



Office of the Auditor General of Ontario

Value-for-Money Audit:
Conserving
the Natural
Environment with
Protected Areas



November 2020

Conserving the Natural Environment with Protected Areas

1.0 Summary

Protected areas are places where nature is allowed to function relatively unaffected by human activities. These areas are an effective way to conserve species and habitats by acting as safe havens from the harmful impacts of activities like logging, mining, urban development and agriculture. They also serve people and communities through essential services such as water filtration, flood control, crop pollination and climate regulation. Nature provides sources of food, clean air and water, as well as raw materials and ingredients for medicines.

In addition to conserving biological diversity—which is known as biodiversity (see **Appendix 1** for a Glossary of Terms)—protected areas contribute directly to the economy. A 2011 study for the Canadian Parks Council, a group made up of representatives from federal, provincial and territorial parks agencies, estimated that provincial and federal protected areas in Ontario supported more than 6,400 full-time jobs, created \$305 million in labour income, generated \$48 million in tax revenue for governments, and contributed more than \$466 million to the province’s gross domestic product. Such economic benefits are at risk as the World Economic Forum ranked biodiversity loss as a top-five risk to economies over the next decade.

Aside from the significant economic benefits, protected areas like provincial parks are important because of the recreational opportunities they

provide to Ontarians, such as camping, hiking and canoeing. Spending time in nature has measurable positive impacts on people’s physical and mental health.

The Ministry of the Environment, Conservation and Parks (Environment Ministry) and the Ministry of Natural Resources and Forestry (Natural Resources Ministry) share the primary responsibilities for creating and managing protected areas in Ontario (see **Figure 1**). Their work is governed primarily by these four laws:

- *Provincial Parks and Conservation Reserves Act, 2006*: directs the Environment Ministry to establish a network of provincial parks and conservation reserves that conserves biodiversity and protects the best examples of Ontario’s natural regions, while providing Ontarians with recreational opportunities. There are 335 provincial parks and 295 conservation reserves in Ontario for a total of 630 protected areas.
- *Far North Act, 2010*: directs the Natural Resources Ministry to work with First Nations communities to create a network of at least 22.5 million hectares of protected areas in Ontario’s Far North—the northernmost part of the province beginning about 500 kilometres north of Thunder Bay. The *Far North Act, 2010*, does not prescribe a time by which this target must be met. Nine dedicated protected areas covering 1.2 million hectares have been established under this Act, bringing

the total protected area coverage in the Far North to 4.7 million hectares or 10.4% of the total area.

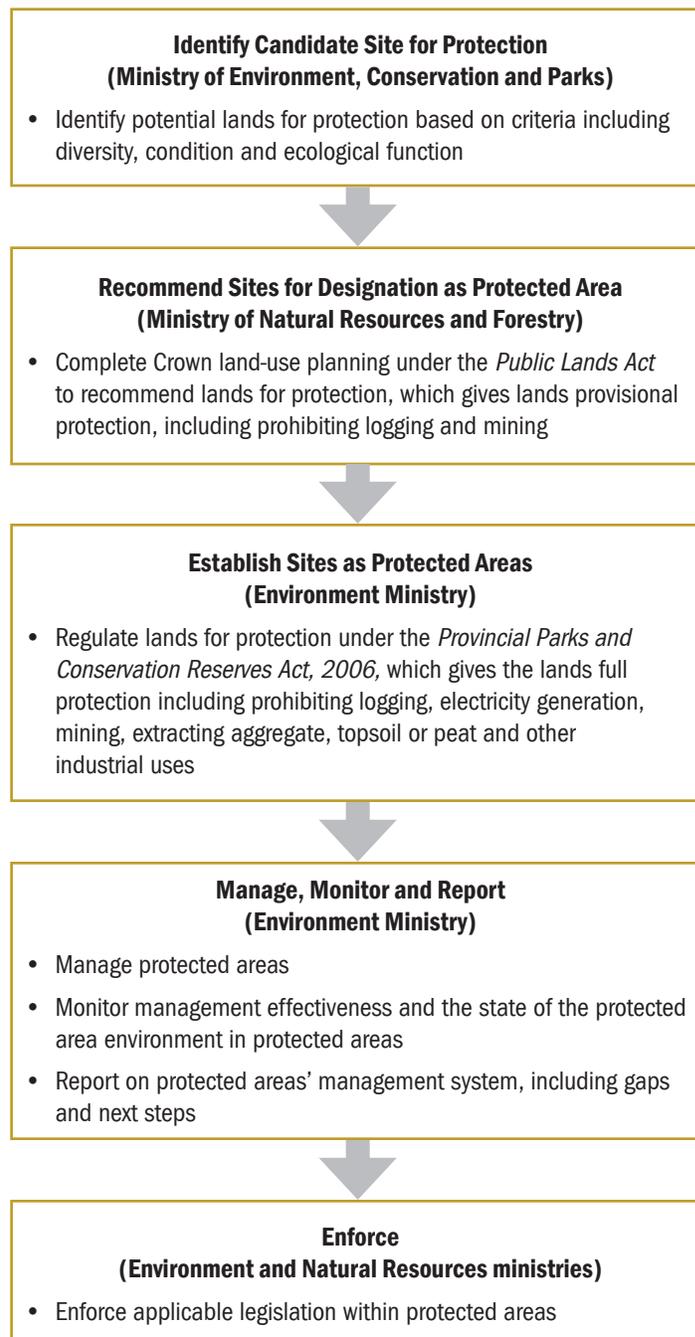
- *Wilderness Areas Act*: allows the Natural Resources Ministry to create wilderness areas that are to be protected in their natural state. There are currently 11 wilderness areas that

remain on Crown land outside of provincial parks.

- *Public Lands Act*: governs the Natural Resources Ministry's processes for determining how Crown lands are used, including the creation of recommended provincial parks and conservation reserves.

Figure 1: Process to Create and Manage Provincial Parks and Conservation Reserves in Ontario

Prepared by the Office of the Auditor General of Ontario



At the time of our audit, protected areas covered 10.7% of Ontario. While the Environment and Natural Resources ministries manage the majority of these protected areas, entities such as the federal government, First Nations communities and conservation groups manage other types of protected areas, including national parks and privately-owned conservation sites.

Ontario supports a wide range of ecosystems, from forests, wetlands and prairies in the south to the tundra and coastal marshes in the Far North. The province is divided into three land-based ecozones—large areas characterized by their bedrock and climate patterns in terms of factors like humidity, temperature and length of the seasons. The Mixedwood Plains Ecozone in the southernmost part of Ontario covers about 8.5 million hectares or 9% of the province's land area, is home to 13.5 million or 92% of Ontarians, and has 54,254 hectares of land conserved in provincially protected areas (see **Figure 2**). The Ontario Shield Ecozone covers 65.3 million hectares or 66% of the province, is home to 1.2 million or 8% of Ontarians, and has 7,575,634 hectares of land in provincially protected areas. The Hudson Bay Lowlands Ecozone in the northernmost part of the province encompasses about 24.8 million hectares or 25% of Ontario's land area, is home to fewer than 5,000 people, and has 2,469,550 hectares of land in provincially protected areas.

Of the over 15,800 species of plants and animals in Ontario that have been assessed by scientists, 2,245 are of conservation concern—they are vulnerable, rare or rapidly declining—and their future survival is uncertain according to the 2015 *Wild Species* report (the most recent report available). The province also has rare habitats that are of conservation concern like alvars (flat open limestone habitats with thin soil), freshwater coastal sand dunes, prairies (grasslands) and savannahs (prairies with scattered trees).

Our audit examined whether the Environment Ministry and the Natural Resources Ministry are permanently protecting a network of provincial

parks, conservation reserves and other protected areas that conserves biodiversity and that, in total, represents Ontario's natural regions. We looked at the two ministries' processes for identifying and creating new protected areas, as well as their management of existing protected areas.

Staff to Manage and Expand Protected Areas

Our audit found that the Environment Ministry and Natural Resources Ministry did not have sufficient science and planning staff to manage existing protected areas or expand the province's protected areas network. For example:

- **Only seven of the 254 staff members at Ontario Parks, a branch within the Environment Ministry, are ecologists responsible for leading science-related activities to understand impacts on biodiversity.** Ecologists are responsible for gathering and analyzing scientific information to, for example, determine what actions are needed to recover particular species at risk or manage invasive species. One ecologist is assigned to each of the five regions across the province, which cover between 45 and 291 provincial parks and conservation reserves. There are two ecologists in the Ontario Parks' head office.
- **Only 12 staff members at Ontario Parks are park planners responsible for developing, reviewing and updating the management plans for the 630 provincial parks and conservation reserves.** Depending on the region, each park planner is responsible for maintaining the management plans for between 19 and 97 provincial parks and conservation reserves. At the time of our audit, each park planner had between four and 29 outdated or deficient plans that needed to be replaced.
- **The lack of dedicated staff specifically tasked with and accountable for expanding the protected areas network has contributed to Ontario's slow progress in**

increasing its protected area network. Both the Environment Ministry and the Natural Resources Ministry are involved in the process to create protected areas in Ontario, but not one branch or staff in either ministry is responsible and accountable for expanding the protected areas network. Other jurisdictions—such as Parks Canada, Prince Edward Island and Manitoba—have dedicated staff and/or funding to expand their protected areas. The total area covered by protected areas across Canada increased by 8% in the last five years, but Ontario added only 0.003% to its network of provincial parks, conservation reserves and dedicated protected areas over the same period.

- **The number of full-time staff at the Natural Resources Ministry working on land-use planning in the Far North had decreased from 22 in 2018 to 10 at the time of our audit because of uncertainties regarding the repeal of the *Far North Act, 2010*.** In 2019, the Ministry proposed repealing the *Far North Act, 2010*, and using the *Public Lands Act* instead, which would place control of land-use planning solely with the Ministry and replace the current joint process with First Nations. Uncertainty about the possible repeal of the *Far North Act, 2010*, led to some staff leaving their jobs. Finding little support from the public from its 74-day comment period on the Environmental Registry and in its meetings with First Nations, as of March 2020, the Ministry was instead exploring amendments to the Act to make it less restrictive to economic development. Potential economic development in the Far North includes mineral development, commercial forestry, and hydroelectric projects.

Management of Existing Protected Areas

We found that the Environment Ministry does not collect sufficient and necessary information about

species at risk, invasive species that harm biodiversity, and whether activities like hunting, fishing and trapping are ecologically sustainable in individual provincial parks and conservation reserves. The *Provincial Parks and Conservation Reserves Act, 2006* (Act) directs the Environment Ministry to make maintaining “ecological integrity”—which includes healthy and viable populations of native species, including species at risk, and their habitats—the first priority in all aspects of planning and managing protected areas. We found that:

- **Protected areas are home to more than three-quarters of Ontario’s species at risk, but few plans to manage these areas contain actions to protect these species.** We reviewed the management plans for a sample of provincial parks and conservation reserves to determine whether they included actions to protect and recover species at risk, and their habitats. Management plans contain policies that govern how a specific protected area is managed. Sixty percent of the plans we reviewed indicated that species at risk were observed in the protected area, but half did not outline specific direction for the protection and recovery of species at risk and their habitats. For example, Awenda Provincial Park’s 1990 management direction contains no specific actions to protect or recover the threatened eastern hog-nosed snake despite being an ideal refuge for the species.
- **The Environment Ministry does not know the extent and impact of invasive species in protected areas.** In its 2011 *State of Ontario’s Protected Areas Report*, the Natural Resources Ministry—responsible then for provincial parks—stated that at least 13 invasive species had been identified in provincial parks and that invasive species were a concern in 50 provincial parks. At the time of our audit, the Environment Ministry—which became responsible for managing protected areas in 2018—did not have updated information about invasive species in its protected

areas. One-third of the management plans we reviewed did not outline actions to prevent or mitigate harm caused by invasive species. For example, during our visit to Sharbot Lake Provincial Park, we observed a very high number of invasive European gypsy moths. The 1988 management plan for the park states that staff historically used an aerial biological insecticide to minimize the spread of the gypsy moth. The plan states that park staff will continue to monitor gypsy moths in the park. The Ministry reports that, before 2000, gypsy moth control was done by ground or air application of a biological pesticide known as *Bacillus thuringiensis* or Bt. However, the Ministry told us that no insecticide applications have been completed since 2000 and no other management occurs in Sharbot Lake Provincial Park to control gypsy moths.

- **Hunting, fishing and trapping are permitted in most provincial parks and conservation reserves in Ontario, but the Environment Ministry does not collect information about the level of these activities in protected areas, and therefore cannot determine how they impact biodiversity.** Hunting, trapping, and fishing can all result in the mortality of an animal. However, 30% of the management plans we reviewed did not address the potential impacts of hunting, and 57% did not address the potential impacts of fishing. For example, in 2019, the Natural Resources Ministry issued tags to allow 10,000 moose to be hunted, but it did not differentiate how many animals could be hunted outside or inside protected areas. Historically, a lack of understanding of biodiversity and poor management have caused a severe decline in many species in Ontario including lake sturgeon and American eel. While the Natural Resources Ministry is responsible for fish and wildlife management in Ontario, the Environment Ministry needs a better understanding of the

impacts of fishing, hunting and trapping so that it can make park-specific management decisions to achieve the goal of the Act.

- **The Natural Resources Ministry did not protect three wilderness areas from potential logging or claim staking for mining.** We found that Derby Lake Nature Reserve Wilderness Area and Eighteen Mile Island Wilderness Area were open to commercial logging. However, the *Wilderness Areas Act* does not allow developing natural resources in these areas. Logging operations by a private company were scheduled to take place within Derby Lake Wilderness Area in 2020 until we brought it to the Ministry's attention and the Ministry cancelled the planned logging. We also found that Sankey Township Nature Reserve Wilderness Area in north-eastern Ontario was open to claim staking until we brought it to the Ministry's attention. As a result, the Ministry told us it would request that these lands be closed to staking. Additionally, the Ministry has no operating procedures requiring staff to monitor wilderness areas for prohibited activities or that require periodic site visits.
- **Two-thirds of Algonquin Provincial Park does not meet criteria for a protected area because of commercial logging.** Algonquin Provincial Park, at 763,000 hectares, is one of the largest provincial parks in Ontario, but only one-third of the park meets the national criteria to be reported as a protected area. This is because commercial logging—an activity that is incompatible with biodiversity conservation—is permitted in the park's "recreation/utilization" zone, which covers about 499,000 hectares. Algonquin Provincial Park has been logged since before it was established in 1893. If all of Algonquin Provincial Park met the criteria for protected areas, it would increase the total provincial protected area coverage by about 0.5%. Commercial forestry is prohibited in all other provincial parks.

- **Ninety-five or 15% of provincial parks and conservation reserves, including popular parks like Algonquin and Lake Superior, have management plans more than 20 years old that have not been reviewed or are deficient but not yet replaced, and 12 protected areas do not have management plans at all.** The *Provincial Parks and Conservation Reserves Act, 2006* requires the Ministry to develop management plans for all provincial parks and conservation reserves. The plans outline the Ministry's priorities for protecting and managing important ecological features of each protected area, including how threats will be mitigated, over the next 20 years. We found, for example, that the Ministry determined in 2011 that the 1978 management plan for Wasaga Beach Provincial Park needed to be revised to better address, among other things, the impacts of recreational activities. The park contains significant natural features such as the longest freshwater beach in the world. It also protects a number of species at risk, such as the endangered piping plover shorebird, and their habitats. In 2018, the most recent year for which data is available, 1.7 million visitors made use of the park's beaches and year-round trails. The Ministry published a secondary management plan focused on beach management in 2017, but has not yet revised the primary plan.

Identification and Creation of New Protected Areas

Our audit found that the province is not identifying lands and establishing new provincial parks and conservation reserves in fulfilment of its legislative responsibilities under the *Provincial Parks and Conservation Reserves Act, 2006*. The law requires the Environment Ministry to permanently protect a network of provincial parks and conservation reserves that includes the best examples of Ontario's eco-

systems, serving to protect provincially significant elements of Ontario's natural heritage and maintain biodiversity. We found the following:

- **The Environment Ministry has not created a wilderness park since 1983 and a waterway park since 2006.** As a result, the best examples of Ontario's ecosystems and provincially significant natural heritage sites are not sufficiently protected. The provincial representation targets currently used to protect Ontario's biodiversity were first set in 1978, and focus on establishing the desired number, size and distribution of certain types of provincial parks as well as ensuring that the best examples of all of the province's naturally occurring ecosystems are represented in protected areas. However, these targets do not explicitly consider criteria such as key biodiversity areas, which would guide the Ministry to protect known biodiversity hot-spots more effectively.
- **Ontario has no province-wide, area-based target for protected areas or plan to protect more land.** Neither the Natural Resources Ministry nor the Environment Ministry has a plan or a long-term province-wide target to protect a percentage of the province's area in order to expand the network of protected areas in Ontario. Excluding areas already protected, the province has control over 83 million hectares of Crown lands—which include diverse landscapes that support a wide range of species and habitats—but the Natural Resources Ministry indicated that there is currently a “lack of explicit agenda to reconsider existing Crown land uses in favour of protection.” In comparison, the federal government and eight other Canadian provinces and territories have agreed on long-term targets to expand those jurisdictions' protected area systems. For example, British Columbia had a target to protect 17% of its lands and Manitoba had a target to protect 12% of natural regions by an unspecified date.

- **Biodiversity is most at risk in southern Ontario where only 0.6% of lands are protected.** Southern Ontario contains important features such as the Niagara Escarpment, the Oak Ridges Moraine, the Frontenac Axis and the only remaining Carolinian (deciduous) forests in Canada. It supports rare habitats like tallgrass prairies, savannahs and alvars and is home to species not found in other parts of Canada. At the time of our audit, protected areas covered only 78,707 hectares of southern Ontario. More than 90% of lands in southern Ontario are privately owned so the Environment Ministry would have to purchase or acquire lands by other methods, such as through donations, in order to increase protected area coverage in southern Ontario. If coverage does not increase, species and their habitat, as well as the benefits we derive from nature, will continue to be lost. For example, less than 2% of wetlands, which help control flooding, remain in some areas of southern Ontario. In 2016 and 2017, flooding in the Windsor area led to \$232 million in insured losses. In June 2020, the City of Windsor identified the need to protect and enhance its natural areas.
- **The Environment Ministry's annual land acquisition budget was reduced from \$500,000 to only \$1,000 beginning in 2012.** The budget was previously used to purchase private land or cover the administration costs of accepting land donations from private land owners or land conservation organizations. This decrease in funding has eliminated the Ministry's ability to expand the protected areas system through acquisitions, especially in southern Ontario, where a majority of the land is privately owned.
- **The province added only 3,007 hectares—or 0.003% of the province's land area—to its network of provincial parks, conservation reserves and dedicated protected areas over the last five years.** Only one new

provincial park—the 174-hectare Brockville Long Swamp Fen Provincial Park—was created in this period from land provided by the Nature Conservancy of Canada, a conservation organization. The remaining 2,833 hectares, or 93% of the addition, were from expansions and boundary amendments of 17 existing provincial parks and conservation reserves.

Working with Other Parties to Expand the Protected Area Network

Our audit found that the Environment Ministry and Natural Resources Ministry are missing opportunities to increase the size of the protected area network in Ontario by not sufficiently engaging with other entities who undertake conservation efforts. We found that:

- **Only 10.4% of the Far North is protected—well short of the 50% protection target established in the *Far North Act, 2010*.** The Far North is the northernmost 45 million hectares of Ontario and covers 42% of the province's lands. At the time of our audit, ten community-based land-use plans were in various stages of development. For example, one plan that proposes to protect about 220,000 hectares of lands was still in draft at the time of our audit—five years after it was released for public consultation and nine years after work began to develop the plan. The other nine plans were still in the early stages of development, preliminary work for which began as early as 2013. We found that uncertainty about the repeal of the *Far North Act, 2010* contributed to the slow progress for community-based land-use plans.
- **The Natural Resources Ministry has not addressed requests by First Nations to create Indigenous Protected and Conserved Areas.** At the time of our audit, six First Nations in Ontario had expressed interest in this new type of Indigenous-led protected

area to conserve biodiversity. Historically, the provinces and federal government typically created protected areas. In contrast, Indigenous Protected and Conserved Areas are lands and waters where Indigenous governments have the primary role in protecting and conserving ecosystems through Indigenous laws, governance and knowledge systems. All but three provinces and territories in Canada—Ontario being one of the three—planned to use Indigenous Protected and Conserved Areas as a conservation tool to conserve biodiversity by the end of 2020. According to the Ministry, the lack of “overall approach” to expanding protected areas prevented it from being “in a position to support changes to existing Crown land uses in favour of new protection proposals.”

Overall Conclusion

Our audit found that the Environment and Natural Resources ministries’ systems and processes are not effective to permanently protect a network of provincial parks, conservation reserves, and other protected areas that conserve biodiversity and represent Ontario’s natural regions. Insufficient staffing and funding have significantly contributed to many of the issues identified in our audit, and impacted the ministries’ legal obligations to conserve nature through protected areas.

An effective network of protected areas is necessary to slow or stop the loss of biodiversity—particularly critical in southern Ontario—so that Ontarians can more fully realize the benefits that nature provides, including recreational opportunities. Biodiversity loss has been ranked as a top-five risk—by likelihood and impact—to economies over the next decade. Because protected areas in Ontario support thousands of jobs, create millions of dollars in labour income, generate millions of dollars in tax revenue, and contribute hundreds of millions of dollars to the province’s gross domestic product, Ontario needs an effective protected area network

to ensure that the positive economic impacts attributed to protected areas continue.

With regard to existing protected areas, we found that the Environment Ministry did not collect sufficient information about species at risk, invasive species and the impact of activities like hunting, fishing, and trapping that may harm native species in provincial parks and conservation reserves. As a result, the Ministry did not know enough about the state of biodiversity within existing protected areas to demonstrate that it is compliant with its legislative responsibility to conserve biodiversity in these areas.

With regard to creating new protected areas, neither the Environment Ministry nor the Natural Resources Ministry had set a plan or target to expand Ontario’s network of protected areas. At the time of our audit, only 10.7% of Ontario was protected and only 0.6% of southern Ontario was protected, the part of Canada that is the most biologically diverse and where biodiversity is among the most at risk because of the high human population.

The province is missing opportunities to increase the size of its protected areas because it does not work effectively with other parties to manage lands for conservation purposes. One of the biggest opportunities to create new protected areas is in the Far North, but, over the last five years, the Natural Resources Ministry has not made progress on working with First Nations to develop land-use plans. The Ministry also has not confirmed whether it will support First Nations’ requests to create Indigenous Protected and Conserved Areas.

This report contains 17 recommendations, with 36 action items, to address our audit findings.

OVERALL NATURAL RESOURCES MINISTRY RESPONSE

The Ministry of Natural Resources and Forestry (Natural Resources Ministry) appreciates the Auditor General’s observations and the recommendations on how it can best support the stewardship of Ontario’s vast natural resources, including protected areas.

The Natural Resources Ministry remains committed to conserving Ontario's wealth of resources through its extensive legislative mandate, including its responsibilities under the *Far North Act, 2010*, the *Wilderness Areas Act*, the *Public Lands Act*, and the *Crown Forest Sustainability Act, 1994*, while meeting its obligations to consult with Indigenous communities and the public. Through our mandate, the Natural Resources Ministry supports the Ministry of the Environment, Conservation and Parks in identifying, prioritizing and establishing protected areas that are representative of Ontario's natural regions.

The Auditor General has identified a number of key areas that improve and clarify the Natural Resources Ministry's work in support of protected areas in Ontario. The Natural Resources Ministry will consider the Auditor General's report and recommendations as it strives to continuously improve its contributions to sustainable, healthy ecosystems in Ontario including those that are protected.

OVERALL ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) thanks the Auditor General of Ontario and her team for their report and insights about our processes for identifying, establishing and managing Ontario's system of provincial parks and conservation reserves.

The Environment Ministry is committed to its legislative responsibilities under the *Provincial Parks and Conservation Reserves Act, 2006* to protect and manage Ontario's parks and conservation reserves, while providing opportunities for compatible, ecologically sustainable recreation, now and for future generations. The Environment Ministry also recognizes the importance of prioritizing the maintenance of ecological integrity in planning and managing

Ontario's system of provincial parks and conservation reserves.

As set out in the *Provincial Parks and Conservation Reserves Act, 2006*, the Environment Ministry strives to provide leadership on protecting representative ecosystems, biodiversity and provincially significant elements of Ontario's natural and cultural heritage. The Environment Ministry will endeavour to collect and use the best available science to inform the management of provincial parks and conservation reserves and to keep management plans current, relevant and effective.

The Environment Ministry will continue to partner with municipalities, conservation authorities, Indigenous communities, conservation organizations and other community groups to conserve Ontario's rich natural and cultural diversity through protected areas.

2.0 Background

2.1 Why Protected Areas Are Important

Protected areas are places where nature is allowed to function relatively unaffected by human activities—when the living and non-living components exist in their natural environment, and ecological processes can occur with little or no intervention by people. See **Appendix 1** for the definition of ecological processes and other terms in this report.

Protected areas, like provincial parks, are society's most effective tool to conserve nature and the services it provides us. Nature's services include providing sources of food, clean air through air purification by plants and trees, clean water, raw materials for many products, and ingredients for medicines. Nature also provides services that are not always apparent; for example, lessening the impacts of climate change through forests, wetlands and peatlands storing carbon, and lessening natural disasters

such as wetlands buffering the impacts of floods and droughts. In addition to conserving biological diversity, protected areas contribute to people's livelihoods, especially local small businesses like grocery stores, guiding services and motels.

Protected areas are also important because of the recreational opportunities they provide. Spending time in nature has measurable positive impacts on people's physical and mental health. For example, 94% of visitors to provincial parks believe that these places provide stress relief and relaxation from everyday modern life, and 73% felt that their mental well-being improved from their park visit. Leading a less sedentary lifestyle—which can include getting outside to enjoy nature—is linked to reducing rates of chronic disease and lessening costs on the health-care system. The province has long recognized that protected areas are dedicated to the people of Ontario, and the Environment Ministry is working to fulfill its goal to better connect people with nature in provincial parks through efforts including guided hikes, the Learn to Camp program, and by making a number of park facilities and features barrier-free.

Protected areas also hold cultural value as symbols of our Canadian identity. They are also places of inspiration for artists like the Group of Seven—the group of painters that captured the beauty of Canada's landscape. Many of the places painted by the Group of Seven are now in a number of provincial parks along the north shore of Lake Superior and other parts of Ontario.

2.1.1 Protected Areas Help Conserve Biodiversity

Protected areas provide refuge and safe havens for many species. Some activities that have significant harmful impacts on nature are eliminated when a site is officially governed as a protected area. For example, commercial logging, prospecting, claim staking for mining and other industrial uses that contribute to habitat loss for many species are not allowed in protected areas. These types of activities

convert the land to another use or overall condition that makes it inhospitable to many native species of plants and animals. For example, woodland caribou, which make their home in Northern Ontario and depend on old or mature forests for their survival, cannot withstand human impacts that disturb or destroy their habitat.

Studies, such as the one published in the scientific journal *Nature Communications* in 2016, have shown that protected areas have higher levels of biodiversity inside their boundaries compared with nearby areas. Biodiversity—or biological diversity—is the variety of life in an ecosystem (see **Appendix 1** for a Glossary of Terms).

An ecosystem consists of the living organisms in a community as well as all the non-living components like water, light, minerals and nutrients they interact with. These communities can vary in size. For example, ecosystems can be a stand of trees or a whole forest, a wetland or a group of features in a watershed, or an entire region that has common natural features like the Bruce Peninsula. Every living and non-living part of an ecosystem has a role to play, and if one part is missing or broken, the whole ecosystem may not function as it should. The natural environment is unimpaired and has “ecological integrity” when living and non-living components exist, and ecological processes like fire, flooding and predation occur with the expected frequency and intensity.

Protected areas conserve what currently exists but also allow for the restoration of natural areas and species that have previously been impacted or lost from an area. For example, staff in five provincial parks in southern Ontario (Boyer Valley Provincial Park, Duncan Escarpment Provincial Park, Hope Bay Forest Provincial Park, James N. Allan Provincial Park, and Pretty River Valley Provincial Park) began projects in 2017 to re-naturalize old agricultural fields by seeding and planting, improving wetlands and controlling invasive species. In another case, an abandoned military radar station in Polar Bear Provincial Park was cleaned up in 2016 to prevent toxic materials—1,640 litres of

polychlorinated biphenyl (PCB) liquids and 3,970 tonnes of low-level PCB contaminated soils—from harming the many migratory birds and other species in the area.

2.1.2 Society Depends on Biodiversity for Survival and Economic Growth

In its report for the G7 Environment ministers' meeting in 2019, the Organisation for Economic Co-operation and Development estimated that, globally, the benefits that society obtains from nature are worth \$166 trillion to \$186 trillion per year—more than one-and-a-half times the size of the global gross domestic product. These direct and indirect benefits from healthy, properly functioning ecosystems—such as food and water supply, climate and disease control, flood and storm control, oxygen production, cultural and spiritual values, and recreational opportunities—are referred to as ecosystem services (see **Appendix 1**).

In Ontario, government and non-government studies have documented the economic value of the benefits that Ontarians obtain from the province's natural areas. For example:

- A 2017 study by the Nature Conservancy of Canada and TD Bank Group valued the ecosystem services provided by forests in select protected areas in southern and central Ontario—including habitat, water filtration, flood control, pollination and climate regulation—at over \$19,000 per hectare annually.
- A 2013 report by Statistics Canada assessed the value of the ecosystem services provided by the Thousand Islands National Park—a 2,440-hectare protected area on the St. Lawrence River in eastern Ontario—at more than \$12.5 million per year.
- A 2012 study by the Ministry of Natural Resources and Forestry estimated that 88 protected areas from Sudbury to Sault Ste. Marie provided \$1.1 billion in ecosystem services per year.

- A 2009 study by the Ministry of Natural Resources and Forestry estimated that 86 protected areas in southern Ontario provided over \$600 million in ecosystem services per year.

Ontario's various economic sectors are also directly dependent on healthy ecosystems and populations of native species. For example, the most recent available data from the Natural Resources Ministry show that:

- exports from Ontario's forestry sector, which depend on the continuing long-term health of forests, were valued at over \$5 billion in 2017;
- spending related to commercial and recreational fishing was valued at \$1.9 billion in 2017 and \$1.6 billion in 2010, respectively; and
- spending related to hunting in Ontario was estimated to be over \$560 million in 2017.

Protected areas, themselves, also contribute directly to the economy. A 2011 study for the Canadian Parks Council—which is made up of representatives from federal, provincial and territorial parks agencies—estimated that spending related to provincial park visits in Ontario was valued at over \$387 million in 2009. More than one-third of this amount was spent in local communities within 40 kilometres of the park visited. In addition, the study estimated that provincial and federal protected areas in Ontario supported more than 6,400 full-time jobs, created \$305 million in labour income, generated \$48 million in tax revenue for governments, and contributed more than \$466 million to the province's gross domestic product.

To maintain and maximize such benefits, in 2020, the Task Force for a Resilient Recovery—an independent group of Canadian experts providing advice on the long-term economic recovery after the COVID-19 pandemic—recommended investments to expand and manage protected areas across Canada, including strengthening ecological monitoring.

2.1.3 Biodiversity Is at Risk Globally

Biodiversity loss is occurring globally. More than 30,000 species, or 27% of all species that have been studied by scientists, are threatened with extinction. For example, the survival of 41% of amphibian, 25% of mammalian and 14% of bird species are threatened with extinction. The most significant contributors to biodiversity loss around the world, in order of impact, are:

- changes in land use—for example, converting land from its natural state to residential or farm land;
- resource extraction or activities—such as hunting, logging, fishing, and mining—that involve withdrawing materials from the natural environment;
- climate change, which threatens the habitat and life cycles of many species;
- pollution, which threatens both individual species and natural processes; and
- invasive species, which are plants and animals that are not native to an area and that disrupt natural processes.

According to the World Wildlife Fund's 2018 report, these factors contributed to an average 60% decline in the populations of mammals, birds, fish, reptiles and amphibians around the world between 1970 and 2014—the most recent year for which global data is available. In Canada, the World Wildlife Fund's 2020 report found that populations of species assessed as nationally at risk had decreased by an average of 59% and species assessed as globally at risk had their Canadian populations decrease by an average of 42% between 1970 and 2016.

According to the World Economic Forum's 2020 Nature Risk report, more than half of global gross domestic product is moderately or highly dependent on nature and is exposed to the risk of biodiversity loss. Because of this, the World Economic Forum ranked biodiversity loss as a top-five risk—by likelihood and impact—to economies over the next decade. In Canada, a predominant threat

to biodiversity is the loss and degradation of species' habitat.

2.2 State of Ontario's Biodiversity

Ontario accounts for 10.8% of Canada's land area and supports a wide range of ecosystems from forests, wetlands and prairies in the south to the tundra and coastal marshes in the Far North. Some of Ontario's ecosystems are globally significant, like the boreal forest that provides habitat for birds that migrate from as far as South America. As well, Ontario has more than 250,000 lakes, 500,000 kilometres of streams, and large parts of the Great Lakes, which account for almost 20% of the world's freshwater resources.

Scientists have assessed the status of 15,858 species in Ontario and found 2,245 are of conservation concern as of 2015, the most recent year for comprehensive reporting. Species are said to be “of conservation concern” when they are vulnerable, rare or rapidly declining, indicating significant concern about their future survival. The province also has rare habitats that are of conservation concern like alvars (flat open limestone habitats with thin soil), freshwater coastal sand dunes, prairies (grasslands) and savannahs (prairies with scattered trees). Only 2% to 3% of Ontario's prairie and savannah habitats remain.

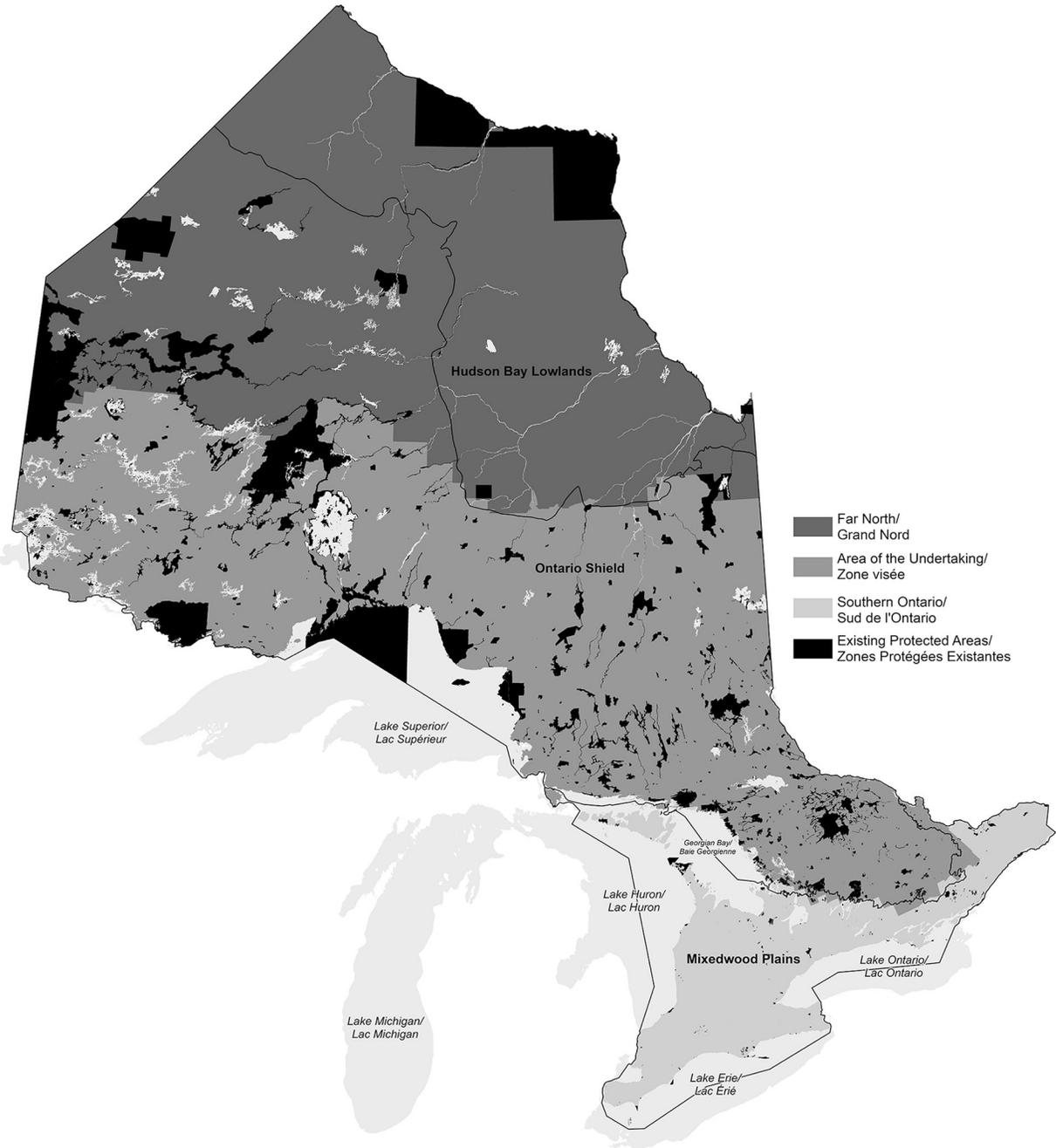
Ontario is divided into three land-based ecozones: Mixedwood Plains, Ontario Shield and Hudson Bay Lowlands (see **Figure 2**). The ecozones are large areas characterized by their bedrock and continental-scale climate patterns in terms of factors like humidity, temperature and length of the seasons.

2.2.1 Mixedwood Plains Ecozone

The Mixedwood Plains Ecozone in the southernmost part of Ontario is the smallest of the three ecozones, covering about 8.5 million hectares or 9% of the province's land area. It is home to 13.5 million or 92% of Ontarians and generates more than 25%

Figure 2: Ontario's Ecozones and Existing Protected Areas

Source: Ministry of the Environment, Conservation and Parks



of Canada's total agricultural production, including many fruits, vegetables and products not grown elsewhere in Canada.

Though more than two-thirds of the landscape is now agriculture and urban areas, it remains the most biologically diverse region in Canada. Forests are characterized by American beech, sugar maple

and white birch and the lakes and rivers support the highest freshwater fish diversity in Canada. Animals found in this ecozone include the white-tailed deer, red fox, striped skunk, great blue heron, red-tailed hawk, black-capped chickadee, blue jay, smallmouth bass, yellow perch and spottail shiner.

Hundreds of years ago, the Mixedwood Plains Ecozone was dominated by forests, wetlands, prairies and alvars. However, much of the land has been converted into agricultural use or developed to become urban areas, which has heavily impacted biodiversity in the ecozone. For example:

- Some areas in southern Ontario have less than 2% of wetlands remaining. As wetland coverage decreases, southern Ontario becomes increasingly vulnerable to flooding—the costliest natural hazard in Ontario. In spring 2019, devastating flooding in southern and Northern Ontario led to emergency declarations being made by 23 municipalities and one First Nations community. Environment Canada recommends a minimum of 10% wetland cover for healthy watersheds.
- There is 25% or less forest cover in more than half of the watersheds in southern Ontario. Environment Canada recommends a minimum of 30% forest cover. Some parts of southwestern Ontario, such as areas around Windsor and Chatham-Kent, have less than 10% forest cover. In addition to southern Ontario forests providing habitat to hundreds of species of conservation concern, healthy forests filter air pollution, retain and filter stormwater and mitigate the higher temperatures in urban areas compared with rural areas.

Southern Ontario has among the highest concentrations of species at risk in Canada because of this loss of natural areas and habitats. Future threats to biodiversity include development, pollution and the introduction of plants and animals from other areas.

2.2.2 Ontario Shield Ecozone

The Ontario Shield Ecozone is the largest ecozone and covers 65.3 million hectares or 66% of the province. About 1.2 million or 8% of Ontarians live in the many cities, towns and villages in this

ecozone, including Thunder Bay, Sault Ste. Marie, Sudbury and North Bay.

This ecozone is mostly forests with evergreen species like black spruce and balsam fir in the north, and deciduous species like sugar maple and American beech in the south. There are also many lakes, ponds and wetlands. Some of the animals found in this ecozone include moose, black bear, Algonquin wolf, lynx, beaver, northern red-bellied snake and yellow perch.

Biodiversity is impacted across this ecozone by a variety of activities, including resource extraction, road building and some urban development. Forestry has had the most extensive impact on biodiversity in central Ontario; it is estimated that more than half of this ecozone has been logged at some point in time. In the late 1800s, boreal caribou were widespread across most of Ontario from north of Lakes Huron and Superior. Since then, as much as 40% to 50% of the historic caribou population has been lost primarily due to forestry, mining and the construction of hydro corridors and roads. The range of these threatened caribou has receded and they are generally found north of Sioux Lookout, Geraldton and Cochrane with a few isolated populations along the shoreline and islands of Lake Superior. Climate change is likely to affect boreal caribou in the future by reducing available habitat and food sources and by attracting higher numbers of predators to the area.

This ecozone and the Hudson Bay Lowlands ecozone further north, described in **Section 2.2.3**, are subject to widespread mineral exploration and development. As of 2019, there were almost 253,000 active mining claims and more than 200 mineral exploration projects under way in these areas.

2.2.3 Hudson Bay Lowlands Ecozone

The Hudson Bay Lowlands ecozone in the northernmost part of the province encompasses about 24.8 million hectares or 25% of Ontario's land area. It is home to about 5,000 people, many of whom are

Indigenous peoples in communities that cannot be accessed by year-round roads.

This area is one of the world's largest and most intact ecological systems—composed mostly of wetlands with some boreal and subarctic forests, tundra and many lakes and rivers. The extensive wetlands provide essential habitats for breeding and migrating birds like the snow goose. In addition, the wetlands store large amounts of carbon, which helps reduce the greenhouse effect. Some of the animals found in this ecozone include the polar bear, grey wolf, caribou, sandhill crane and arctic char (a cold-water fish).

Most of the landscape is undeveloped; the most common human activities include fishing, hunting, trapping, mineral exploration and resource-based tourism (tourism that is based on the use and enjoyment of nature). Hydroelectric, transmission-line and road building projects continue to occur in Northern Ontario. Climate change is likely to cause some of the most significant impacts to species and ecosystems in the Hudson Bay Lowlands ecozone in the future. For example, polar bears, the species for which Ontario's largest provincial park is named, are likely to become locally extinct in Ontario within 40 to 100 years due to climate change.

2.3 Ontario's Protected Areas

2.3.1 Relevant Legislation

The *Provincial Parks and Conservation Reserves Act, 2006* (Act) governs the creation and management of most protected areas in Ontario. It directs the Environment Ministry to “permanently protect a system of provincial parks and conservation reserves that includes ecosystems that are representative of all of Ontario's natural regions, protects provincially significant elements of Ontario's natural and cultural heritage, maintains biodiversity and provides opportunities for compatible, ecologically sustainable recreation.” Simply put, the objective of the Act is to ensure the long-term protection of the best examples of all of Ontario's

natural regions, while providing Ontarians with ecologically sustainable recreational opportunities. Most importantly, the Act requires that ecological integrity—or conserving biodiversity—be the first priority in planning and managing Ontario's network of provincial parks and conservation reserves.

In addition, the following laws govern the creation and management of other types of protected areas in Ontario:

- Through the *Far North Act, 2010* the Natural Resources Ministry's objective is to work with First Nations to create a network of at least 22.5 million hectares of protected areas in Ontario's Far North by designating protected areas in community-based land-use plans.
- The *Wilderness Areas Act*, passed in 1959, allows the Natural Resources Ministry to create wilderness areas that are to be protected in their natural state.
- The *Public Lands Act* governs the Natural Resources Ministry's process for determining how Crown lands are used, including designating lands as recommended provincial parks and conservation reserves.

Appendix 2 lists key provisions of each law.

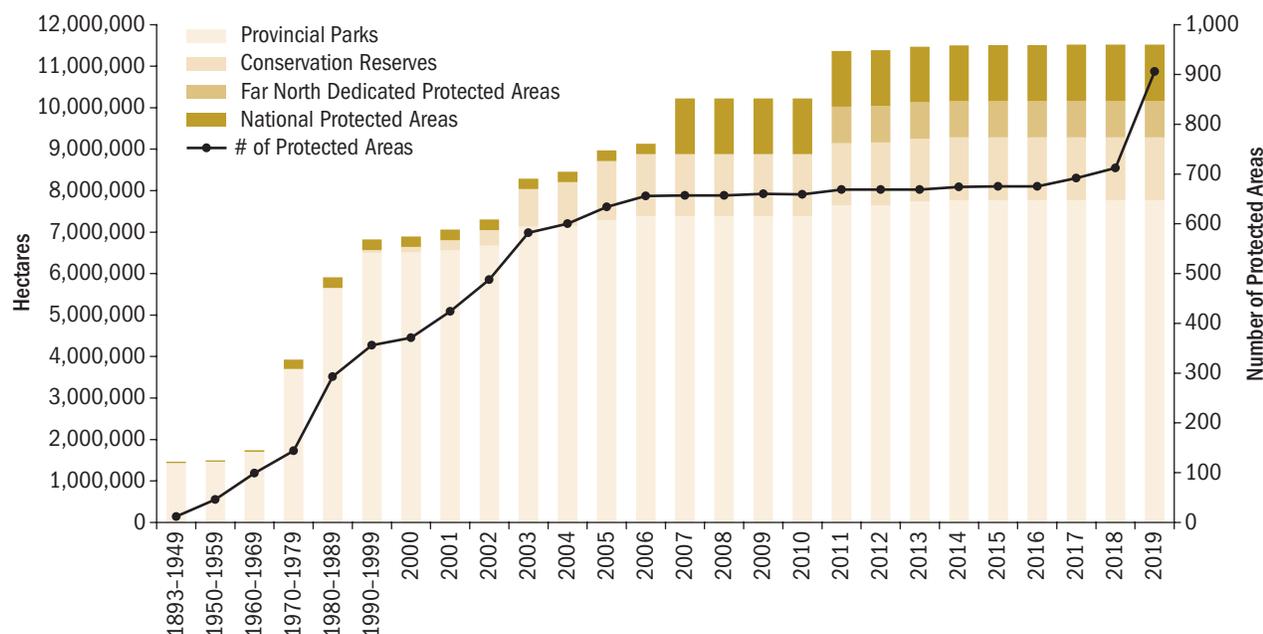
2.3.2 Types of Protected Areas

The types and numbers of protected areas in Ontario have grown since the first provincial park—Algonquin Provincial Park—was established in 1893 (see **Figure 3**). Currently, provincial parks and conservation reserves make up the majority of protected areas, accounting for 8.3% of the province's lands. Protected areas differ based on land ownership, how they are planned and managed, and the level of protection that is afforded to the area (see **Figure 4**).

Ontario established and manages its network of provincially owned protected areas to meet several objectives, including protecting nature and providing places for ecologically sustainable recreation, education and research. Recognizing that a single place cannot be “all things to all people,” the

Figure 3: Growth of Protected Areas in Ontario, 1893–2019*

Source of data: Ministry of the Environment, Conservation and Parks



* The number of protected areas includes areas of natural and scientific interest that meet the criteria for protected areas, wilderness areas, privately protected lands and lands protected by other conservation measures, but these areas are not represented in the total area as they accounted for 27,892 hectares in 2019.

Province uses different types of protected areas, and classes of provincial parks and zones within individual parks, to achieve these objectives across the entire network.

Recreation-class parks like Wasaga Beach Provincial Park near Collingwood and Bronte Creek Provincial Park in Oakville support a wide range of outdoor recreation opportunities for large numbers of people. Wilderness-class parks like Killarney Provincial Park near Sudbury protect large areas where nature is relatively undisturbed and provide recreation opportunities for a relatively smaller number of visitors who leave little impact. Conservation reserves protect significant natural or cultural features like the largest continuous peatland in southern Ontario in Elzevir Peatlands Conservation Reserve, while providing opportunities for activities like hunting.

In Ontario, there are more than 40 types of lands that contribute to the conservation of biodiversity in some way, but only some are considered as protected areas. National criteria have been

established to assist jurisdictions in screening lands as protected areas (see **Figure 5**). Areas that do not meet the criteria may contribute to conservation efforts generally but are not reported as protected areas. For example, the Greenbelt around the Greater Toronto Area provides many conservation benefits, but it is managed for multiple legislated purposes such as the preservation of agricultural land and therefore does not meet the criteria to be reported as a protected area.

2.3.3 Creating and Managing Protected Areas in Ontario

Various entities are involved in creating and managing protected areas in Ontario (see **Appendix 3**). However, the Environment Ministry and the Natural Resources Ministry share primary responsibility for creating protected areas (see **Figure 1**) and managing existing ones in the province.

From 2014/15 to 2018/19, Ontario Parks—a branch within the Environment Ministry responsible

Figure 4: Protected Areas in Ontario, April 2020

Source of data: Ministry of the Environment, Conservation and Parks

Type	Permitted Activities	#	Size (Hectares)	% of Ontario's Land
Established and Managed by Ontario Government				
Provincial parks ¹	<ul style="list-style-type: none"> Scientific research Outdoor recreation such as camping and hiking Fishing, hunting and trapping in most parks 	335	7,420,816 ²	6.9
Conservation reserves ¹	<ul style="list-style-type: none"> Scientific research Fishing, hunting and trapping 	295	1,515,630	1.4
Dedicated protected areas in the Far North ³	Fishing, hunting and trapping for Indigenous peoples	9 ⁴	1,229,451	1.1
Areas of natural and scientific interest ³ (Crown land)	Scientific research	3	3,948	< 0.1
Wilderness areas ³	Research and educational activities	11	838	< 0.1
Established and Managed by Federal Government				
National parks and other federal lands	<ul style="list-style-type: none"> Scientific research Outdoor recreation such as camping and hiking 	42	1,352,310	1.3
Established and Managed by Others				
Privately protected	Hiking	210	19,806	< 0.1
Protected by other conservation measures	Scientific research	1	3,300	< 0.1
Total Protected Areas		906	11,546,099	10.7

1. Managed by the Ministry of the Environment, Conservation and Parks.
2. Does not include the Recreation/Utilization Zone (498,785 hectares) in Algonquin Provincial Park. This zone does not qualify as a protected area for the purpose of counting toward the national and international protected area target because commercial logging is allowed.
3. Managed by the Ministry of Natural Resources and Forestry.
4. Five are regulated under the *Provincial Parks and Conservation Reserves Act, 2006*.

Figure 5: Examples of Key Criteria Used by Ministry of Environment, Conservation and Parks to Report Land as Protected Areas

Prepared by the Office of the Auditor General of Ontario

Criteria	Intended Effect	Example of Meeting Criteria	Example of Not Meeting Criteria
Geographical space is well defined	The boundaries of area are clear to help biodiversity conservation	Mapped boundaries, such as in a regulation, plan or on title	Unclear or not agreed-upon boundaries
Effective management and enforcement	<ul style="list-style-type: none"> Activities incompatible with biodiversity conservation do not occur Compatible activities are effectively managed 	Owner/steward of the land has full authority to manage the site and prohibit harmful activities	Area is open to commercial logging or mining
Designation will be long-term	The area's designation will be in place for the long-term and not easily reversed	A government regulation or private lands held in fee simple ownership, which means ownership is a clear, unencumbered title	A designation that is frequently changed, such as areas in forest management plans that govern forestry operations on Crown land
Timing is year-round	Biodiversity is protected year-round	In effect year-round, such as a provincial park	Only sometimes protected, such as at a fish sanctuary

for managing provincial parks and conservation reserves—earned an average of \$86.4 million in revenues and incurred an average of \$94 million in expenses per year from its operations. All revenues are deposited into a Special Purpose Account, which then funds most of Ontario Parks’ operating expenses. Provincial parks and conservation reserves hosted 10.8 million visitors in 2019, the most recent data available. The Ontario Parks branch has 254 permanent staff in its head office, regional offices and the 115 operating parks—those with campgrounds—across the province. See **Figure 6** for Ontario Parks’ head and regional offices organizational chart. During the regular May to October operating season, Ontario Parks also employs approximately 600 seasonal staff and 1,600 students. Prior to June 2018, Ontario Parks was within the Natural Resources Ministry (see **Appendix 4** for a chronology of events related to protected areas in Ontario).

The Natural Resources Ministry is responsible for engaging in a joint process to develop community-based land-use plans in the Far North with interested First Nations. The Ministry is also responsible for establishing and managing wilderness areas on Crown lands. From 2014/15 to 2018/19, the Natural Resources Ministry spent an average of \$327.8 million per year on its sustainable resource management programs, which includes Crown land-use planning, forest management, fish and wildlife management and other programs. At the time of our audit, the Ministry had allocated 31 district planner and 14 regional planner positions across the province that work on Crown land-use planning, as well as 10 staff in its Far North branch who work with First Nations to develop community-based land-use plans. See **Figure 7** for the Natural Resources Ministry’s organizational chart showing the relevant branches.

Once a provincial park or conservation reserve is established, the *Provincial Parks and Conservation Reserves Act, 2006* (Act) requires that management plans, known generally as management direction and hereafter referred to as “management plans” be

prepared. The plans dictate how individual parks and conservation reserves are to be managed for the next 20 years, including the Ministry’s priorities for protecting the important natural features within them, consistent with the objectives of the Act. Depending on the complexity, management plans can take the form of management statements that address non-complex management issues, or management plans that address substantial or complex management issues. For example, a management plan can describe how species at risk and their habitat will be protected, how invasive species will be prevented or eliminated and how impacts from recreation and other activities will be monitored and mitigated.

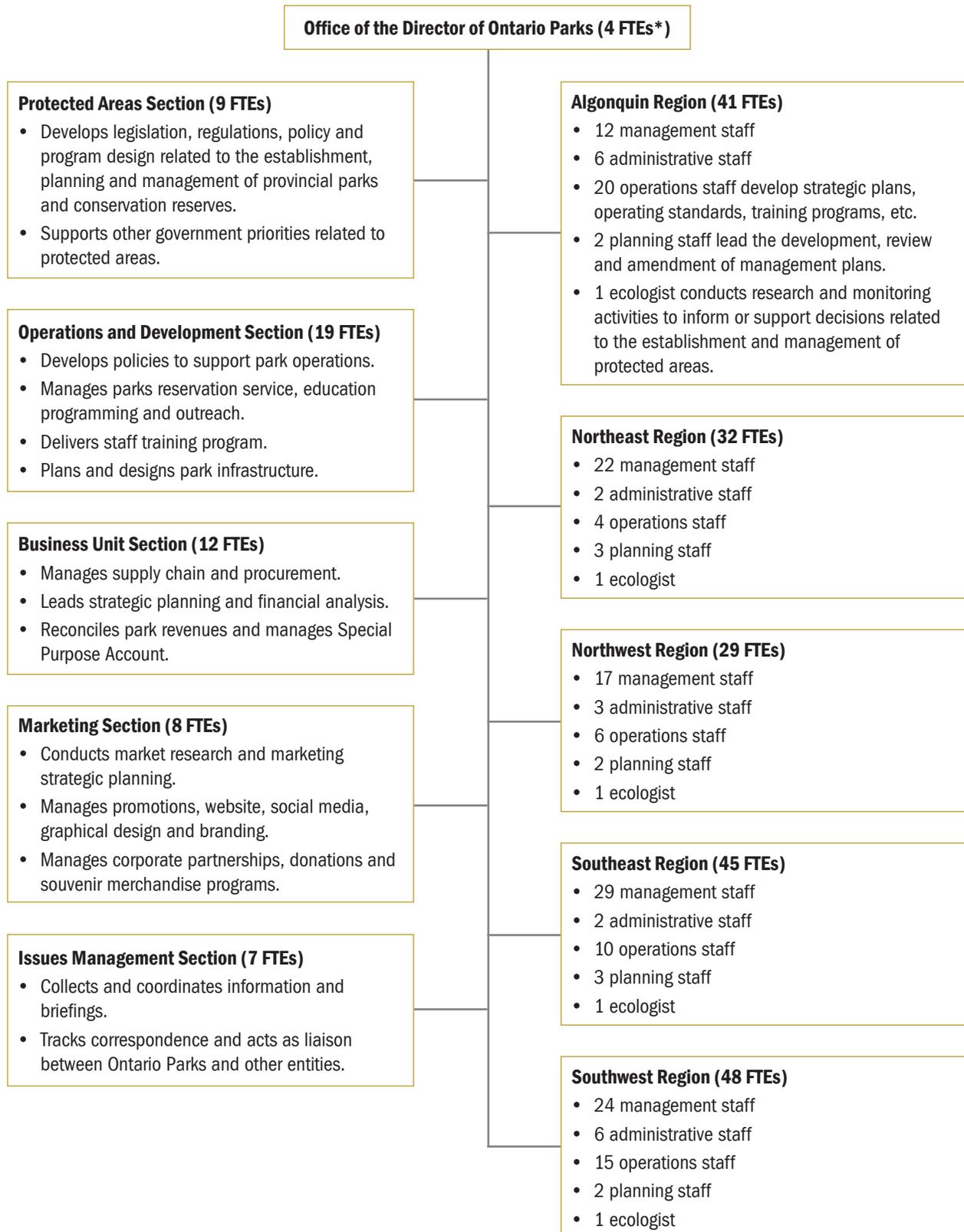
2.3.4 Impact of COVID-19 on Provincial Parks and Conservation Reserves

In response to the COVID-19 pandemic, the province closed all provincial parks and conservation reserves to the public for all recreational activities from March 19 to May 10, 2020. The majority of provincial parks and conservation reserves opened for limited day-use on May 11, backcountry camping on June 1, beach access on June 12, and additional camping opportunities from June 15 to 22. After re-opening, operational changes to reduce the risk of COVID-19 transmission included reduced capacity in campsites and day-use areas, cancellation of in-person programs and events, and the closure of group camping, picnicking, and shower and laundry facilities.

Even with these reductions in service, visitor levels at Ontario’s provincial parks increased as public health officials encouraged people to spend time outside where the risks of contracting COVID-19 are relatively low. Compared to 2019, overall campground reservations increased by 7% and backcountry camping increased by 29% despite a delayed start to the season.

Figure 6: Ontario Parks Organizational Chart

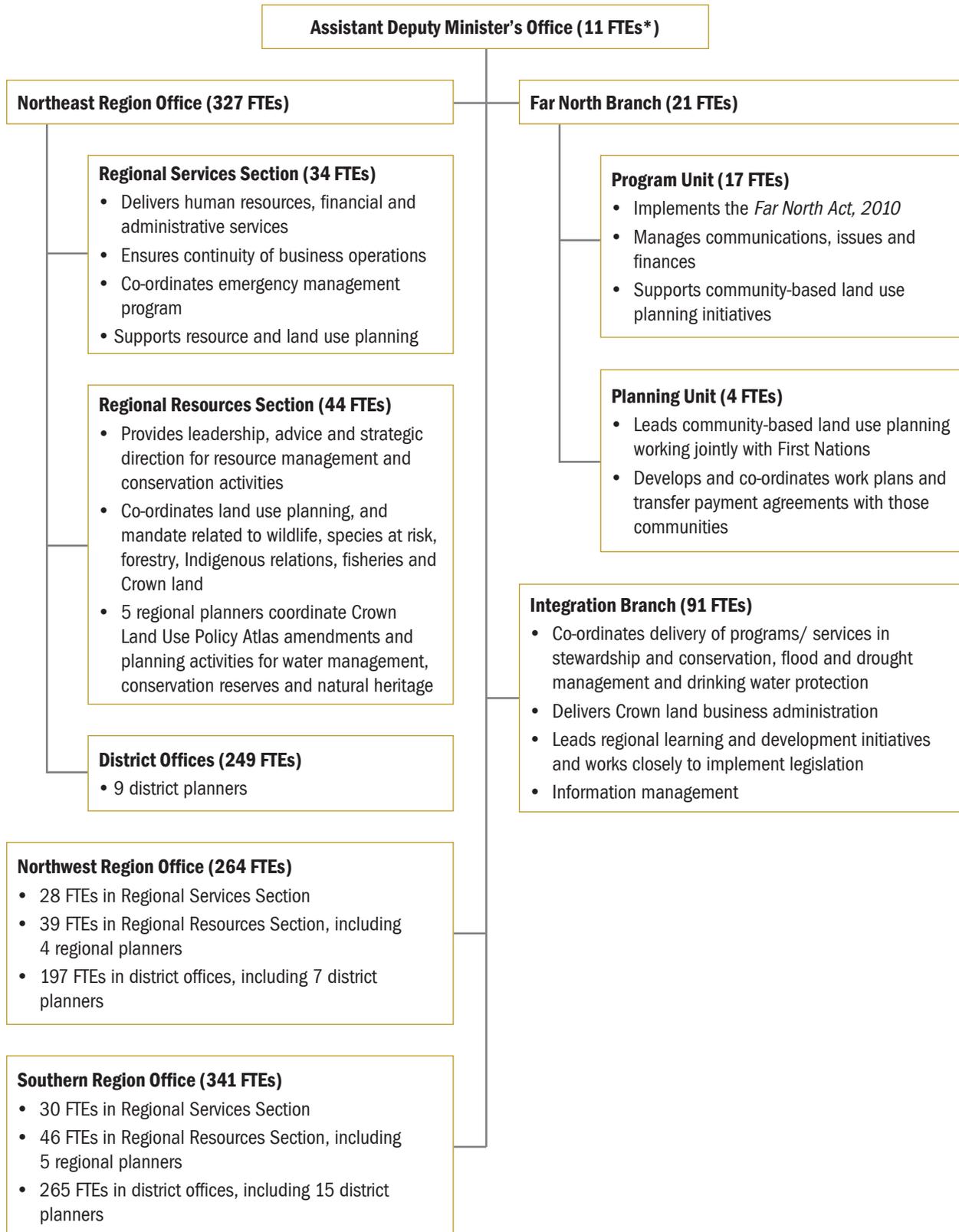
Source of data: Ministry of the Environment, Conservation and Parks



* Full-time equivalent.

Figure 7: Ministry of Natural Resources and Forestry Organizational Chart

Source of data: Ministry of Natural Resources and Forestry



* Full-time equivalent.

2.4 Biodiversity Conservation Is a Global Issue

In 1992, Canada became the first industrialized nation to sign and ratify the *United Nations Convention on Biological Diversity* (Convention). The Convention recognized that governments worldwide needed to act to conserve species and ecosystems because they were in rapid decline.

In 2010, Canada and the other parties to the Convention—now at 196 countries—agreed to establish 20 targets (known as the Aichi Targets) to be achieved by 2020 with a goal to slow or halt the loss of biodiversity. Target 11 reflects the contribution of protected areas in conserving biodiversity. That target is to protect at least 17% of terrestrial and inland waters (such as lakes) globally by 2020. As of February 2020, protected areas comprised only 12.1% of Canada’s terrestrial and inland waters (see **Figure 8**). In 2019, the federal government committed to increase protected area coverage to 25% of Canada by 2025 and to work toward 30% by 2030.

Ontario’s Environment Ministry reports twice a year to Environment and Climate Change Canada on the numbers and size of protected areas in Ontario. Environment and Climate Change Canada is responsible for screening federal lands like national parks and reporting to the United Nations on Canada’s progress in meeting international protected area targets.

In September 2020, the Secretariat of the Convention on Biological Diversity released the *Global Biodiversity Outlook 5*, which concluded that “efforts to conserve and restore biodiversity need to be scaled up at all levels,” including major increases in the extent and effectiveness of protected areas.

3.0 Audit Objective and Scope

Our audit objective was to assess whether the Ministry of the Environment, Conservation and

Figure 8: Percentage of Lands Protected in Select Jurisdictions

Source of data: Ministry of the Environment, Conservation and Parks; Environment and Climate Change Canada; and the Organisation for Economic Co-operation and Development

	Protected Areas Coverage (%)
World	13.1 ¹
G7 Members¹	
Germany	37.8
Great Britain	28.6
France	25.9
Italy	21.5
Japan	21.4
United States	13.0
Canada	12.1²
Canadian Provinces and Territories²	
British Columbia	19.5
Northwest Territories	15.8
Alberta	15.4
Nova Scotia	12.6
Yukon	11.8
Manitoba	11.0
Ontario	10.7³
Quebec	10.7
Nunavut	10.1
Saskatchewan	9.0
Newfoundland and Labrador	6.9
New Brunswick	4.6
Prince Edward Island	4.0

1. National figures, except for Canada, are based on data from the Organisation for Economic Co-operation and Development as of December 2019.

2. Canadian figures, including federal but excluding Ontario, are based on data from Environment and Climate Change Canada as of February 2020. The federal figure was projected to increase from 12.1% to between 13.5% to 14.3% by the end of 2020 because of work that some provinces and territories were undertaking to create new protected areas.

3. The Ontario figure is based on data from the Ministry of the Environment, Conservation and Parks as of April 2020.

Parks (Environment Ministry) and the Ministry of Natural Resources and Forestry (Natural Resources Ministry) have effective procedures and systems in place to:

- permanently protect a network of provincial parks, conservation reserves and other protected areas to conserve biodiversity that, in totality, are representative of Ontario's natural regions; and
- monitor and publicly report on their progress in protecting these areas.

In planning for our work, we identified the audit criteria (see **Appendix 5**) we would use to address our audit objective. These criteria were established based on a review of applicable legislation, policies and procedures, internal and external studies and best practices. Senior management at both ministries reviewed and agreed with the suitability of our objectives and associated criteria.

We conducted our audit from January 2020 to September 2020. We obtained written representation from Ministry management that, effective October 16, 2020, they had provided us with all the information they were aware of that could significantly affect the findings or the conclusion of this report.

Our audit work was conducted initially in Peterborough, where we interviewed senior management and staff, and reviewed relevant data and documents from the Ontario Parks head office as well as various branches and regional offices within both the Environment and Natural Resources ministries. We then visited 27 provincial parks, two privately protected areas, one national park, and 15 other types of conserved lands that are yet to be reported as protected areas. Collectively, the 27 provincial parks covered 830,254 hectares in four of the five regions and received 53% of public visitation in 2018, the most recent data available for individual sites.

We asked all Canadian provinces and territories, and received responses from five of them, about their approaches and processes to create and manage protected areas. In addition, we interviewed staff from organizations who manage other types of protected areas in Ontario—such as Parks Canada and Conservation Ontario—and non-government organizations—such as the Wildlands League,

Ontario Nature, Wildlife Conservation Society Canada and the Nature Conservancy of Canada—to obtain their perspectives on protected areas in Ontario. We also interviewed representatives from Chiefs of Ontario, a secretariat for 133 First Nations communities. We reviewed scientific literature and international standards about protected areas and biodiversity to identify best practices.

We also reviewed relevant audit reports by the Ontario Internal Audit Division from January 2015 to January 2020 and considered those reports in determining the scope of our work.

We conducted our work and reported on the results of our examination in accordance with the Canadian Standard on Assurance Engagements—Direct Engagements issued by the Auditing and Assurance Standards Board of the Chartered Professional Accountants of Canada. These standards involve conducting the tests and other procedures that we consider necessary, including obtaining advice from external experts when appropriate to obtain a reasonable level of assurance.

Our Office applies the Canadian Standard on Quality Control and, as a result, maintains a comprehensive quality control system that includes documented policies and procedures with respect to compliance with the code of professional conduct, professional standards and applicable legal and regulatory requirements. We have complied with the independence and other ethical requirements of the Code of Professional Accountants of Ontario, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

4.0 Detailed Audit Observations

4.1 Insufficient Staff for Science-Related Activities Hampers Ontario’s Ability to Meet Legal Obligation to Conserve Biodiversity

4.1.1 Only 7.5% of Ontario Parks Staff Involved in Science and Planning Activities in Existing Protected Areas

Our review of staffing data and our discussions with staff found that ecologists and park planners—staff members who are responsible for science and planning activities for provincial parks and conservation reserves—comprise only 7.5% of Ontario Parks’ full-time staffing complement.

Only seven, or 2.8%, of Ontario Parks’ full-time staff are ecologists who are responsible for gathering, analyzing and reporting information on, for example, species at risk and invasive species. This scientific information is necessary to monitor biodiversity and ensure that management plans and actions are based on current information. Five of the ecologists are assigned to the five regions across the province and were each responsible for between

45 and 291 provincial parks and conservation reserves (Figure 6). In 2019/20, the five ecologists and their seasonal assistants spent a combined 280 days working in all of the 295 conservation reserves. This is equivalent to only one day of field-work in each conservation reserve. The remaining two ecologists are assigned to the head office.

Twelve park planners spread across the five regions comprised only 4.7% of Ontario Parks’ total staffing complement. Depending on the region, each park planner is responsible for developing, reviewing and updating the management plans for between 19 and 97 provincial parks and conservation reserves (see Figure 9). At the time of our audit, each park planner had between four and 29 outdated or deficient management plans that needed to be replaced (see Section 4.3.1).

We heard from staff that in addition to these duties, both science and planning staff are often asked to assist with unrelated and urgent requests from senior management, which deprioritizes their core duties. Staff at the individual parks perform limited science-related work such as removing invasive species, protecting turtle nesting sites and monitoring some species at risk. In contrast, Parks Canada—which manages 48 national parks and reserves and also has a legislative mandate to maintain ecological integrity—has a dedicated unit in its

Figure 9: Numbers of Park Planners, Protected Area Management Plans and Provincial Parks and Conservation Reserves by Park Zone, May 2020

Source of data: Ministry of the Environment, Conservation and Parks

Zone	# of Provincial Parks	# of Conservation Reserves	Total # of Sites	# of Planners	# of Sites Each Planner is Responsible For	# of Deficient Management Plans That Have Not Been Replaced Within Five Years of Examination ¹
Algonquin	29	16	45	2	23	4
Northeast	109	182	291	3	97	18
Northwest	101	83	184	2	92	29
Southeast	46	11	57	3	19	9
Southwest	50	3	53	2	27	18
Total	335	295	630	12	53²	78

1. Issues regarding deficient management plans are discussed in Section 4.3.1.
 2. Average (not total) number of sites each planner is responsible for province-wide.

head office with 13 staff who provide expert science advice and analyses on current and emerging issues to support the establishment and management of protected areas. This unit is in addition to science staff who work on-site at individual national parks and at the regional offices. In 2013, the most recent year for publicly available information, Parks Canada had 119 scientist positions and 284 other positions dedicated for science support.

Ministry staff also told us that regional offices do not have enough staffing resources to effectively review management plans and implement the outcomes of each review in a timely manner (see **Sections 4.3.1** and **4.3.2** for details). Management plans outline specific policies and actions for managing an individual protected area.

RECOMMENDATION 1

So that the Ministry of the Environment, Conservation and Parks (Ministry) can meet its legislative responsibility under the *Provincial Parks and Conservation Reserve Act, 2006* to maintain, and restore when possible, ecological integrity in provincial parks and conservation reserves, we recommend that the Ministry:

- review its staffing mix to determine the appropriate level of science staff at the park, regional or zone, and head office levels to undertake science activities;
- determine the appropriate level of park planners necessary to develop, review and update management plans; and
- allocate the necessary staff based on the results of this review.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General's recommendation. Within budgetary and staffing limits, the Environment Ministry will:

- prioritize the level of science staff at the park, regional or zone, and head office levels to undertake science activities;
- evaluate the appropriate level of park planners necessary to develop, review and update management plans; and
- allocate the appropriate resources necessary to achieve its legislative mandate.

4.1.2 No Staff Responsible for Expanding Ontario's Protected Area Network

We found that no branch or staff in either the Environment Ministry or the Natural Resources Ministry—the two provincial ministries involved in creating protected areas in Ontario—is specifically tasked with expanding the province's protected area network. As a result, identifying sites for protection and completing the process to create a protected area are not prioritized, although directed under both the *Provincial Parks and Conservation Reserves Act, 2006* and the *Far North Act, 2010*. We discuss this issue in detail in **Section 4.4.2**. We also found, for example that:

- The number of full-time-equivalent staff assigned to work on land-use planning in the province's Far North region decreased from 22 in 2018 to 10 at the time of our audit (**Figure 7**). The Natural Resources Ministry told us that decreased staffing was attributed to staff leaving their positions because of uncertainty about the possible repeal of the *Far North Act, 2010* (see **Section 4.5.1**). The Ministry told us that it had not made any decisions regarding future full-time staffing complement.
- At the time of our audit, the Environment Ministry had allocated only a portion of a single full-time-equivalent staff member to screen candidate lands (see **Figure 1**) and work with partners, such as conservation authorities and municipalities, who have expressed interest in submitting their sites for screening in order to ultimately report them as protected areas (see **Section 4.6.1**). Ministry

staff told us that this allocation is because of the limited staffing resources available.

In contrast, Parks Canada has a dedicated branch with 13 staff who are responsible and accountable for creating new national parks. Other jurisdictions, such as Alberta and Manitoba, have one to one-and-a-half full-time staff dedicated to creating protected areas.

RECOMMENDATION 2

So that the Ministry of the Environment, Conservation and Parks (Environment Ministry) can fulfill its responsibilities under the *Provincial Parks and Conservation Reserves Act, 2006*, by planning a network of protected areas that maintains Ontario's biodiversity, we recommend that the Environment Ministry:

- assess the human resources needed to expand protected areas; and
- allocate such resources.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General's recommendation. Within budgetary and staffing limits, the Environment Ministry will evaluate the human resources needed to permanently protect a system of provincial parks and conservation reserves and will allocate the appropriate resources necessary to achieve its legislative mandate.

RECOMMENDATION 3

So that the Ministry of Natural Resources and Forestry (Natural Resources Ministry) is compliant with the *Far North Act, 2010*, we recommend that the Natural Resources Ministry:

- assess the human resources needed to complete the community-based land-use plans; and
- allocate such resources.

NATURAL RESOURCES MINISTRY RESPONSE

The Ministry of Natural Resources and Forestry (Natural Resources Ministry) agrees with the Auditor General's recommendation. The Natural Resources Ministry will evaluate staffing capacity required to engage with Far North First Nations in order to complete community-based land use plans. The Natural Resources Ministry will allocate appropriate resources to engage with Far North First Nations in order to complete community-based land use plans.

4.2 Ontario Does Not Know Whether It Is Meeting Legal Obligation to Conserve Nature in Protected Areas

Our audit found that the Environment Ministry does not demonstrate a commitment to fulfilling its legislative responsibility under the *Provincial Parks and Conservation Reserves Act, 2006* (Act)—to conserve biodiversity while providing recreational opportunities—because it does not collect sufficient data about the state of biodiversity within existing protected areas.

The Act requires the Environment Ministry to maintain healthy and viable populations of native species, including species at risk and their habitat. However, the Ministry does not have sufficient information about species at risk, invasive species that harm biodiversity, and whether activities like hunting, fishing, and trapping are ecologically sustainable in individual provincial parks and conservation reserves.

4.2.1 At Least 75% of Ontario's Species at Risk Are Found in Protected Areas, but There is No Data on Whether They Are Being Protected

Of the 243 species at risk in Ontario at the time of our audit, at least 181 or 75% can be found in

provincial parks and conservation reserves. The Act requires the Environment Ministry to maintain healthy and viable populations of at-risk species and their habitat within provincial parks and conservation reserves. The Act also directs that these protected areas are to provide points of reference to support monitoring of ecological change on the broader landscape. However, the Ministry does not centrally collect information on how many and what kinds of species at risk are found in each provincial park or conservation reserve—or the state of their habitats. Our review of a draft internal report by the Environment Ministry staff found that in 2019, the Ministry did not undertake any work to protect or restore rare species in any of the 295 conservation reserves.

Protected areas are intended to provide safe havens for species at risk and contribute to recovery efforts for those species. Protection and recovery actions depend on the needs of a particular species. Some species at risk may not require park staff to take further action beyond educating park visitors about them. In addition, the Ministry does not publicly disclose the presence of some types of species at risk, such as American ginseng (an endangered plant), in order to protect them from illegal harvesting, damage from trampling, and other disturbances. Nonetheless, knowing what at-risk species are present in an area is important in understanding the state of biodiversity, especially when the Ministry is deciding, for example, where to construct a new road or park facility because these projects could negatively impact the species or its habitat. For example, there are more than 80 species at risk and provincially significant species in Rondeau Provincial Park.

We reviewed the management plans—which contain the policies to follow when managing a specific protected area—for a sample of provincial parks and conservation reserves across the province, and found that 60% of the plans indicated that species at risk were observed in the protected area, but half of the plans did not outline specific actions to protect and recover species at risk and their habitat.

We also visited a sample of 27 provincial parks to determine whether species at risk are present and, if so, whether park staff are taking actions to protect and recover them. Such actions can include interpretative signage, plantings, fencing, and eco-passages underneath roads. We found, through our own observations, research, and discussions with park staff, that species at risk were present in 25 of the 27 parks. We observed protective and recovery actions related to at-risk species in 14 or half of the 27 provincial parks we visited. Ministry staff told us that staff in 11 of the other 13 parks we visited were also performing protective and recovery actions related to at-risk species.

While our fieldwork found that staff at individual parks are making efforts to protect species at risk, these activities depend on available resources and time, and are largely uncoordinated. By maintaining up-to-date management plans that outline specific actions for protecting at-risk species, the Ministry can better ensure that it is prioritizing and providing sufficient resources toward activities that fulfill its legal obligation. For example, Ministry staff told us that the lack of dedicated funding means that initiatives aimed at protecting species at risk are carried out only when parks or regional staff are able to locate surplus funds in the park's operating budget. Examples of actions we observed during our visits include:

- Presqu'île Provincial Park—located on the eastern shores of Lake Ontario—contains habitat for three of eight species of Ontario's turtles that are at-risk. The park's management plan states that measures to mitigate the impact of roads on wildlife like turtles will be undertaken where appropriate. We observed signage at the park that states 10 to 20 adult turtles were killed on park roads each year between 2013 and 2015. Because of their late maturity and the low survival rate of their young, even a small reduction in the adult turtle population can dramatically reduce a local population. During our visit, we observed that two “turtle tunnels” had

been constructed to allow turtles and other wildlife to safely pass underneath the road in the area of the park where the highest number of turtles were being killed. We also observed fencing along the sides of the road that prevented wildlife from crossing the road and instead funneled it into the tunnels.

- During our visit to Darlington Provincial Park, we observed extensive fencing to exclude visitors from the area around the nesting site of piping plover shorebirds, which are a species at risk. We observed three piping plover chicks along the beach within the exclusion zone. In addition, there were both temporary and permanent signs alerting visitors to the presence of nesting piping plovers and providing information about the life cycle of this species at risk.
- During our visit to Sandbanks Provincial Park, park staff showed us fenced-off areas where endangered butternut trees, a medium-sized tree in the walnut family, were planted.

The Act allows non-government parties like individuals from academic institutions to carry out research in provincial parks and conservation reserves. However, these types of research generally have a very specific focus and cover relatively short timeframes. For example, studies conducted in Algonquin Provincial Park—such as nest abandonment by smallmouth bass and habitat selection by nesting turtles—may contain valuable information about life stages of specific species and habitats in the park. They do not, however, necessarily provide a consistent monitoring and assessment program of the health of the entire park ecosystem. In addition, Ministry staff told us that senior management approval is required to communicate with non-government researchers, which hinders staff's ability to communicate and collaborate.

We noted that the Natural Resources Ministry has a province-wide fisheries monitoring program that allows it to detect changes in fish populations and their habitat over time. On a five-year cycle beginning in 2008, Ministry staff collect informa-

tion annually about fish species and communities, water chemistry, invasive species and fishing activities from a representative number of lakes in each of the 20 designated fisheries zones, which can include lakes in protected areas. The number of lakes from which samples are taken allows the Natural Resources Ministry to draw conclusions about fish populations and their habitat in each zone and across the province. The Environment Ministry does not have a similar monitoring program for its network of protected areas.

RECOMMENDATION 4

So that the Ministry of the Environment, Conservation and Parks (Environment Ministry) can meet its legislative responsibility under the *Provincial Parks and Conservation Reserve Act, 2006* to maintain viable and healthy populations of native species, including species at risk, we recommend that the Environment Ministry:

- develop a monitoring program to regularly collect information about the types and populations of species at risk and their habitat in each provincial park and conservation reserve;
- implement the monitoring program; and
- publicly report, as part of the *State of Ontario's Protected Areas Report*, on the status of species at risk and their habitats in provincial parks and conservation reserves based on the results of its monitoring program.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General's recommendation. The Environment Ministry recognizes the importance of the Auditor General's findings regarding developing a monitoring program to collect information about the types and populations of species at risk. The Environment Ministry is currently developing strategies on how it generates,

acquires, manages and uses science and information to inform policy, planning, management and operations. The Environment Ministry will:

- endeavour to use the best available science and information in managing all aspects of provincial parks and conservation reserves and increase the scientific information that is available;
- make efforts to establish or adopt consistent standards, protocols and information management systems to support monitoring the types and populations of species at risk and their habitat in provincial parks and conservation reserves;
- support external science partners and collaborators in their monitoring efforts of species at risk and their habitat;
- continue to work to support and co-ordinate community science efforts to monitor appropriate species at risk populations and their habitat in provincial parks and conservation reserves; and
- report publicly on the state of the provincial park and conservation reserve system, including the results of monitoring species at risk in provincial parks and conservation reserves.

4.2.2 Invasive Species Threaten Biodiversity but Their Presence and Impacts in Protected Areas Are Not Sufficiently Known

The Act requires the Environment Ministry to maintain healthy and viable populations of native species within provincial parks and conservation reserves. However, the Environment Ministry does not systematically monitor the presence or abundance of invasive species and their impacts on the native species in these protected areas.

Invasive species are plants and animals that enter a new environment where they are not native and that have significant negative impacts on existing native species and habitats. There are at least 400 invasive species in Ontario, including aquatic

and terrestrial invasive plants and invasive fish and invertebrates. For example, there are at least 50 types of non-native plants in Sibbald Point Provincial Park, many of which are invasive. Our review of the management plans for a sample of provincial parks and conservation reserves across the province found that one-third of the plans did not outline actions to identify, prevent and manage invasive species.

We also visited a sample of 27 provincial parks to determine whether invasive species are present and, if so, whether park staff are taking actions to deal with them. Actions can include interpretative signage and removal or management by staff, depending on what a particular species requires. We found, through our own observations, research, and discussions with park staff, that invasive species were present in 25 of the 27 parks. We observed actions related to invasive species in 16 of the 27 provincial parks. In the other 11 provincial parks, Ministry staff subsequently told us that actions were occurring related to invasive species in nine of them.

For example, during our visit to Sharbot Lake Provincial Park, we observed a very high number of invasive European gypsy moths. The 1988 management plan for the park states that staff historically used an aerial biological insecticide to minimize the spread of the gypsy moth. The plan states that park staff will continue to monitor gypsy moths in the park. The Ministry reports that, before 2000, gypsy moth control was done by ground or air application of a biological pesticide known as *Bacillus thuringiensis* or Bt. However, the Ministry told us that no insecticide applications have been completed since 2000 and no other management occurs in Sharbot Lake Provincial Park to control gypsy moths. Currently, the Ministry does not have an official policy on the use of Bt, but its use is not encouraged because it can negatively impact other species, in addition to gypsy moths. No other management actions are taken to control gypsy moths in provincial parks.

While our fieldwork found that staff at individual parks are making efforts to manage invasive species, these activities depend on available resources and time, and they are largely uncoordinated. By maintaining up-to-date management plans that outline specific actions for dealing with invasive species, the Ministry can better ensure that it is prioritizing and providing sufficient resources toward activities that fulfill its legal obligation.

In its 2011 *State of Ontario's Protected Areas Report*, the Natural Resources Ministry—responsible then for managing protected areas—stated that at least 13 invasive species had been identified in provincial parks, mostly in those that received “more intensive visitation and use,” and that invasive species were a concern in 50 provincial parks. The *Provincial Parks and Conservation Reserves Act, 2006*, requires the Environment Ministry—now responsible for managing protected areas through its Ontario Parks branch—to report on the state of the province’s protected areas every 10 years. The next report is expected to be issued in 2021.

In its 2017 *Strategic Direction*, Ontario Parks committed to reduce the impact of invasive species on provincial parks and conservation reserves. However, at the time of our audit—nine years after the 2011 report was released—the Environment Ministry still did not have updated information about invasive species in its protected areas.

Staff told us that regional offices do not have sufficient staffing resources to carry out science and monitoring activities to effectively prioritize maintaining the ecological integrity of provincial parks and conservation reserves (see **Section 4.6.1**). In addition, the Ministry has not established a centralized unit dedicated to science-related activities. Ministry staff also told us that the lack of a dedicated unit to co-ordinate and share best practices creates inconsistencies in actions between regions and individual parks. Findings from our park visits and other audit work confirmed this inconsistency. For example, the Ministry’s approach to invasive species management is inconsistent:

- In 2019/20, Ministry staff undertook actions to inventory and manage invasive species in only three of 295 conservation reserves.
- Southeast Zone staff maintain an inventory of known invasive species and prioritize them by risk for active management by staff in each protected area. Staff have identified 160 occurrences of invasive plant species within protected areas in the zone. Of these, 54 have been deemed high priority for action, meaning staff will actively manage them. For example, staff may undertake efforts to remove invasive garlic mustard in a particular provincial park. We found that no other park zones possessed that level of detail about invasive species in its protected areas.
- During our visit to Presqu’île Provincial Park, we observed posted signs throughout the park describing staff’s efforts to remove invasive plants like black alder and replace them with native species. Further, during our visit to Awenda Provincial Park, we observed invasive European gypsy moths and information about them on a sign posted in the park store. In contrast, we observed a high number of European gypsy moths during our visit to Sharbot Lake Provincial Park, but we did not observe any signage or other interpretive information about them for visitors. Interpretative information is important to educate visitors about both a specific issue and to promote a broader awareness that the overall purpose of the area is to maintain ecological integrity.

We also found that there is no dedicated funding allocated for preventing, identifying and controlling invasive species in provincial parks and conservation reserves. Ministry staff told us that the lack of dedicated funding means that these activities only occur when parks or regional staff are able to locate surplus funds in the park’s operating budget. For example, every spring, staff at Voyageur Provincial Park lead efforts to remove European water chestnuts in the park’s wetlands. European water chestnut is an invasive aquatic plant that grows

densely atop the water, creating floating layers of vegetation that reduce the amount of light that penetrates to the underwater ecosystem.

RECOMMENDATION 5

So that the Ministry of the Environment, Conservation and Parks (Environment Ministry) can meet its legislative responsibility under the *Provincial Parks and Conservation Reserve Act, 2006* to maintain viable and healthy populations of native species in provincial parks and conservation reserves, we recommend that the Environment Ministry:

- collect information about the extent and type of invasive species by provincial park and conservation reserve;
- assess the impacts of invasive species in individual provincial parks and conservation reserves; and
- take the necessary actions, where feasible, to reduce or eliminate invasive species and their negative impacts in provincial parks and conservation reserves.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General's recommendation. The Environment Ministry will:

- develop consistent standards and platforms for data collection on the extent and type of invasive species in provincial parks and conservation reserves;
- engage with and support external science partners and collaborators in their science and monitoring efforts regarding invasive species in provincial parks and conservation reserves;
- support and co-ordinate community science efforts regarding invasive species in provincial parks and conservation reserves; and
- where appropriate, assess the impacts of invasive species in individual provincial

parks and conservation reserves to inform management planning and resource stewardship activities.

The Environment Ministry recognizes the importance of reducing or eliminating negative impacts in provincial parks and conservation reserves and intends to take the necessary actions, where feasible, to reduce or eliminate invasive species and their negative impacts in provincial parks and conservation reserves.

4.2.3 Environment Ministry is Not Assessing the Impact of Hunting, Fishing and Trapping in Protected Areas

Our audit found that the Environment Ministry does not assess whether hunting, fishing and trapping activities in provincial parks and conservation reserves are ecologically sustainable. This is in spite of the fact that the Act requires that all of these activities in these protected areas be carried out in a manner that will maintain healthy and viable populations of native species. These activities can negatively impact species and how effectively these sites are functioning as protected areas.

Hunting, fishing and trapping—called harvesting activities—are permitted by the Natural Resources Ministry in most of the 630 provincial parks and conservation reserves in Ontario (see **Figure 10**). The Act also recognizes that Indigenous peoples can exercise their rights to hunt, fish or trap in provincial parks and conservation reserves. In addition, at the time our audit, there were 947 permits that allow businesses and members of the public to set up hunt camps, cabins and lodges in certain areas within protected areas. These permits largely pre-date the establishment of the protected areas and were allowed to persist provided the conditions of the permits are followed.

In some cases, hunting, fishing and trapping activities can align with maintaining the ecological integrity of provincial parks and conservation reserves. Some provincial parks in southern

Figure 10: Hunting, Trapping and Fishing in Provincial Parks and Conservation Reserves, May 2020

Source of data: Ministry of the Environment, Conservation and Parks

Activity	Provincial Parks Where Activity Is Allowed (Out of 335)		Conservation Reserves Where Activity Is Allowed (Out of 295)		Total (Out of 630)	
	#	%	#	%	#	%
Hunting (recreational)	133	40	295	100	428	68
Trapping (commercial)	287	84	295	100	582	92
Fishing (recreational)	203	61	273	93	476	76

Ontario periodically have high-density populations of species such as white-tailed deer because of the high-quality habitat in the surrounding landscape and the lack of predators. In these cases, hunting may help by lowering deer populations in protected areas. Local Indigenous communities may lead or participate in such activities, exercising constitutionally protected Aboriginal and Treaty rights. However, harvesting activities like hunting can have negative impacts if not done sustainably. For example, the direct impacts these activities can have on species include taking too many overall or too many of one age group. Indirect impacts—for example, off-road motorized vehicle use and the incidental introduction of invasive species—can also negatively affect biodiversity. Regardless, the province should have information on both population and harvest levels in order to manage for conserving biodiversity in individual protected areas.

The Natural Resources Ministry collects population and hunting information on game animals across the province to inform its decisions about how to manage wildlife. However, this information is not differentiated between harvest occurring inside and outside of protected areas. As a result, the Environment Ministry cannot determine the extent or ecological impact of hunting, fishing and trapping in provincial parks and conservation reserves. For example, in 2019, the Natural Resources Ministry made over 10,000 moose tags available to hunters, meaning that hunters could legally harvest that many individual moose during the hunting season, including within protected areas

where permitted. The Ministry, however, did not differentiate how many could be harvested inside and outside protected areas. Because of this, the Environment Ministry cannot determine the impact of hunting on biodiversity within protected areas.

Harvest activities can impact species within protected areas even when they occur outside the protected area boundaries. For example, a 2017 study published in the journal *Ursus* found that 15% of black bears in Algonquin Provincial Park were killed annually when they ventured outside the park's boundaries, which could threaten the ecological integrity of the park when the ages and numbers in the bear population change.

Our review of the management plans for a sample of provincial parks and conservation reserves found that nearly one-third of the plans did not address the potential impacts of hunting and 57% did not address the potential impacts of fishing. This lack of direction hinders the Environment Ministry's ability to determine whether these activities are being undertaken in an ecologically sustainable manner as required by the *Provincial Parks and Conservation Reserves Act, 2006*.

The Natural Resources Ministry enforces the *Fish and Wildlife Conservation Act, 1997*—which regulates hunting, fishing and trapping activities—and the *Crown Forest Sustainability Act, 1994*—which regulates logging activities—in provincial parks and conservation reserves. Infractions under these laws (see **Figure 11**) include hunting, fishing or trapping out of season, in the wrong location, or taking more than what is permitted, as well as logging where it

Figure 11: Violations in Provincial Parks and Conservation Reserves, 2014–2019

Sources of data: Ministry of the Environment, Conservation and Parks and Ministry of Natural Resources and Forestry

Act	Responsible Ministry	2014	2015	2016	2017	2018	2019	Total
<i>Provincial Parks and Conservation Reserves Act, 2006</i> ¹	Environment	126	104	59	122	118	No data	529
<i>Fisheries Act (Federal)</i>	Natural Resources	67	49	47	31	18	No data	212
<i>Fish and Wildlife Conservation Act, 1997</i>	Natural Resources	2	26	35	24	15	27	129
<i>Endangered Species Act, 2007</i> ²	Environment	0	0	2	9	0	0	11
<i>Crown Forest Sustainability Act, 1994</i>	Natural Resources	0	0	0	0	0	0	0
Total		195	179	143	186	151	27	881

1. Does not include violations that are not related to natural resources such as parking infractions.

2. The Ministry of Natural Resources and Forestry was responsible for enforcement until June 2018, when responsibility was transferred to the Ministry of the Environment, Conservation and Parks.

is prohibited. These activities generally have a direct impact on biodiversity, but neither ministry knows the impact of these violations on biodiversity in protected areas. The penalties under these two acts are meant to be a deterrent to both private citizens and commercial entities to ensure that biodiversity is conserved in protected areas. For example, the penalties for illegally taking trees under the *Crown Forest Sustainability Act, 1994* is a fine of up to \$15,000 plus the cost of five times the value of the illegally harvested forest and the potential suspension or cancellation of a licence. Further, the penalties under the *Fish and Wildlife Conservation Act, 1997* include a fine of up to \$25,000 or up to a year in jail (or both) for individuals and a fine of up to \$100,000 and up to two years in jail (or both) for commercial entities, seizure of items that were used to assist in the offence, a loss of licence for a period specified by the order and the requirement to complete any required education courses prior to obtaining a new or returned licence.

RECOMMENDATION 6

So that hunting, fishing, trapping and other activities in provincial parks and conservation reserves are ecologically sustainable, we recommend that the Ministry of the Environment, Conservation and Parks:

- work with the Ministry of Natural Resources and Forestry to gather information about the extent of hunting, fishing and trapping activities in each provincial park and conservation reserve;
- assess the ecological impacts of such activities in provincial parks and conservation reserves; and
- take necessary actions to mitigate any negative ecological impacts of the activities.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) recognizes the importance of the Auditor General's recommendations. The Environment Ministry acknowledges the Auditor General's finding and will continue to provide input to the Ministry of Natural Resources and Forestry (Natural Resources Ministry) on planning for its monitoring programs. The Environment Ministry will support the Natural Resources Ministry's province-wide assessments of the ecological impacts of hunting, fishing and trapping activities within the Environment Ministry's mandate and capacity.

The Environment Ministry will utilize relevant information gathered by the Natural Resources Ministry to help inform provincial park and conservation reserve management decisions.

The Environment Ministry recognizes the importance of mitigating any negative ecological impacts and will take the necessary actions to mitigate any negative ecological impacts of hunting, fishing and trapping activities through planning and management of provincial parks and conservation reserves.

4.2.4 Three of Ontario's 11 Wilderness Areas Not Protected from Logging or Claim Staking as Required by Law

We found during our audit that three of the 11 wilderness areas that remain on Crown land outside of other protected areas were open to logging or mining activities, which is not consistent with the requirements of the *Wilderness Areas Act* that they be protected in their natural state. We also found that the Natural Resources Ministry does not have any policy requiring staff to monitor wilderness areas.

The *Wilderness Areas Act* does not allow the “development or utilization of natural resources” in wilderness areas smaller than 260 hectares. All three wilderness areas that we noted are smaller than 260 hectares; the largest one being 198 hectares in size. These wilderness areas were established to protect natural features as follows:

- **Derby Lake Wilderness Area:** Located in Kenora, Derby Lake was created in 1964 to protect old growth white pine stands. The Natural Resources Ministry indicated it became aware it was still open to logging only as a result of our inquiries in May 2020. Forestry operations by a private company were scheduled to take place within Derby Lake at any time in 2020, but the Ministry said it cancelled the activities once our Office made it aware of the error.
- **Eighteen Mile Island Wilderness Area:** Located in Sudbury, Eighteen Mile was created in 1960 to protect representative examples of forest cover and growth for scientific study. The Natural Resources Ministry told us that it purposely approved

the logging of 50 of the 195 hectares within Eighteen Mile because the small size of “this site became redundant and unneeded” when the nearby French River Provincial Park was created. Yet, the Ministry also told us that “no harvest operations should be occurring” because it was not an allowable activity. This wilderness area was in “pristine condition” when it was established but was logged from 1960 to 1970. Ministry staff have stated that “no effort has been expended to ensure the integrity of the area.” In July 2020, the Ministry told us that it had removed this area from current logging plans but that it would seek to deregulate this wilderness area in the future in order to allow logging. The Ministry is required to consult the public if it formally changes this land-use designation and the site would no longer be allowed to be reported as a protected area.

- **Sankey Township Nature Reserve Wilderness Area:** Located in Hearst, Sankey Wilderness Area was created in 1964 to represent a typical example of forest cover in the area for study. The Ministry reports that it is no longer of value from a life-science perspective because of logging that took place in the 1960s and 1980s. At the time of our audit, this wilderness area had not been withdrawn from claim staking, although no mining claims had been staked. As a result of our inquiries, the Natural Resources Ministry told us it will request that the Ministry of Energy, Northern Development and Mines withdraw the lands from claim staking.

In addition, a 2016 report by the Natural Resources Ministry noted that six of the 11 wilderness areas had been variously impacted between 1960 and 1997 by one or a combination of logging, logging roads or gravel pits. These past activities indicate that these areas have historically not been protected by the Natural Resources Ministry as required by law.

RECOMMENDATION 7

So that the wilderness areas in Ontario are maintained in their natural state as required under the *Wilderness Areas Act*, and so that activities that are not permitted do not occur, we recommend that the Ministry of Natural Resources and Forestry improve its processes for managing wilderness areas.

NATURAL RESOURCES MINISTRY RESPONSE

The Ministry of Natural Resources and Forestry (Natural Resources Ministry) agrees with the Auditor General’s recommendation. In the immediate term, the Natural Resources Ministry will improve its processes for managing areas regulated under the *Wilderness Areas Act*.

In the longer term, and consistent with the *Guide for Crown Land Use Planning*, the Natural Resources Ministry will seek advice from the Ministry of the Environment, Conservation and Parks as to whether the nine remaining wilderness areas south of the Far North Boundary contain natural or recreational values that warrant regulation under the *Provincial Parks and Conservation Reserves Act, 2006*. Where these areas do not warrant this level of protection, they will be deregulated. For wilderness areas in the Far North and not located within a *Provincial Parks and Conservation Reserves Act, 2006*-regulated area, their protected area management will be considered in future community-based land use planning.

4.2.5 65% of Algonquin Provincial Park Does Not Meet Criteria for Reporting it as a Protected Area Because of Commercial Logging

Algonquin Provincial Park, at 763,000 hectares, is one of the largest provincial parks in Ontario, but only one-third of the park is reported as a

protected area by the Environment Ministry. This is because commercial logging is permitted in the park’s “recreation/utilization” zone, which covers 498,785 hectares or two-thirds of the park. National criteria do not allow an area to be reported as a protected area if activities that are incompatible with the conservation of biodiversity—like commercial logging—are allowed to occur. If all of Algonquin Provincial Park met the criteria for protected areas, it would increase the percentage of the total area of Ontario that is covered by protected areas by about 0.5%.

Algonquin is the only provincial park in Ontario where commercial logging is still permitted. The province ended commercial logging in Killarney and Quetico Provincial Parks in 1971 and in Lake Superior Provincial Park in 1989. The Algonquin Provincial Park management plan determines how much of the park is open to logging. The Algonquin Forestry Authority—a Crown corporation—manages logging activities in the park under the *Algonquin Forestry Authority Act* and the *Crown Forest Sustainability Act, 1994*.

The Algonquin Forestry Authority’s average annual revenue from 2014–2019 was \$25,281,956. Its average annual expenses in the same period were \$25,459,107. Under a Memorandum of Understanding, the Ministry reimburses the Authority for costs incurred for constructing and maintaining interior logging roads. The average annual reimbursement from 2014 to 2019 was over \$1.6 million.

Under the *Crown Forest Sustainability Act, 1994*, commercial logging in Crown forests must adhere to a forest management plan. A plan sets out how the forestry operations will be conducted—including where, when, and with what methods—while having regard for the plant and animal life that the forest sustains as well as the recreational and cultural values of the forest. A plan covers a period of 10 years, and each year a portion of the forest is harvested. The current forest management plan for Algonquin identifies more than 134,000 hectares available for harvest within the plan’s 10-year time frame.

In 2005, the Minister of Natural Resources asked the Ontario Parks Board of Directors to provide advice on how to lighten the ecological footprint of logging in Algonquin Provincial Park. In 2006, the Board submitted recommendations to the Minister on how to reduce the area of the park that was logged based on its concerns about the impacts of this activity. The Board also recommended that the Ministry review “the park’s role in the protected areas network, goals and objectives, how the park is managed, governance and its legislative framework.” At the time of our audit, neither the Natural Resources Ministry nor the Environment Ministry had undertaken this review.

In 2008, the Natural Resources Ministry asked the boards of directors of Ontario Parks and the Algonquin Forestry Authority to make recommendations to address logging in Algonquin. The boards’ 2009 report recommended lightening the ecological footprint of logging by increasing the area within the park that was protected from logging. In response, in 2013, the Ministry amended the park’s plan to reduce the area that is open for logging by 96,000 hectares. The change increased the percentage of the park that is protected from logging from 22.1% to 34.7%.

In 2014, when the former Environmental Commissioner of Ontario reported to the Legislative Assembly on logging in Algonquin Provincial Park, the Ministry acknowledged that reducing the area open to logging “enhanced the ecological integrity of Algonquin Park by increasing protection for important park values such as habitat connectivity, brook trout waters, species at risk, and under-represented ecosystems.”

The current Algonquin Provincial Park management plan was approved in 1998—more than 20 years ago. The *Provincial Parks and Conservation Reserves Act, 2006* directs that management plans should be examined every 20 years to determine whether changes are needed.

The management plan for Algonquin is subject to two pieces of legislation. The *Algonquin Forestry Authority Act*, which became law in 1974, directs

that the park management plan should balance “maintaining and improving the quality of Algonquin Provincial Park for the purpose of recreation” and “the public interest in providing a flow of logs from Algonquin Provincial Park.” The *Provincial Parks and Conservation Reserves Act, 2006* directs that the first priority in all aspects of planning and management is to maintain ecological integrity. The Algonquin Provincial Park management plan was amended in 2013 to increase the area protected from logging, and in 2017 to enable the extension of cottage lot leases.

RECOMMENDATION 8

To enhance ecological integrity in Algonquin Provincial Park by treating more of it as a protected area, we recommend that the Ministry of the Environment, Conservation and Parks in consultation with the Ministry of Natural Resources and Forestry:

- review the impact of the current level of commercial logging in Algonquin Provincial Park on the ecological integrity of the Park; and
- amend the Algonquin Park Management Plan to implement the results of this review.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General’s recommendation.

A 2018 joint memo between the Ministry of Natural Resources and Forestry (Natural Resources Ministry) and Ontario Parks provides direction for how the forest management planning process is expected to meet requirements under the *Provincial Parks and Conservation Reserves Act, 2006* regarding maintenance of ecological integrity. A 2019 agreement between the Environment Ministry and the Natural Resources Ministry provides direction with respect to forest management planning and operations’ responsibilities and the protection of park values.

The Environment Ministry is actively engaged in developing and reviewing the 2021–2031 Forest Management Plan, including assigning two planners to participate on the planning team and a biologist as a plan advisor to reflect the Environment Ministry’s perspective and mandate in the preparation of the Forest Management Plan. The forest management planning process includes assessments of indicators such as old growth forest based on current harvest levels.

The Environment Ministry will consider these recommendations as it continues to review and amend the Algonquin Park Management Plan as required.

NATURAL RESOURCES MINISTRY RESPONSE

The Ministry of Natural Resources and Forestry (Natural Resources Ministry) agrees with the Auditor General’s recommendation. The Natural Resources Ministry is committed to maintaining ecological integrity in Algonquin Park through implementing the forest management planning process and regulating these activities under the *Crown Forest Sustainability Act, 1994*.

A joint memo was issued in 2018 by the Natural Resources Ministry and Ontario Parks confirming that development of a Forest Management Plan prepared in accordance with the *Crown Forest Sustainability Act, 1994* meets the *Provincial Parks and Conservation Reserves Act, 2006*’s requirements for maintenance of ecological integrity.

The Natural Resources Ministry is currently developing the Forest Management Plan for 2021–2031 for the Algonquin Park Forest. As per the terms of the 2019 agreement between the two ministries, Ontario Parks staff are part of the planning team. Ontario Parks has a primary role in integrating any requirements of the Algonquin Park Management Plan into the Forest Management Plan. The Natural

Resources Ministry will work with the Ministry of the Environment, Conservation and Parks to consider whether amendments to the Algonquin Park Management Plan are required.

4.3 Outdated and Lack of Management Plans Impede Ministry’s Legal Duty to Conserve Biodiversity

4.3.1 Ministry is Not Complying with the Act by Not Replacing Obsolete Management Plans in a Timely Manner

Our audit found that the Environment Ministry has not replaced 78, or 86%, of the 91 management plans that it had determined needed to be replaced within the required time frame. Once the Ministry determines a plan needs to be replaced, its guidelines state that replacement plans should be approved within three to five years, depending on their complexity. By not replacing these plans in a timely manner, provincial parks and conservation reserves may not be effectively addressing threats to the natural features of the parks or reflect the objective of making ecological integrity the top priority.

From 2007 to 2019, the Environment Ministry reviewed the plans for 219 provincial parks and 109 conservation reserves and determined 122 needed to be replaced or amended (see **Figure 12**). Of those 122 plans, 114, or 93%, pre-date the *Provincial Parks and Conservation Reserves Act, 2006*, which made ecological integrity the top priority. For example:

- In 2011, the Ministry determined that the 1978 management plan for Wasaga Beach Provincial Park needed to be replaced to better address, among others, the impacts of recreational activities. However, at the time of our audit, the plan had not been replaced. The park contains significant natural features such as the longest freshwater beach in the world, the largest parabolic dunes in Ontario

Figure 12: Outcome of Environment Ministry's Review of Provincial Park and Conservation Reserve Management Plans, 2007–2019

Source of data: Ministry of the Environment, Conservation and Parks

Description		# of Plans	% of Total
Replacement	The plan is no longer relevant, effective or current, and requires substantial changes to effectively manage the protected area.	91	26
Amendment	Specific components of the existing plan need to be revised to reflect changing conditions such as new threats or permitted activities. Involve a change in policy	31	9
Administrative update	Revisions are necessary to clarify, correct and update the plan to make it relevant, effective and current. Changes do not involve change in policy for managing the protected area. For example, to correct spelling errors or inaccuracies in site description or to update maps	193	56
Status quo	The existing plan is still relevant, effective and current. No changes are required to continue management of the protected area.	32	9
Total		347	100

and distinct vegetation communities. It also protects a number of species at risk, such as the endangered piping plover shorebird, and their habitats. In 2018, 1.7 million visitors used the park's beaches and year-round hiking trails.

- In 2013, the Ministry determined that the 1990 management plan for Awenda Provincial Park needed to be replaced. Awenda is home to species at risk like the Canada warbler, bald eagle and eastern hog-nosed snake. The biggest threats to the eastern hog-nosed snake are habitat loss and either inadvertent harm or hostile behaviour toward the snakes by people. In 2018, Awenda hosted just under 149,000 visitors. While Awenda would be an ideal refuge for the eastern hog-nosed snake, its management plan has no specific direction to maintain or recover the threatened species. During our visit to Awenda, park staff told us that two eastern hog-nosed snakes had recently been found dead on roads in the park. Park staff said that they were preparing to install signage for visitors to be alert to, and avoid, snakes on the road.

The Ministry prioritizes the development, review and replacement of management plans

based on a set of criteria. The criteria includes whether the current plan impacts the Ministry's ability to maintain ecological integrity, and whether there are new threats or pressures such as new development adjacent to the protected area or establishment of an invasive species that an obsolete plan does not sufficiently address. Ministry staff told us that regional offices are not adequately staffed to effectively develop, review and replace management plans as required (see **Section 4.1.1**). At the time of our audit, each park planner had between four and 29 outdated or deficient management plans that needed to be replaced (see **Figure 9**). This variability is based in part on the high numbers of provincial parks and conservation reserves in the two northern park zones.

We also found that the Ministry did not publicly share the results of its review of management plans. The Act requires that the Ministry post the results of management plan reviews on the Environmental Registry or other appropriate means. Ministry staff told us they sought direction in 2016 to post the results of the reviews on the Environmental Registry, but did not receive approval to do so.

4.3.2 Management Plans for 17 Parks Have Been in Place for Over 20 Years but Environment Ministry Has Not Reviewed Them

The Environment Ministry has not examined the plans for 17 provincial parks that have been in place for over 20 years, as required by the *Provincial Parks and Conservation Reserves Act, 2006* (Act). We found the following examples:

- The management plan for Opeongo River Provincial Park was developed in 1985 as an interim plan and has not been examined since. Opeongo River flows out of the south-eastern portion of Algonquin Provincial Park and acts as a protected corridor for aquatic species like lake trout. The plan, which predates the Act, lacks any details about the priorities, goals or objectives of the protected area and primarily draws on information collected in the late 1970s. In addition, the plan makes no mention of species at risk or invasive species.
- The management plan for Windigo Point Provincial Park has not been reviewed since it was completed in 1989. Windigo Point, located on Lac Seul, northwest of Sioux Lookout, is home to a large stand of red pine that is significant as it is the extreme north end of the species' range. The stand of red pine offers rare and diverse habitat to support biodiversity in the area. The existing interim plan, which has been in place for over 30 years, states that it is not intended to replace a full park management plan. Further, the plan draws on information collected as far back as 1948. In addition, the plan makes no mention of species at risk or invasive species.

The Ministry told us that, of the 17 provincial parks that have not been examined in over 20 years:

- staff are currently reviewing or will begin reviewing six of them in 2020 (Fairbank, French River, Gibson River, Opeongo River, Springwater and Windigo Point provincial

parks). The Ministry told us that a plan review takes between three and six months to complete;

- it has deferred reviewing six of the plans due to land claim or Indigenous negotiations as the outcome of these discussions may impact the status of these parks (Algonquin, Bon Echo, Mattawa River, Ottawa River, Samuel de Champlain and Upper Madawaska River provincial parks);
- it has begun work to replace four of the plans (Lake Superior, Michipicoten Island, Michipicoten and Montreal River provincial parks); and
- it will not examine the management plan for one park, Puff Island Provincial Park—located on an island on Lake Superior—because the Ministry is in the process of transferring it to federal jurisdiction to be incorporated into a National Marine Conservation Area.

4.3.3 Twelve Protected Areas without Management Plans; Act Changed to Remove Timeline to Create One

At the time of our audit, the Ministry did not have management plans for nine provincial parks and three conservation reserves. On average, the protected areas were established almost nine years ago. The *Provincial Parks and Conservation Reserves Act, 2006*, requires the Environment Ministry to develop a management plan for each provincial park and conservation reserve. The Act currently does not prescribe when the plan must be developed. However, prior to amendments to the Act in 2012, which extended or eliminated a number of deadlines, the Ministry was required to develop plans within five years of establishing a provincial park or conservation reserve. For 10 of the 12 protected areas, it has been more than five years since they were established.

The Ministry told us that in the absence of management plans, protected areas are managed based on directions outlined in *Ontario Parks'*

Planning and Management Policies or the *Conservation Reserve Policy* along with requirements in the Act. While these protected areas are afforded the general protections provided by the Act, not having management plans in place means that the Ministry has not outlined specific actions to protect the natural features within each site. The lack of plans also means that there is less public accountability for how these areas are managed. For example:

- The 2,049-hectare Conroy's Marsh Conservation Reserve in Renfrew County has been regulated without a plan for 17 years. Conroy's Marsh is home to a provincially significant wetland that is habitat for waterfowl, three species at risk, and is a place where deer herd in the winter. The Ministry identified water quality and invasive species as management issues in the surrounding area in 2003 but without a management plan, there is no way to know if and how these issues are being addressed at Conroy's Marsh. The Environment Ministry could not explain why there was no plan for this protected area but told us that it would prioritize planning for it now that it has assumed responsibility from the Natural Resources Ministry for these areas, as of 2019.
- Cedar Creek Provincial Park, 10 kilometres west of Kingston, was established in 2014. It is the northern limit of the eastern deciduous forest of North America which is home to the highest frequencies of rare and endangered wildlife in Canada.

The management plans for the other 10 protected areas were in various stages of development at the time of our audit (Brockville Long Swamp Fen, Queen Elizabeth the Queen Mother Mnidoo Mnising, and Strawberry Island provincial parks, North Georgian Bay Shoreline and Islands, and Shakespeare Forest conservation reserves, and five dedicated protected areas in the Whitefeather Forest Land Use Area).

RECOMMENDATION 9

So that the Ministry of the Environment, Conservation and Parks (Environment Ministry) complies with its legislative responsibility under the *Provincial Parks and Conservation Reserves Act, 2006* we recommend that the Environment Ministry:

- develop a strategy to have up-to-date management plans in place for regulated provincial parks and conservation reserves; and
- implement the strategy.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General's recommendation. The Environment Ministry recognizes the importance of the Auditor General's findings and recognizes the time and resource commitments required to have up-to-date management plans in place for regulated provincial parks and conservation reserves.

The Environment Ministry will examine ways to simplify and expedite the planning process, while meeting all legislative requirements and policy guidance and addressing requests for involvement by Indigenous communities and stakeholders, so that provincial parks and conservation reserves have up-to-date management plans in place.

The Environment Ministry will implement a management plan examination process and planning prioritization model to evaluate and compare planning needs to appropriately focus efforts and have up-to-date management plans for provincial parks and conservation reserves.

4.4 Creating More Protected Areas not a Provincial Priority

4.4.1 Ontario Not Meeting Its Own Protection Targets; Has No Plan to Protect More Land

The *Provincial Parks and Conservation Reserves Act, 2006* requires the Environment Ministry to permanently protect a network of provincial parks and conservation reserves that includes the best examples of Ontario's ecosystems and provincially significant natural heritage elements. Our audit found that Ontario was not meeting most of its targets used to protect Ontario's biodiversity in 2011—the last time the Natural Resources Ministry

publicly reported on its progress in its *State of Ontario's Protected Areas Report*—and has made little progress since then (see **Figure 13**). The targets were first set in 1978 and have been only slightly modified since then to incorporate newly available information on Ontario's natural areas.

The Ministry also has not developed a plan to expand the network of protected areas across Ontario to meet those targets. At the time of our audit, the Ministry had set a goal to “continue, where funding and opportunities permit, to expand the size of land regulated as a provincial park or conservation reserve.” However, the Ministry has internally described its current approach as “ad-hoc.”

Figure 13: Province-Wide Achievement of Protection Targets Used to Protect Ontario's Biodiversity

Source of data: Ministry of the Environment, Conservation and Parks

Target	Description	Level of Achievement		# Change
		2011	May 2020	
Targets for provincial park classes				
One wilderness ¹ park in each of the 14 ecoregions ²	<ul style="list-style-type: none"> Each wilderness park must be at least 50,000 hectares in size All wilderness parks must average 100,000 hectares 	9 of 14	9 of 14	0
At least one wilderness zone in each of the 14 ecoregions	Wilderness zones in other park classes must be between 2,000 and 50,000 hectares	4 of 14	6 of 14	2
One natural environment ³ park in each of the 71 ecodistricts ⁴	Each natural environment park must be at least 2,000 hectares	46 of 71	46 of 71	0
At least one waterway ⁵ park in each of the 71 ecodistricts	Boundaries must be set back at least 200 metres inland from the high watermarks	47 of 71	47 of 71	0
Target based on life science representation⁶ in provincial parks				
Represent at least 1% or 50 hectares of all naturally occurring landform-vegetation combinations within the protected areas in each of the 71 ecodistricts	High representation (70%–99%)	22 of 71	25 of 71	3
	Medium representation (35%–69%)	25 of 71	26 of 71	1
	Low representation (0%–34%)	24 of 71	20 of 71	(4)

1. Provincial parks are classified by type or class based on their size and purpose. Wilderness parks are larger, where visitors mostly travel on foot or by canoe and leave little or no impact on the area. Other classes of provincial parks include cultural heritage, natural environment, nature reserve, recreational and waterway. The last wilderness park was created in 1983 and the last waterway park was created in 2006.
2. Ecoregions are large areas within the ecozones defined by their environmental conditions such as climate, landforms and soil characteristics. There are 14 ecoregions across the province.
3. Each provincial park is divided into zones that determine permitted activities. Wilderness zones are areas of provincial parks where limited recreational activities are permitted so that natural ecological processes can occur largely uninfluenced by human activities.
4. Ecodistricts are smaller areas within ecoregions that are defined by a characteristic set of features, including bedrock and topography, which play a major role in determining vegetation. There are 71 ecodistricts across the province.
5. Natural environment parks reflect the landscapes and special features of the region in which they are located, and provide opportunities for activities such as swimming and camping.
6. The life science representation target is aimed at ensuring that the best examples of Ontario's ecosystems are protected. A minimum level of all naturally occurring combinations of landform (soil and rocks) and vegetation (plants) in each part of the province should be found in protected areas. This target assumes that landform-vegetation combinations are adequate stand-ins for ecosystems that represent all natural areas.

Figure 13 also shows that, while the targets first set in 1978 established the Ministry's desired number, size and distribution of certain types of provincial parks, as well as local minimum areas needed to protect the best examples of Ontario's ecosystems, they did not establish a province-wide target of how much of Ontario's area the Ministry aimed to protect. Currently, 10.7% of the province are protected areas. Additionally, in 2019/20, the Ministry identified a key performance indicator to have 9.79 million hectares of provincial parks and conservation reserves by 2021, but this area is approximately the same as its current coverage. The Ministry has not set a province-wide, area-based target beyond 2021.

Our survey of other Canadian jurisdictions found that some have set province-wide, area-based targets and/or developed plans to expand their network of protected areas. For example:

- The federal government and eight of the other 12 Canadian provinces and territories (excluding Newfoundland and Labrador and the three territories) have adopted long-term, area-based targets to expand their protected area systems. British Columbia had a target to protect 17% of terrestrial area and Manitoba had a target to protect 12% of natural regions by an unspecified date. At the time of our audit, British Columbia and Manitoba had protected 19.5% and 11% of terrestrial area, respectively (see **Figure 8**).
- Quebec and the Northwest Territories had a plan to expand their protected areas. Quebec's *Plan Nord* prioritizes continuing to develop new protected areas, including to protect 50% of lands north of the 49th parallel by 2035. The Northwest Territories uses five-year workplans to outline conservation actions that need to be accomplished in the short term. Its current five-year workplan prioritizes completing the planning and decision-making for seven already-identified candidate protected areas and improving the process currently used to identify new areas

that should be protected to ensure biodiversity is represented. At the time of our audit, the Northwest Territories had protected 15.8% of its land area (see **Figure 8**).

In 2017, the Natural Resources Ministry developed a draft internal plan to respond to commitments it made to contribute to Canada's national protected area-based target of 17% by 2020. The plan, which was not completed, recognized that the province could achieve "modest gains in protected areas" by accounting for existing areas and identifying opportunities on Crown or private lands. Excluding the protected areas, the province has control over 83 million hectares of Crown lands, which include diverse landscapes that can support a wide range of species and habitats. However, according to internal documentation by the Natural Resources Ministry, there is "lack of explicit agenda to reconsider existing Crown land uses in favour of protection."

RECOMMENDATION 10

To help achieve the objective of the *Provincial Parks and Conservation Reserves Act, 2006*, to permanently protect a network of provincial parks and conservation reserves, we recommend that the Ministry of the Environment, Conservation and Parks work with the Ministry of Natural Resources and Forestry to:

- establish a long-term area-based target for expanding its protected areas with associated timelines;
- develop a long-term strategy that outlines specific actions the ministries will take to achieve its targets;
- implement the plan; and
- publicly report on their progress toward this strategy as part of an annual report to be accountable.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges

the Auditor General’s recommendation. The Environment Ministry will focus its short-term efforts on identifying a work plan to expand the province’s network of provincial parks and conservation reserves. The Environment Ministry will continue to work in collaboration with the Ministry of Natural Resources and Forestry to consider any opportunities to expand the protected area system using the Environment Ministry’s selection and design criteria for protected areas. The Environment Ministry will report publicly on the progress in expanding the system of provincial parks and conservation reserves.

4.4.2 Ontario Added Only 3,007 Hectares—Or 0.003% of the Province’s Land Area—to Protected Areas Over the Last Five Years

In the last five years, the province has added only 3,007 hectares—or 0.003% of Ontario’s land area—to its network of provincial parks, conservation reserves, and dedicated protected areas. Only one new provincial park—the 174-hectare Brockville Long Swamp Fen Provincial Park—was created in this period from land provided by the Nature Conservancy of Canada, a non-profit conservation organization. The remaining 2,833 hectares, or 93% of the addition, were from expansions or boundary amendments of 17 existing provincial parks and conservation reserves. No protected areas have been added since 2017.

Over the last 20 years, 3,623,697 hectares—or 3.4% of Ontario’s land area—was added to Ontario’s network of protected areas. The majority of these lands (2,310,454 hectares or 64%) were added in the years 2000 to 2006 (see **Figure 3**), immediately following *Ontario’s Living Legacy Land Use Strategy* in 1999. The Natural Resources Ministry completed its Ontario’s Living Legacy initiative to contribute to the long-term health of Ontario’s natural resources in the central part of the province, which resulted in the biggest expansion of the network of protected areas in Ontario’s history. An additional 1,281,486 hectares (or 35.4%

of the lands added in the last 20 years) were added in the years 2011 to 2014, and includes 1,229,451 hectares of dedicated protected areas in the Far North following the passage of the *Far North Act, 2010*, which came into effect in 2011.

Our review of a sample of management plans for provincial parks and conservation reserves found that 60% discussed future acquisition of lands to expand the boundaries of the existing park or reserve. Thirty-five percent of the plans we reviewed explicitly identified lands that the Environment Ministry could acquire. For example, the management plan for Sandbanks Provincial Park identifies the need to acquire private properties, such as homes that are located within the boundaries of the park itself, in order to more effectively maintain ecological integrity. It is a best practice to have a protected area whole.

In 2019, the Environment Ministry proposed protecting 197,835 hectares of Crown land as new or additions to provincial parks and conservation reserves. The majority—almost 178,000 hectares of these lands—were first identified for protection as part of the Ontario’s Living Legacy initiative in 1999. The 2019 proposal included 34 recommended provincial parks and conservation reserves, and an additional 899 parcels of land in 152 sites in southern and central Ontario. Protected areas at these sites would protect:

- 74 different species at risk;
- parts of 24 important bird areas;
- parts of three Ramsar sites (internationally recognized important wetlands);
- 212 parcels within biosphere reserves (internationally recognized natural areas);
- parts of 219 provincially significant wetlands; and
- 347 areas of natural and scientific interest.

According to the Environment Ministry, it did not proceed with protecting these sites because it lacked the necessary staff (see **Section 4.6.2**) and funding to complete the regulation process, which includes title searches, ensuring sites are closed to claim staking and logging, consulting with affected

Indigenous communities and undertaking public consultation. The Ministry estimated that it would need a team of up to 23 full-time equivalent staff per year over a four-year period to complete the process of formally protecting those sites. According to Ministry staff we interviewed, it would take a big initiative like Ontario's Living Legacy initiative in 1999—a large-scale land-use planning process that was a government priority—to make significant progress in expanding the network of protected areas.

4.4.3 Land Acquisitions Ceased after Annual Budget Drops from \$500,000 to \$1,000

We found that the Environment Ministry's budget for land acquisition is \$1,000 per year. From 2009 until 2012, the Natural Resources Ministry allocated \$500,000 annually for the purposes of acquiring lands for protection. Beginning in 2012/13, however, the funding dropped to \$1,000 per year as the allocation was re-directed for other infrastructure needs. In 2018, the Ontario budget contained a \$15-million commitment over three years to preserve natural heritage, but this budget item was not implemented.

This funding is to be used to purchase properties, as well as for administrative costs such as legal fees and land surveying costs. Even when the Ministry receives donated land from private landowners or conservation organizations, it still incurs an average of \$60,000 in legal fees, land surveying fees, and other costs to transfer the land to the province.

In contrast, Parks Canada has a dedicated fund with an annual base amount of \$10 million to be used to acquire property to create or expand a national park. Similarly, Prince Edward Island has a dedicated annual fund of \$300,000 to purchase land for conservation purposes. In the United States, Florida has spent more than \$160 million US annually on average to acquire lands for conservation purposes since 2001; protected and conserved areas cover 29% of the state with the target to reach 35%.

RECOMMENDATION 11

So that the Ministry of the Environment, Conservation and Parks is making concrete progress toward compliance with the *Provincial Parks and Conservation Reserves Act, 2006* by planning a network of protected areas that conserves nature by maintaining Ontario's biodiversity, we recommend that the Environment Ministry:

- assess the financial resources needed to implement the actions described in a long-term strategy to expand protected areas, as described in **Recommendation 10**; and
- allocate such resources.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks acknowledges the Auditor General's recommendation. Within budgetary and staffing limits, the Environment Ministry will:

- evaluate the resources needed to permanently protect a system of provincial parks and conservation reserves; and
- allocate the appropriate resources necessary to plan a network of protected areas that contributes to conserving nature and maintaining Ontario's rich biodiversity.

4.4.4 Biodiversity Most at Risk in Southern Ontario But Only 0.6% of Lands Protected

Southern Ontario, in the Mixedwood Plains ecozone south of the area of the undertaking (see **Figure 2**), is the most biologically diverse part of Canada but its biodiversity is among the most at risk because it is widely developed. The Act requires that the network of provincial parks and conservation reserves include ecosystems that are representative of all of Ontario's natural regions. At the time of our audit, provincial parks and conservation reserves covered 60,848 hectares or only 0.4% of this part of Ontario. Including protected areas managed by Parks Canada and others, the protected area coverage increases to only 0.6% or 78,707 hectares.

Ontario's smallest and most densely populated ecozone, the Mixedwood Plains includes important features such as the Niagara Escarpment, the Oak Ridges Moraine, the Frontenac Axis and the only remaining Carolinian (deciduous) forests in Canada. It supports rare habitats like tallgrass prairies, savannahs and alvars and is home to species at risk that are not found in other parts of the province such as the Jefferson salamander, Butler's garter snake, barn owl and drooping trillium. The coastal areas near the Great Lakes also provide stopover sites for migrating birds and the monarch butterfly.

The large urban centres in southern Ontario also create recreational demands. However, there are only four operating provincial parks with campgrounds and six non-operating provincial parks with hiking trails located within 100 kilometres of the City of Toronto. In 2020, visitor levels at Ontario's provincial parks increased as public health officials encouraged people to spend time outside where the risks of contracting COVID-19 are relatively low (see **Section 2.3.4**). Even parks farther away from large urban centres are receiving more visitors in 2020. For example, during our visit to Lion's Head Provincial Park, which is more than 250 kilometres from Toronto, we observed large crowds of visitors that exceeded parking lot capacity.

The Environment Ministry measures the degree to which biodiversity is protected by comparing the area occupied by all naturally occurring combinations of landforms (rocks/soil) and vegetation (plants) with a minimum standard throughout the province (see **Figure 14**). The three ecozones

of the province are divided into 71 ecodistricts, which are used to measure the Ministry's progress toward achieving this minimum standard. In over two-thirds (15 of 22) of the ecodistricts in southern Ontario, less than 35% of the natural landform-vegetation combinations needed to meet the minimum standard have been protected. Two factors make completing a representative protected areas network in southern Ontario difficult: 1) the lack of Crown land that can be re-designated as protected areas and 2) the relative rarity of large tracts of unprotected natural habitat (whether publicly or privately owned) that can be considered as potential protected areas.

More than 90% of lands in southern Ontario are privately owned. Therefore, the Environment Ministry may have to either purchase lands or acquire lands by other methods, such as through donations, in order to increase the protected area coverage in southern Ontario to meet the Act's requirement to permanently protect a network of provincial parks and conservation reserves that conserves Ontario's biodiversity. As discussed in **Section 4.3.3**, the Ministry's annual land acquisition budget is only \$1,000 and is, therefore, insufficient to acquire any lands.

In its 1997 framework and action plan on parks and protected areas, the Natural Resources Ministry stated that protecting examples of all of Ontario's natural features, especially in settled areas of the province, would require help from other parties. The province has historically partnered with conservation organizations to protect privately owned lands in southern Ontario. For example, in 2000,

Figure 14: Achievement of Life Science Representation Target* for all 71 Ecodistricts According to Ecozone, as of May 2020

Source of data: Ministry of the Environment, Conservation and Parks

	Hudson Bay Lowlands		Ontario Shield		Mixedwood Plains	
	#	%	#	%	#	%
High Representation (70%–99%)	3 of 6	50	22 of 43	51	0 of 22	0
Medium Representation (35%–69%)	0 of 6	0	19 of 43	44	7 of 22	32
Low Representation (0%–34%)	3 of 6	50	2 of 43	5	15 of 22	68

* The life science representation target is aimed at ensuring that the best examples of Ontario's ecosystems are protected. A minimum level of all naturally occurring combinations of landform (soil and rocks) and vegetation (plants) in each part of the province should be found in protected areas. This target assumes that landform-vegetation combinations are adequate stand-ins for ecosystems that represent all natural areas.

the Natural Resources Ministry partnered with the Nature Conservancy of Canada to acquire land in southwestern Ontario, which led to the creation of the Clear Creek Forest Provincial Park in 2014. The Environment Ministry did not have similar partnerships at the time of our audit, even though some conservation groups have identified potential sites that could be protected. For example, the South Shore Joint Initiative seeks to protect Ostrander Point and the Point Petre Provincial Wildlife Area as a conservation reserve. The Ostrander Point area, located on the southern tip of Prince Edward County on the north shore of Lake Ontario, is a key migratory stop-over for birds.

Also, in its 1997 framework and action plan on parks and protected areas, the Natural Resources Ministry stated that degraded lands may need to be restored in order to conserve biodiversity. The Environment Ministry told us that this document is still relevant for protected areas, although it has not been updated. Protecting natural habitats on existing Crown land, acquiring other lands for protection and partnering with other parties to protect other natural areas are all viable strategies for increasing the protected areas network in southern Ontario. These can be supplemented by working with other parties including landowners who are willing to undertake ecological restoration work on other lands for eventual inclusion in Ontario's protected areas network. Areas adjacent to existing protected areas and ecodistricts where existing protected areas are in short supply would be priority areas for undertaking ecological restoration projects. For example, we observed the restoration of agricultural lands within Pretty River Valley Provincial Park by allowing for re-naturalization to occur on this site that sits atop of the Niagara Escarpment near Collingwood. We also observed evidence of efforts to restore agricultural land within Sandbanks Provincial Park to the type of forest and plant cover that existed before European settlement of the area. We observed large-scale plantings of softwood trees, smaller-scale plantings of hardwood trees, and some very small areas in which endangered butternut trees had been planted.

RECOMMENDATION 12

To meet its legislative responsibility under the *Provincial Parks and Conservation Reserves Act, 2006*, to permanently protect ecosystems that are representative of all of Ontario's natural regions, we recommend that the Ministry of the Environment, Conservation and Parks, in developing its long-term protected area strategy in **Recommendation 10**, include actions specifically targeted toward increasing protected area coverage in southern Ontario such as establishing partnerships with conservation organizations that can assist in establishing and managing protected areas and restoring degraded habitats.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General's recommendation. The Environment Ministry recognizes the importance of increasing protected area coverage in southern Ontario and will endeavour to work with partner organizations in southern Ontario, including the Nature Conservancy of Canada, Ontario Land Trust Alliance and other conservation organizations, to look for opportunities to establish, expand and manage protected areas and restore degraded habitats.

4.4.5 Key Biodiversity Areas Not Used to Identify Potential Protected Areas

The *Provincial Parks and Conservation Reserves Act, 2006* requires the Environment Ministry to permanently protect a network of protected areas that will maintain biodiversity in Ontario. However, our audit found that the Environment Ministry does not consider known key biodiversity areas to identify areas to protect (see **Figure 5** for the criteria of its protection targets).

In 2016, the International Union for Conservation of Nature released a global standard to identify key biodiversity areas that should be considered for protection. The Union is an organization—made up of 1,400 representatives from government agencies, non-profit groups, Indigenous groups, scientific and academic institutions, as well as business associations—that gathers and analyzes data and provides advice on nature conservation. The biodiversity standard has five main criteria using empirical data:

- threatened species and ecosystems;
- species and ecosystems that occur in a limited geographic area;
- ecological integrity;
- sites that support important biological processes like breeding, feeding or migration; and
- sites that are irreplaceable and important for the continued survival of species.

The identification of key biodiversity areas builds on work already done to identify important areas according to other accepted standards. For example, scientists at Bird Studies Canada are currently assessing 72 “important bird areas” in Ontario for formal recognition as key biodiversity areas. In addition, in June 2020, NatureServe Canada and the Nature Conservancy of Canada reported on species found only in Canada and identified areas where these species were concentrated in potential key biodiversity areas. One of these concentrations was identified along the Hudson Bay coast in Northern Ontario and contained plants found only in Canada including the limestone willow, Hudson Bay knotweed and island fringed gentian.

RECOMMENDATION 13

To meet its legislative responsibility under the *Provincial Parks and Conservation Reserves Act, 2006*, to permanently protect ecosystems that are representative of all of Ontario’s natural regions, we recommend that the Ministry of the Environment, Conservation and Parks, in developing its long-term protected area plan in **Rec-**

ommendation 10, use known key biodiversity areas to identify new potential protected areas.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks agrees with the Auditor General’s finding and will use any identified key biodiversity areas as a criterion for identifying and evaluating new potential protected areas.

4.5 Little Progress Made to Work with Indigenous Peoples to Create Protected Areas

The Indigenous Circle of Experts—which was established in 2017 to provide advice to help Canada achieve its 17% protected area target—explain in their 2018 report *We Rise Together* that the historical creation of many protected areas across North America has contributed to land and resource appropriation, breach of Treaties, assimilation efforts, racism and discrimination. In response, the Canadian federal, provincial and territorial governments committed to seeking opportunities to work with Indigenous peoples and support the recognition of Indigenous Protected and Conserved Areas as areas that contribute to conserving biodiversity. However, our audit found that the Natural Resources Ministry has made little progress on working with Indigenous peoples to create protected areas.

4.5.1 Only 10.4% of the Far North Is Protected—Progress on Plans Has Stalled

At the time of our audit—10 years after the *Far North Act, 2010* was passed directing the Natural Resources Ministry to work with First Nations to protect 50% of the Far North—only 4.7 million hectares or 10.4% of the Far North were protected. The *Far North Act, 2010* does not prescribe a time by which this target must be met. Only 7.7% of the Far North area was protected prior to the passing of the *Far North Act, 2010*. The Far North is

the northernmost 45 million hectares of Ontario beginning approximately 500 kilometres north of Thunder Bay. It covers 42% of the province’s lands. The region is home to 33 First Nation communities as well as the traditional territories of five First Nations that reside in Manitoba.

The *Far North Act, 2010* establishes a land-use planning process in which the province and First Nations communities work together to determine how the lands are to be used (see **Figure 15**). At the time of our audit, only four land-use plans had been approved, covering a total of 3 million hectares, or 6.7%, of the Far North (*Whitefeather Forest Land Use Strategy, Pauingassi Community Based Land Use Plan, Little Grand Rapids Community Based Land Use Plan, and Cat Lake-Slate Falls Community Based Land Use Plan*). Work on these plans, which was completed between 2006 and 2011, began under the *Public Lands Act*, before the *Far North Act, 2010* was passed. Approximately 1.2 million hectares or about 40% of the lands covered by the plans are dedicated protected areas (see **Appendix 1** for a Glossary of Terms). Like other protected areas, claim staking and commercial forestry are not allowed in dedicated protected areas.

At the time of our audit, ten other community-based, land-use plans were in various stages of development:

- One plan—proposing to protect about 220,000 hectares of lands—was at the draft stage (Step 6 in **Figure 15**). The Natural Resources Ministry and the Deer Lake First Nation released the draft plan for public consultation in 2015. Five years later, at the time of our audit, the draft was not yet finalized. The Natural Resources Ministry told us that there was no work currently being done on this plan and there was no estimated time for completion. Preliminary work to develop this plan began in 2011.
- Nine plans were at the terms of reference stage (Step 4 in **Figure 15**). Preliminary work for these plans began between 2013 and 2018. The proposed plans cover 21.4 mil-

lion hectares, or 48%, of the Far North. The Natural Resources Ministry told us that planning work was progressing on four of the plans (Marten Falls First Nation, Constance Lake First Nation, Webequie First Nation, and Mishi Sakahikaniing McDowell Lake

Figure 15: Far North Community-Based Land-Use Planning Process

Source of data: Ministry of Natural Resources and Forestry



First Nation) and drafts were estimated to be completed in 2021. Work is not currently in progress on the other five plans (Taashikaywin Eabametoong and Mishkeegogamang First Nations, Wawakapewin First Nation, Kashechewan First Nation, Weenusk First Nation, and North Spirit Lake First Nation) and there is no estimated time for completion. Five of these nine planning areas have preliminary proposed protected areas that may cover a total of 4.3 million hectares once these plans are completed.

We found that the uncertainty regarding the possible repeal of the *Far North Act, 2010* has contributed to the decrease in the number of Ministry staff working on land-use planning (described in **Section 4.1.2**) and, ultimately, the slow progress in the Far North. In February 2019, the Natural Resources Ministry posted a proposal notice to repeal the *Far North Act, 2010* on the Environmental Registry with a 74-day public consultation period. The Ministry also held public engagement sessions in Thunder Bay in March 2020 and 12 meetings by request with First Nations. The Ministry proposed to:

- continue joint-planning with Marten Falls, Webequie, Eabametoong, Mishkeegogamang, Constance Lake, Deer Lake and McDowell Lake First Nations with a proposed completion date of December 31, 2020;
- amend the *Public Lands Act* to retain approved community-based, land-use plans and provide them with substantially the same authority as under the *Far North Act, 2010*;
- wind down planning under the *Far North Act, 2010* in communities not at advanced stages of planning; and
- enable any future land-use planning under the *Public Lands Act*, based on First Nations' interests, and government resources and priorities.

The Ministry received 162 comments on its proposal from the public and First Nations, including 31 comments on its Environmental Registry

proposal. The Ministry concluded that only 10% of the comments were positive about the proposal, most of which were from industry. Many First Nations were generally opposed to conducting planning under the *Public Lands Act* in the future. The Ministry determined that the comments from First Nations and other Indigenous groups were 83% negative about the proposal to repeal the *Far North Act, 2010*. For example, the Windigo First Nations Council, which serves seven First Nations, wrote to the Ministry in May 2019 that “a provincial legislated mechanism to enforce joint land-use planning between First Nations and the province continues to be appropriate, meaningful and, in this era of reconciliation, a requirement. It is our position that if the *Far North Act* is repealed, efforts and monies spent engaging with and developing First Nation community-based land-use plans will be wasted. Furthermore, we believe that far greater inefficiencies will result. To begin, Ontario will have to find other means to satisfy the constitutional requirement of meaningful consultation and engagement with First Nations in the development of lands and resources located in their territories. Without the meaningful involvement of First Nations, resource extraction and other development in our territories will not occur.” At the time of our audit, the Ministry was instead considering amending the *Far North Act, 2010* to potentially make it less restrictive for economic development, but had not publicly released a new proposal for consultation.

We also identified the following issues that have contributed to the slow progress in Far North planning:

- **Lack of Far North strategy to guide the development of land-use plans:** The *Far North Act, 2010* requires the Natural Resources Ministry to develop a land-use strategy for the Far North to provide overarching planning direction. In 2015, the Ministry consulted with the public and First Nations on a draft strategy. At the time of our audit, the strategy was still in draft. Ministry staff told our Office that finalizing the strategy was deprioritized

on the possible repeal of the *Far North Act, 2010*, that would have made it redundant. Among other things, the strategy is intended to outline policies on land-use categories for both protection and economic development.

- **No joint advisory body to provide advice on planning in the Far North:** The *Far North Act, 2010* allows for the creation of a joint body made up equally of willing representatives of First Nations and government staff to provide advice to the Natural Resources Minister on land-use planning. This joint body would be a way to work collaboratively on resolving issues that span the entire Far North. For example, the joint body could provide advice to the Minister on what to include in the Far North land-use strategy, as well as more detailed policy statements on issues such as economic development or conserving biodiversity. Ten years after the *Far North Act, 2010*, was passed, no joint body has been established. At the time of our audit, Ministry staff told us that discussions began in March 2017 and are ongoing with First Nations to establish the joint body.
- **Transfer payments to First Nations to work on land-use planning decreased from \$4.6 million for 30 First Nations in 2011/12 to \$424,000 for six First Nations in 2019/20.** Funds are used to employ community members to work on planning, verify cultural and ecological sites, transportation and accommodation, and perform outreach both within and outside a community.

In 2010, scientists appointed by the Natural Resources Ministry highlighted in their report *Science for a Changing North* the importance of a land-use planning system that improves the quality of life for First Nations and respects the cultural values, natural features and ecological functions of the Far North. The report noted that the Far North is among the world's largest, most intact ecological systems; therefore, a planning system is necessary before large-scale developments to extract

the region's mineral, energy and forest resources permanently change the region. For example, parts of the Far North are subject to intensive mineral exploration, including in the area known as the Ring of Fire.

RECOMMENDATION 14

So that timely decisions are made jointly with First Nations about where to establish protected areas and where to allow development in the Far North, and to comply with the *Far North Act, 2010*, we recommend that the Ministry of Natural Resources and Forestry work with willing First Nations to complete the community-based land-use plans that are unfinished.

NATURAL RESOURCES MINISTRY RESPONSE

The Ministry of Natural Resources and Forestry agrees with the Auditor General's recommendation. The Natural Resources Ministry will continue to work with willing First Nations to complete community-based land-use plans. Community-based land-use planning is a joint process between First Nations and Ontario. Planning is initiated by First Nations, who also influence the pace of planning.

4.5.2 Natural Resources Ministry Has Not Determined Whether It Will Support Creating Indigenous Protected and Conserved Areas

In 2019, six First Nations in Ontario expressed interest in creating Indigenous Protected and Conserved Areas, four of whom had received federal funding to begin preliminary work. These lands range in size from 1,020 hectares in Shawanaga First Nation in southern Ontario to 1.3 million hectares in Kitchenuhmaykoosib Inninuwug First Nation in the Far North. However, at the time of our audit, the Natural Resources Ministry had not decided whether it would recognize and support the creation of

Indigenous Protected and Conserved Areas. Ministry staff told us that direction would need to come from a government plan or an official Ontario position. Indigenous Protected and Conserved Areas are lands and waters where Indigenous governments have the primary role in protecting and conserving ecosystems through Indigenous laws, governance and knowledge systems.

All but one of the six proposals that were submitted in 2019 by First Nations would require the Natural Resources Ministry to initiate Crown land-use planning to reconsider permitted land uses and withdraw lands from logging and mineral staking. At the time of our audit, the Ministry had not addressed these requests to create Indigenous Protected and Conserved Areas. According to the Ministry, it was not in a position to support changes to existing Crown land uses in favour of new protection proposals given there was no “government decision on [Ontario’s] overall approach” to expanding protected areas or Crown lands’ role within it.

The Indigenous Circle of Experts—a group made up of Indigenous peoples and government representatives from across Canada that provides advice to achieve the area-based target of 17% of Canada’s land base—explain the importance of Indigenous Protected and Conserved Areas in their 2018 report *We Rise Together*. The report notes that such areas empower Indigenous peoples to conserve their own lands because they “feel a deep-seated responsibility to leave their lands and waters in abundance for future generations.” These areas promote respect for Indigenous knowledge systems, support the revitalization of Indigenous languages, and protect food security by conserving species like moose. The report also notes that this type of protected area is consistent with the principle of “free prior and informed consent”—as expressed in the *United Nations Declaration on the Rights of Indigenous Peoples*—which allows Indigenous peoples to give or withhold consent to a project that may affect them or their territories.

The Natural Resources Ministry’s 2017 draft internal plan (see also **Section 4.3.1**)—to respond

to commitments it made to contribute to Canada’s national protected areas target of 17% by 2020—notes that although these types of protected areas are relatively new in Canada, they have the potential to contribute significantly to conserving biodiversity across the country. The 2017 draft plan, which was not completed, also recognizes that these areas contribute to reconciliation with First Nations, noting that Indigenous Protected and Conserved Areas could “support a renewed, nation-to-nation relationship with Indigenous Peoples.”

All but three provinces and territories planned to use Indigenous Protected and Conserved Areas as a conservation tool to conserve biodiversity as part of the *2020 Biodiversity Goals and Targets for Canada* in recognition that new approaches are needed to work with First Nations to establish protected areas. For example, British Columbia reached an agreement with First Nations in 2016 to protect 85% of the Great Bear Rainforest—containing a quarter of all coastal temperate rainforests on Earth—that was previously open to logging that negatively impacted the ecological and cultural values of this area. In addition, other agencies like Parks Canada have annual work plans that address the establishment of Indigenous Protected and Conserved Areas, including funding to integrate Indigenous peoples’ views, histories and cultures into establishing and managing protected areas. Government recognition of Indigenous Protected and Conserved Areas is also a way to acknowledge international law respecting Indigenous peoples.

RECOMMENDATION 15

To confirm the province’s position on Indigenous-led protected areas, we recommend that the Ministry of Natural Resources and Forestry:

- seek the necessary direction regarding the province’s support for the creation of Indigenous Protected and Conserved Areas; and
- if direction and approval are obtained, include in its long-term protected area

strategy described in **Recommendation 10**, actions to recognize Indigenous Protected and Conserved Areas.

NATURAL RESOURCES MINISTRY RESPONSE

The Ministry of Natural Resources and Forestry (Natural Resources Ministry) agrees with the Auditor General's recommendation. The Natural Resources Ministry will seek the necessary direction regarding the province's potential to support creation of Indigenous Protected and Conserved Areas. Should the Natural Resources Ministry receive direction and approval for actions to recognize Indigenous Protected and Conserved Areas, the Natural Resources Ministry will include such actions in the long-term protected area strategy described in **Recommendation 10**.

4.6 Province Missing Opportunities to Work with Conservation Authorities, Municipalities and Public to Conserve Biodiversity

Our audit found that neither the Environment Ministry nor the Natural Resources Ministry has adequately engaged with other entities who undertake conservation efforts in Ontario. Because of this, the province is missing opportunities to increase the size of its protected area network by not leveraging the work already being done by others.

4.6.1 Lands Managed by Conservation Authorities and Municipalities to Conserve Biodiversity Are Not Adequately Reported as Protected Areas

As shown in **Appendix 3**, other government and non-government entities also create and manage other types of protected areas. However, as of March 2020, the Environment Ministry had received and screened only 23 municipal or conservation authority properties to determine

whether they meet the criteria (see **Figure 5**) as protected areas. Of the 23 sites, 17 met the criteria and have therefore been included in Ontario's count of protected areas including:

- six conservation areas totalling 5,150 hectares that are managed by conservation authorities. Our audit work found that there is a total of 545 properties owned by conservation authorities, covering more than 150,000 hectares, that could be screened and potentially reported as protected areas. We visited two conservation areas and observed both were maintained in their natural state and are potentially suitable candidates for screening as protected areas.
- 11 environmentally significant areas totalling 839 hectares, all managed by the City of London. Our research identified other municipalities that manage environmentally significant areas. For example, the Region of Peel has 112 environmentally significant areas, the City of Toronto has 95, the City of Hamilton has 86 and the City of London has 21. Not all of these sites will meet the criteria for reporting as protected areas. The Environment Ministry will need to screen them to determine whether they meet the criteria. We visited 11 environmentally sensitive areas and observed all were maintained in their natural state and are potentially suitable candidates for screening as protected areas.

In order to be screened for reporting as a protected area, conservation authorities and municipalities must first submit the site for the Ministry's review (see **Figure 1**). The Environment Ministry cannot direct conservation authorities and municipalities to submit their properties for the Ministry's review; they must be willing and must initiate the screening process. As discussed in **Section 4.1.2**, we found that the Ministry had allocated only a portion of a full-time equivalent staff member to screen candidate lands and work with partners who have expressed interest in submitting their sites for screening. We also identified the following issues:

- **Lack of outreach to external parties.** At the time of our audit, Ministry staff told us that beginning in 2018, they were no longer permitted to engage in public outreach without approval from Ministry senior management. Additionally, there is currently no budget for outreach for the purposes of screening lands. In 2017/18, the Ministry allocated and spent \$55,000 on outreach and assisting partners to screen their lands as protected areas. In 2018/19, the Ministry approved \$100,000, but it was not spent due to a freeze on discretionary spending in June 2018. Additionally, the Ministry’s website also did not have any information to educate interested parties—such as conservation authorities, municipalities or conservation groups—about the screening process to have lands counted as protected areas and encourage them to contribute to the province’s efforts to support biodiversity conservation initiatives.
- **Lack of funding to assist external parties in gathering the necessary information for their submissions.** To prepare a submission, interested parties would need to incur costs related to land surveying, mapping and gathering biological information about the specific site. For example, about 60% of conservation authorities’ funding comes from municipalities and the province, the use of which is restricted to agreed-upon projects or provincially mandated activities such as flood management and review of development applications. Given these restrictions, the costs to prepare the submissions could deter conservation authorities from submitting their lands for screening. In 2018/19, the Ministry allocated \$20,000 as a transfer payment to Conservation Ontario to assist in the screening of conservation authority properties, but it was not spent due to a freeze on discretionary spending in June 2018.

RECOMMENDATION 16

To recognize and encourage work done to conserve biodiversity by conservation authorities, municipalities and others, we recommend that the Ministry of the Environment, Conservation and Parks:

- implement a public outreach program to further increase awareness among all potential contributors to the accounting of protected areas; and
- screen site submissions within a defined and reasonable period of time after receipt.

ENVIRONMENT MINISTRY RESPONSE

The Ministry of the Environment, Conservation and Parks (Environment Ministry) acknowledges the Auditor General’s recommendation. The Environment Ministry will participate in pan-Canadian initiatives to further increase awareness among all potential contributors of the accounting of protected areas, including providing up-to-date information to the Pathway to Canada Target 1 website and Canadian Protected and Conserved Areas Database.

The Environment Ministry agrees with the Auditor General’s finding and will work cooperatively with conservation partners and as part of the Pathway to Canada Target 1 initiative to screen site submissions within a defined and reasonable period of time.

4.6.2 Natural Resources Ministry Cannot Demonstrate Its Consideration of Public Requests to Create Protected Areas

Any individual, group or organization can request that the Ministry undertake Crown land-use planning to designate a site as a “recommended” provincial park or conservation reserve. Ministry staff are to screen these requests based on consistency with broader policy, urgency, public interest and availability of staffing and financial resources.

However, the Ministry could not tell us how many such requests it has received from the public, nor could it demonstrate that any requests were reviewed in line with its *Guide for Crown Land Use Planning*, which directs how the Ministry will apply the *Public Lands Act*.

The Natural Resources Ministry conducts Crown land-use planning under the authority of the *Public Lands Act* to determine how Crown land can be used. Crown lands can be assigned one of seven primary designations: provincial park, conservation reserve, wilderness area; forest reserve; provincial wildlife area; enhanced management area; and general use area.

Because the Ministry does not centrally track external requests to create protected areas, we could not determine how many opportunities the Ministry has chosen to pursue or not based on their screening criteria. The Ministry told us that requests from external parties would likely come in many forms, and some would not proceed to or beyond an initial screening by staff.

Through our audit work, our discussions with conservation groups, and our compliance work for our Office's review of the operation of the *Environmental Bill of Rights, 1993* for the 2018/19 reporting year, we identified two examples of conservation organizations and members of the public whose requests were denied that the Ministry undertake Crown land-use planning to create recommended protected areas:

- In March 2018, nine conservation organizations, with the support of Prince Edward County, requested that a conservation reserve be established on Crown land on the north shore of Lake Ontario near Belleville because it is an important bird area for migrating species. This area was the location of a proposed wind turbine project in 2012, which ultimately did not proceed when, in 2016, the Environmental Review Tribunal revoked the Environment Ministry's approval for the project. In May 2018, the Natural Resources Ministry replied to the conservation organizations that

it was looking at ways to recognize more protected areas and would continue to work with municipalities, agencies and land stewards to help conserve biodiversity in settled areas. Nonetheless, the Ministry denied the request without providing a reason. In October 2019, Ministry staff met with the conservation organizations to obtain additional information about the request. In September 2020, the Environment Ministry announced that it would begin the process to assess the land as a potential conservation reserve.

- In November 2018, the Member of Provincial Parliament for Algoma-Manitoulin and a member of the public requested that a conservation reserve be established in the Township of Long on the north shore of Lake Huron because of the significant population of Blanding's turtles, which are threatened species. At the time of our audit, an aggregate operation was under consideration for the same area. In February 2019, the Natural Resources and Environment ministries denied the request on the basis that it was not in the public interest to consider creating a protected area at the site and would not be considered consistent with broader government policy. The ministries concluded that the threatened turtle population was too small or dispersed to warrant a protected area at the site, and that the species was protected already under the *Endangered Species Act, 2007*, and an impact assessment would be required as part of any future approvals for an aggregate operation at the site.

RECOMMENDATION 17

So that the Ministry of Natural Resources and Forestry (Natural Resources Ministry) effectively addresses public requests to create recommended protected areas, consistent with its *Guide for Crown Land Use Planning*, we recommend that the Natural Resources Ministry:

- centrally track its decisions on external requests for land-use amendments to create recommended provincial parks and conservation reserves; and
- report annually on its decisions in its yearly published plan and annual report.

NATURAL RESOURCES MINISTRY RESPONSE

The Ministry of Natural Resources and Forestry (Natural Resources Ministry) agrees with the Auditor General's recommendation. The Natural Resources Ministry will centrally track its decisions on formal external requests for land use amendments to create recommended provincial parks and conservation reserves. Formal requests are those that are aligned with information requirements for amendment requests as outlined in the *Guide for Crown Land Use Planning*.

The Natural Resources Ministry will work with the Ministry of the Environment, Conservation and Parks to include information on its decisions on external requests to create recommended provincial parks and conservation reserves in its yearly published plan and annual report.

Appendix 1: Glossary of Terms

Prepared by the Office of the Auditor General of Ontario

Aichi Targets: A set of 20 targets to address the goal of slowing or halting the loss of biodiversity. The targets were agreed to in 2010 in Nagoya (Aichi Prefecture), Japan by the 196 countries that are currently signatories of the United Nations Convention on Biological Diversity.

Area of the undertaking: A term used until June 2020 to describe an area covering about 40% of the province, where commercial forestry operations on Crown land are carried out. The area north of it is called the Far North and the area south of it is called southern Ontario.

Biodiversity: The variety of life—including plants, animals, fish and other organisms—in a particular habitat or ecosystem.

Community-based land-use plan: The plans are developed under the *Far North Act, 2010*, through a joint process between a First Nation(s) and the Crown.

Conservation: The management and protection of plants, animals, fish and other organisms for their own sake and/or to benefit human society.

Conservation area: Land managed by one of the 36 conservation authorities in Ontario under the *Conservation Authorities Act*.

Conservation concern: Species that are rare or have declining populations or habitats for which there are scientific concerns about their ability to remain on a landscape for a long time.

Conservation reserve: A type of area regulated under the *Provincial Parks and Conservation Reserves Act, 2006*. The first priority in planning and management is the maintenance of ecological integrity.

Convention on Biological Diversity: An international agreement to conserve biodiversity that was introduced at the 1992 United Nations Earth Summit. The Convention now has 196 countries that are signatories, as well as others with observer status, which establish goals and targets for the international community to conserve biodiversity.

Crown land: Land owned and administered by the provincial government. It is sometimes referred to as public land. Lands outside of protected areas are administered under the *Public Lands Act*.

Dedicated protected area: A type of protected area under the *Far North Act, 2010* that can either be: (1) designated in a community-based land-use plan or (2) regulated under the *Far North Act, 2010* or the *Provincial Parks and Conservation Reserves Act, 2006*.

Ecological integrity: A measure of the naturalness of an area, such that an ecosystem's living and non-living parts and the interactions between these parts are relatively undisturbed by human activity.

Ecological processes: The physical, chemical and biological actions or events occurring in ecosystems, connecting organisms and their environments; for example, wildlife migration, predation, nitrogen cycling and fire.

Ecosystem: All of the living things, such as plants and animals, and all of the non-living things in their environment, such as water, soil and sunlight, that they interact with and how these living and non-living things interact with each other.

Ecosystem services: Direct and indirect benefits that humans gain from healthy, properly functioning ecosystems, including, for example: food and water supply; climate and disease control; flood and storm control; oxygen production; cultural and spiritual values, and recreational opportunities.

Enhanced Management Area: A Crown land use designation that can be used to provide more detailed land use direction in areas of special features or values.

Far North: A geographic term describing the northern-most 451,796 km² of Ontario, north of the area of the undertaking.

General Use Area: A Crown land use designation that allows a full range of resource and recreational uses but does not mean that all uses and activities must be permitted. Resource extraction like logging and claim staking is allowed. The majority of Crown lands currently fall into this designation.

Goal: A long-term desired outcome (for example, a completed network of protected areas). Goals tend to be broad in scope, general in intention, intangible, abstract and difficult to measure. Goals are often broken into more specific objectives.

Habitat: An area that a species depends upon for breeding, feeding and movement.

Indicator: A variable, metric or measure to describe a condition, phenomenon or dynamic (for example, the numbers of species at risk in an area). Indicators are used to track progress toward meeting objectives and targets.

Indigenous protected and conserved area: A type of protected area that is Indigenous-led, has a long-term commitment to conserving biodiversity and contributes to reconciliation between Indigenous peoples and Canadian society.

Landform: Non-living surface of the Earth such as rocks and soils.

Legal or other effective means: Protected areas must be recognized by law, an international convention or agreement, or else managed through other effective means, such as through policies established by a non-governmental organization.

Management plan: Identifies site-specific management policies for a provincial park or conservation reserve; can take the form of a management plan, management statement or statement of conservation interest.

Objective: A specific, measurable outcome to achieve a goal (for example, the protection of all types of ecosystems).

Privately protected lands: Lands owned by an individual, conservation organization or corporation that meet criteria to qualify as a protected area.

Prospecting: Searching for mineral deposits in a location through experimental drilling and excavation.

Protected area: A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature.

Provincial park: A type of area regulated under the *Provincial Parks and Conservation Reserves Act, 2006*. The first priority in planning and management is the maintenance of ecological integrity.

Representation: A method of conserving biodiversity by protecting characteristic samples of the full range of ecosystems and associated species in a region.

Species: A group of living organisms that are similar to one another and are capable of reproducing with one another to make young/new organisms.

Species at risk: Species whose survival is in jeopardy due to a combination of biological characteristics and identified threats. Status and threat levels are distinguished between endangered, threatened, special concern, extirpated (gone from Ontario but found elsewhere), and extinct (no longer exists anywhere).

Target: A benchmark (future desired value of an indicator) for driving and measuring progress towards meeting an objective.

Target, Provincial Park Class: Specify the number, size and distribution of Wilderness, Natural Environment and Waterway class provincial parks to be created/included in the provincial park system.

Target, Life Science Representation: Specify the minimum area for each type of ecosystem found throughout the province. Ecosystem types are based on combinations of landform (soil/rocks) and vegetation (plants).

Target, Area-Based: Specify a percentage of area to be protected.

Terrestrial: Land-based, in contrast to water-based.

Wilderness area: An area regulated under the *Wilderness Areas Act* to be maintained in its natural state.

United Nations International Union for Conservation of Nature: A global authority composed of 1,300 member governments and private organizations that reports on the status of nature and the measures needed to protect it

Vegetation: Plants, including trees.

Appendix 2: Key Provisions in Relevant Legislation for Protected Areas

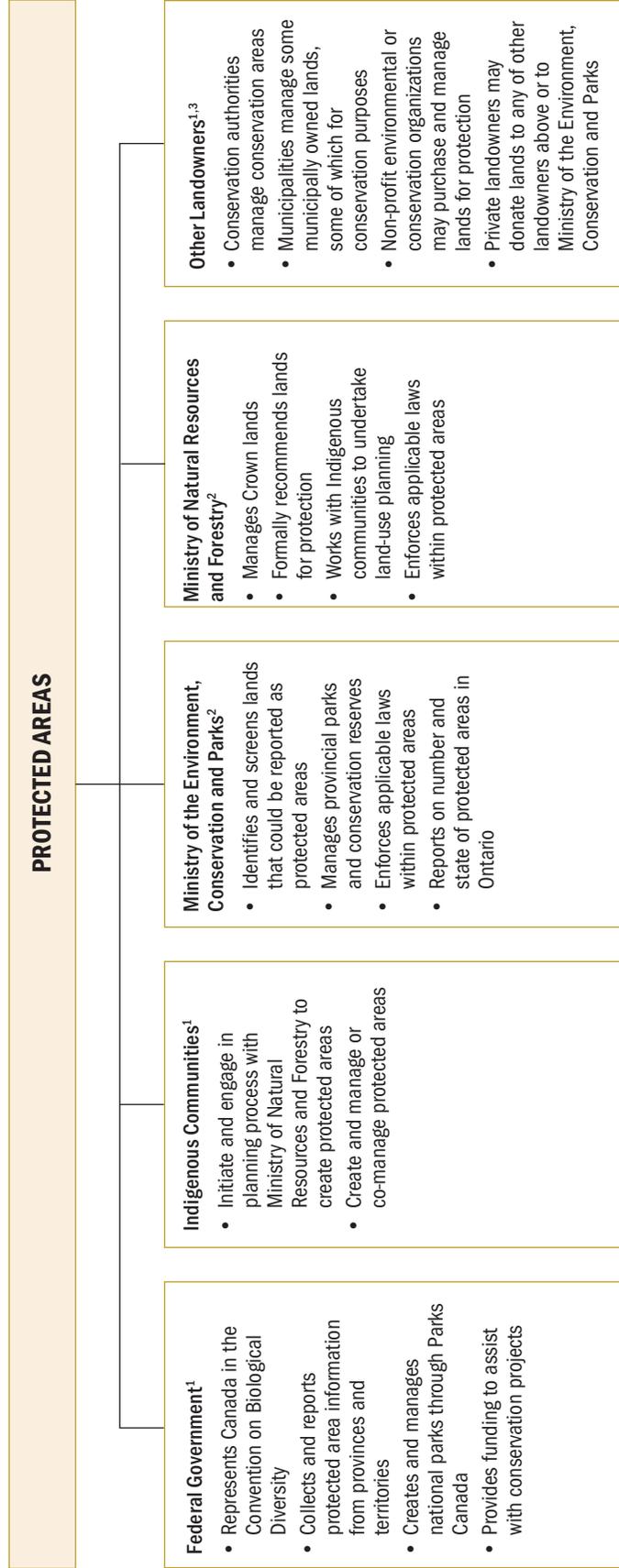
Prepared by the Office of the Auditor General of Ontario

Legislative Requirement	Key Report Sections
<i>Provincial Parks and Conservation Reserves Act, 2006</i>	
<p>Section 1. Purpose: Permanently protect a system of provincial parks and conservation reserves that includes ecosystems that are representative of all of Ontario's natural regions, protects provincially significant elements of Ontario's natural and cultural heritage, maintains biodiversity and provides opportunities for compatible, ecologically sustainable recreation.</p>	2.3.1
<p>Section 3(1). Planning and management principles: Maintenance of ecological integrity shall be the first priority and the restoration of ecological integrity shall be considered.</p>	4.2.1, 4.2.2
<p>Section 6. Parks dedicated to the public: Ontario's provincial parks and conservation reserves are dedicated to the people of Ontario and visitors for their inspiration, education, health, recreational enjoyment and other benefits with the intention that these areas shall be managed to maintain their ecological integrity and to leave them unimpaired for future generations.</p>	4.2.1
<p>Section 10(1). Management direction: The Minister shall ensure that the Ministry prepares a management direction that applies to each provincial park and conservation reserve.</p>	4.3.1, 4.3.3
<p>Section 10(7). Examination of management direction: The Ministry shall examine, in an order determined by the Ministry, management directions that have been in place for 20 years or more to determine the need for amendment or replacement of the directions.</p>	4.3.2
<p>Section 10(8). Posting of results of examination: The results of the examination of management directions under subsection (7) shall be posted in the registry established under the Environmental Bill of Rights, 1993 or made available for public information by other appropriate means.</p>	4.3.1
<p>Section 16. Prohibited uses: The following activities shall not be carried out on lands that are part of a provincial park or conservation reserve:</p> <ul style="list-style-type: none"> • commercial timber harvest; • generation of electricity; • prospecting, staking mining claims, developing mineral interests or working mines; • extracting aggregate, topsoil or peat; and • other industrial uses. 	4.2.4, 4.2.5
<p>Section 17(1). Commercial timber harvesting in Algonquin Provincial Park: Timber may be harvested for commercial purposes in Algonquin Provincial Park in accordance with the <i>Algonquin Forestry Authority Act</i>, the Algonquin Provincial Park Management Plan and the <i>Crown Forest Sustainability Act, 1994</i>.</p>	4.2.5
<i>Far North Act, 2010</i>	
<p>Section 1. Purpose: The purpose of this Act is to provide for community-based land-use planning in the Far North that,</p> <ul style="list-style-type: none"> • sets out a joint planning process between First Nations and Ontario; • supports the environmental, social and economic objectives for land use planning for the peoples of Ontario; and • is done in a manner that is consistent with the recognition and affirmation of existing Aboriginal and treaty rights in section 35 of the <i>Constitution Act</i>. 	4.5.1, 4.5.2

Legislative Requirement	Report Sections
<p>Section 5. Objectives for land-use planning:</p> <ul style="list-style-type: none"> • A significant role for First Nations in the planning; • The protection of areas of cultural value in the Far North and the protection of ecological systems in the Far North by including at least 225,000 square kilometres of the Far North in an interconnected network of protected areas designated in community-based land-use plans; • The maintenance of biological diversity, ecological processes and ecological functions, including the storage and sequestration of carbon in the Far North; and • Enabling sustainable economic development that benefits the First Nations. 	4.5.1
<p>Section 7. Joint body:</p> <p>If the First Nations that participate in the discussions and the Minister agree to establish the joint body, the Minister shall take into account the discussions and establish the joint body. The functions of the joint body may include:</p> <ul style="list-style-type: none"> • recommending to the Minister matters to include in the Far North land use strategy, including statements to be issued as Far North policy statements; and • advising the Minister on matters related to the development, implementation and co-ordination of land use planning in the Far North. 	4.5.1
<p>Section 9(1). Community-based land use plan:</p> <p>If one or more First Nations having one or more reserves in the Far North indicate to the Minister their interest in initiating the planning process, the Minister shall work with them to prepare terms of reference to guide the designation of an area in the Far North as a planning area and the preparation of a land use plan.</p>	4.5.1
<p>Section 14(2). Protected areas:</p> <p>No person shall carry on any of the following developments, land uses and activities in a protected area:</p> <ul style="list-style-type: none"> • Prospecting, mining claim staking or mineral exploration; • Opening a mine in the prescribed circumstances; • Commercial timber harvest; • Oil and gas exploration or production; • Constructing an electrical generation facility, subject to exceptions; and • Any other development, land use or activity that is prescribed as not being permitted for the category of protected area to which the area belongs. 	4.5.1, 4.5.2
Wilderness Areas Act (passed in 1959)	
<p>Section 1. Establishment of wilderness areas:</p> <p>The Lieutenant Governor in Council may set apart any lands as a wilderness area for the preservation of the area as nearly as may be in its natural state in which research and educational activities may be carried on, for the protection of the flora and fauna, for the improvement of the area, having regard to its historical, aesthetic, scientific or recreational value, or for such other prescribed purposes.</p>	4.2.4
<p>Section 2. Saving:</p> <p>Nothing limits or affects the development or utilization of the natural resources in any wilderness area that is more than 260 hectares in size.</p>	4.2.4
Public Lands Act (passed in 1913)	
<p>Section 2(1). Function of Minister:</p> <p>The Minister [of Natural Resources and Forestry] shall have charge of the management, sale and disposition of the public lands and forests.</p>	4.5.1, 4.6.2

Appendix 3: Entities Involved in Creating and Managing Protected Areas in Ontario

Prepared by the Office of the Auditor General of Ontario



1. May be involved, directly or indirectly, in creating and managing protected areas.
2. Directly responsible for creating, regulating and managing protected areas in Ontario.
3. May ask the Ministry of the Environment, Conservation and Parks to screen for designation as protected areas, the lands that they manage for conservation purposes.

Appendix 4: Chronology of Key Events for Protected Areas in Ontario

Prepared by the Office of the Auditor General of Ontario

1893	Ontario passes a law to establish its first protected area—now known as Algonquin Provincial Park.
1913	Ontario passes the <i>Parks Act</i> —the first protected-area law in the province.
1954	Ontario passes the <i>Provincial Parks Act</i> to replace the <i>Parks Act</i> .
1954	Ontario creates the Division of Parks—a new program to create more parks, primarily on the Great Lakes and northern tourism highways.
1978	Ministry of Natural Resources and Forestry (Natural Resources Ministry) establishes targets for completing a system of provincial parks.
1983	Natural Resources Ministry announces proposals for 155 new provincial parks, including six large wilderness parks.
1995	Ontario publicly commits to the conservation of biodiversity.
1996	The Division of Parks is rebranded as Ontario Parks, and adopts a new system to manage the provincial parks system that allows revenues generated by the parks to be reinvested into the park system.
1997	Natural Resources Ministry releases an action plan to create protected areas. It commits to complete a comprehensive system of parks and protected areas, representing the full range of natural diversity in the province. The plan does not set a specific date to complete the system.
1999	Ontario's Living Legacy expands the protected-area system, resulting in 58 new provincial parks and 268 conservation reserves.
2006	Ontario passes the <i>Provincial Parks and Conservation Reserves Act, 2006</i> , to replace the <i>Provincial Parks Act</i> . The law goes into force in 2007 and makes the maintenance of ecological integrity the first priority in planning and management.
2011	The <i>Far North Act, 2010</i> , requires the Natural Resources Ministry to create a network of at least 22.5 million hectares of protected areas in Ontario's Far North in collaboration with First Nations communities.
2011	The Ontario Biodiversity Council releases a biodiversity strategy with a target of conserving at least 17% of lands and waters through well-connected networks of protected areas and other effective area-based conservation measures by 2020.
2012	The province releases its response to the Ontario Biodiversity Council's biodiversity strategy, outlining the government's plan to conserve biodiversity including to expand the network of protected areas.
2012	The <i>Provincial Parks and Conservation Reserves Act, 2006</i> , is amended. Amendments include removing the requirement that management plans had to be developed within five years of establishing a provincial park or conservation reserve.
2012	The annual budget for land acquisitions by the Ministry is reduced from \$500,000 to \$1,000.
2018	Ontario Parks moves from the Natural Resources Ministry to the newly named Ministry of the Environment, Conservation and Parks.

Appendix 5: Audit Criteria

Prepared by the Office of the Auditor General of Ontario

Identification and Establishment of Areas to be Protected

1. Roles, responsibilities and accountabilities for identifying, prioritizing and establishing protected areas are clearly defined.
2. Processes are in place to identify, prioritize and establish protected areas including determining the appropriate level of human and financial resources.
3. Ministries have sufficient, accurate and relevant information on species and ecosystems in Ontario to effectively identify, prioritize and establish protected areas.
4. Ministries use best practices in identifying, prioritizing and establishing protected areas.

Management of Existing Protected Areas

5. Processes are in place to effectively manage existing protected areas, including determining the appropriate level of human and financial resources, to protect the species and ecosystems within them.
6. Ministries regularly collect relevant information about the species and ecosystems in existing protected areas to help measure changes in the environment over time.

Monitoring of Progress

7. Meaningful performance measures and targets for protected areas are established in order to conserve the environment. Ministries' performance against these targets are regularly monitored and reported publicly. Corrective actions are taken on a timely basis when issues and gaps are identified in order to achieve intended outcomes.



Office of the Auditor General of Ontario

20 Dundas Street West, Suite 1530
Toronto, Ontario
M5G 2C2
www.auditor.on.ca

ISSN 1911-7078 (Online)
ISBN 978-1-4868-4835-5 (PDF, 2020 ed.)

Cover photograph credit:
Christopher Wilkinson