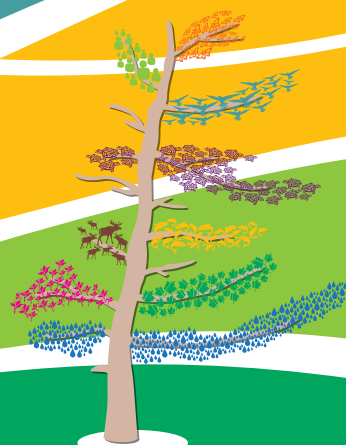
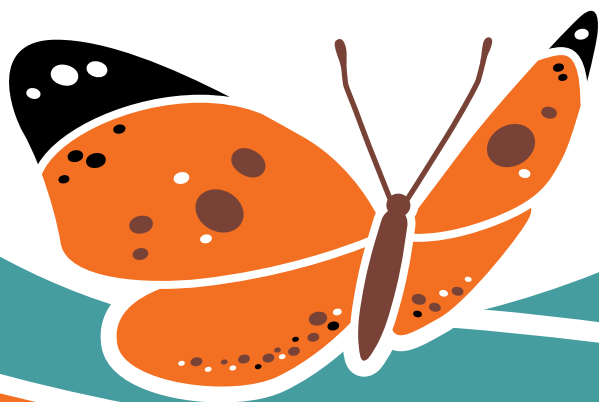


biodiversity: it's in our nature

ONTARIO GOVERNMENT PLAN
TO CONSERVE BIODIVERSITY

2012–2020



ontario.ca/biodiversity

About the cover:

The cover design of this publication features the Painted Lady butterfly (*Vanessa cardui*), a wide-ranging species in Ontario with records from the Hudson Bay and James Bay coasts and south to Windsor. The cover also includes the Eastern White Pine (*Pinus strobus*), Ontario's official tree. Both species are enduring symbols of our natural wealth and represent the diversity of Ontario's species and ecosystems.

The colour wave represents the intricate relationship between our lives and the Earth that sustains us, with the colours representing the sky, sun, earth, landcover, living organisms and water. The weaving together of the colours also symbolizes the broad and diverse mandates of the ministries involved in *Biodiversity: It's In Our Nature*.

Biodiversity: It's In Our Nature was developed by the Ontario Public Service Biodiversity Network, which is a cross-ministry forum to exchange information, facilitate discussion and plan for biodiversity-related activities, policies, processes and projects across the province. The Ministry of Natural Resources coordinates the work of the Network under its mandate for biodiversity conservation.

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Peterborough, ON
K9J 8M5

A Personal Message from the Premier



Premier of Ontario - Premier ministre de l'Ontario



As Premier, I invite Ontarians provincewide to read *Biodiversity: It's In Our Nature*—and to join me, and the Ontario government, in raising awareness of the vastness and importance of our province's biodiversity, and of the need to continue protecting this precious resource. I am particularly

proud to highlight this report during the United Nations Decade on Biodiversity.

We must ensure that our province's biodiversity is not taken for granted, and that we all share in the understanding that it provides us with an array of unique and vital benefits, including food, fuel, recreation, clean air and water and our connection to nature. That is why I am very pleased to tell you that Ontario is being guided in its conservation efforts by one of our country's most up-to-date and progressive strategies—*Ontario's Biodiversity Strategy, 2011*.

As a complement to the strategy, *Biodiversity: It's In Our Nature* further outlines our province's commitment to biodiversity by setting out the means by which the government will realize the strategy's vision, goals and targets. I firmly believe that, by working together and taking concrete action, government, stakeholders and citizens can ensure that Ontario's immense natural wealth is preserved for present and future generations.

I wish to commend all those who have contributed to *Biodiversity: It's In Our Nature*, and I have every confidence that Ontario government ministries and their partners will ensure that this plan's strategic directions come to full fruition.

A handwritten signature in black ink, reading "Dalton McGuinty".

Dalton McGuinty
Premier

Message from the Minister of Natural Resources



It gives me great pleasure to present *Biodiversity: It's In Our Nature*. This document provides the basis on which 16 Ontario government ministries will work individually, collaboratively and with our partners to achieve the vision and goals identified in *Ontario's Biodiversity Strategy, 2011*.

As in many parts of the world, Ontario faces significant challenges in maintaining biodiversity, including habitat loss, invasive species, air and water pollution, a fast-growing population, urban development and climate change.

Biodiversity: It's In Our Nature gives us a province-wide action plan to effectively address those challenges by taking a unified and coordinated approach.

This provincial action plan is the result of a productive collaboration of the Ontario Public Service Biodiversity Network—a forum of provincial ministries designed to exchange information, facilitate discussion and coordinate biodiversity-related activities, policies and projects across the province.

Biodiversity is essential to our quality of life, our economic prosperity and our health and well-being. I encourage you to read this document and learn more about the actions Ontario will be taking to protect and conserve our precious biodiversity for future generations.

A handwritten signature in black ink, reading "Michael Gravelle".

Hon. Michael Gravelle
Minister of Natural Resources

Executive Summary

Ontario's biodiversity—our natural wealth of ecosystem, species and genetic diversity—has helped to shape our history, identity and economy. Biodiversity provides us with irreplaceable ecosystem services, including clean air and water, productive soils, food, fibre, timber and renewable energy. Ontario's people are healthier, and our quality of life better, because of our biodiversity. Yet as our population grows, so does our Ecological Footprint. We use more resources, alter more landscapes and generate more wastes. Invasive species and climate change add additional stress on our ecosystems. These threats to biodiversity cannot be ignored.

In 2005, the Ontario government made a strong commitment to biodiversity conservation through the development of Ontario's first Biodiversity Strategy. That strategy concluded that the protection and sustainable use of biodiversity is a shared responsibility for all Ontarians, not just government. Recognizing this, the government established the Ontario Biodiversity Council to guide implementation through shared responsibility and collective action, and lead the development of a renewed strategy. *Ontario's Biodiversity Strategy, 2011* identifies updated goals, objectives and actions to conserve biodiversity and urges each sector, including the Ontario government, to develop its own implementation plan.

Biodiversity: It's In Our Nature represents the Ontario government's implementation plan for advancing biodiversity conservation. It is a strategic framework, arranged according to the four strategic directions in *Ontario's Biodiversity Strategy, 2011*: Engage People, Reduce Threats, Enhance Resilience and Improve Knowledge. It is also an ambitious series of over 100 actions and activities to be implemented during this decade that will continue to secure our prosperity and quality of life, and ensure Ontario's position as a world leader in biodiversity conservation.

This implementation plan builds on the work of the OPS Biodiversity Network, a diverse cross-ministry forum established to exchange information, facilitate discussion and plan for biodiversity-related activities, policies, processes and projects across the province. It is an important and unprecedented statement of partnership and commitment across 16 ministries to work together to conserve Ontario's biodiversity.

The initiatives in this implementation plan span the Ontario government, a reflection of the government's commitment to advancing biodiversity conservation in Ontario. Other sectors are encouraged to consider how biodiversity values can be incorporated into their own activities and planning, and to join with government to conserve Ontario's ecosystem, species and genetic diversity and reduce our ecological footprint.

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Introduction

In Ontario, we are stewards of more than one million square kilometres of land and water. Our province supports a wide range of ecosystems, from the Carolinian forests in the southernmost part of the province to the tundra of the Hudson Bay Lowlands in the Far North. More than 90 per cent of the province has natural cover in the form of forests, wetlands, lakes and streams. There are many intact, self-sustaining ecosystems inhabited by diverse populations of native species. This wealth of ecosystems and species is a reflection of Ontario's biodiversity.

Biodiversity is the variety of life on Earth. The definition adopted by the United Nations *Convention on Biological Diversity* and *Ontario's Biodiversity Strategy, 2011* is "the variability among living organisms from all sources, including, among other things, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are a part. This includes diversity within species, between species and of ecosystems."

Ontario's natural wealth has helped to shape our history, identity and economy. Our quality of life depends on an abundant variety of plants and animals, as well as the forests, wetlands, lakes and rivers in which they live. The air we breathe, the water we drink, the soils we depend on for our food and the lands and waters we rely on for our natural resources and livelihoods are supported by biodiversity. Ontario's biodiversity contributes to our overall health, wellbeing and prosperity and enriches our lives through opportunities for outdoor recreation and enjoyment. These benefits we derive from biodiversity are known as ecosystem services.

Although Ontario is rich in natural resources, recent evidence demonstrates there are serious threats to the province's biodiversity, including habitat loss, invasive species, population growth, pollution, unsustainable use and climate change. Ontario's Ecological Footprint, as a measure of ecological sustainability, shows that Ontarians are placing large demands on natural resources.

While there are serious threats to biodiversity in Ontario, there are also opportunities to identify and apply solutions. There is no doubt that a shared commitment among all sectors, including the Ontario government, is essential to conserving our biodiversity and securing our quality of life, now and in the future. This Implementation Plan for *Ontario's Biodiversity Strategy, 2011* sets out a comprehensive framework for the Ontario government, which includes several activities that will require collaboration with partners. Other sectors, organizations and individuals are invited to develop similar plans for their own circumstances and seek opportunities for collaboration and partnership in the conservation of Ontario's biodiversity.

Ecosystem Services





PROVISIONING	REGULATING	SUPPORTING	SOCIAL/CULTURAL
			
<ul style="list-style-type: none">■ Food■ Raw materials■ Water supply	<ul style="list-style-type: none">■ Climate■ Flood prevention■ Pollination	<ul style="list-style-type: none">■ Water cycling■ Soil formation■ Habitat	<ul style="list-style-type: none">■ Recreation■ Culture■ Mental health

Photo credits (L–R): Heather Bickle, MNR; Don Sutherland; NHIC Archives; Ontario Tourism

Ontario's Ecological Footprint

Used by governments and institutes around the world, the Ecological Footprint is widely recognized as an important first measure of environmental sustainability. It measures how much of the Earth's land and water is required to meet the human demand for natural resources and to absorb carbon dioxide waste, and reveals whether collective consumption levels are approaching or exceeding the Earth's ecological limits. The Ecological Footprint is expressed in "global hectares" (gha), standardized units that take into account the differences in biological productivity of the various ecosystems impacted by our consumption activities.

The Ecological Footprint for an individual or a given population can be determined by measuring consumption in four categories: carbon (home energy use and transportation), food, housing and goods and services.

An analysis of Ontario's Ecological Footprint was conducted for the *State of Ontario's Biodiversity 2010* report using information from 2005. Half of the Ontario Ecological Footprint in 2005 was associated with the carbon footprint (land required to absorb carbon dioxide waste). The good news is that the carbon footprint has decreased since 2005: by 2010, Ontario's greenhouse gas emissions were 17 per cent lower than 2005 levels. This reduction was due in part to the phase out of coal burning at Ontario's power plants and encouraging renewable energy and conservation through the *Green Energy Act* and transit investments, as well as the recent economic downturn. The Ministry of Natural Resources will re-assess Ontario's Ecological Footprint in 2015. For more information on the Ecological Footprint, visit www.footprintnetwork.org.



Recycling
Photo: Lisa Stokes/Getty Images

Ontario's Commitment to Biodiversity Conservation

Ontario's policy and legislative framework includes a commitment to ecological sustainability. From enacting progressive sustainable forest management legislation, to establishing a network of parks and protected areas, to developing and working with partners to deliver innovative programs to reduce pollution and maintain clean air, water and soil, Ontario has long understood the importance of our natural resources.

In 2005, the Ontario government made a strong commitment to conserving the province's biodiversity through the development of Ontario's first Biodiversity Strategy. Broad societal consensus and participation were key to achieving the vision and goals of the Strategy. Recognizing this, the government established the Ontario Biodiversity Council to guide implementation through shared responsibility and collective action and lead the renewal of the Strategy in 2010.

Ontario maintains its commitment to biodiversity conservation, as set out in the 2005 Strategy. The Minister of Natural Resources is a member of the Ontario Biodiversity Council (ontariobiodiversitycouncil.ca), and the Ontario government supported the Council in developing the renewed Strategy that was released in June 2011. Building on the vision, goals and principles of the 2005 Strategy, the renewed Strategy establishes a guiding framework for conserving Ontario's biodiversity over the next decade.

Ontario's Biodiversity Strategy, 2011 supports and complements international and national agreements, policies and legislation aimed at biodiversity conservation. At the highest level, the 2011 Strategy supports and advances the 1992 United Nations *Convention on Biological Diversity* and the global *Strategic Plan for Biodiversity 2011–2020* and the *Aichi Biodiversity Targets*. At the national level, Ontario's activities support the *Canadian Biodiversity Strategy*, developed in 1995 through the collaboration of federal, provincial and territorial governments.



White Otter Rapids, near Kapuskasing
Photo: Wasyl D. Bakowsky, NHIC Archives

The Role of the Ontario Government in Biodiversity Conservation

Ontario's Biodiversity Strategy, 2011 recognizes that no single government, conservation organization or sector can realize the vision and goals of the Strategy. Success will be achieved only if all groups and individuals work together to conserve Ontario's biodiversity. Many of the actions in the renewed Strategy identify the Ontario government as having a co-lead or lead responsibility. The government can serve this leadership role by mainstreaming biodiversity in its operations, continuing to ensure that relevant policies and legislation are in place to support the conservation of the province's biodiversity and working with partners to implement them.

Provincial policies and legislation guide the protection, stewardship and use of natural resources, safeguard our air, water and soil and provide guidance for the production and use of energy and the mitigation of climate change. They also offer direction for land use planning and transportation systems, all of which are of critical importance to the conservation of biodiversity. Because ecosystems and their responses to stresses are extremely complex, it is especially important that policy development and decision making related to biodiversity conservation be evidence-based. This means there is a strong role for science, monitoring and adaptive management to be delivered by the Ontario government and its partners. In addition, the perspectives and unique knowledge and traditions of Aboriginal peoples can contribute to our collective understanding of what can be done to conserve biodiversity.

The provincial government's role in the effective conservation of Ontario's biodiversity goes far beyond the mandate of any one ministry. It requires a province-wide strategy and action plan that applies across government. It is important, therefore, that

the Ontario Government Implementation Plan for *Ontario's Biodiversity Strategy, 2011* represents an integrated approach within government. Traditionally, the province's natural resource, environment and agriculture ministries have had biodiversity conservation or environmental protection, management and stewardship as part of their core mandates. However, the conservation of biodiversity is best served by Ontario government ministries working together to achieve the vision, goals and outcomes of the 2011 Strategy. This Implementation Plan represents such an integrated approach. Given that Ontario species and ecosystems do not follow geo-political boundaries (e.g., migratory birds, Great Lakes ecosystem) and that some threats to biodiversity may arise from outside of Ontario's borders (e.g., long-range transport of pollutants), it is also important that Ontario continue to work with partners and other jurisdictions to conserve biodiversity. Ontario is an active member of federal-provincial-territorial biodiversity-related working groups in Canada and participates in several bi-national initiatives related to biodiversity in the Great Lakes ecosystem.

The Ontario Public Service (OPS) Biodiversity Network is a cross-ministry forum to exchange information, facilitate discussion and plan for biodiversity-related activities, policies, processes and projects across the province. The OPS Biodiversity Network was formed in response to Action 9 in *Ontario's Biodiversity Strategy, 2005*. Sixteen ministries contributed to this Implementation Plan through the OPS Biodiversity Network. Ministries with more obvious responsibilities for biodiversity conservation, such as the Ministry of

Natural Resources and the Ministry of the Environment, are included along with those with a more indirect role in supporting biodiversity conservation in the province. Some of the initiatives contained in the Implementation Plan involve all provincial ministries, including those not currently represented on the OPS Biodiversity Network. This indicates the importance of this issue and the commitment of individual ministries, and the province as a whole, to advancing biodiversity conservation in Ontario.



White Trilliums
Photo: Rick Stankiewicz

Mandates of Ministries and their Roles in Biodiversity Conservation

This section provides a high-level overview of the mandates and biodiversity conservation roles for the member ministries of the OPS Biodiversity Network. Many biodiversity initiatives touch on the mandates of several ministries and require an integrated, collaborative approach. In addition, the membership of the OPS Biodiversity Network may expand during the course of this Implementation Plan.

Ministry of Natural Resources

MANDATE

The Ministry of Natural Resources (MNR) is the steward of Ontario's provincial parks, forests, fisheries, wildlife, mineral aggregates, petroleum resources and the Crown lands and waters that make up 87 per cent of the province. MNR's mandated activities include: biodiversity management; natural heritage and protected-areas management; Crown land, water and non-renewable resource management; renewable energy; forest management; and emergency and forest fire management. The Ministry fulfils its mandate through a broad range of laws and programs that reflect its diverse responsibilities.

ROLE IN BIODIVERSITY CONSERVATION

MNR envisions a healthy and naturally diverse environment that enables and contributes to sustainable development in Ontario. As such, the Ministry is committed to the conservation of biodiversity and to the associated management of the province's natural resources in a sustainable manner. MNR supports the Ontario Biodiversity Council and works to champion *Ontario's Biodiversity Strategy, 2011* within the OPS and broader society. A key organizational goal supporting the long-term vision and mission of MNR is the maintenance of healthy, resilient ecosystems. The Ministry works with numerous stakeholders and partners to promote stewardship and manage Ontario's natural resources in a manner that sustains and restores healthy, resilient aquatic and terrestrial ecosystems, thereby safeguarding human health and quality of life for Ontarians. MNR represents Ontario on national, bi-national and international working groups and committees to advance the conservation of biodiversity. Since the passage of the *United Nations Convention on Biological Diversity* (1992) and the approval of the *Canadian Biodiversity Strategy* (1995), MNR has led efforts to integrate biodiversity conservation principles in Ontario's natural resources management framework and legislation including the *Crown Forest Sustainability Act, 1994*, the *Provincial Parks and Conservation Reserves Act, 2006*, the *Endangered Species Act, 2007* and the *Far North Act, 2010*.



Ministry of Natural Resources FireRangers at the border of the fire, Red Lake District Fire #74 (2011)
Photo: Mitch Miller

Ministry of Aboriginal Affairs

MANDATE

The Ministry of Aboriginal Affairs (MAA) is responsible for strengthening relationships with Aboriginal communities, delivering programs that benefit and support Aboriginal communities, partnering with ministries on economic development policies and programs that are responsive to Aboriginal needs and interests, supporting a consistent and coordinated approach to consultation with Aboriginal partners and overseeing land claims and land-related issues.

ROLE IN BIODIVERSITY CONSERVATION

MAA plays a key role in promoting policy and program coordination and collaboration across government, with a special focus on policies and programs that are responsive to Aboriginal needs and interests (e.g., MAA support to economic development and employment and training initiatives). The Ministry also supports partner ministries' initiatives that are relevant to the 2011 Strategy's vision and goals (e.g., support to partner ministry initiatives such as Far North land use planning, green energy, the *Provincial Policy Statement* and the Ring of Fire) and is examining ways to assist in promoting Aboriginal Traditional Knowledge to support biodiversity conservation.

Ministry of Agriculture, Food and Rural Affairs

MANDATE

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is committed to achieving a vision of "successful and sustainable agri-food and agri-product businesses." The Ministry's vision supports the Ontario government's agenda of strengthening our economy, fostering rural development, promoting local Ontario food, ensuring a reliable energy supply, protecting our shared environment, fostering better health and serving the public interest. OMAFRA invests in the following key areas: research and innovation, agriculture and food sector economic development, rural economic development and infrastructure, farm income stabilization and food safety, animal health and environmental stewardship.

ROLE IN BIODIVERSITY CONSERVATION

OMAFRA supports biodiversity conservation through activities directed towards the following environmental outcomes: high-quality, productive soils and farmlands; clean and abundant water; clean air, clean energy, healthy climate; and healthy ecosystems.



Farmers Market
Photo: Laura Berman

Ministry of Economic Development and Innovation

MANDATE

The Ministry of Economic Development and Innovation (MEDI) is responsible for helping to grow a strong, innovative economy that provides jobs and prosperity for all Ontarians. To accomplish this, the Ministry offers the programs, services and tools businesses need to innovate and compete in today's fast-changing global economy. The Ministry focuses on four priority areas:

- building prosperity through increased productivity and innovation;
- promoting Ontario as a place to invest, innovate, trade and grow your business;
- supporting regional growth through the province's strategic sectors; and
- promoting the modernization of government.

ROLE IN BIODIVERSITY CONSERVATION

MEDI indirectly contributes to the protection of biodiversity through the support and promotion of Ontario's clean-technology sector. Examples include the Green Schools Pilot Initiative, WaterTAP, Ontario Water Innovation Award, Water Opportunities Plan, Low Carbon Transition, funding of biodiversity projects through the Ontario Research Fund and general support for small businesses and entrepreneurs.

Ministry of Education

MANDATE

In addition to administering the *Education Act* and provincial statutes and regulations that concern education, the Ministry of Education (EDU) is responsible for:

- developing curriculum for Kindergarten to Grade 12;
- setting policies and guidelines for school trustees, directors of education, principals and other school board officials (e.g., bullying prevention and intervention);
- setting requirements for student diplomas and certificates; and
- preparing lists of approved textbooks and other learning materials.

ROLE IN BIODIVERSITY CONSERVATION

EDU actively supports biodiversity conservation in Ontario by integrating many opportunities for students to learn about biodiversity into the Ontario curriculum from Kindergarten to Grade 12, as appropriate, using the Standards for Environmental Education in the curriculum. These learning opportunities are highlighted in the K–Gr. 8 and Gr. 9–12 *Environmental Education: Scope and Sequence of Expectations* resource guides, to support teachers as they bring environmental education into the classroom. EDU is also working with the Biodiversity Education and Awareness Network (BEAN) to support their work in formal education.



Natural Heritage Education Program, Ontario Parks
Photo: David Hintz

Ministry of Energy

MANDATE

The Ministry of Energy (ENE) provides advice and establishes policies concerning the operation, cost, reliability and sustainability of Ontario's energy system.

In overseeing the Ontario Energy Board, the Ontario Power Authority and the Independent Electricity System Operator, the Ministry is responsible for setting legislative policy to assure safe and reliable supply and delivery of both electricity and natural gas to the province's consumers. ENE represents the shareholder (the Government of Ontario) in dealings with Hydro One and Ontario Power Generation. It also monitors other energy markets, including petroleum products, and liaises with the energy industry.

ROLE IN BIODIVERSITY CONSERVATION

ENE contributes indirectly to the conservation of Ontario's biodiversity through the phase out of coal-fired electricity generation, the development of the *Long Term Energy Plan* (LTEP), which will guide transformation, growth and change in the electricity sector over the next 20 years, moving it to much cleaner, non-emitting renewable energy sources, and the establishment of energy efficiency requirements for various appliances and products to reduce energy consumption.

Ministry of the Environment

MANDATE

The vision of the Ministry of the Environment (MOE) is an Ontario with clean and safe air, land and water that contributes to healthy communities, ecological protection and environmentally sustainable development for present and future generations.

MOE develops and implements environmental legislation, regulations, standards, policies, guidelines and programs. The Ministry's research, monitoring, inspection, investigations and enforcement activities are integral to achieving Ontario's environmental goals.

ROLE IN BIODIVERSITY CONSERVATION

MOE supports the conservation of biodiversity by ensuring clean and safe air, land and water to support healthy communities, ecological protection and sustainable development for present and future generations of Ontarians. The Ministry also supports biodiversity through the protection of the natural environment, as well as environmental assessment of undertakings subject to the *Environmental Assessment Act*, and resource management, which sets a foundation for direct actions identified in *Ontario's Biodiversity Strategy, 2011*.

MOE also contributes to biodiversity protection through its role as the lead ministry on many aspects of Great Lakes protection, such as negotiating a Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem with the federal government, and drafting *Ontario's Great Lakes Strategy*, which includes goals and proposed actions related to biodiversity. Local actions to protect and restore biodiversity are also eligible for grants under MOE's new Great Lakes Guardian Community Fund.



Photo: David Hintz

Ministry of Finance

MANDATE

The Ministry of Finance (MOF):

- provides key fiscal, taxation and economic policy advice and support to the Minister of Finance, the Cabinet and the Premier;
- prepares the Provincial Budget, Expenditure Estimates, a mid-year fiscal and economic update (Fall Economic Statement), the Ontario Quarterly Finances, Public Accounts and a long-range assessment of the fiscal and economic environment;
- reports on Ontario's economic and fiscal plans and results to the public; and
- promotes the principles of modern controllership within the OPS and accountability for the use of public funds in all Ontario public-sector institutions, including universities, hospitals and school boards.

ROLE IN BIODIVERSITY CONSERVATION

As a member of the OPS Biodiversity Network, the Ministry of Finance provides advice and support on efforts to investigate economic tools that encourage biodiversity conservation; however, it does not have an explicit or stated mandate for biodiversity conservation in Ontario. The Ministry is responsible for the *Assessment Act*, which provides MNR with regulatory authority to administer the Conservation Land Tax Incentive Program as well as the Managed Forest Tax Incentive Program.

Ministry of Government Services

MANDATE

The OPS Green Office, within the Ministry of Government Services (MGS), is responsible for leading the implementation of the *OPS Green Transformation Strategy*. Approved in 2009, this strategy supports Ontario's *Climate Change Action Plan* objectives and was established to reduce the environmental footprint of government services and build a green OPS culture. The *OPS Green Transformation Strategy* has three interconnected goals to achieve actual reductions in the OPS environmental footprint:

- target greenhouse gas emissions reduction of 19 per cent below the 2006 baseline by 2014 and 27 per cent below by 2020;
- develop green business practices that integrate environmental sustainability into all aspects of the business life cycle from acquisition to disposal; and
- build a green organizational culture to make environmental responsibility a part of the day-to-day work of the OPS.

ROLE IN BIODIVERSITY CONSERVATION

The *OPS Green Transformation Strategy* supports biodiversity conservation as it helps to reduce the government's environmental footprint. All ministries are committed to greening their internal operations and implementing environmentally sustainable practices.



Nissan Leaf, one of more than 30 electric vehicles in the Ontario Public Service fleet
Photo: Ministry of Government Services

Ministry of Health and Long-Term Care

MANDATE

The Ministry of Health and Long-Term Care's (MOHLTC) vision is to make Ontario the healthiest place in North America to grow up and grow old by helping people stay healthy, delivering good care when people need it and protecting the health system for future generations. As stewards of public health, MOHLTC:

- anticipates, prevents and responds to health risks and hazards;
- strives to ensure provincial compliance with national and international obligations;
- engages with local, national and international partners in order to shape public health strategies;
- informs and advises other provincial partners on evidence-based human health impacts of government initiatives; and
- advances public health in Ontario by providing and supporting education, research, training and resource tools.

ROLE IN BIODIVERSITY CONSERVATION

Through the work of the Public Health Division and the Public Health Policy and Programs Branch (Environmental Health), MOHLTC works to understand the relationship between environmental health, human health and climate change. MOHLTC recognizes that the health of our ecosystems is intricately interconnected with human health as it relates to biodiversity. Biodiversity can help reduce the impact and severity of climate change. Forests, grasslands and wetlands all absorb and store carbon, thereby increasing air quality. They also help guard against erosion, drought and flooding and associated health hazards that will accompany more extreme weather events.



Cross-country skiing
Photo: Ontario Tourism

Ministry of Infrastructure

MANDATE

The Ministry of Infrastructure (MOI) works with many partners inside and outside government to modernize public infrastructure as part of an integrated vision to encourage the kind of growth and environmental stewardship that enhances our quality of life and contributes to our economic success. *Places to Grow* is the Ontario government's initiative to manage growth and development in Ontario in a way that supports economic prosperity, protects the environment and helps communities achieve a high quality of life. Through this initiative, MOI develops regional growth plans to guide government investments.

ROLE IN BIODIVERSITY CONSERVATION

The Growth Plans for the Greater Golden Horseshoe and Northern Ontario reflect the spirit and intent of *Ontario's Biodiversity Strategy, 2011*. *The Growth Plan for the Greater Golden Horseshoe* sets policies on how and where growth should occur and helps Ontario avoid the negative impacts of unchecked growth, including urban sprawl, which leads to the elimination of natural areas. *The Growth Plan for Northern Ontario* also recognizes the importance of environmental leadership and a culture of conservation that is built on a solid understanding of the multiple values and benefits that the North's natural environment provides to Ontario's people and economy. MOI also helps to reduce land and water pollution through its infrastructure funding assistance to municipalities for water, wastewater and solid-waste management projects.



Rooftop solar panels
Photo: Direct Energy Centre

Ministry of Municipal Affairs and Housing

MANDATE

The Ministry of Municipal Affairs and Housing (MMAH) develops legislation, regulations, policies, programs and guidance materials relating to municipalities and the housing and development sectors. This includes activities concerning local government, land use planning, building regulations and affordable housing. Through the One Window Provincial Planning Service, MMAH provides municipalities, planning boards, developers and the public with one-stop access to provincial planning services.

ROLE IN BIODIVERSITY CONSERVATION

Part of MMAH's mandate is to oversee Ontario's policy-led land use planning system, which is the key component of its mandate that relates to biodiversity. This approach to land use planning includes the integrated participation of seven partner ministries. The intersection of land use planning and biodiversity is reflected in a number of ways:

- The *Planning Act* identifies key provincial interests, which include the protection of ecological systems, including natural areas, features and functions.
- The *Provincial Policy Statement (PPS)* provides policy direction on matters related to land use planning that are of provincial interest, including growth management, natural heritage (including their diversity, connectivity and ecological functions), cultural heritage, housing, economic development, mineral aggregates, water resources, infrastructure, natural and human-made hazards and other interests.
- The *Greenbelt Plan* protects more than 728,000 hectares of environmentally sensitive and agricultural land in the Golden Horseshoe from urban development and sprawl and includes lands within the *Oak Ridges Moraine Conservation Plan* and the *Niagara Escarpment Plan*. The *Greenbelt Plan* includes mapping to identify a Natural Heritage System and policies concerning the protection of key natural heritage and hydrologic features, including their connectivity and ecological functions.



Access Alliance Multicultural Health & Community Services rooftop garden, Toronto
Photo: Laura Berman

Ministry of Northern Development and Mines

MANDATE

The Ministry of Northern Development and Mines (MNDM) has regional responsibilities for Northern Ontario, whereby it coordinates the activities of and initiates policies and programs for the government in Northern Ontario.

MNDM also oversees Ontario's mineral endowment, establishing and administering policies and programs to manage Ontario's mining and geoscience sectors, supporting mineral exploration and development and undertaking geoscience research across the province.

ROLE IN BIODIVERSITY CONSERVATION

The Northern Development Division (NDD) of MNDM supports provincial initiatives in the North to build stronger, more prosperous economies and sustainable communities while addressing the unique regional circumstances of the North. Through the *Growth Plan for Northern Ontario*, NDD works with partner ministries to support sustainable development and promote environmental leadership, protection and conservation.

The Mines and Minerals Division (MMD) of the Ministry helps to identify mineral and energy resources for future economic benefit, ensures that mineral exploration and development are done in a sustainable and environmentally responsible way and promotes a balance of environmental, social and economic interests in land use planning decisions made across the province.

Ministry of Tourism, Culture and Sport

MANDATE

The Ministry of Tourism, Culture and Sport (MTCS):

- supports the delivery of high-quality tourism, cultural and sport/recreation experiences, including outdoor activities that are inextricably tied to natural settings and resources;
- promotes a customer-focused tourism industry to help improve our quality of life, increase pride in our communities and increase economic growth;
- encourages arts and cultural industries, protects Ontario's heritage and advances the public library system to maximize contributions to the province's economic and social vitality;
- promotes the value of an active lifestyle and social engagement through participation in sport and recreation activities;
- seeks to increase investment in Ontario's tourism industry; and
- supports the marketing of high-quality tourism experiences to Ontarians and visitors to Ontario.

ROLE IN BIODIVERSITY CONSERVATION

The province's natural environment is fundamental to Ontario's tourism industry, culture and sport/recreation. MTCS promotes the value of the natural and outdoor environment to tourism, cultural and sport/recreation stakeholders, as well as other ministries and governments. Sustainable development and use are critical to supporting high-quality tourism, cultural and sport/recreation experiences and related facilities, parkland, open space, trails, cultural heritage resources and water-based resources for current and future populations. Biodiversity underpins the long-term economic vitality and health of communities, regions and the province.



Pictographs at Agawa Rock
Photo: © Don Johnston

Ministry of Transportation

MANDATE

The Ministry of Transportation (MTO) is responsible for:

- planning and promoting a safe, efficient, integrated multi-modal transportation system through effective long-range transportation planning;
- maintenance and operation of the provincial highway network and strategic investments in the rehabilitation and expansion of highways, bridges and border crossings; and
- improving road safety and mobility through education, enforcement and regulation of safe driving behaviour by improving customer service and accessibility to MTO's licensing and registration services.

ROLE IN BIODIVERSITY CONSERVATION

In supporting its mandate and its Statement of Environmental Values, MTO develops policies, plans and programs that deliver an effective, efficient and sustainable transportation system. MTO will continue to reflect the spirit and intent of *Ontario's Biodiversity Strategy, 2011* in all its transportation activities in a manner that protects important habitats with a view to conserving biodiversity. In particular, MTO continues to work towards protecting species at risk through its working partnership with MNR and will move forward with integrating sustainability into its transportation activities, including minimizing ecosystem impacts. MTO recognizes the need for action on invasive species and supports the *Ontario Invasive Species Strategic Plan*, which will be used to educate MTO staff and stakeholders. The ministry is also committed to using native plants during plant restoration projects, including working with native seed banks. MTO will continue to work with the other ministries and its stakeholders in moving forward initiatives that encourage greater biodiversity conservation.



Highway 69 wildlife overpass
Photo: Mike Hall, MNR

The Ontario Government's Implementation Plan for *Ontario's Biodiversity Strategy, 2011*

A shared commitment among all sectors of Ontario's society, including the provincial government, is essential to conserving our biodiversity and securing our quality of life, now and in the future. The Ontario government supports the vision, goals and principles of *Ontario's Biodiversity Strategy, 2011* (Figure 1) and is committed to working in an integrated way among ministries, other levels of government and partners to conserve Ontario's biodiversity and achieve the outcomes and objectives of the Strategy. The Ontario government recognizes the value of involving Aboriginal peoples and local communities and the knowledge and experience they can bring to biodiversity conservation.

Using the 2011 Strategy as a guiding framework, this Implementation Plan outlines key actions and supporting activities the Ontario government will take to conserve the province's biodiversity. Collectively, these actions and activities support the objectives and outcomes outlined in the Strategy and its overall vision and goals. The actions and activities will also help to achieve the targets in *Ontario's Biodiversity Strategy, 2011* that were developed by the Ontario Biodiversity Council and will assist with Canada's Domestic Response to the new *Strategic Plan for Biodiversity 2011–2020 and the Aichi Targets* under the *Convention on Biological Diversity*.

As our understanding of the province's biodiversity and its conservation improves, new issues will emerge, and further actions may be considered. As such, the identified actions do not represent an exhaustive list or preclude the identification of new Ontario government initiatives to support biodiversity conservation in the future.

Since the release of *Ontario's Biodiversity Strategy, 2005*, the Ontario government has implemented a wide range of programs and strategies aimed at conserving Ontario's biodiversity. Many of these initiatives are continuing. As work unfolds and new elements are added, it makes sense to coordinate and integrate programs to improve efficiency and

The Ontario government supports the vision, goals and principles of *Ontario's Biodiversity Strategy, 2011* and is committed to working in an integrated way among ministries, other levels of government and partners to conserve Ontario's biodiversity and achieve the outcomes and objectives of the Strategy.

impact while reducing overlap. The Ontario government is committed to maintaining and expanding the OPS Biodiversity Network for this integration and as a means of mainstreaming biodiversity across government. Evidence of this commitment includes the recent addition of the Ministry of Health and Long-Term Care to the OPS Biodiversity Network as this Implementation Plan was being finalized.

The Ontario government's Implementation Plan is arranged according to the four strategic directions in *Ontario's Biodiversity Strategy, 2011*: Engage People, Reduce Threats, Enhance Resilience and Improve Knowledge. Several of the actions and activities are cross-cutting in that they address objectives and outcomes in more than one of the four strategic

directions. A detailed list of the Ontario government's actions and activities, with designated ministry leads and support, is provided in a table at the end of each section. In most cases, the actions identified in this Implementation Plan are adapted from those proposed by the Ontario Biodiversity Council in *Ontario's Biodiversity Strategy, 2011* to reflect the perspective and mandate of the Ontario government. Each action in this Plan contributes to the achievement of the Strategy's targets (more details on Appendix 1, page 40), acknowledging in many cases the importance of partnerships in the path forward.

The actions (Figure 2 on page 19) and activities described in this Implementation Plan are the specific steps that all ministries within the Ontario government are taking, or will take, to contribute to the achievement of the goals of *Ontario's Biodiversity Strategy, 2011*.

This Plan provides both a conceptual framework for conserving Ontario's biodiversity, and also a detailed action plan designed to ensure progress toward specific outcomes. It is the Ontario government's contribution to the goals of *Ontario's Biodiversity Strategy, 2011*, a statement of partnership and commitment across diverse ministries. The term of this Implementation Plan is 2012–2020, consistent with *Ontario's Biodiversity Strategy, 2011*. Through government priority setting, ministries will establish timelines and deliverables for individual activities.

Other sectors and organizations are urged to develop their own implementation plans and to seek opportunities to forge partnerships with each other and with government. Existing partnerships and the establishment of new partnerships will be essential for progress towards the Strategy's goals and desired outcomes.



GO Bike by Bus
Photo: Metrolinx



VISION

Our vision is a future where biodiversity loss is halted and recovery is advanced. People value, protect and enhance biodiversity and the ecosystem services essential for human health and well-being.

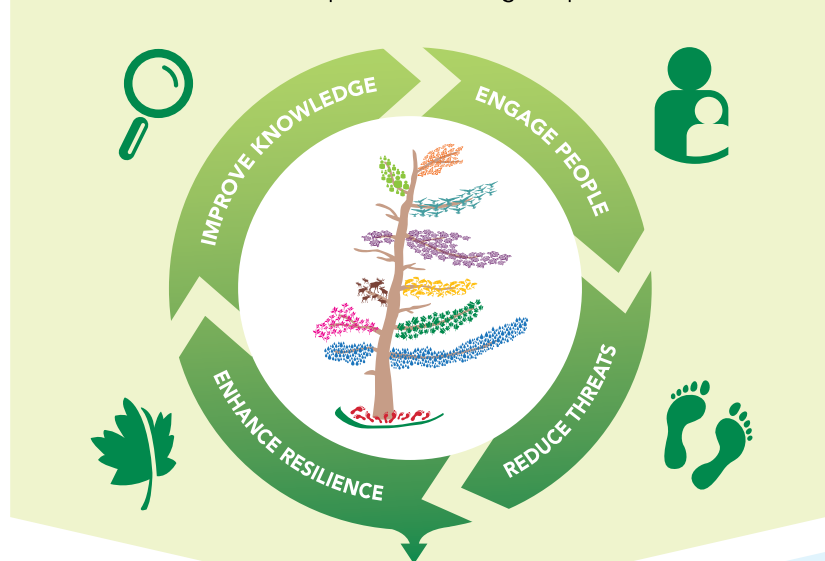
GOALS

- Mainstream Biodiversity.
- Protect and restore Ontario's biodiversity.
- Use Ontario's biological assets sustainably.

STRATEGIC DIRECTIONS

STRATEGIC DIRECTIONS

Critical components of change required



OBJECTIVES

- ## OBJECTIVES
- Inspire and empower people to value and protect biodiversity
 - Mainstream biodiversity across all sectors
 - Reduce pressures on biodiversity
 - Promote sustainable use of biological assets
 - Maintain, restore and recover ecosystem function
 - Protect Ontario's genetic, species and ecosystem diversity
 - Invest resources and funds strategically
 - Improve and share biodiversity knowledge
 - Implement biodiversity monitoring, reporting and evaluation

OBJECTIVES	OUTCOMES	KEY ACTIONS
Provide clear focus for our efforts	What we want to achieve	Things we can do to achieve outcomes

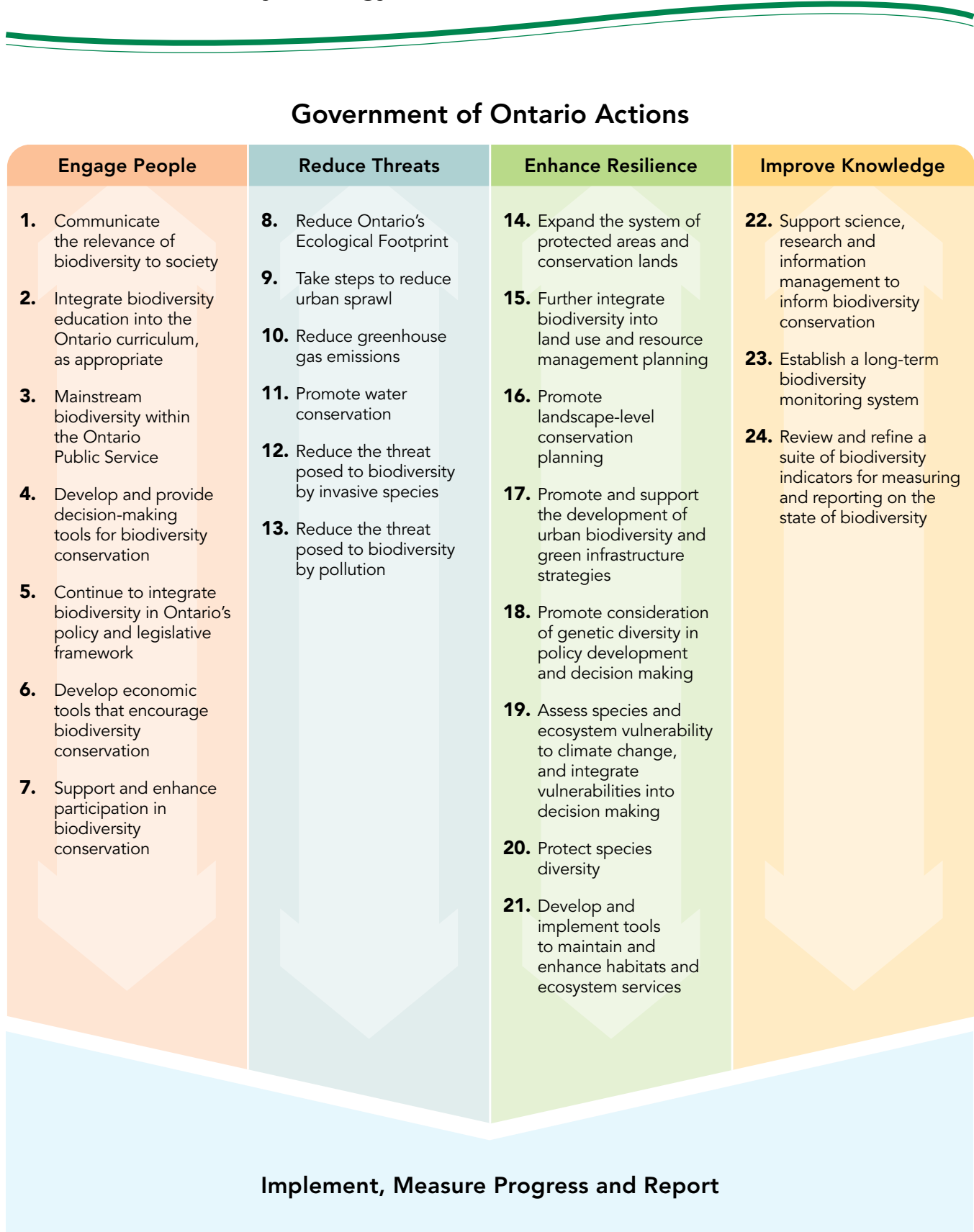
OBJECTIVES	OUTCOMES	KEY ACTIONS
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T TARGETS

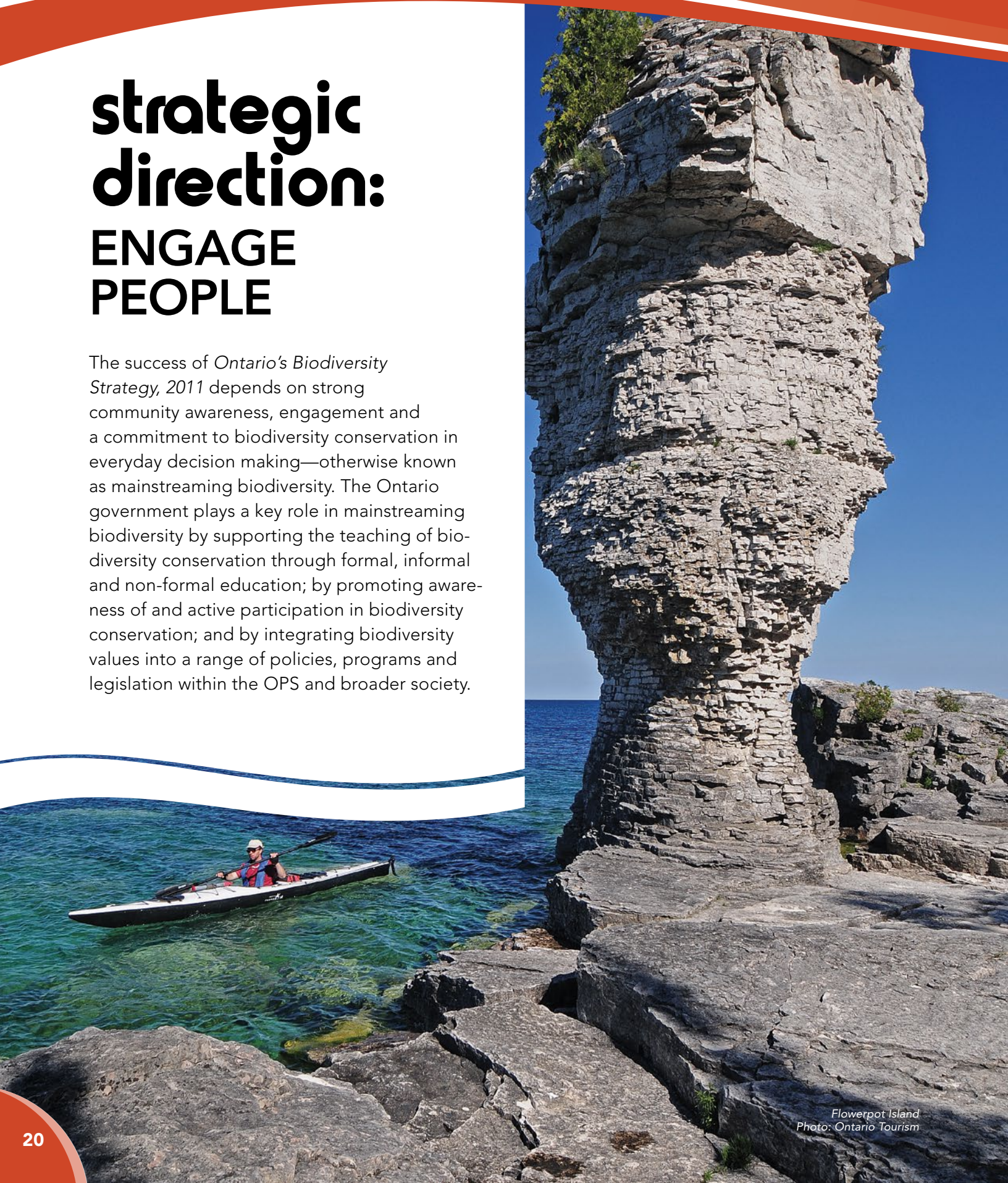
How we will measure progress

Figure 2. Actions in the Ontario Government Implementation Plan for Ontario's Biodiversity Strategy, 2011.



strategic direction: ENGAGE PEOPLE

The success of *Ontario's Biodiversity Strategy, 2011* depends on strong community awareness, engagement and a commitment to biodiversity conservation in everyday decision making—otherwise known as mainstreaming biodiversity. The Ontario government plays a key role in mainstreaming biodiversity by supporting the teaching of biodiversity conservation through formal, informal and non-formal education; by promoting awareness of and active participation in biodiversity conservation; and by integrating biodiversity values into a range of policies, programs and legislation within the OPS and broader society.



Flowerpot Island
Photo: Ontario Tourism

Key Ontario Government Actions and Supporting Activities to Engage People

1. **Communicate the relevance of biodiversity to society**

The first key action in *Ontario's Biodiversity Strategy, 2011* emphasizes the need to communicate the relevance of biodiversity to the public. The Ontario government shares this interest. Activities under this action include championing the Strategy throughout the OPS and broader society, and a range of outreach initiatives aimed at improving awareness of biodiversity for people of all ages. One such initiative is to work with partners to develop a Children's Outdoor Bill of Rights as an awareness tool to encourage the connection of children with nature and the outdoors.

2. **Integrate biodiversity education into the Ontario curriculum, as appropriate**

This action echoes a key action in *Ontario's Biodiversity Strategy, 2011*. It reflects the leadership role of the Ministry of Education in developing and integrating environmental topics and issues that support learning about biodiversity into Kindergarten to Grade 12 education as appropriate. The Ministry of Training, Colleges and Universities, for its part, can influence decisions regarding the inclusion of biodiversity-related program content in college and university programs.

3. **Mainstream biodiversity within the Ontario Public Service**

Even within ministries that traditionally have had a close connection to biodiversity, there may be a need to ensure that a more diverse range of programs and staff are aware of the importance of biodiversity. Mainstreaming biodiversity means building awareness and consideration of biodiversity into the policies, plans, programs and other initiatives that the Ontario government works with every day. This action responds to that need, using the OPS Biodiversity Network to coordinate and integrate biodiversity-related activities.

4. **Develop and provide decision-making tools for biodiversity conservation**

Decision-making tools provide the practical guidance needed to manage biodiversity-related issues on a day-to-day basis. Several activities are proposed aimed at mainstreaming biodiversity considerations across a range of policy and program initiatives. These activities include identifying potential approaches and tools for including Aboriginal Traditional Knowledge in biodiversity decision-making.

5. Continue to integrate biodiversity in Ontario's policy and legislative framework

Ontario has a broad range of policies and legislation that are directly or potentially relevant to biodiversity. The integration and implementation of these tools remains a priority. Proposed activities under this action include exploring opportunities to further integrate biodiversity into existing policies and programs and the continued implementation of several important biodiversity-related policies and statutes. As in Action 4, the Ontario government understands the need to identify potential approaches for incorporating Aboriginal Traditional Knowledge when integrating biodiversity into Ontario's policy and legislative framework.

6. Develop economic tools that encourage biodiversity conservation

Traditional decision-making frameworks have tended to undervalue or ignore biodiversity. As a result, economic incentives and disincentives may have unintended consequences for biodiversity conservation. The Ontario government will examine biodiversity conservation incentive programs and explore opportunities to improve methods for valuing biodiversity and the way it is integrated into decision making.

7. Support and enhance participation in biodiversity conservation

One of the core messages of *Ontario's Biodiversity Strategy, 2011* is that biodiversity is everyone's responsibility. Opportunities to participate in biodiversity conservation should be supported and recognized across a range of sectors and programs, both inside and outside government. Activities listed under this action are related to stewardship activities including those involving private landowners, agricultural producers and Aboriginal communities engaged in shared stewardship for biodiversity conservation.



Algonquin Park
Photo: Ontario Tourism

Ontario Government Actions and Activities to Engage People

(Ministry abbreviations can be found on Appendix 2, page 41)

1. Communicate the relevance of biodiversity to society		
ACTIVITY	LEAD	SUPPORT
Champion <i>Ontario's Biodiversity Strategy, 2011</i> throughout the OPS and broader society.	MNR	all ministries
Increase biodiversity awareness and understanding through MTCS agencies, boards and commissions with relevant mandates (e.g., Schud Gallery of Biodiversity of the Royal Ontario Museum, the Royal Botanical Gardens, Science North, Ontario Science Centre), interested provincial recreation organizations and other stakeholders.	MTCS	
Increase biodiversity awareness and understanding through Ontario Parks programs and other MNR resource management programs (e.g., youth programs, enforcement outreach, Family Fishing Week).	MNR	
Work collaboratively with partners to enhance coordination, leadership, outreach and learning about the importance of biodiversity and conservation actions.	MNR	all ministries
Explore opportunities to develop and implement a Children's Outdoor Bill of Rights.	MNR	MTCS
Raise awareness of the health hazards associated with air quality, extreme weather and climate change by working with partners to monitor and identify common linkages and best management practices to reduce the impact of climate change on human health.	MOHLTC	
Work with partners to identify linkages between biodiversity and human health in Ontario and raise awareness regarding these linkages.	MOHLTC, MNR	OMAFRA, MMAH, MTCS
2. Integrate biodiversity education into the Ontario curriculum, as appropriate		
ACTIVITY	LEAD	SUPPORT
Enhance opportunities, through the curriculum-review process, for students to learn about biodiversity in the Ontario curriculum from Kindergarten to Grade 12, as appropriate, using the Standards for Environmental Education in the Curriculum.	EDU	
Work with colleges and universities to ensure the integration of biodiversity in their business, environmental studies and technology programs.	MTCU	MNR
Continue to work with various stakeholder groups to support, enhance and coordinate formal, informal and non-formal biodiversity education (e.g., Biodiversity Education and Awareness Network, Ontario Forestry Association, Ontario EcoSchools).		MNR, EDU
3. Mainstream biodiversity within the Ontario Public Service		
ACTIVITY	LEAD	SUPPORT
Explore opportunities to establish an enterprise approach to biodiversity conservation within the OPS.	MNR	all ministries
Maintain and expand an integrated OPS Biodiversity Network.	MNR	all ministries

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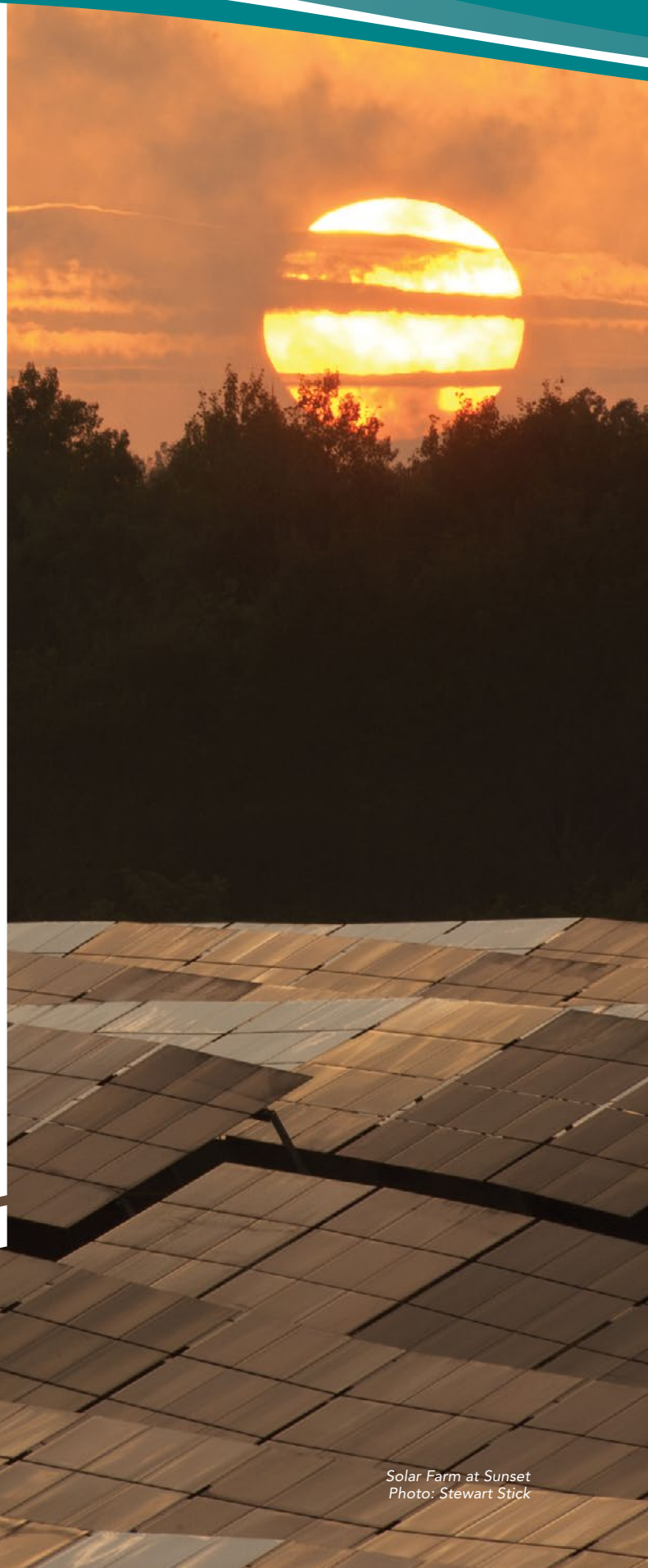
4. Develop and provide decision-making tools for biodiversity conservation		
ACTIVITY	LEAD	SUPPORT
Develop decision-making tools to assess the impacts of policies and programs on biodiversity.	MNR	
Integrate biodiversity into all mineral exploration and development initiatives.	MNDM	
Integrate biodiversity considerations into Best Management Practices Series resources.	OMAFRA	
Promote awareness of the role of Aboriginal Traditional Knowledge in supporting biodiversity conservation, and identify potential approaches and tools for including this knowledge in biodiversity decision making.		MAA, MNR
Continue to integrate community knowledge from a diversity of sources to further policy development and management action.	all ministries	
Continue to develop best practices for highway planning, design and construction to mitigate habitat fragmentation (e.g., effectiveness monitoring for select wildlife crossings).	MTO	
5. Continue to integrate biodiversity in Ontario's policy and legislative framework		
ACTIVITY	LEAD	SUPPORT
Finalize and implement Ontario's Great Lakes Strategy.	MOE	MNR, OMAFRA and other provincial ministries
Implement <i>Climate Ready: Ontario's Adaptation Strategy and Action Plan</i> .	MOE	all ministries
Examine further opportunities to integrate biodiversity into the <i>Provincial Policy Statement</i> , the <i>Greenbelt Plan</i> , the <i>Oak Ridges Moraine Conservation Plan</i> and the <i>Niagara Escarpment Plan</i> during their respective reviews.	MMAH	MNR, MOE, MOI, MTO, OMAFRA
Continue to protect biodiversity through implementation of the <i>Growth Plan for the Greater Golden Horseshoe</i> and the <i>Growth Plan for Northern Ontario</i> .	MOI	MNR, MOE, MMAH, MTO, MNDM
Consider potential biodiversity-related commitments, as appropriate, for inclusion in a new Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem.	MOE	MNR, OMAFRA, MOI, MTO
Integrate activities supporting biodiversity conservation into the <i>Mining Act</i> .	MNDM	MNR
Continue to oversee the implementation of the <i>Ontario Heritage Act</i> and the <i>Ontario Trails Strategy</i> .	MTCS	
Review Ontario's wetland conservation policy framework.	MNR	MOE, MMAH
Identify opportunities to engage or consult with Aboriginal peoples on potential approaches for incorporating Aboriginal Traditional Knowledge as part of integrating biodiversity into Ontario's policy and legislative framework.	all ministries	
Continue to integrate site- and landscape-level biodiversity conservation into existing legislation and policy as opportunities arise.	all ministries	
Review the <i>Identification, Investigation and Management of Health Hazards Protocol</i> , which requires prevention and reduction of adverse health outcomes from health hazards in the environment as set out in the Ontario Public Health Standards under the <i>Health Protection and Promotion Act</i> .	MOHLTC	

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6. Develop economic tools that encourage biodiversity conservation		
ACTIVITY	LEAD	SUPPORT
Work together to investigate economic instruments (e.g., incentives, disincentives) in support of biodiversity conservation.	MNR	MOF, OMAFRA, MEDI
Improve methods and tools for valuing biodiversity and ecosystem services and explore opportunities for integrating valuation into decision making.	MNR	MOF, MOE, MEDI
Assess opportunities to develop a biodiversity conservation market to encourage societal engagement in the management of biodiversity values.	MNR	MOF, MTO, OMAFRA
7. Support and enhance participation in biodiversity conservation		
ACTIVITY	LEAD	SUPPORT
Direct stewardship assistance to programs and partners that support and promote biodiversity conservation.	MNR	
Encourage local stewardship through provincial park and recreation stakeholder engagement opportunities (e.g., Ontario Trails Coordinating Committee, Provincial Recreation Organizations).	MTCS	
Continue and improve on-farm environmental stewardship (e.g., Canada-Ontario Environmental Farm Plan, Canada-Ontario Farm Stewardship Program and potential future related programs).	OMAFRA	
Continue implementation of initiatives to better understand and prevent human-wildlife and agriculture-wildlife conflicts.	MNR, OMAFRA	
Support the involvement of Aboriginal communities in shared stewardship for biodiversity conservation.	MAA	MNR
Include consideration of biodiversity conservation in the Minister's Award for Environmental Excellence.	MOE	
Integrate biodiversity principles in relevant local and provincial grant programs.	all ministries	
Work in partnership with other jurisdictions to advance biodiversity conservation at the national, bi-national and global levels.	MNR	
Facilitate partnerships with organizations and municipal governments to relocate native vegetation removed from construction sites.	MTO	
Work with federal, provincial and territorial governments to develop and implement Canada's domestic response to the new global <i>Strategic Plan for Biodiversity 2011–2020 and the Aichi Targets</i> under the United Nations Convention on Biological Diversity.	MNR	

strategic direction: REDUCE THREATS

Natural ecosystems are dynamic and resilient and are continually evolving in response to a variety of forces and factors, but they are limited in their ability to adapt to rapid change. The main threats to Ontario's biodiversity are habitat loss, invasive species, population growth, pollution, unsustainable use and climate change. Reducing the threats to biodiversity will help improve the condition of ecosystems and prevent the ongoing loss of biodiversity. The Ontario government has made significant progress in reducing several of the threats to Ontario's biodiversity (e.g., pollution); however, recent assessments show that other threats are increasing (*State of Ontario's Biodiversity 2010*, *Canadian Biodiversity: Ecosystem Status and Trends 2010* reports). The Ontario government will continue to play a key role in reducing the threats to biodiversity through a range of innovative policies, programs, legislation and partnerships.



Solar Farm at Sunset
Photo: Stewart Stick

Key Ontario Government Actions and Supporting Activities to Reduce Threats

8. Reduce Ontario's Ecological Footprint

A key activity under this action is promoting understanding of the Ecological Footprint as an indicator of the cumulative effects of humans on biodiversity. This action includes a number of initiatives geared to reducing Ontario's Ecological Footprint through waste diversion, composting, recycling and similar waste reduction initiatives. In addition, all ministries are committed to the *OPS Green Transformation Strategy* that helps to reduce the environmental footprint of Ontario government operations.

9. Take steps to reduce urban sprawl

Ontario's population is growing, and urban development is inevitable. The Ontario government recognizes the need to protect biodiversity with careful implementation of existing planning tools, especially municipal official plans, the *Growth Plan for the Greater Golden Horseshoe* and the *Growth Plan for Northern Ontario*.

10. Reduce greenhouse gas emissions

Ontario's Biodiversity Strategy, 2011 stresses the importance of reducing greenhouse gas emissions. The Ontario government has established a framework provided by *Ontario's Climate Change Action Plan*, the *Green Energy Act, 2009* and the *Ontario Long-Term Energy Plan* for reducing energy consumption, promoting energy efficiency and developing sustainable energy sources. Activities under this action range from broad-scale strategies to specific programs, including the Environmental Farm Plan program, the High Occupancy Vehicle Lane Network and the Electric Vehicle Incentive Program.

11. Promote water conservation

Efficient use of water resources is another focus of *Ontario's Biodiversity Strategy, 2011*. Implementation of the *Water Opportunities Act, 2010* is an important activity under this action. In addition, the Ontario government notes that opportunities to improve water efficiency can also encourage economic growth, for example through the commercialization of new water technologies to support water treatment and conservation.

12. Reduce the threat posed to biodiversity by invasive species

Invasive species are one of the most serious threats to biodiversity. The *Ontario Invasive Species Strategic Plan* provides a comprehensive, coordinated framework for working with government agencies and partners to prevent, detect, respond and manage invasive species. This action centres on implementation of that Strategic Plan and support for the Invasive Species Centre, a joint initiative that promotes information sharing and collaboration on research, monitoring and reporting of invaders.

13. Reduce the threat posed to biodiversity by pollution

Globally, pollution is recognized as another key threat to biodiversity. This action emphasizes implementation of Ontario's longstanding and comprehensive framework for pollution prevention and control, including legislation such as the *Nutrient Management Act, 2002*, the *Lake Simcoe Protection Act, 2008* and the Waste Electrical and Electronic Equipment Program. Additional activities include attention to salt management on provincial highways and rehabilitation of mining-related hazards on Crown land.

Ontario Government Actions and Activities to Reduce Threats

(Ministry abbreviations can be found on Appendix 2, page 41)

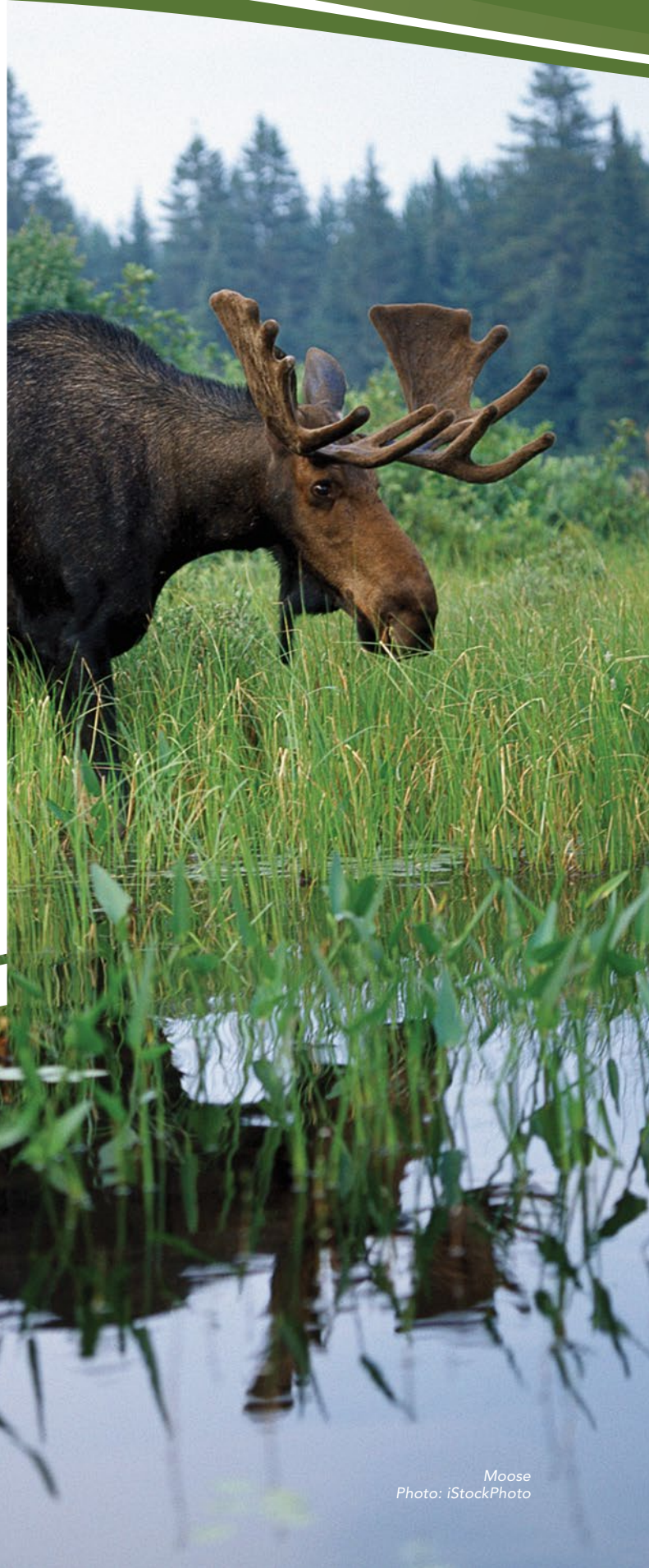
8. Reduce Ontario's Ecological Footprint		
ACTIVITY	LEAD	SUPPORT
Promote Ontario's Ecological Footprint as a way of communicating the cumulative impacts of humans on biodiversity.	MNR	all ministries
Continue to implement programs under the <i>Waste Diversion Act, 2002</i> , such as the Blue Box Program, Waste Electrical & Electronic Equipment Program, Municipal Hazardous or Special Waste Program and Used Tires Program.	MOE	
Update composting guidelines and compost quality standards to encourage composting and reduce landfilling of organic wastes.	MOE	
Continue to support plastic waste recycling and establishment of waste plastic collection sites within the agricultural community.	OMAFRA	
Encourage the purchase of local Ontario food by Ontario consumers.	OMAFRA	
Deliver the <i>OPS Green Transformation Strategy</i> to reduce the environmental footprint of Ontario government operations.	MGS	all ministries
9. Take steps to reduce urban sprawl		
ACTIVITY	LEAD	SUPPORT
Continue to protect biodiversity through implementation of the Growth Plan for the Greater Golden Horseshoe and the <i>Growth Plan for Northern Ontario</i> .	MOI	MMAH, MNR, MNDM, MOE
Foster municipal official plan consistency with the <i>Provincial Policy Statement</i> .	MMAH	MNR, MOE, MOI, MTO
10. Reduce greenhouse gas emissions		
ACTIVITY	LEAD	SUPPORT
Continue to make progress reducing greenhouse gas emissions under <i>Ontario's Climate Change Action Plan</i> .	MOE	all ministries
Continue to implement the <i>Green Energy Act, 2009</i> and the <i>Ontario Long-Term Energy Plan</i> while avoiding/mitigating local impacts on biodiversity.	ENE	MNR, MOE, MNDM
Support the development of Ontario's clean-technology sector to encourage the more efficient use of existing resources.	MEDI	
Work to identify ways to enable Ontario's carbon-intensive industries to reduce greenhouse gas emissions.	MEDI	
Promote initiatives that result in energy conservation.	ENE	MNR, MNDM
Support the implementation of clean energy technology in Ontario.		MNR, MNDM, ENE, MEDI
Support sectors as they identify new potential sources of clean energy.		MNR, MNDM, ENE, OMAFRA, MEDI

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ACTIVITY	LEAD	SUPPORT
Continue to support the improvement and expansion of public transit in Ontario to contribute to reducing greenhouse gas emissions and improving air quality.	MTO	
Continue the High Occupancy Vehicle Lane Network, Long Combination Vehicle Program, Electric Vehicle Incentive Program and Truck Speed Limiters Program.	MTO	
Develop and promote tools to reduce greenhouse gas emissions through promotion of nutrient management, generation of biogas energy from farm and food waste, Environmental Farm Plans, climate change pilot projects, building soil health, soil erosion mitigation and water-efficient technologies.	OMAFRA	
Continue to support the <i>OPS Green Transformation Strategy's</i> greenhouse gas reduction targets and key consumption reduction targets for vehicle fuel, air travel and energy in facilities.	MGS	all ministries
11. Promote water conservation		
ACTIVITY	LEAD	SUPPORT
Implement the <i>Water Opportunities Act, 2010</i> .	MOE	
Help commercialize new water technologies to support water treatment and conservation.	MEDI	MOE
Continue and adapt the Ontario Geological Survey groundwater surveys.	MNDM	
Support the Water Technologies Acceleration Project (WaterTAP) to encourage collaboration and grow globally competitive companies within the water and wastewater sector.	MEDI	MOE
12. Reduce the threat posed to biodiversity by invasive species		
ACTIVITY	LEAD	SUPPORT
Implement the <i>Ontario Invasive Species Strategic Plan</i> .	MNR	MOE, OMAFRA, MTO
Support the Invasive Species Centre.	MNR	
13. Reduce the threat posed to biodiversity by pollution		
ACTIVITY	LEAD	SUPPORT
Continue to implement the <i>Cosmetic Pesticide Ban Act, 2008</i> , Municipal Hazardous or Special Wastes Program, Waste Electrical and Electronic Equipment Program, Blue Box Program and Used Tires Program.	MOE	
Implement the <i>Ontario Long-Term Energy Plan</i> .	ENE	MOE, MNR
Implement and enhance the <i>Nutrient Management Act, 2002</i> and promote integrated pest management.	OMAFRA, MOE	
Continue to implement the <i>Lake Simcoe Protection Plan</i> .	MOE	MNR, OMAFRA, MMAH
Continue to identify and rehabilitate mining-related hazards on Crown land, including those that release pollutants harmful to biodiversity.	MNDM	
Continue to enhance salt management on provincial highways.	MTO	
Continue to divert electronic waste and toxic chemicals generated by the Ontario Public Service.	MGS	all ministries

strategic direction: ENHANCE RESILIENCE

Maintaining and building resilience in our ecosystems will help them to adapt, survive and recover from changes and disturbances. Building resilience means Ontario's ecosystems can withstand threats and recover from stresses such as climate change, invasive species and pollution. The Ontario government is taking action to support the resilience of ecosystems through safeguarding our rich biodiversity and working to maintain, restore and recover ecosystem function throughout the province.



Moose
Photo: iStockPhoto

Key Ontario Government Actions and Supporting Activities to Enhance Resilience

14. Expand the system of protected areas and conservation lands

This action includes formally regulated protected areas (Provincial and National Parks and Conservation Reserves) and other conservation lands that have effective protection such as municipal parks, conservation areas and conservation easements. This Ontario government action parallels an identical one in *Ontario's Biodiversity Strategy, 2011*. For the Ontario government, it involves working with existing legislation, including the *Far North Act, 2010*, the *Provincial Parks and Conservation Reserves Act, 2006* and the *Greenbelt Plan*, to implement existing policy and explore opportunities for expanding the system of protected areas and conservation lands. The *Growth Plan for the Greater Golden Horseshoe* also allows for the identification of natural systems and encourages the enhancement and linkage of these systems. In addition, the Ontario government supports conservation of biodiversity in the management of private lands.

15. Further integrate biodiversity into land use and resource management planning

Ontario has a comprehensive framework for land use planning. Some key policies, including the *Provincial Policy Statement* and the *Greenbelt Plan*, are scheduled for review over the next several years. These reviews offer an important opportunity to reflect on the integration of biodiversity into land use planning. Implementation of these and other existing laws, for example the *Lake Simcoe Protection Act, 2008*, is a way of including biodiversity in decision making. Organizations such as the St. Lawrence

Parks Commission and the Niagara Parks Commission provide a framework for site-specific biodiversity conservation measures, as does the Royal Botanical Gardens. Finally, the Ontario government continues to support the integration and enhancement of biodiversity considerations in Crown land use and resource and protected-areas planning.

16. Promote landscape-level conservation planning

Traditional approaches to natural resource management have focused on individual sites and species. *Ontario's Biodiversity Strategy, 2011* emphasizes the need for landscape-level conservation planning. Because landscape-level approaches are relatively recent, there is a need to develop new and better tools for broad-landscape and ecosystem-connectivity planning. This Ontario government action focuses on the development of such tools.

17. Promote and support the development of urban biodiversity and green infrastructure strategies

Urban biodiversity is important as a basis for more resilient urban ecosystems. This action supports the development of urban biodiversity strategies and green infrastructure in Ontario's cities and towns. Urban biodiversity provides opportunities for city dwellers—the majority of Ontario's population—to experience nature firsthand. Urban greenspace and green infrastructure contribute to healthy communities and healthy lifestyles, creating opportunities for physical activity and aesthetic enjoyment of natural systems within and beyond developed areas.

18. Promote consideration of genetic diversity in policy development and decision making

Genetic diversity is the variety of genetic information contained within individuals of a particular species. It improves the ability of a species to cope with environmental stresses such as climate change. The development of a genetic resource management strategy for wild species in Ontario will contribute to enhancing the resilience of species and the ecosystems they inhabit. The Ontario government will also continue to build on partnerships with researchers and others engaged in the conservation of genetic diversity.

19. Assess species and ecosystem vulnerability to climate change, and integrate vulnerabilities into decision-making

The Ontario's government's report, *Climate Ready: Ontario's Adaptation Strategy and Action Plan*, provides guidance on vulnerability assessment for species and ecosystems. The implementation of *Climate Ready* should be accompanied by vulnerability-assessment pilot programs and the development of tools to support the creation of climate change adaptation plans, strategies and policies. Partnerships with the federal government, neighbouring jurisdictions and communities are critical in ensuring that the impacts of climate change on biodiversity are well understood and managed.

20. Protect species diversity

Biodiversity encompasses both common species and species at risk. The *Endangered Species Act, 2007* provides a regulatory framework for managing the latter. The Ontario government has made significant progress in implementing the act since it was revised in 2007. Continued implementation will consider ecosystem- and multi-species-based plans and stewardship initiatives where they are feasible. Populations of common species that are harvested will be maintained by the continued improvement of sustainable management tools.

21. Develop and implement tools to maintain and enhance habitats and ecosystem services

Healthy ecosystems provide a range of important services, from the production of food and raw materials, to water and air quality improvement and flood control. Many of the actions in this Plan support the enhancement of ecosystem services. This particular action addresses the need for tools to guide the restoration and rehabilitation of degraded ecosystems, and effective management of water quality and quantity through the implementation of the *Ontario Water Resources Act*.



Effective grazing management planning for streamside pastures in Perth County
Photo: Ontario Soil and Crop Improvement Association

Ontario Government Actions and Activities to Enhance Resilience

(Ministry abbreviations can be found on Appendix 2, page 41)

14. Expand the system of protected areas and conservation lands		
ACTIVITY	LEAD	SUPPORT
Implement the <i>Far North Act, 2010</i> and the <i>Provincial Parks and Conservation Reserves Act, 2006</i> .	MNR	MNDM
Examine opportunities to expand the protected-areas system within the greenbelt during the co-ordinated 10-year review of the <i>Greenbelt Plan</i> , the <i>Oak Ridges Moraine Conservation Plan</i> and the <i>Niagara Escarpment Plan</i> .	MMAH, MNR, MOE	
Continue to implement the <i>Growth Plan for the Greater Golden Horseshoe</i> .	MOI	MMAH, MNR, MOE, OMAFRA
Explore opportunities to expand the system of marine protected areas.	MNR	MNDM
Promote consideration of biodiversity in the management of private lands (e.g., Conservation Land Tax Incentive Program, Managed Forest Tax Incentive Program, Eastern Habitat Joint Venture).	MNR	OMAFRA, MOE
15. Further integrate biodiversity into land use and resource management planning		
ACTIVITY	LEAD	SUPPORT
Examine further opportunities to integrate biodiversity into the <i>Provincial Policy Statement</i> , the <i>Greenbelt Plan</i> , the <i>Oak Ridges Moraine Conservation Plan</i> and the <i>Niagara Escarpment Plan</i> during their respective reviews.	MMAH	MNR, MOE, MOI, MTO, OMAFRA
Implement the <i>Lake Simcoe Protection Plan</i> .	MOE	MMAH, MNR, OMAFRA
Lead by example through incorporating site-specific biodiversity conservation practices into the management of properties overseen by MTCS agencies such as the St. Lawrence Parks Commission, the Niagara Parks Commission and the Royal Botanical Gardens.	MTCS	
Integrate and enhance biodiversity considerations in Crown land use, resource and protected-areas planning.	MNR	MOE, MNDM
16. Promote landscape-level conservation planning		
ACTIVITY	LEAD	SUPPORT
Complete and implement biodiversity action plans and strategies for the Great Lakes.	MNR, MOE	OMAFRA
Develop tools for broad-landscape and ecosystem-connectivity planning.	MNR	MMAH
Continue to implement and enhance landscape and ecologically-based approaches to the management of forests, fisheries and wildlife.	MNR	
17. Promote and support the development of urban biodiversity and green infrastructure strategies		
ACTIVITY	LEAD	SUPPORT
Provide guidance and information to municipalities to support the development of urban biodiversity strategies.		MNR, MMAH
Promote green infrastructure as a means to conserve biodiversity and enhance the resilience of ecosystems.		MNR, MOE, MMAH, MOI, MTO

continued on next page

18. Promote consideration of genetic diversity in policy development and decision making		
ACTIVITY	LEAD	SUPPORT
Develop a genetic resource management strategy for wild species in Ontario.	MNR	
Continue to enhance partnerships with emerging centres of excellence in the conservation of genetic diversity.	MNR	
Continue to work with the federal government and other partners on issues related to crop and livestock genetic diversity.	OMAFRA	
19. Assess species and ecosystem vulnerability to climate change, and integrate vulnerabilities into decision making		
ACTIVITY	LEAD	SUPPORT
Implement <i>Climate Ready: Ontario's Adaptation Strategy and Action Plan</i> .	MOE	all ministries
Expand pilot programs assessing species and ecosystem vulnerability to climate change.	MOE, MNR	
Develop and enhance tools to support the creation of climate change adaptation plans, strategies and policies.	MOE, MNR, OMAFRA	MTO
Collaborate to respond to emerging animal health issues with potential human and ecosystem health impacts.	MOHLTC, OMAFRA, MNR	
20. Protect species diversity		
ACTIVITY	LEAD	SUPPORT
Implement the <i>Endangered Species Act, 2007</i> while considering ecosystem- and multi-species-based plans and stewardship initiatives, where feasible.	MNR	MOE, OMAFRA, MTO, MNM
Continue to enhance tools for the management of harvested species and their habitats.	MNR	
21. Develop and implement tools to maintain and enhance habitats and ecosystem services		
ACTIVITY	LEAD	SUPPORT
Develop and enhance tools for the restoration and rehabilitation of degraded aquatic and terrestrial ecosystems.	MNR	MTO, MNM
Support protection of water quality and quantity through implementation of the <i>Ontario Water Resources Act</i> and the <i>Clean Water Act, 2006</i> .	MOE	MNR, OMAFRA, MMAH, MTO
Implement the 50 Million Tree Program.	MNR	MTO
Investigate the use of local adaptation frameworks that focus on linkages between human health and the environment.	MOHLTC	



Stream stewardship in action
Photo: Ontario Ministry of Natural Resources

strategic direction: IMPROVE KNOWLEDGE

A strong evidence base is an essential part of conserving Ontario's biodiversity. Implementing robust monitoring, reporting and evaluation of the state of the province's biodiversity and the success of conservation actions is crucial to ensure that Ontario's efforts are really making a difference for biodiversity. Interpreting and communicating knowledge for a wide audience and making it accessible to all will also improve planning and drive greater communication between researchers, policy-makers and on-the-ground biodiversity managers. The Ontario government plays a key role in biodiversity monitoring and will work to make biodiversity knowledge available to inform decision making.



Windpower-related bird and bat migration research using marine radar at Erie Shores
Photo: Fiona McGuiness, MNR

Key Ontario Government Actions and Supporting Activities to Improve Knowledge

22. Support science, research and information management to inform biodiversity conservation

Science is important to biodiversity conservation. Regular review of the status of Ontario's biodiversity knowledge, including identification of knowledge gaps, development of research strategies and establishment of strategic partnerships is required. Holders of Aboriginal Traditional Knowledge have an important role to play in these discussions. Leading-edge science can also contribute to economic growth, for example through research and innovation activities and the development of clean technology. The Ontario government supports social science research, to better understand the factors that motivate people to conserve biodiversity. Successful biodiversity conservation requires public access to biodiversity data and information sharing among government, research partners and management agencies.

23. Establish a long-term biodiversity monitoring system

Many existing monitoring programs, across a number of ministries, currently collect data relevant to biodiversity. There is a need for an integrated, broad-scale monitoring program

for Ontario's biodiversity that builds from and enhances existing monitoring programs whenever possible. Existing biodiversity monitoring programs, such as the Ontario Benthos Biomonitoring Network, the Ontario Forest Biomonitoring Network, the Carbon Flux Monitoring Program and the Surface Water Monitoring Centre will improve biodiversity knowledge. The work of the Ontario Geological Survey also provides an important foundation for understanding ecosystem structure and function in the province.

24. Review and refine a suite of biodiversity indicators for measuring and reporting on the state of biodiversity

Biodiversity is a complex concept, and there are many possible approaches to monitoring. It is important to develop an effective suite of biodiversity indicators to track and report progress, support decision making and facilitate communication with the public. This will require a review of existing provincial indicators, identification of gaps, confirmation of a suite of indicators and potential modification of monitoring programs to collect the appropriate data to address biodiversity considerations across a range of interests and activities.

Ontario Government Actions and Activities to Improve Knowledge

(Ministry abbreviations can be found on Appendix 2, page 41)

22. Support science, research and information management to inform biodiversity conservation		
ACTIVITY	LEAD	SUPPORT
Regularly review the status of knowledge about Ontario's biodiversity, including identification of knowledge gaps, development of research strategies and establishment of strategic partnerships.	MNR	MOE, OMAFRA
Foster discussions with ministries, stakeholders and Aboriginal peoples on the role of Aboriginal Traditional Knowledge in supporting biodiversity conservation.	MAA	MNR
Improve public access to biodiversity data and information and enhance opportunities for public, private and ENGO sharing of data and information.	MNR	OMAFRA, MOE
Support Ontario's research and innovation activities in strategic sectors, including clean technology and the bioeconomy.	MEDI	
Promote social science research that explores the factors that motivate people to conserve biodiversity.	MNR, OMAFRA	
Conduct active surveillance of mosquito and tick populations to track the spread of vector-borne diseases such as Lyme Disease and West Nile Virus in collaboration with Public Health Ontario and local public health units.	MOHLTC	
Monitor zoonotic disease trends in wildlife in partnership with the Canadian Cooperative Wildlife Health Centre.	MOHLTC, OMAFRA, MNR	
23. Establish a long-term biodiversity monitoring system		
ACTIVITY	LEAD	SUPPORT
Building on existing programs, develop an integrated, broad-scale monitoring program for all aspects of Ontario's biodiversity.	MNR	MOE
Support the Ontario Benthos Biomonitoring Network, the Ontario Forest Biomonitoring Network and the Carbon Flux Monitoring Program.	MOE	
Support and advance the work of the Ontario Geological Survey.	MNDM	
Support the Surface Water Monitoring Centre.	MNR	
Support the involvement of Aboriginal peoples in biodiversity monitoring, data collection and information sharing.		MNR, MAA
24. Review and refine a suite of biodiversity indicators for measuring and reporting on the state of biodiversity		
ACTIVITY	LEAD	SUPPORT
Periodically review and update Ontario's Ecological Footprint analysis as a macro-level indicator of Ontario's resource consumption and biocapacity.	MNR	
Conduct a critical review of existing provincial biodiversity indicators, identify gaps and confirm biodiversity indicators for future reporting.	MNR	MOE, OMAFRA, MMAH

Implementation, Measuring Progress and Reporting

This Ontario government Implementation Plan includes a comprehensive suite of actions to ensure that biodiversity conservation is well integrated into decision making, whether this involves reducing Ontario's Ecological Footprint, improving land use planning or protecting species diversity. The Plan builds on current actions to conserve biodiversity—many created in response to the original 2005 Strategy—and introduces mechanisms for coordination and integration across programs and ministries. It provides a clear road map for updating and fully implementing existing programs and policies, and guides the development of new actions to fill gaps and address emerging issues. As our understanding of biodiversity improves and new priorities are identified, additional actions and activities may be considered.

To be successful in our efforts to conserve Ontario's biodiversity, we must track our progress. The Ontario government is committed to supporting the Ontario Biodiversity Council in monitoring and reporting to

the public the results of Ontario's collective efforts towards achieving the vision, goals and targets outlined in *Ontario's Biodiversity Strategy, 2011*.

Photo: Matt Burley, Ontario Federation of Anglers and Hunters



Appendix 1: Ontario's Biodiversity Strategy, 2011 Targets

The Ontario Biodiversity Council has committed to monitoring and reporting on progress every 5 years using the 15 biodiversity targets set out in *Ontario's Biodiversity Strategy, 2011*. These targets are based on the Aichi Targets from the global *Strategic Plan for Biodiversity 2011–2020*. *Ontario's Biodiversity Strategy, 2011* recognizes that no single government, conservation organization or sector can deliver the

scale of change required to realize those goals and targets. Success will require collaboration from a wide range of sectors, including the Ontario government and, in some cases, jurisdictions outside of Ontario. The collective actions and activities outlined in *Biodiversity: It's In Our Nature* support achievement of the Strategy's targets.

T Ontario's Biodiversity Strategy Targets

1. By 2015, biodiversity is integrated into the elementary, secondary and postsecondary school curricula, including schools of business.

2. By 2015, 50 per cent of Ontarians understand biodiversity and its role in maintaining their health and well-being.

3. By 2015, the number of Ontarians who participate in biodiversity conservation activities is increased by 25 per cent.

4. By 2015, all sectors have initiated the development of implementation plans in support of Ontario's Biodiversity Strategy, and by 2020, those plans are implemented.

5. By 2020, all relevant policies and programs integrate biodiversity values.

6. By 2015, plans for climate-change mitigation are developed and implemented and contribute to Ontario's target to reduce greenhouse-gas emissions by 6 per cent below 1990 levels.

7. By 2015, strategic plans are in place to reduce the threats posed to biodiversity by invasive species.

8. By 2015, the release of pollutants harmful to biodiversity is reduced.

9. By 2020, the growth of Ontario's per-capita resource consumption and waste generation is halted and reversed.

10. By 2015, the status of species and ecosystems of conservation concern in Ontario is improved.

11. By 2015, the proportion of private lands in Ontario that are managed for biodiversity is increased.

12. By 2015, natural heritage-systems plans and biodiversity-conservation strategies are developed and implemented at the municipal and landscape levels.

13. By 2020, at least 17 per cent of terrestrial and aquatic systems are conserved through well-connected networks of protected areas and other effective area-based conservation measures.

14. By 2020, programs and policies are in place to maintain and enhance ecosystem services.

15. By 2015, a long-term monitoring and reporting system for assessing the state of Ontario's biodiversity is established and operating.

Appendix 2: Abbreviations for Ontario Ministries

Ministry of Aboriginal Affairs	MAA
Ministry of Agriculture, Food and Rural Affairs	OMAFRA
Ministry of Economic Development and Innovation	MEDI
Ministry of Education	EDU
Ministry of Energy	ENE
Ministry of the Environment	MOE
Ministry of Finance	MOF
Ministry of Government Services	MGS
Ministry of Health and Long-Term Care	MOHLTC
Ministry of Infrastructure	MOI
Ministry of Municipal Affairs and Housing	MMAH
Ministry of Natural Resources	MNR
Ministry of Northern Development and Mines	MNDM
Ministry of Tourism, Culture and Sport	MTCS
Ministry of Training, Colleges and Universities	MTCU
Ministry of Transportation	MTO

