation, regulations, standards, programs and services.

- Enforcing compliance with environmental laws.
- Working with partner ministries, other governments, Indigenous partners and organizations, industry, stakeholders and the public.
- Monitoring and reporting to track environmental progress.

Ministry Contribution to Priority Outcomes

The ministry is instrumental in supporting the government's priority outcome of being a leader on environmental sustainability. We are the lead ministry responsible for co-ordinating the province's efforts to reduce greenhouse gas pollution, address the risks and opportunities associated with the impacts of climate change, and are working with other jurisdictions through partnerships, agreements and continued collaboration to position Ontario as a leader in the fight against climate change.

Our programs also support the government's priority of a supportive and dynamic business environment (e.g. Modernizing environmental approvals), modernized infrastructure and transportation networks (e.g. transit environmental assessments), and a healthier population (e.g. linkage between air quality and asthma).

Ministry Programs and Activities

Leading the Fight Against Climate Change

The ministry continues to take action to reduce greenhouse gas emissions, build climate change adaptation considerations into its policies and programs, and protect the air we breathe.

Ontario's Climate Change Action Plan

Ontario's five-year Climate Change Action Plan includes the province's cap and trade program and complementary measures that help us meet our greenhouse gas emissions reduction targets, reward innovative companies and ensure that households and businesses thrive during the transition to a low-carbon economy.

The action plan describes how the province will invest the proceeds from the carbon market to help businesses and households lower emissions and reduce their energy costs. There are over 90 initiatives in the action plan involving multiple ministries. Highlights include:

- Providing incentives to homeowners and businesses to install or retrofit clean-energy systems like solar, battery storage, advanced insulation and heat pumps.
- Helping industry make investments that increase their use of low-carbon technologies.
- Providing better information about building energy use and updating the building code to increase energy efficiency over time.
- Increasing the availability and use of zero-emission vehicles, deploying cleaner trucks and alternative

fuels, improving transit and cycling infrastructure.

- Working in partnership with First Nations and Métis communities to address climate change.
- Ensuring that efficiency and sustainability of natural, agricultural and forested lands and enhancing carbon removal and storage.
- Working with Ontario's waste sector to leverage different practices and technologies to capture greenhouse gas emissions.

In addition to the Climate Change Action Plan, Ontario will be developing a plan for adapting to climate change to be released in 2017. This plan builds on the successes of Climate Ready: Ontario's Adaptation Strategy and Action Plan (2011-2014), and will identify new actions focusing on current priorities including: infrastructure resilience; and building a resilient economy. A signature initiative within the new plan will be the establishment of a climate change modelling collaborative.

Clean-energy Incentives for Homeowners and Businesses

The Climate Change Action Plan also committed to establishing a new organization to finance and put into market readily available low-carbon energy technologies to reduce carbon pollution from Ontario buildings. The Ontario Climate Change Deployment Corporation, established by regulation under the Deployment Corporations Act, will ensure carbon market auction proceeds are invested in a transparent way into climate actions that help households and businesses reduce their use of fossil fuels and adopt low-carbon technology.

The corporation will provide choices for cleaner, more energy-efficient and affordable options to heat and cool homes and buildings — with special incentives to support low- and modest-income households.

Protecting Water Resources in Ontario

Ontario is a North American leader in water protection and innovation in order to sustain water resources for future generations. We continue to protect water resources by:

- Keeping Ontario's drinking water among the best protected in the world through a robust and comprehensive regulatory framework, annual monitoring and implementation of new reporting requirements
- Working with First Nations communities and stakeholders to identify mercury contaminated sites in the English-Wabigoon River and develop and implement a comprehensive remediation action plan.
- A trilateral working group comprised of program and technical experts from Indigenous and Northern Affairs Canada (INAC), MOECC, and the Ontario First Nation Technical Services Corporation was established in September 2016 to develop an action and implementation plan to eliminate Long Term Drinking Water Advisories (LTDWA) affecting First Nation communities in Ontario. As at March 31, 2017, the trilateral working group reported that 5 LTDWAs have been lifted, leaving 43 LTDWAs in 22 communities.

- MOECC is providing technical support to First Nations communities, Tribal Councils and INAC through on-site assessments, water quality sampling, design and construction advice, as well as support for the development of operations and maintenance plans. As at March 2017, 13 assessments have been conducted.
- Reducing pollutants in the Great Lakes and other inland lakes by supporting community remediation efforts and implementing binational/multi-jurisdictional action plans such as Ontario's Great Lakes Strategy, the Lake Simcoe Protection Plan and the draft Canada-Ontario Action Plan for Lake Erie.
- Placing a moratorium until January 1, 2019 on all new and expanded permits to take water from groundwater sources for water bottling. The moratorium provides the Ministry the opportunity to improve scientific understanding of groundwater resources and review rules governing groundwater takings for water bottling.
- New stricter interim rules for renewals of existing bottled water permits will increase public transparency for permitted water takings for water bottling, increase new science requirements for water taking permit renewal applications for water bottling, and introduce new operating rules.
- New proposed regulatory charge of $500 per million litres of groundwater taken by companies to produce bottled water would help recover the province's costs of managing groundwater taken by water bottlers, including supporting scientific research, policies, outreach and compliance.

Resource Recovery and Waste Reduction

Ontario is moving toward a circular economy — a system where nothing is wasted and valuable materials destined for landfill are put back into the economy without negative effects on the environment.

To support this shift, Ontario passed the Waste-Free Ontario Act, 2016. It enacted: the Resource Recovery and Circular Economy Act, 2016, and the Waste Diversion Transition Act, 2016.

Together, these acts:

- Establish a producer responsibility framework, requiring producers to take full responsibility for the environmental and financial management of their products and packaging at end-of-life.
- Replaced the former Waste Diversion Ontario with the Resource Productivity and Recovery Authority, a non-Crown, not for profit oversight body with new compliance and enforcement powers that will oversee producers' performance under the new producer responsibility regime and existing waste diversion programs until their wind-up.
- Set out clear direction on the wind-up of existing waste diversion programs and industry funding organizations that operate the programs.

To support the new framework, the ministry is implementing its Strategy for a Waste-Free Ontario: Building the Circular Economy, which was released on February 28, 2017. The strategy outlines the province's vision of a circular economy and its goals of zero waste and zero greenhouse gas emissions from the waste sector. It

includes actions to implement the legislation and build the province's circular economy, such as:

- Designating new materials under the producer responsibility regime to increase diversion.
- Conducting a review of the 3R (Reduce, Reuse and Recycle) Regulations made under the Environmental Protection Act to increase diversion in the Industrial, Commercial and Institutional (IC&I) sector.
- Developing a food and organics waste framework, including an action plan and policy statement, to address food and organic waste and improve diversion.
- Improving oversight and accountability in the waste management sector by requiring producers to register and report on their waste management activities.

Improving Ontario's Air

The province is working to ensure cleaner air for the people of Ontario. In June 2017, Ontario released its 2015 Air Quality in Ontario report, which confirms that Ontario's actions to reduce the airborne pollutants that are harmful to our health are working. There were no smog advisories in 2015 and the province reported low risk air quality 90 per cent of the time.

Initiatives to improve Ontario's air include:

- Operating a network of 39 ambient air monitoring stations across the province to supply the public with real-time air pollutant data.
- Reducing emissions of smog precursors (nitrogen oxides, sulphur dioxide and volatile organic compounds) and air pollutants in Ontario.
- Reducing vehicle emissions of smog-causing pollutants through Drive Clean.
- Developing and implementing comprehensive health-based standards, site specific standards and technical standards for industrial sectors.
- Implementing air zone management in Ontario as agreed to by the Canadian Council of Ministers of the Environment, which includes working with the federal government and other provinces and territories to develop national standards.

Pollinator Health

Improving the health of bees and other pollinators is a necessity. Without pollinators, much of the food we eat and the natural habitats we enjoy would not exist. Ontario is committed to helping pollinators and has taken actions to protect them.

Ontario's Pollinator Health Strategy includes three components to address pollinator health:

1. A regulatory system to reduce the use of neonicotinoid-treated corn and soybean seed.
    - Amendments to Ontario Regulation 63/09 under *the Pesticides Act* came into effect on July 1,

2015.

2. Programs to help beekeepers recover from high levels of bee hive losses.
    - Beekeeper Financial Assistance Program provided temporary compensation for losses in 2014 and 2015.
    - Permanent production insurance plan for managed honey bee losses under the Agriculture Insurance Act, 1996, announced on September 23, 2015.
3. A comprehensive Pollinator Health Action Plan developed collaboratively by the Ministry of Agriculture, Food and Rural Affairs, the Ministry of Natural Resources and Forestry and the Ministry of the Environment and Climate Change to address multiple stressors on pollinators.
    - Released in December 2016, the plan outlines opportunities for government, stakeholder and the public to work together to protect pollinator health in Ontario.

Modernizing Environmental Approvals

- In the 2016 Ontario Spring Budget, the Ministry committed to introducing legislation that will aid in reducing administrative burdens and lower costs for businesses by:
    - Adding Air Emission activities to the Environmental Activity and Sector Registry (EASR);
        - This initiative also helps meet the commitment in the 2015 Fall Economic Statement to reduce, by fall of 2017, the amount of time taken to review air environmental compliance approvals by at least 50 percent;
    - Implementing a one-year service standard for higher-risk environmental compliance approval requests received after 2017;
    - Assisting the ministry in meeting government transparency commitments by introducing a transparent means for applicants and the public to track applications and overall performance.

The ministry continues to transform and modernize its environmental approvals process by:

- Building on its new leading edge, risk-based approvals approach which protects the environment and human health while meeting service standards through process improvements, electronic service delivery and strategic application of resources.
- Evaluating opportunities to extend the new framework to other ministry permit, license and approval programs, while maintaining strong environmental protection.

Since January 31, 2017, applicants can register on a new online Air Emissions EASR. The new Air Emissions EASR will significantly reduce the number of air and noise applications needing Environmental Compliance Approvals (ECAs).

Effective Monitoring, Compliance and Enforcement

The ministry's research, monitoring, inspection, audits, investigations and enforcement activities are integral to

achieving Ontario's environmental goals. Actions include:

- Conducting monitoring programs to understand the impacts of human activities on our environment.
- Identifying emerging environmental concerns and tracking progress on solving problems.
- Analyzing and testing water, air and soil samples in the ministry's laboratories.
- Collecting fish samples from around the province, analyzing them for toxic substances such as mercury, polychlorinated biphenyls and dioxins and providing easy-to-use information about the types and amounts of fish that are safe to eat.
- Partnering with local First Nations on data collection to support environmental monitoring in the Far North, and ensuring that First Nation communities in the region are provided with the results of ongoing monitoring regularly.
- Undertaking studies on pollinator health and pesticide exposure with the Ministry of Agriculture, Food and Rural Affairs and examining science from other organizations.
- Carrying out inspections, audits, investigations and prosecutions of regulatory programs based on risk using a variety of compliance tools, to protect the environment and human health from regulatory non-compliance, incidents and spills, and to address complaints.
- Inspecting municipal residential drinking water systems on an annual basis, and inspecting labs licensed to carry out drinking water testing at least twice a year.
- Conducting risk-based non-hazardous and hazardous waste program inspections and compliance activities to address non-compliance issues. The ministry also offers education and outreach information to encourage voluntary compliance and reduce the need for future enforcement activities.
- Working with industry, stakeholders, and the public to ensure compliance with environmental standards.

Reducing Toxics in the Environment

The ministry is taking action to reduce Ontarians' exposure to toxic substances by:

- Requiring facilities regulated under the Toxics Reduction Act, 2009 to annually report on the amounts of toxic substances used, created and released.
- Requiring regulated facilities to look for opportunities to reduce their use, creation and releases of toxic substances, where 40 per cent of facilities intend to implement at least one option to reduce at least one substance at their facility.
- Providing information to Ontarians about toxic substances and the actions facilities are taking to reduce through annual reporting and data released on Open Data, and updates to the Toxics Environment Map.

Ministry Administration

Ministry administration enables the ministry to deliver its core business and achieve its vision.

Ministry administration provides management leadership and strategic advice including financial management, controllership, human resource management, legal counsel, communications, audit services, French language services and administrative services in support of all business areas.

It also includes implementing the Environmental Bill of Rights, 1993, including managing the Environmental Registry, which enable citizen participation in government decisions, and provides information to the public on environmental initiatives. It also includes addressing requests under the Freedom of Information and Protection of Privacy Act.

To support Ontario's commitment to evidence-based decision making, the ministry undertook a review and refresh of its key performance indicators in order to better align them with the ministry's new strategic plan. This approach ensures that the ministry is closely monitoring and reporting on continuing and emerging high priority initiatives. It allows for early detection and policy or program intervention if evidence suggests that the achievement of strategic plan outcomes is at risk.

Greening Internal Operations

In April 2017, Treasury Board Secretariat transferred the responsibility for implementing low-carbon initiatives with the Ontario Public Service to the Ministry of the Environment and Climate Change. The Ministry of the Environment and Climate Change will build on the government's progress to reduce emissions from its operations by moving toward carbon neutral operations by 2018.

The ministry also continues to look for ways to reduce its environmental footprint and encourage its partners, stakeholders and suppliers to adopt environmentally sustainable practices.

The ministry monitors and reduces its carbon footprint by:

- Supporting energy and water conservation and energy efficiency.
- Promoting waste reduction initiatives and improving diversion rates through recycling and staff education.
- Developing and supporting government-wide greening and sustainability initiatives, including carbon reduction projects.

Table 1: Ministry Planned Expenditures 2017-18

MOECC Operating Expense	$823,552,114
MOECC Capital Expense	$11,446,300
MOECC TOTAL	**$834,998,414**

Ontario Clean Water Agency Operating	$185,305,600
Ontario Clean Water Agency Capital	$2,974,700
CONSOLIDATED TOTAL	**$1,023,278,714**

HIGHLIGHTS OF 2016-17 ACHIEVEMENTS

Leading the Fight Against Climate Change

Passing the Climate Change Mitigation and Low-carbon Economy Act, 2016

- Passed the Climate Change Mitigation and Low-carbon Economy Act, 2016 on May 18, 2016. This landmark climate change legislation ensures the province is accountable for responsibly and transparently investing proceeds from the carbon market auctions into actions that reduce greenhouse gas pollution, create jobs and help people and businesses shift to a low-carbon economy. The Act outlines Ontario's 2020, 2030 and 2050 emission reduction targets and requirement to prepare and implement a climate change action plan.
- The cap and trade regulation took effect July 1, 2016, and includes detailed requirements for businesses participating in the program.
- The first compliance period began January 1, 2017. This compliance period extends to the end of 2020 and places a compliance obligation on greenhouse gas emitters in Ontario. About 82 per cent of the provinces total greenhouse gas emissions are covered under the program.
- Successfully on-boarded Ontario to the services contracted by Western Climate Initiative, Inc. that are required to execute the cap and trade program, including a tracking database, auction platform, and independent market monitor.
- Held Ontario's first auction of emissions allowances on March 22, 2017. The auction generated $472,031,155 in proceeds, which is to be invested in initiatives that are reasonably likely to reduce, or support the reduction of, greenhouse gas.

Climate Change Action Plan

- Released Ontario's five-year Climate Change Action Plan in June 2016 that brings together practical and effective climate-saving actions from across government.
- Funded nine programs through the Green Investment Fund to support projects that reduce greenhouse gas emissions, including more electric vehicle fast-charging stations, energy retrofits for single family homes and affordable housing, and support for Indigenous communities and organizations and energy efficiency investments in industry and small and medium sized businesses. The Green Investment Fund is an initial investment on the province's Climate Change Action Plan, aimed at fighting climate

change, boosting the economy and creating jobs.

- Released a discussion paper in January 2017 on a Renewable Fuel Standard for gasoline, which will reduce greenhouse gas emissions from gasoline by five per cent by 2020. This is a Climate Change Action Plan commitment that aims to increase the availability and use of lower carbon fuels for transportation.
- Continued to invest in science to understand the implications of climate change for Ontario. This included installing a third monitoring station in Ontario's Far North to understand the impacts of climate change on carbon currently locked in permafrost soils.

National and International partnerships

- In 2016, Ontario worked with Canada and all provinces and territories to establish the Pan-Canadian Framework (PCF). The PCF is a comprehensive plan to set Canada's path to achieve its international commitments on climate change while growing the economy. Ontario's Climate Change Action Plan aligns with these goals.
- On August 31, 2016, Ontario and Québec signed a declaration with the Mexican government to jointly develop carbon markets.
- On October 21, 2016, Ontario and Québec signed a new Agreement. Concerning Environmental Cooperation. The provinces will continue to work together on concerted climate change actions and market-based mechanisms.
- In November 2016, ministry representatives attended the Conference of the Parties (COP22) in Marrakech, Morocco where the governments of Ontario, Québec and California held a tri-lateral meeting to further efforts to reduce greenhouse gas emissions while boosting economic growth by linking cap and trade programs and expanding carbon markets.

Protecting Ontario's Water

Drinking Water

- Conducted over 527,000 drinking water tests on municipal residential drinking water systems and 99.8 per cent of these results met Ontario's rigorous, health-based standards.
- Began implementation of all 22 approved locally-developed source protection plans, and included a focus on improvements to provincial and municipal spill response programs and strengthening public awareness of source protection.
- Filed amendments to regulations under the Safe Drinking Water Act, 2002, in order to further protect children from lead in drinking water. The amendments come into effect on July 1, 2017.
- Allocated $2.1 million as part of the government's 2017 budget to fund the pre-remediation science and related community work, which would include funding for the ongoing work of Grassy Narrows First Nation and Wabaseemoong Independent Nations in the development of the remediation action plan for

the English-Wabigoon River.

- Put in place a moratorium on permits to take ground water for water-bottling purposes. The moratorium provides the Ministry the opportunity to improve scientific understanding of groundwater resources and review rules governing groundwater takings for water bottling. The Ministry has posted new rules for applications for renewals of ground water takings for water bottling. At the same time, the ministry is working to better understand the impact of climate change and population growth on sensitive ground water resources.

Great Lakes/Inland Lakes

- Began implementing Ontario's Great Lakes Protection Act, 2015, which gives the province new tools to protect and restore watersheds, beaches, wetlands and coastal areas of the Great Lakes and the waterways that flow into them.
- Posted a policy proposal on Environmental Registry (October 6, 2016) to seek public input on Ontario's 18 proposed actions to inform the draft Canada-Ontario Action Plan for Lake Erie.
- Held two Great Lakes Guardians' Council meetings in 2016. The Council is a forum to improve collaboration and coordination among Ontario's Great Lakes partners, established by the Ontario's Great Lakes Protection Act.
- Released the First Progress Report on Ontario's Great Lakes Strategy in spring 2016.
- Released the 2015 Minister's Annual Report on Lake Simcoe, which summarizes the actions taken by the ministry and its partners to protect the health of the lake and its watershed.
- Released the Lake Simcoe Climate Change Adaptation Strategy to help guide stakeholders in their efforts to adapt to the impacts of climate change.
- Completed a work plan for year four of the five year Canada-Ontario Agreement/Great Lakes Strategy, including more than 235 projects that support Ontario's commitments in the Great Lakes Strategy, Great Lakes Protection Act, and the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (2014).
- Provide $314,000 to fund 20 environmental projects in 14 affected watersheds through the 2016 Ontario Community Environment Fund.
- The Great Lakes Guardian Community Fund continues to offer grants to assist community groups and organizations taking action to protect and restore their corner of the Great Lakes -- including the St. Lawrence and Ottawa River basins. Since its launch in 2012, $6 million has been awarded to 305 community-based projects in Great Lakes watersheds involving more than 25,000 volunteers who have planted over 100,000 trees, released more than 350,000 fish, created or enhanced 670 kilometres of trail and collected more than 1,600 bags of garbage from shorelines.

Resource Recovery, Waste Reduction and Land Quality

Passed the Waste-Free Ontario Act, 2016. It enacted: the Resource Recovery and Circular Economy Act, 2016 and the Waste Diversion Transition Act, 2016. The new framework will:

- Strengthen the government's commitment to preserving resources and recovering valuable materials currently lost to landfill and shift Ontario toward a circular economy.
- Increase resource recovery and waste reduction in Ontario, create jobs and boost the economy, and support our efforts to fight climate change.

- Released the Strategy for a Waste-Free Ontario: Building the Circular Economy in February 2017. The strategy sets out the province's vision of a circular economy and goals of zero waste and greenhouse gas emissions from waste. It acts as a roadmap with 15 actions to help Ontario increase resource recovery, reduce waste, and reduce greenhouse gas emissions.
- Began implementing the Strategy for a Waste-Free Ontario: Building the Circular Economy, including:
  - Consulting stakeholders in January 2017 to provide advice on the development of a food and organic waste action plan.
  - Overhauled Waste Diversion Ontario into the Resource Productivity and Recovery Authority (RPRA), the new oversight body under the legislation; appointed members to the initial board of the RPRA and finalized the transitional operating agreement between the RPRA and the minister.
  - Issued direction in February 2017 to Ontario Tire Stewardship to wind up their existing waste diversion program and industry funding organization by December 31, 2018.
- Introduced a new regulatory framework that imposes environmental recycling standards along with a risk-based compliance strategy to ensure proper management of end-of-life vehicles.

Pollinator Health

- Released six datasets on the Open Data catalogue on early pollinator health monitoring results.
- Continued multi-media monitoring studies in 2016 to measure changes in neonicotinoid concentrations in the environment following new regulatory requirements governing the sale and use of neonicotinoid pesticides.
- Ministry of Agriculture, Food and Rural Affairs, in collaboration with the Ministry of the Environment and Climate Change and Ministry of Natural Resources and Forestry released a final Pollinator Health Action Plan on December 2016.
- Completed more than 150 inspections, audits and surveys by March 31, 2017, of the 231 licenced Class 12 vendors to ensure understanding of the phased-in regulatory requirement for vendors to sell neonicotinoid pesticides.

Modernizing Environmental Approvals

- Saved businesses an estimated $45.8 million since 2011 by enabling standard, low risk, well-

understood business activities to be registered through the online Environmental Activity and Sector Registry.

- Introduced a new Environmental Activity and Sector Registry fee structure effective December 1, 2016, in order to bring the program towards a full cost recovery model.
- Passed the Alternative Low-Carbon Fuels Regulation in May 2015 under the *Environmental Protection Act* to allow cement, lime, iron and steel facilities operating in Ontario to apply to the ministry for approval to use alternative, less carbon-intensive fuels in place of coal and coke.
- Modernized the environmental approvals process for air and noise emissions in January 2017 for eligible businesses.

Effective Monitoring, Compliance and Enforcement

- The ministry's Operations Division conducted approximately 8,200 inspections and across the province in 2016-17. The ministry's regional offices conducted approximately 3,500 proactive and responsive inspections.
- The Drinking Water Management Division conducted over 1,400 proactive drinking water, laboratory and wastewater water-related inspections across the province.
- On March 15, 2017, the 2017-2018 Guide to Eating Ontario Fish, 29th edition, was released.

Reducing Toxics in the Environment

- Released the fourth Minister's Report on Toxics Reduction along with the 2015 public data in December 2016.
- Enhanced the ministry's public Toxics Environment Map to include more information on where actions are being taken by facilities to reduce toxic substances, as well as providing additional information on substances used in Ontario.

Greening Internal Operations

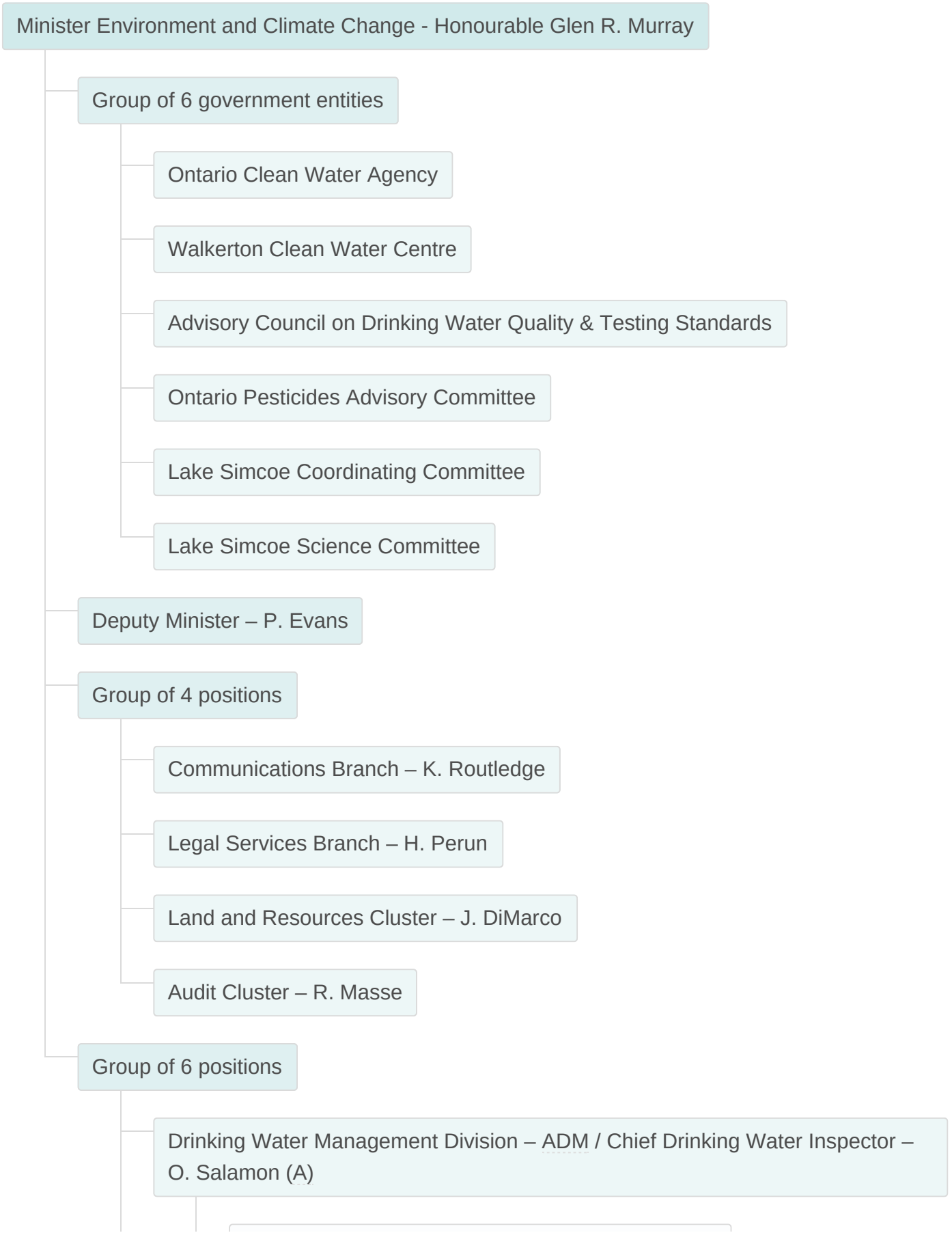
- Continued using green natural gas and green electricity at 135 St. Clair Avenue West and 125 Resources Road. Both buildings meet all their heating, cooling and electrical needs through green energy.

Refer to the Appendix for further details of the ministry's achievements in fiscal year 2016-17.

Ministry Organization Chart

Ministry of the Environment and Climate Change – May 2017

The chart shows the following hierarchical structure with the top level assigned to the Minister of Environment and Climate Change.



- Drinking Water Programs Branch – A. M. Weselan
- Safe Drinking Water Branch – C. Mack
- Source Protection Program Branch – H. Malcolmson
- Indigenous Drinking Water Projects Office – I. Prashad

Operations Division – ADM – P. Nieweglowski

- Environmental Approvals Access and Service Integration Branch – D. Goyette
- Central Region – T. Dufresne
- Environmental Approvals Branch – K. O'Neill
- Eastern Region – H. Kew
- Northern Environmental Initiative – M. Hennessy
- Northern Region – F. Miklas
- Operations Integration / Spills Action Centre – R. Raeburn-Gibson
- Southwestern Region – L. Orphan
- Investigations and Enforcement Branch – G. Sones
- West Central Region – M. New
- Sector Compliance Branch – G. Sones

Corporate Management Division – ADM – H. Taylor

- Business and Fiscal Planning – L. Lau

- Information Management and Access Branch – G. Gladdy
- Strategic Human Resources Branch – J. LeGris
- Transition Office – B. Taylor
- French Language Services – L. Gagnon

- Environmental Sciences and Standards Division – ADM – T. Al-Zabet
  - Environmental Monitoring and Reporting – K. McKague
  - Laboratory Services Branch – J. Odumeru
  - Standards Development Branch – S. Paul

- Climate Change and Environmental Policy Division – ADM – R. Fleming
  - Ontario Climate Change Directorate – A. Wood
  - Air Policy and Climate Change Branch – J. Nowlan
  - Air Policy Instruments and Program Design – H. Pearson
  - Partnerships Branch – J. Vidan
  - Environmental Intergovernmental Affairs Branch – M. Stickings
  - Strategic Policy Branch – K. Clark
  - Resource Recovery Policy Branch – W. Ren
  - Land and Water Policy Branch – L. Mark

- Environmental Programs Division – ADM – J. Whitestone
  - Indigenous Relations Branch – M. Hennessy
  - Environmental Innovations Branch – T. Kaszas
  - Program Planning and Implementation Branch – G. Napier
  - Modernization of Approvals Branch – D. Dumais
  - Program Management Branch – J. Hurdman

Agencies, Boards and Commissions (ABCS)

Agencies, Boards and Commissions	**Description**	Estimates 2017-18 $	Interim Actuals 2016-17 $	Actuals 2015-16 $
Advisory Council on Drinking Water Quality and Testing Standards	Provide technical and scientific advice and recommendations related to standards for drinking-water quality testing.	$118,100	$119,601	$143,336
Lake Simcoe Science & Coordinating Committees	Co-ordinate implementation of Lake Simcoe Protection Plan; indentify & resolves issues; adviser; Lake Simcoe watershed.	$10,000	$9,068	$9,876
Ontario Pesticides Advisory Committee	Annually review the Pesticides Act, recommend changes/amendments; review related publications and pest control products prior to use in Ontario.	$123,400	$121,422	$99,876
Total Agencies, Boards & Committees (ABCs)		**$251,500**	**$250,091**	**$253,088**

Note: Detailed financial information for Ontario Clean Water Agency and Walkerton Clean Water Centre is provided in their business plans.

Legislation Administered by the Ministry

Adams Mine Lake Act, 2004

Capital Investment Plan Act, 1993 (Part IV re: Ontario Clean Water Agency only)

Clean Water Act, 2006

Climate Change Mitigation and Low-carbon Economy Act, 2016

Consolidated Hearings Act

Environmental Assessment Act

Environmental Bill of Rights, 1993

Environmental Protection Act

Great Lakes Protection Act, 2015

Lake Simcoe Protection Act, 2008

Ministry of the Environment Act

Municipal Water and Sewage Transfer Act, 1997

Nutrient Management Act, 2002 (together with the Ministry of Agriculture, Food and Rural Affairs)

Ontario Water Resources Act

Pesticides Act

Resource Recovery and Circular Economy Act, 2016

Safe Drinking Water Act, 2002

Toxics Reduction Act, 2009

Waste Diversion Transition Act, 2016

Water Opportunities Act, 2010 (except for Part II)

Detailed Financial Information

Table 2: Combined Operating and Capital Summary by Vote

MINISTRY OF THE ENVIRONMENT AND CLIMATE CHANGE
OPERATING AND CAPITAL SUMMARY BY VOTE

Votes/Programs	Estimates 2017-18	Change from Estimates	%	Estimates 2016-17	Interim Actuals	Actuals 2015-16

	$	2016-17 $		$	2016-17 $	$
Operating Expense	22,681,500	(1000)	(0.0)	22,682,500	22,679,800	22,634,884
Ministry Administration						
Environmental Planning and Analysis	48,780,400	(22,249,800)	(31.3)	71,030,200	74,246,300	53,744,239
Environmental Science and Information	61,991,100	(1,428,700)	(2.3)	63,419,800	72,601,500	66,510,441
Environmental Protection	223,800,200	37,039,300	19.8	186,760,900	179,321,300	185,418,988
Total Operating Expense to be Voted	**357,253,200**	**13,359,800**	**3.9**	**343,893,400**	**348,848,900**	**328,308,552**
Statutory Appropriations	564,958,914	564,892,600	851,845.2	66,314	66,314	576,546
Ministry Total Operating Expense	**922,212,114**	**578,252,400**	**168.1**	**343,959,714**	**348,915,214**	**328,885,098**
Consolidation & Other Adjustments - Ontario Clean Water Agency	185,305,600	6,221,100	3.5	179,084,500	171,515,200	164,397,831
Operating Expense Adjustment -	466,232,600	466,232,600	n/a	n/a	n/a	n/a

Greenhouse Gas Reduction Account Reclassification						
Operating Expense Designated Purpose Account - Greenhouse Gas Reduction Account Reclassification	(564,892,600)	(564,892,600)	n/a	n/a	n/a	n/a
Total Including Consolidation & Other Adjustments	**1,008,857,714**	**485,813,500**	**92.9**	**523,044,214**	**520,430,414**	**493,282,929**
OPERATING ASSETS Statutory Appropriations	1,000	1,000	n/a	n/a	n/a	n/a
Ministry Total Operating Assets	**1,000**	**1,000**	n/a	n/a	n/a	n/a
CAPITAL EXPENSE Environmental Protection	6,755,000	4,132,000	157.5	2,623,000	3,530,700	2,051,057
Total Capital Expense to be Voted	**6,755,000**	**4,132,000**	**157.5**	**2,623,000**	**3,530,700**	**2,051,057**
Statutory Appropriations	828,961,300	825,389,300	23,107.2	3,572,000	4,499,800	4,357,234

Ministry Total Capital Expense	**835,716,300**	**829,521,300**	**13,390.2**	**6,195,000**	**8,030,500**	**6,408,291**
Consolidation & Other Adjustments - Ontario Clean Water Agency	2,974,700	(140,500)	(4.5)	3,115,200	2,701,200	2,924,702
Capital Expense Designated Purpose Account - Greenhouse Gas Reduction Account Reclassification	(824,270,000)	(824,270,000)	n/a	n/a	n/a	n/a
Total Including Consolidation & Other Adjustments	**14,421,000**	**5,110,800**	**54.9**	**9,310,200**	**10,731,700**	**9,332,993**
CAPITAL ASSETS Environmental Protection	14,712,700	10,157,700	223.0	4,555,000	1,687,200	1,361,103
Total Capital Assets to be Voted	**14,712,700**	**10,157,700**	**223.0**	**4,555,000**	**1,687,200**	**1,361,103**
Statutory Appropriations	1,000	1,000	n/a	n/a	n/a	n/a
Ministry Total Capital Assets	**14,713,700**	**10,158,700**	**223.0**	**4,555,000**	**1,687,200**	**1,361,103**

Ministry Total Operating and Capital Including Consolidation and Other Adjustments (not including Assets)	**1,023,278,714**	**490,924,300**	**92.2**	**532,354,414**	**531,162,114**	**502,615,922**

Key Performance Indicators and Achievements

Key Performance Indicators	Target	2013-14 Status/ Achievement	2014-15 Status/ Achievement	2015-16 Status/ Achievement	2016-17 Status/ Achievement
Achievement of greenhouse gas emission targets as set in legislation [1]	80% below 1990 baseline year - by 2050 - Interim Target 1: Reduce GHG emissions by 6% below 1990 levels by 2014 - Interim Target 2: Reduce GHG emissions by 15% below 1990 levels by 2020 - Interim Target 3: Reduce GHG emissions by 37% below 1990 levels by 2030	5.76% reduction below 1990 emission levels	7.05% reduction [2] below 1990 emission levels	8.33% reduction below 1990 emission levels	Data not available at time of publication

Decreased amount of waste disposed per capita	Decrease in amount of waste disposed per capita each year	614 Kg of Waste per person in Ontario	613 Kg of waste per person in Ontario	597 Kg of waste per person in Ontario	Data not available at time of publication
Improved Ambient Air Quality	16.67% decrease in exceedance of Canadian Ambient Air Quality Standard for ozone, fine particulate matter and SO2 relative to year 2007 by March 31, 2021	10.00%	11.67%	15.83%.	Data not available at time of publication
Improved ecological health of the Great Lakes and Lake Simcoe	Minimum 7 mg/L of dissolved oxygen in Lake Simcoe at end of summer in each year	6 mg/L	7 mg/L	5 mg/L	6 mg/L

The Ministry recently reviewed and updated its key performance indicators to ensure that they are up to date with our ministry programs and initiatives.

APPENDIX: ANNUAL REPORT 2016-17

2016-17 ACHIEVEMENTS

During 2016-17, the Ministry of the Environment and Climate Change undertook many initiatives and activities to fight climate change and protect Ontario’s water, land and air to bring about the ministry’s vision: a healthy environment for a strong Ontario.

Leading the Fight Against Climate Change

In November 2015, Ontario released its Climate Change Strategy which sets out the government’s vision for Ontario to 2050, and outlines the path to a prosperous, climate resilient and low-carbon society where greenhouse gas reduction is part of our growth, efficiency and productivity.

Ontario started to put its strategy into action from December 2015 through March 2017 with investments from the Green Investment Fund, an initial $325-million investment to kick-start climate change actions in the province to strengthen the economy, create jobs and reduce greenhouse gas emissions. Green Investment Fund projects included more electric vehicle fast-charging stations, energy retrofits for single family homes and affordable housing, support to better understand and plan for climate change in northern First Nations communities, and support for industry and small and medium sized businesses.

On May 18, 2016, the Climate Change Mitigation and Low-carbon Economy Act, 2016 received Royal Assent. The Act:

- Enshrines greenhouse gas emission targets in legislation.
- Ensures transparency and accountability on how carbon market auction proceeds are used.
- Creates a robust framework for the carbon market cap and trade program.

The Act establishes Ontario's 2020, 2030, and 2050 greenhouse gas reduction targets in law. Ontario's targets are:

- 6 per cent below 1990 emission levels by 2014
- 15 per cent below 1990 levels by 2020
- 37 per cent below 1990 levels by 2030
- 80 per cent below 1990 levels by 2050

Following extensive consultation with industry and other groups, the Climate Change Mitigation and Low-carbon Economy Act, 2016 was strengthened by adding requirements for enhanced accountability and public reporting on the Province's Climate Change Action Plan and investment of cap and trade proceeds.

Carbon Market Trading

Ontario's carbon market cap and trade program is a market-based system that reduces the amount of greenhouse gas pollution going into our atmosphere by setting a limit, or cap, on the amount of greenhouse gases that can be released.

Under the Climate Change Mitigation and Low-carbon Economy Act, 2016 proceeds from Ontario's cap and trade program will be deposited into a new Greenhouse Gas Reduction Account. The account will be used to fund initiatives that are reasonably likely to reduce, or support the reduction of, greenhouse gas.

Ontario also finalized two regulations, the cap and trade and reporting regulations, to firmly establish the majority of the rules necessary for implementation and operation of the program.

On December 28, 2016, the ministry posted a decision notice on the Environmental and Regulatory Registries

indicating that, following consultation, with the government would amend the regulations to:

- Add new rules and clarify existing rules related to the distribution of allowances free of charge
- Support further alignment with the Western Climate Initiative
- Clarify technical and administrative requirements of the program

The ministry awarded a contract to the Climate Action Reserve to adapt protocols for use in creating offset credits under Ontario's cap and trade program.

On February 27, 2017, the ministry communicated, via the Environmental Registry that it has made amendments to the cap and trade program regulation that will allow Union and Enbridge to fully participate in the 2017 auctions following the merger of their parent companies.

The first auction of emission allowances was held on March 22, 2017 and the results of that auction were posted on April 3, 2017.

Climate Change Action Plan

Ontario released its Climate Change Action Plan on June 8, 2016. The plan identifies policies and programs to ensure near and long term greenhouse gas emission reductions to put Ontario on the right path to achieve our longer term objectives.

Actions in the plan will be funded by proceeds from the province's cap and trade program.

The plan reflects an intention to strengthen partnerships with First Nations and Métis communities and organizations to build capacity and increase opportunities for effective engagement and long-term collaboration related to climate change.

In February 2017, the ministry filed a regulation to establish the Ontario Climate Change Deployment Corporation as a provincial agency under the Development Corporations Act. The agency would be responsible for investing a portion of the proceeds from the cap and trade program into greenhouse gas emission reduction initiatives in the buildings sector, a significant contributor to climate change.

Cleaner Fuels

In January 2017, the ministry initiated consultations on the development of a modern Renewable Fuel Standard for Gasoline, including posting a discussion paper to the Environmental Registry. The ministry engaged with the federal government on its proposed Clean Fuel Standard and collaborated with provincial counterparts.

On January 1, 2017, an amendment to the Ethanol in Gasoline Regulation (O. Reg. 535/07) to modify the definition of cellulosic ethanol to include ethanol produced from the organic material remaining in solid waste

came into force. The amendment creates new resource opportunities for municipalities, waste facility operators, ethanol producers and fuel suppliers.

National and International Partnerships

Ontario continues to work with other ministries, jurisdictions and stakeholders to share knowledge and support integration of climate change adaptation and climate science in decision making:

- In 2016, the Ministry of the Environment and Climate Change provided $237,000 to the Intact Centre on Climate Adaptation at the University of Waterloo for the Home Adaptation Assessment Program which will be piloted in the City of Burlington.
- Also in 2016, the Ministry of the Environment and Climate Change provided just over $361,000 to International Council for Local Environmental Initiatives Canada under the Canada-Ontario Agreement respecting the Great Lakes Basin Ecosystem to increase climate change resilience in 28 Great Lakes communities.

Other partnership activities include:

- In 2016, Ontario worked with Canada and all provinces and territories to establish the Pan-Canadian Framework (PCF). The PCF is a comprehensive plan to set Canada's path to achieve its international commitments on climate change while growing the economy. Ontario's Climate Change Action Plan aligns with these goals.
- In 2016, Ontario and Quebec renewed their Memorandum of Understanding for cooperative action to address a range of environmental issues including climate change, air quality, water quality, and joint actions to work with other jurisdictions to improve environmental outcomes. The provinces will continue to work together on concerted climate change actions and market-based mechanisms.
- On November 16, 2016, the governments of Ontario, Québec and California held a tri-lateral meeting to further efforts to reduce greenhouse gas emissions while boosting economic growth by linking cap and trade programs and expanding carbon markets. The meeting took place at the 22nd Conference of the Parties to the United Nations Framework Convention on Climate Change in Marrakech, Morocco.
- On August 31, 2016, Ontario and Québec signed a declaration with the Mexican government to jointly develop carbon markets.
- Providing necessary capacity support to Indigenous communities and organizations to support relationship building and the development of longer term engagement strategies and opportunities for collaboration.

Protecting Ontario's Water

Drinking Water

Ontario's drinking water remains among the best protected in the world. From our strict health-based drinking water standards to comprehensive legislation that protects water from source to tap, we provide a safety net

that ensures Ontarians can be confident in the quality and safety of their drinking water. The eight components of the safety net provide a multi-barrier approach to drinking water protection, including:

- source-to-tap focus
- strong legislative and regulatory framework
- health-based standards for drinking water
- regular and reliable testing
- swift, strong action on adverse water quality incidents
- mandatory licensing, operator certification and training requirements
- a multifaceted compliance improvement toolkit
- partnership transparency and public engagement

The 2015-16 Chief Drinking Water Inspector's Annual Report was released on November 28, 2016, and confirmed that Ontario drinking water systems continue to provide high quality drinking water. In 2015-16, over 527,000 drinking water tests were conducted on municipal residential drinking water systems and 99.8 per cent of these results met Ontario's rigorous, health-based standards. In line with our commitment to transparency and Open Government, new and historical drinking water data was made available on Ontario's Open Data Catalogue and is updated on a regular basis.

The source water protection program was delivered through local source protection committees in 19 source protection areas/regions creating plans to identify and address existing and potential risks to municipal drinking water in their communities. All 22 of the source protection plans that were developed have been approved and are in effect. More than 250 trained risk management officials and inspectors are assisting with this implementation phase.

In 2016-17, Ontario continued to work with its partners on implementation of source protection plans. As part of this, the province focused on improving provincial and municipal spill response programs and strengthening public awareness of source protection. To assist with this, the ministry launched the Source Water Protection Map on Ontario.ca. It provides the first province-wide view of the more than 970 wellhead protection areas and 150 intake protection zones within the source protection areas, enables the public to access over 20 layers of information to conduct customized searches and supports the broader implementation of plans.

On December 15, 2016, the ministry filed amendments to regulations under the Safe Drinking Water Act, 2002, that will further protect children from lead in drinking water. The amendments come into effect on July 1, 2017.

First Nations Drinking Water

The ministry is collaborating with Canada, Ontario and First Nations to improve drinking water on reserves in

Ontario. The Indigenous Drinking Water Projects Office was formed in June 2016 and works closely with First Nations, Indigenous and Northern Affairs Canada and other federal departments and provincial ministries and agencies to help deliver on the federal commitment to eliminate long-term boil water advisories within five years.

One way Ontario supports this work is by leveraging its considerable drinking water expertise and engineering experience gained through working with municipalities to provide technical and engineering support for First Nation communities, with a view to expediting projects and supporting a framework for the long-term sustainability of water systems on reserves across the province. This includes helping communities build sustainability and source-to-tap solutions for safe drinking water, effective wastewater management and watershed planning on reserves.

A trilateral working group, comprised of program and technical experts from Indigenous and Northern Affairs Canada (INAC), MOECC, and the Ontario First Nation Technical Services Corporation (OFNTSC) was established in September 2016 to develop an action and implementation plan to eliminate Long Term Drinking Water Advisories (LTDWA) affecting First Nation communities in Ontario. As at March 31, 2017 the trilateral working group reported that 5 LTDWAs have been lifted, leaving 43 LTDWAs in 22 communities. The action / implementation plan estimated the resolution of these LTDWAs as follows: 17 by March 2018, 5 by March 2019, 5 by March 2020, and 16 by March 2021.

Great Lakes and Inland Lakes

The Great Lakes are vitally important to the people of Ontario for our drinking water, quality of life and prosperity, but there is still more work to be done. We need to continue to invest in science and monitoring of our Great Lakes waters to better inform us of threats to the lakes. We will use this science to ensure we are making informed decisions to better protect and improve the quality of the lakes.

Actions to protect and preserve Ontario's Great Lakes include:

- Implementing actions in Ontario's 2012 Great Lakes Strategy. To fulfil the strategy's triennial reporting commitment, the First Progress Report on Ontario's Great Lakes Strategy was released in spring 2016.
- Posting for public comment in February 2017 a draft Canada-Ontario Action Plan for Lake Erie to reduce 40 per cent of phosphorus loading by 2025
- Posted for public comment in March 2016 draft policy objectives for managing Cage Aquaculture Operations on the Quality of Water and Sediment in Ontario Waters.
- Completing year four of the five year Canada-Ontario Agreement/Great Lakes Strategy work plan, which includes more than 235 projects that support Ontario's commitments in the Great Lakes Strategy, Great Lakes Protection Act, and the Canada- Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (2014).

Published the 2015 Minister's Annual Report on Lake Simcoe on December 14, 2016. The annual report details how the province is continuing to monitor, research and learn about the lake. The ministry is continuing to make progress implementing the Lake Simcoe Protection Plan to reduce pollutants, improve water quality, and restore fish habitat.

- Providing grants to assist community groups and organizations taking action to protect and restore their corner of the Great Lakes -- including the St. Lawrence and Ottawa River basins – through the Great Lakes Guardians Community Fund.

Protecting Groundwater Resources

Ontario is committed to making sure groundwater is protected now and in the future. This helps to ensure the environment is protected and people have a good supply of drinking water. It's even more important as our population grows, and during hot conditions and periods of drought, which are projected to become more frequent because of climate change.

Actions Ontario took in 2016-17 to protect groundwater resources include:

- Finalizing a two-year moratorium on new or expanded water takings from groundwater by bottling companies. The proposal was posted to the Environmental Registry for public comment and more than 20,000 public comments were received (from Oct.17, 2016 to Dec. 1, 2016). These comments were reviewed and the moratorium was put in place on Dec. 16, 2016. The moratorium provides the Ministry the opportunity to improve scientific understanding of groundwater resources and review rules governing groundwater takings for water bottling.
- Proposing new stricter rules for renewals of existing bottled water permits. These proposed rules were posted to Environmental Registry for public comment (fromDec. 2, 2016, to Jan. 31, 2017) and are now in effect.
- Proposing a fee increase for water bottling companies that take groundwater on Environmental Registry for public comment (from Jan. 18, 2016 to March 20, 2017). The new fee would help recover the province's costs of managing groundwater taken by water bottlers, including supporting scientific research, policies, outreach and compliance.

Partnerships and Collaboration

On March 22, 2016, Ontario held the first meeting of the Great Lakes Guardians' Council. A second meeting was held on October 4, 2016, and a third was held on May 15, 2017. Established by the Great Lakes Protection Act, 2015, the Great Lakes Guardians' Council is a forum to improve collaboration and coordination among Ontario's Great Lakes partners. The Council brings together Great Lakes leaders including First Nations, Métis, industry, development, tourism, environmental organizations, agriculture, conservation authorities and municipalities, as well as Ontario's Great Lakes Ministers.

On May 29, 2015, Ontario and Québec announced the creation of a joint Ontario-Québec Committee on Water

Management to facilitate co-operation, information sharing and to search for common solutions on a wide range of water management issues, including the Great Lakes, the St. Lawrence River, the Ottawa River, Lake Temiskaming and Lake Abitibi. 2016-17 Committee actions have included the sharing of water resource management related information (e.g. water quality monitoring data and science, water policy and priority actions to protect water resources), and identifying priority areas of potential cooperation (immediate and longer-term opportunities) for the 2017-18 work plan and beyond.

The ministry completed a pilot test of an innovative training approach for municipal wastewater treatment optimization. The training approach applies classroom theory at participants' treatment plants with the aim of improving performance. The pilot test enhanced participants' skills in process control, data quality, and understanding the needs of their treatment plants. Eleven treatment plants from seven municipalities took part in the pilot test.

Resource Recovery and Waste Diversion

Ontario is moving toward a circular economy — a system where nothing is wasted and valuable materials destined for landfill are put back into the economy without negative effects on the environment.

On November 30, 2016, the majority of the Waste-Free Ontario Act, 2016 came into force, enacting the Resource Recovery and Circular Economy Act, 2016 and the Waste Diversion Transition Act, 2016. This legislation transforms Ontario's existing waste diversion system to support a circular economy.

The Resource Productivity and Recovery Authority

As part of the Waste-Free Ontario Act, 2016, Waste Diversion Ontario – the former oversight body under the Waste Diversion Act, 2002 – was overhauled to become the Resource Productivity and Recovery Authority (RPRA), a non-Crown and not for profit organization with new compliance and enforcement powers. The RPRA will oversee producers' performance under the new producer responsibility regime and existing waste diversion programs until their wind-up. The ministry supported the minister in appointing members to the initial board of the RPRA on November 30, 2016.

In late 2016, five new regulations were made under the Waste Diversion Transition Act, 2016. These regulations allow existing waste diversion programs developed under the previous legislative framework to continue to operate until they are wound up and the wastes designated under them are regulated under the Resource Recovery and Circular Economy Act, 2016.

Under the Resource Recovery and Circular Economy Act, 2016, a key oversight measure is the requirement for the minister and the RPRA's initial board to enter into a transitional operating agreement within 120 days of proclamation. In January 2017, the ministry held a number of consultation sessions on the draft Operating Agreement and posted the draft Operating Agreement on the Environmental Registry for a 45-day public comment period on January 9, 2017.

The government has begun to wind up existing waste diversion programs and industry funding organizations, starting with the Used Tires program and Ontario Tire Stewardship. On February 17, 2017, the Minister issued direction to Ontario Tire Stewardship to develop a wind-up plan by October 31, 2017 and cease program operations by December 31, 2018.

Strategy for a Waste-Free Ontario: Building the Circular Economy

To support the new circular economy framework, the ministry consulted on a Strategy for a Waste-Free Ontario: Building the Circular Economy throughout 2016, and finalized on February 28, 2017. The strategy outlines the province's vision of a circular economy and its goals of zero waste and zero greenhouse gas emissions from the waste sector. It includes actions to implement the legislation and build the province's circular economy, such as:

- Designating new materials under the producer responsibility regime to increase diversion.
- Conducting a review of the 3R (Reduce, Reuse and Recycle) Regulations made under *the Environmental Protection Act* to increase diversion in the Industrial, Commercial and Institutional (IC&I) sector.
- Developing a food and organics waste framework, including an action plan and policy statement, to address food and organic waste and improve diversion.
- Improving oversight and accountability in the waste management sector by requiring producers to register and report on their waste management activities

The ministry is also taking action on reducing food and organic waste. In 2017, a stakeholder working group was convened to inform the development of a policy statement and action plan on food and organic wastes. The stakeholder working group, which includes representation from key stakeholders, sectors and industry associations, has held three sessions to date, with additional meetings planned throughout the first half of fiscal 2017-18.

A policy discussion paper on food and organic waste reduction was posted for stakeholder and public input on the Environmental Registry in June 2017.

Improving Air Quality

New and updated air standards for 68 contaminants have been introduced since 2005. In April 2016, the ministry released its review of the science supporting an updated air standard for sulphur dioxide and met with interested stakeholders in May and July 2016.

In 2016, the ministry developed Technical Standards for petroleum refining and petrochemical sectors that require industries to take progressive actions, such as investing in best available technology, to reduce emissions of harmful contaminants, including benzene. These technical standards take effect in 2017 with requirements phasing in over time through 2029. In 2016-17, the ministry also issued 12 Site Specific

Standards to 7 facilities. Site Specific Standards, like Technical Standards, require facilities to make continuous improvements to better manage emissions over time.

The province continued to deliver the new Air Quality Health Index (AQHI) program in partnership with Environment and Climate Change Canada for air quality messaging. The AQHI is a health-based scale that assesses air pollution and cumulative health impacts. Real-time air quality measurements and air quality forecasts are provided in a way that is easy to understand.

The ministry continued to administer the state of the science roadside air monitoring network in Toronto in partnership with Environment and Climate Change Canada to improve our understanding of traffic related air pollution in highly urbanized settings.

Ontario's new on-board diagnostic Drive Clean test more accurately and more quickly identifies emission problems and the repairs needed to fix them. Part of Ontario's efforts to reduce smog and promote healthier communities, Drive Clean keeps approximately 35,000 tonnes of smog-causing pollutants out of the air every year. Drive Clean eliminated the $30 initial test fee for light-duty vehicles on April 1, 2017, to fulfil a 2016 budget commitment to lower costs for Ontario households.

As part of the government's commitment to modernize the Drive Clean Program, the ministry also implemented other changes to ensure: more vehicles are repaired; remove emission test requirements for light-duty vehicles at resale; improve the ministry's ability to respond to instances of fraud and inspector incompetency; and eliminate emissions test requirements for light-duty vehicles registered to islands without year-round access to ferry service.

Protecting and enhancing air quality requires cooperation and collaboration by many jurisdictions and organizations. Ontario continues to work on implementing a national Air Quality Management System as proposed by the Canadian Council of Ministers of the Environment.

Pollinator Health

On January 22, 2016, Ontario began public consultation on the Draft Ontario Pollinator Health Action Plan with a 45-day review and comment period. The plan was finalized and launched on December 15, 2016.

The action plan aims to protect pollinators by addressing the four main stressors that pollinators face: loss of habitat and nutrition; diseases, pests and genetics; pesticide exposure; and, climate change and weather.

The ministry continued its multi-media monitoring study to measure changes in neonicotinoid concentrations in the environment following new regulatory requirements governing the sale and use of neonicotinoid pesticides. Water quality, soil and benthic invertebrates are being monitored as part of this multi-year study.

The government will work with strategic partners to promote environmental stewardship and improve pollinator health over the next several years.

Putting Environmental Penalties to Good Use

The Ontario Community Environment Fund uses monies collected from environmental penalties to fund projects that help improve the environment.

In 2016, the Ontario Community Environment Fund ran a call for applications to award around $325,000, to be shared among 19 watersheds across the province where environmental penalties were collected. These include projects to restore riparian areas, education and awareness and research about water quality and environmental restoration, improving waterway habitats, and planting trees.

In 2016, 20 environmental protection projects were awarded in 14 affected communities.

Minister’s Award for Environmental Excellence

In 2016-17 Ontario launched the 2016 Minister’s Award for Environmental Excellence. This award recognizes outstanding contributions by Ontarians who recover and reuse resources contained in waste as the province proceeded with the implementation of a new waste management framework. The applications are currently under review.

Best in Science

In 2016-17, Ontario supported the completion of five scientific projects through its Best in Science program, aiding research relevant to Ontario’s environmental priorities. Projects completed included the improved detection of pathogens in water, studying nutrient management in the Great Lakes, understanding the release and mobilization of chromium and vanadium from mining operations in Northern Ontario’s Ring of Fire, assessing water quality effects of agricultural management practices under climate change and adaptation options, and assessing the impact of pollution exposure on children near school drop-off areas.

In the fall of 2016, the Best in Science program issued a call for applications for new projects to be funded up to $100,000 per project over a maximum of three years. 73 applications were received and 17 new projects have been selected to receive funding. These projects will focus on research including climate change, water quality, analytical methods for pathogens and environmental pollutants, risk assessment, and risk management.

Three projects address the impacts of mercury on Ontario’s environment: one will develop a fingerprinting technique to characterize sources of mercury in the air, another will develop models that predict how the concentration of mercury in fish vary due to climate change, and the third will examine how the movement of mercury from wetlands into rivers is affected by changes in water levels.

Contaminated Sites

The ministry has adopted the enterprise process to identify and update contingent liabilities pertaining to

contaminated sites as required under Public-Sector Accounting Board 3260 Standard. The ministry identifies potential sites through the Properties of Environmental Concern Program.

The ministry has completed all of the hazardous waste cleanup at the abandoned gold mine Deloro in Eastern Ontario. The mining and tailings areas have been excavated and contained in new secure containment structures. The goal of the remediation of Deloro and Young's Creek is to isolate and contain historical waste and improve water quality in the Moira River.

Reducing Toxics in the Environment

Under the Toxics Reduction Act, 2009, companies must track, quantify and report the amount of toxics they use, create and release and prepare plans to identify and assess opportunities for reducing the use and creation of toxics.

The fourth Minister's Report on Toxics Reduction was released in December 2016. The report demonstrates Ontario's progress in implementing the toxics reduction program and provides information on substances used, created and released between 2012 and 2015 and provides Ontarians with more information on substances linked with cancer.

In addition, the ministry enhanced its public Toxics Environment Map to include more information on where actions are being taken by facilities to reduce toxic substances, as well as providing additional information on substances used in Ontario.

Modernizing Environmental Approvals

The MOECC is a modern regulator that has adopted an on-going transformational agenda that utilizes a risk-based approach to its regulatory framework. This includes consideration of what may be streamlined through an online self-registration process such as the Environmental Activity and Sector Registry (EASR).

- Implementation of the EASR online self-registration has shifted low-risk approvals process from months to minutes and over 5,600 registrations of eligible activities (e.g. Air Emissions, Automotive Refinishing Facilities, End of Life Vehicles, Short Term Water Taking for road construction activities and site dewatering, Waste Management Systems, Solar Facilities, Printing Facilities, Heating Systems and Standby Power Systems) through the EASR to-date has resulted in businesses saving approximately $45.8M.

The ministry works to ensure it supports Ontario's business climate including reducing burdens while continuing to meet its commitments. To modernize service delivery to clients, the ministry has implemented the online Environmental Compliance Approval System.

Working closely with the regulated community, the ministry is also evaluating additional activities and sectors for the online Environmental Activity and Sector Registry process. The new online registry for air emissions recently came into force on January 31, 2017, after extensive stakeholder engagement and support

throughout 2016.

Effective Monitoring, Compliance and Enforcement

The ministry employs the tools and practices of a modern regulator to ensure compliance program delivery is designed to prevent and mitigate environmental concerns.

Inspection activities included approximately 8,200 inspections and compliance activities across the province in 2016-17. The ministry's regional offices conducted approximately 3,500 proactive and responsive inspections in 2016-17.

Greening Internal Operations

In the spring of 2017, Treasury Board Secretariat transferred the responsibility for implementing low-carbon initiatives for government operations to the Ministry of the Environment and Climate Change.

The ministry also continues to use green natural gas and green electricity at 135 St. Clair Avenue and 125 Resources Road. Green electricity is produced from low-carbon fuels; green natural gas comes from decaying organic matter in landfills, e.g., orange peels, egg shells or grass clippings. Both buildings meet all their heating, cooling and electrical needs through green energy.

Table 3: Ministry Interim Actual Expenditures 2016-17

	Ministry Interim Actual Expenditures 2016-17*
Operating Expense	$520.4304M
Capital Expense	$10.7317M
Staff strength (as of March 31, 2017)**	
Ministry of the Environment and Climate Change	2,038.93
Ontario Clean Water Agency	768.71

* Interim actuals reflect the numbers presented in the *2017 Ontario Budget* and includes the Ontario Clean Water Agency
** Ontario Public Service Full-Time Equivalent positions.

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Footnotes

- [1] ^ Calculated as a percent change in historical emission estimates in a given year relative to the 1990 emission levels. All trend values including the 1990 baseline are based on the 2017 National Inventory Report (NIR) which is the latest available and provides historical emission estimates up to 2015. Note that historical estimates are subject to change due to methodological improvements and revisions.
- [2] ^ The 2014 Ontario Climate Change Update report indicated that Ontario is expected to surpass its 2014 emission reduction target. The latest NIR historical estimates are consistent with this finding.

Rate

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Government

Results-based plans

Ministry of the Environment and Climate Change

The Ministry of the Environment and Climate Change works to protect and sustain the quality of Ontario's air, land, and water. We also coordinate Ontario's actions on climate change in the name of healthier communities, ecological protection and economic prosperity.

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