CANADA'S CONSERVATION VISION:

A REPORT OF THE NATIONAL ADVISORY PANEL

MARCH 23, 2018

CANADA'S CONSERVATION VISION:
A REPORT OF THE NATIONAL ADVISORY PANEL

MARCH 23, 2018

Canada's Conservation Vision: A Report of the National Advisory Panel

The National Advisory Panel members

Tara Shea	Drew Black
Alison Woodley	Dr. Reg Crowshoe
Kate Lindsay	Nik Lopoukhine
John Lounds	Louie Porta
Barry Worbets	Chloe Dragon Smith
André St-Hilaire	Cliff Supernault, Co-Chair
Harvey Locke	Janet Sumner, Co-Chair

The NAP was pleased to have the support of the facilitation team of Warren Wilson and Michelle Sault and the ongoing support of Elder Larry McDermott.

Photo credits include Wildlands League (pages, 6, 10, 16, 21, 25, 32, 37), CPAWS (Erinn Drage – page 13, Irwin Barrett page – 14, Ashley Hockenberry – page 17, Joshua Pearlman – page 22, Garth Lenz – page 29, Ginevre Smith – page 33, Vincent Berthet – page 36, and Alexandra Benko – page 40), Carys Richards (page 29), Nik Lopoukhine (pages 22 and 32), Johane Janelle (page 2), and Garth Lenz (pages 36, 37, and 38).

Catalogue Number R62-549/2018E-PDF
ISBN 978-0-660-25834-8

Cette publication est ausi disponible en français sous le titre :
La vision du Canada pour la conservation : un rapport du comité consultatif national

CONTENTS

EXECUTIVE SUMMARY

The two great environmental challenges of our time—biodiversity loss and climate change—are interconnected, and they require urgent action. The escalating global loss of biodiversity due to destruction of habitats and impacts of climate change threatens the viability of Earth's ecosystems and thereby the ecosystem services that support all life.

Across Canada many ecosystems are in decline, and the list of species at risk continues to grow each year. In 2010, as a party to the UN Convention on Biological Diversity (CBD), Canada endorsed a 10-year strategic plan, including 20 Aichi Targets that, together, aim to reverse the decline of biodiversity. Aichi Target 11 commits countries to expanding and improving their protected area systems, and in 2015, Canada embedded Aichi Target 11 into Canada's 2020 Biodiversity Targets as Canada Target 1. As first steps to implementing Aichi Target 11–Canada Target 1, in 2017 the House of Commons Standing Committee on Environment and Sustainable Development produced a unanimous all-party report on establishing protected areas, and the federal, provincial, and territorial ministers responsible for protected areas in Canada launched the Pathway to Canada Target 1 to address the terrestrial and freshwater components of the target. Implementation of the marine protection component is being led by Fisheries and Oceans Canada.

As part of the Pathway to Canada Target 1 process, the Minister of Environment and Climate Change Canada and the Minister for Alberta Environment and Parks appointed a National Advisory Panel (NAP) to "provide recommendations reflecting a broad spectrum of perspectives, based on

the best available science and traditional knowledge, on how governments, non-governmental organizations and Canadians could collectively achieve Canada Target 1 through a coordinated and connected network of protected and conservation areas throughout the country that could serve as the cornerstone for biodiversity conservation for generations to come."[1] Specifically, the NAP was asked to advise on how Canada can best meet our international obligation to protect at least 17 percent of land and freshwater by 2020, and address quality issues related to the target, as part of a long-term response to threats to biodiversity.

Since June 2017, the NAP has held discussions and developed recommendations that were informed by the knowledge and experience of individual NAP members, teachings of Indigenous elders who participated in the NAP meetings, and background reports generated by government assembled–task teams.

We approached our mandate with the recognition of the urgency to work toward harmony with the natural world and also reconciliation among Indigenous and non-Indigenous peoples of Canada. To move in this direction, the NAP emphasizes the importance of actively working to create an ethical space of engagement in all aspects of biodiversity conservation, including for establishing protected areas.

The NAP identified the need to move ahead on using the methods and practices already in place to protect biodiversity and, simultaneously, to work toward creating an ethical space of engagement to bring together Indigenous knowledge systems and Western scientific approaches to achieve the fundamental outcome of reconciliation with the Earth.

As of the end of 2016, Canada recognizes 10.6 percent of our land and inland waters as protected, an increase of only 1 percent since 2010; therefore, much needs to be done to achieve 17 percent by 2020. To address the need for both immediate action and also the implementation of a long-term plan for nature conservation, the NAP's recommendations focus on two parallel paths of action: (1) supporting initiatives on the ground to protect at least 17 percent of our land and inland waters by 2020; and (2) setting the stage to substantially exceed current targets as part of an effective, long-term, Canadian conservation strategy, all in a way that contributes to reconciliation among Indigenous and non-Indigenous peoples in Canada. The NAP recommendations reflect the importance of implementing all Aichi Targets and Convention on Biological Diversity commitments to achieve effective biodiversity conservation in the long term.

Biodiversity is not evenly distributed across Canada and faces different challenges in different regions, in part because of our history of settlement and land use.

Biodiversity is not evenly distributed across Canada and faces different challenges in different regions, in part because of our history of settlement and land use. The NAP recognizes that conservation strategies need to reflect the specific conditions and challenges in different regions and also take into account the important environmental, social, and economic benefits each region provides. The recommendations in this report highlight opportunities for nature conservation throughout Canada, and the NAP asserts that a healthy environment can be achieved along with a healthy economy.

To achieve Canada's conservation goals and to meet our international obligations under the UN Convention on Biological Diversity, the NAP recommends the establishment of a new nature conservation architecture, supported by adequate funding and involving partnerships with Indigenous peoples. The proposed structure would include a new federal Nature Conservation Department,[2] a Pan-Canadian Agreement for Nature Conservation,[3] and a Nature Conservation Advisory Council,[4] enabled by a new federal Act. The new structure would facilitate the alignment of provincial and territorial governments' conservation institutions and responsibilities with Canada's international commitments.

The NAP's recommended funding model includes federal investment in areas of federal responsibility and for Indigenous-led initiatives, and also cost-shared arrangements to support action by provincial, territorial, and municipal governments, and non-government and private-sector partners, all tied to consistency in meeting international standards for biodiversity protection and to delivering on our Convention on Biological Diversity commitments. The proposed new structure and funding model for nature conservation will encourage action and partnerships with Indigenous, provincial, territorial, and municipal governments, NGOs, academic institutions, industry, and individual Canadians in conserving our terrestrial and freshwater ecosystems.

Canada has the opportunity to take a strong, global leadership role in the protection of biodiversity. Canada demonstrated global leadership in regard to the 2016 Paris Climate Agreement under the United Nations Framework Convention on Climate Change. Now it is time for Canada to address the loss of biodiversity by putting an equal effort into nature conservation. Furthermore, by taking leadership in biodiversity protection and in establishing protected areas in the spirit of reconciliation, Canada could ultimately contribute to global leadership in shaping better relationships between Indigenous and non-Indigenous peoples and with Nature.

1 National Advisory Panel–Pathway to Canada Target 1, NAP Terms of Reference, April 10, 2017, p. 1.

2 The Department would lead nationwide delivery on CBD obligations through knowledge support and funding from federal and other sources that it would disburse to other levels of government and partners. The Department would also support the Pan-Canadian Agreement for Nature Conservation and assist with the creation of a pan-Canadian water strategy to protect lakes, rivers, and wetlands.

3 The goal of this Agreement would be to achieve an interjurisdictional commitment.

4 The Council would be made up of Indigenous and non-Indigenous appointees and supported by a budget and secretariat that is independent of the Nature Conservation Department.

LIST OF RECOMMENDATIONS

Recommendation 1

We recommend that all governments in Canada adopt a shared conservation vision that

- recognizes Canada's globally significant natural values, and also our cultural values that align with conserving Nature;
- embraces Indigenous world views that acknowledge we are one species among many that share the Earth with the rest of life;
- achieves our collective conservation goals within a framework of reconciliation and the creation of ethical space;
- affirms that a core strategy for conserving biological diversity is an interconnected network of protected areas and OECMs, integrated into the wider landscape; and
- supports Canada in becoming a global leader in living harmoniously with Nature.

Recommendation 2

We support the recommendations of the House of Commons Standing Committee on Environment and Sustainable Development in their report on protected areas and, in particular, "that the Government of Canada set even more ambitious targets for protected areas than those established in the Aichi Target 11." [5]

Recommendation 3

We recommend that Canada create a new nature conservation architecture consisting of a new federal Nature Conservation Department, a Pan-Canadian Agreement for Nature Conservation, and a Nature Conservation Advisory Council, enabled by a new federal Act.

Recommendation 4

We recommend that provincial and territorial governments also streamline responsibilities for conservation within one department that aligns with Canada's obligations to the UN Convention on Biodiversity (CBD).

Recommendation 5

We recommend that the federal government move immediately to create a Nature Conservation Department with the following aims and responsibilities:

- To ensure that Nature is effectively conserved in Canada and that our international obligations under the CBD are met on an ongoing basis

- To oversee all areas of federal jurisdiction relating to nature conservation, including protected areas such as national parks, wildlife sanctuaries, and marine protected areas, as well as those managed by other federal agencies, like the National Capital Commission

5 Note: The NAP unanimously agrees with all Standing Committee report recommendations, except for Recommendations #3 and #27. See the complete set of their recommendations in Appendices.

- To lead nationwide delivery on CBD obligations and provide knowledge support and funding to other levels of government and partners to enable them to meet international standards and commitments

- To support the Pan-Canadian Agreement for Nature Conservation (See Recommendation 6.)

Recommendation 6
We recommend that federal, provincial, and territorial governments enter into a Pan-Canadian Agreement for Nature Conservation: an interjurisdictional political commitment to achieving Canada's biodiversity conservation commitments, starting with Aichi Target 11–Canada Target 1. We also recommend that there be an ongoing intergovernmental ministers council focused on implementing the Agreement in a framework of reconciliation, and building on the Pathway to Canada Target 1 process. (The proposed elements of this agreement are articulated in Recommendation 1.)

Recommendation 7
We recommend the creation of a Nature Conservation Advisory Council of thought leaders, with equal membership of Indigenous and non-Indigenous appointees and supported by a budget and secretariat that is independent of the Nature Conservation Department. The Nature Conservation Advisory Council would advise governments and report to Canadians at least every two years on Canada's progress on (1) achieving our collective conservation goals and responsibilities within a framework of reconciliation, and (2) creating ethical space for the integration of Indigenous knowledge systems and Western scientific approaches.

Recommendation 8
We recommend that the Government of Canada work with all jurisdictions to review protected areas and OECMs for consistency with IUCN definitions and guidance, and to rigorously apply these definitions and guidance in their reporting. This should be done through a transparent public process coordinated by the new federal Nature Conservation Department. Private, co-managed, Indigenous, Crown, and local government protected areas and OECMs should all be counted when they meet the IUCN definitions and guidance.

The Government should appoint an external advisory committee to assist with this work, and to make publicly available their recommendations for upgrading protection of areas, where necessary for them to meet the IUCN definitions and guidance.

Recommendation 9
We recommend that the mandate of the Office of the Auditor General of Canada be modified to include tracking and reporting every two years on the performance of all federal aspects of the new nature conservation architecture, and CBD obligations, including adherence to international standards, and that the Office be provided with the resources to do so. We further recommend that equivalent provincial and territorial auditors general be given a similar mandate to track performance.

Recommendation 10
We recommend, by 2019, the completion of a gap analysis of existing protected areas and OECMs in Canada to inform the identification of future protected areas and OECMs needed to fulfill the representation, connectivity, and key areas for biodiversity elements of Aichi Target 11–Canada Target 1 and long-term conservation goals.

Recommendation 11
We recommend that jurisdictions utilize the Canadian Ecological Framework as an equivalent comparative framework to guide ecological representation in conservation planning.

Recommendation 12
We recommend that, by 2020, Canadian ecoregions should be the basis for determining and reporting on ecological representation at the national level. We further recommend that Canadian ecoregions (circa 1996) be updated to ensure alignment with Canadian ecozones (circa 2014).

Recommendation 13
We recommend that all jurisdictions in Canada apply the global IUCN Key Biodiversity Area (KBA) standard to identify globally significant areas of importance for biodiversity. We further recommend that jurisdictions work together and with partners to develop and apply a Canadian standard, consistent with this global standard, to identify nationally significant areas of importance for biodiversity to inform conservation planning.

Recommendation 14
We recommend that the federal government lead the development, by 2020, of a nationwide ecological connectivity strategy.

We recommend that all governments in Canada adopt a shared convservation vision...

The strategy will be based on science and Indigenous knowledge, involve collaboration with partners, and contain the following actions:

- Evaluate the current status of ecological connectivity in terrestrial and freshwater ecosystems, and identify priorities for action appropriate to each ecosystem and regional context (part of the gap analysis referenced in Recommendation 10).

- Define measures and standards for assessing connectivity at multiple scales.
  - Use structural connectivity indicators at the national scale to evaluate the current network and to plan for new protected areas and OECMs.
  - Elaborate functional connectivity indicators for focal species to establish management targets at regional and local scale.

- Invest in existing ecological connectivity initiatives in Canada.

- Reflect climate change considerations.

- Consider the emerging IUCN Connectivity Conservation Area guidelines.

- In areas without transborder connectivity initiatives, investigate opportunities for developing connectivity initiatives across borders within Canada and with the United States.

Recommendation 15
We recommend that all jurisdictions apply management effectiveness assessments according to CBD guidance, and commit to having 60 percent of protected areas and OECMs assessed for effective management by 2020 and 100 percent assessed by 2030. Management effectiveness should be measured both at the network scale and the site-specific scale every five years. Canada should report results to the World Database on Protected Areas.

Recommendation 16
We recommend that to achieve effective management, protected areas and OECMs have ecological integrity monitoring programs that are based on Western science and Indigenous knowledge and, where possible, include Indigenous Guardians and other stewardship initiatives in their implementation.

Recommendation 17
We recommend that the relevant government assure equitable distribution of costs and benefits of protected areas by mitigating costs and risks; sharing benefits fairly; addressing barriers to accessing benefits that may exist for marginalized groups; and assuring a broad understanding of the benefits, costs, and risks, while balancing the broader national interest.

Recommendation 18
We recommend that Aichi Target 11–Canada Target 1 be achieved primarily through protected areas. OECMs could be used to complement protected area networks and may play a greater role post-2020.

Recommendation 19
We recommend that to achieve the short-term quantitative target of 17 percent protection by 2020, governments should start by completing protected area proposals and commitments already underway. (A list of early opportunities is included in Appendix E.[6]) To fill the remaining gap, ongoing landscape-level planning initiatives may provide opportunities to protect more areas: for example, Indigenous-led land-use planning, forest management planning, non-governmental conservation planning initiatives, and plans to protect critical habitat for caribou and other recovery planning for species at risk. In all cases, protected areas and OECMs should be created within a framework of reconciliation, including through free, prior, and informed consent of Indigenous peoples.

Recommendation 20
We recommend that all jurisdictions fund and actively encourage the use of all legal and policy mechanisms supporting Indigenous participation in establishing and managing protected areas.

Recommendation 21
We recommend that federal, provincial, and territorial governments engage in ethical space with Indigenous governments and peoples to develop new legal and policy mechanisms for Indigenous protected areas and OECMs that meet international standards for protecting areas over the long term, and that public funding be designated for the establishment and management of these areas.

Recommendation 22
We recommend that federal, provincial, and territorial governments engage in ethical space with Indigenous governments and peoples to reconcile Western and Indigenous legal mechanisms with the goal of establishing and supporting IPAs at all levels, including by promoting the use of existing legal and policy mechanisms and creating additional supportive tools where needed.

Recommendation 23
We recommend that the experience of engaging in ethical space to support Indigenous protected areas, along with associated Indigenous principles and values, should be applied to all existing and projected protected areas in Canada, as these are effective tools for reconciliation with each other and Mother Earth, and because each protected area has a place on the spectrum of Indigenous-Crown governance models.

Recommendation 24
We recommend that systems be put in place so that protected areas, including Indigenous protected areas, build Indigenous capacity for management and meaningful operational participation on the land, prioritizing Indigenous ways of connecting with the land as a long-term strategy to conserve biodiversity.

Recommendation 25
We recommend that all forms of protected areas and OECMs explicitly promote cultural exchange and understanding, leading to engagement in ethical space for conservation decision making.

Recommendation 26
We recommend that the following key principles of landscape-level conservation planning be adopted by all jurisdictions:

- Understand and obtain clear evidence about what is needed to maintain ecological integrity and function at the local, regional, and national levels, and incorporate findings into conservation planning and management, and sustainable development.
- Commit to working on a nation-to-nation or Inuit-to-Crown basis with Indigenous peoples, including valuing both Indigenous and non-Indigenous ways of knowing and creating an ethical space to reconcile people and Nature.
- Understand the value of the land (ecological, traditional, spiritual, and socioeconomic), and ensure that the significance of different values are considered in conservation planning.
- Use all legal and policy instruments, innovative technologies, and creative partnerships to meet conservation objectives.

Recommendation 27
We recommend the Government of Canada and also provincial, territorial, and Indigenous governments and governance bodies place priority on landscape-level conservation planning across Canada.

Recommendation 28
We recommend identifying and prioritizing opportunities for landscape-level conservation in areas of national and hemispheric importance to conservation and connectivity, such as Prairie grasslands, the Hudson and James Bay Lowlands, Canada's Northwest Passage, the Mackenzie Basin, the Yellowstone-to-Yukon region, the Algonquin-to-Adirondacks region, and the Northern Appalachians-to-Nova Scotia region.

Recommendation 29
We recommend that federal, provincial, and territorial governments enact means to protect aquatic ecosystems through the development of a pan-Canadian water strategy.

Recommendation 30
We recommend all jurisdictions investigate designations such as Heritage Rivers,

6 While there is consensus that existing protected area proposals should be the starting point for meeting the target, one NAP member expressed concern over including a list of protected area proposals in this report without having sufficient time to thoroughly review each proposal to understand the ecological value, whether there was strong Indigenous support, and the socioeconomic implications.

Ramsar wetlands, Biosphere Reserves, with the aim to determine how strengthening the protection associated with such designations may provide opportunities for Canada to meet our Convention on Biological Diversity targets.

Recommendation 31

We recommend that a special emphasis be applied to identifying and supporting the various ways Canadians can act to advance protected areas and OECMs within their spheres of influence. We further recommend that Pathway to Canada Target 1 support and celebrate the contributions of civil society and private interests, as well as governments, to effective, well-connected networks of protected areas and OECMs.

Recommendation 32

We recommend that federal government funding programs include support for municipal and regional government protected areas and OECMs that meet international standards as well as landscape-level planning, particularly to address connectivity.

Recommendation 33

The NAP recommends additional federal investment for nature conservation that includes the following priorities:

Federal action

1. Federal "house-in-order." $100M over three years and $50M per year ongoing to support getting the federal house in order to lead a nationwide effort to conserve biodiversity in the long term; includes establishing a new Act, Nature Conservation Department, and Nature Conservation Advisory Council and Secretariat

2. Federal protected areas. $94M per year ongoing for establishing new national parks and national wildlife areas by 2020, and improving management of existing federal protected areas; also a one-time $50M investment to resolve third-party interests in proposed protected areas [7]

3. Federal leadership. $6M per year, ongoing to support federal leadership and collaboration among government and non-government partners, and policy/legislative upgrades

4. Connectivity strategy. $3M per year for three years to develop a nationwide ecological connectivity strategy, with government and non-government partners

Incentives for other government and non-government action

5. Other government new protected areas and OECMs. $120M per year ongoing for a fund to support planning, establishment, and management of new protected areas and OECMs by provincial, territorial, municipal, and Indigenous governments; to be fully funded for Indigenous governments and cost-shared for provincial, territorial and municipal governments

6. Capacity building for Indigenous protected areas (IPAs). $200M per year ongoing to support capacity building and necessary legal and other institutional arrangements to support Indigenous protected areas; including Guardians and other IPA capacity-building initiatives

7. Privately protected areas. $50M per year for NGO's and others to protect private lands

8. Resolving third-party interests. $100M one-time investment for resolution of third-party interests to enable establishment of protected areas

9. Coordinated conservation policy framework. $50M over three years to support development of a Canada-wide, coordinated, conservation policy framework and agreement that aligns with Convention on Biological Diversity and United Nations Declaration on the Rights of Indigenous Peoples

10. Planning for conservation. $200M over five years and $50M per year ongoing to support regional planning initiatives focused on identifying conservation needs and based on Western science and Indigenous knowledge

11. Effective management. $30M over three years to assess management effectiveness for existing protected areas; ramped-up funding (to $250M per year) to support management upgrades and meet standards

12. Public engagement partnerships. $20M per year ongoing to support a partnership fund with the goal of engaging the public in conserving Canada's land and inland waters

13. Knowledge centres. $130M over three years and $100M per year ongoing to support five university-based Conservation Knowledge Centres (focused on conservation practices that integrate Western science and Indigenous knowledge), and a Tri-Council (NSERC, SSHRC, CIHR) Strategic Research Network program

Recommendation 34

We recommend the federal government explore innovative financing mechanisms to help fund nature conservation across Canada, including the idea of Nature Conservation Bonds.

Recommendation 35

We recommend Canada's landscape-level planning include consideration of how to maximize the protection, maintenance, and enhancement of carbon-rich ecosystems, and that Canada allocate funding earmarked for climate change mitigation and adaptation for this purpose.

Recommendation 36

We recommend that Canada develop a carbon inventory based on the best available science and monitoring, and that counts terrestrial and aquatic carbon exchanges as part of Canada's commitment to climate change: for example, an enhanced carbon budget model that builds upon the carbon budget model developed by Natural Resources Canada. [8]

Recommendation 37

We recommend that all jurisdictions include in their climate change adaptation strategies an objective of completing networks of well-connected protected areas and OECMs that contain climate change refugia.[9] Climate adaptation funding should be allocated to help deliver on this objective.

Recommendation 38

We recommend that research is commissioned and funded and that adaptive management tools are developed, disseminated, and applied to better understand and accommodate species range shifts in the face of climate change.

7 See the Green Budget Coalition recommendations, available at http://greenbudget.ca/budget2018/.

8 Natural Resources Canada, Carbon Budget Model, http://www.nrcan.gc.ca/forests/climate-change/carbon-accounting/13107

9 Climate change refugia are defined as areas relatively buffered from climate change over time (Morelli et al., Managing Climate Change Refugia for Climate Adaptation, *PLoS One*, 11(8), 2016; doi: 10.1371/journal.pone.0159909

INTRODUCTION

Globally, we are experiencing a grave disruption of Nature. Terrestrial, freshwater, and marine ecosystems are losing biological diversity at an unprecedented rate. Both the extinction of species and the severe reductions in their range and population size are contributing to a massive loss of biodiversity and the ecosystem services essential to all life, including human life.

Canada's Great Lakes and inland waters hold 20 percent of global freshwater, and we have 24 percent of the world's wetlands, 25 percent of global temperate rainforest area, and 33 percent of the world's boreal forest. Canada is responsible for almost one-third of global land-based carbon storage, which is a key to action on climate change. Our parks—from the Rocky Mountains to Gwaii Haanas, Algonquin, and beyond—are renowned worldwide. However, Canada is not immune to the global challenge of biodiversity loss. Ecosystems across Canada are in decline and the list of species at risk continues to grow each year.[10] How we share, protect, and conserve these life-sustaining ecosystems and resources will define us as Canadians for generations to come.

10 Federal, Provincial and Territorial Governments of Canada, *Canadian Biodiversity: Ecosystem Status and Trends 2010*, Canadian Councils of Resource Ministers, Ottawa, ON, 2010. Available at http://www.biodivcanada.ca/A519F000-8427-4F8C-9521-8A95AE287753/EN_CanadianBiodiversity_FULL.pdf
As of April 2017, 735 species have been assessed as "at risk" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). See Government of Canada, COSEWIC Summary of Assessment Results to Date, April 2017, at https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife/summary-assessment-results-april-2017.html

The loss of biological diversity is one of the most severe human-caused global environmental problems. Hundreds of species and myriad populations are being driven to extinction every year.…In the last few decades, habitat loss, over-exploitation, invasive organisms, pollution, toxification, and more recently climate disruption, as well as the interactions among these factors, have led to the catastrophic declines in both the numbers and sizes of populations of both common and rare vertebrate species.… We conclude that anthropogenic population extinctions amount to a massive erosion of the greatest biological diversity in the history of Earth and that population losses and declines are especially important, because it is populations of organisms that primarily supply the ecosystem services so critical to humanity at local and regional levels.

Source: G. Ceballos, P.R. Ehrlich, and R. Dirzo, Biological Annihilation Via the Ongoing Sixth Mass Extinction Signaled by Vertebrate Population Losses and Declines, *PNAS*, 114(30), July 2017, e6089. Available at doi: 10.1073/pnas.1704949114

To address the need for action on conservation objectives, in 2010, Canada and the other parties to the UN Convention on Biological Diversity endorsed a 10-year strategic plan aimed at reversing the decline of biodiversity. The strategic plan includes five overarching goals and 20 targets, known as Aichi Biodiversity Targets (see Appendix A for full list of Aichi Targets).

Aichi Target 11, under Strategic Goal C, commits countries to expanding and improving their protected area systems:

> **By 2020, at least 17 percent of terrestrial and inland water, and 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.**[11]

In 2015, Canada embedded Aichi Target 11 in Canada's 2020 Biodiversity Strategy as Target 1—called Canada Target 1—as follows:

> **By 2020, at least 17 percent of terrestrial areas and inland water, and 10 percent of coastal and marine areas, are conserved through networks of protected areas and other effective area-based conservation measures.**[12]

Focused on how best to implement Aichi Target 11–Canada Target 1, the House of Commons Standing Committee on Environment and Sustainable Development produced a unanimous all-party report. In its report, the Standing Committee states that

> **Canada's natural spaces and biodiversity are at the heart of our national identity, but they are increasingly threatened. Canadians expect their governments to effectively protect and manage the land and water to safeguard Canada's natural heritage. Governments must act now.**[13]

FIVE STRATEGIC GOALS OF THE CONVENTION ON BIODIVERSITY

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use.

Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species, and genetic diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management, and capacity building.

Source: Convention on Biological Diversity: Strategic Plan 2011–2020, https://www.cbd.int/sp/elements/

UNITED NATIONS CONVENTIONS

Threats to biodiversity were identified as a global concern as early as 1972 at the United Nations Conference on the Human Environment in Stockholm. Twenty years later in Rio, the UN Convention on Biological Diversity was ratified, and set a target to "achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level."* In 2004, a CBD Programme of Work on Protected Areas was adopted to guide the establishment and management of protected areas. Yet, despite this and many subsequent biodiversity-related international agreements and pledges, an escalating loss of biodiversity continues.

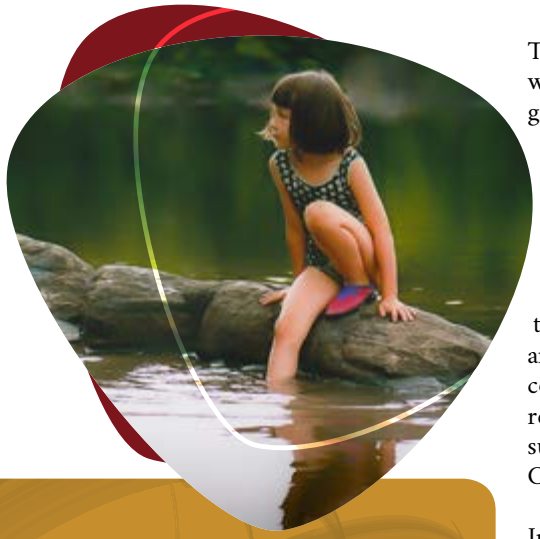
Along with the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change (UNFCCC) was also signed in 1992. This brought into focus the urgent need to address global warming and greenhouse gas emissions. In recent years, many governments, industry leaders, and individuals have launched innovative approaches to climate change mitigation and adaptation. In 2016, Canada played an important leadership role in the Paris Climate Agreement under the UNFCCC, and is now working to implement a Pan-Canadian Framework on Clean Growth and Climate Change.

* Convention on Biological Diversity, 2010 Biodiversity Targets, https://www.cbd.int/2010-target/

11 Convention on Biological Diversity, Aichi Biodiversity Targets, https://www.cbd.int/sp/targets/default.shtml

12 biodivcanada.ca, 2020 Biodiversity Goals and Targets for Canada, http://biodivcanada.ca/default.asp?lang=En&n=9B5793F6-1

13 House of Commons Standing Committee on Environment and Sustainable Development, *Taking Action Today: Protected Areas for Canada's Future, March 2017*, p. 3. Available at http://www.ourcommons.ca/DocumentViewer/en/42-1/ENVI/report-5/



MANDATE

The mandate of the National Advisory Panel (NAP):

1. Advise on foundational elements (such as governance, legislation, incentives, funding) that may be required over the long term for designing, establishing, and effectively managing a coordinated and connected terrestrial network of protected and conserved areas throughout the country that would serve as the foundation for biodiversity conservation for generations to come.

2. Provide practical and innovative recommendations to governments and Canadians that reflect a broad spectrum of perspectives and that are based on the best available western science and traditional knowledge on the following topics:

- how governments, non-government organizations, industry, and Canadians can collectively achieve Canada Target 1 by 2020;
- guidance for establishing a coordinated network of terrestrial protected areas, Indigenous conservation areas, and other effective area-based conservation measures across Canada that are effectively and equitably managed, well-connected and integrated into the wider landscape, include areas of importance for biodiversity and ecosystem services, and that together achieve ecological representation; and
- solutions to potential barriers to achieving Canada Target 1 by 2020 and to implementing the guidance over the long term, including ideas for integrating implementation with other priority programs, such as species at risk and climate change adaptation.

The report continues: "Canada has a long way to go to meet Aichi Target 11 … and a great deal of work remains to be done."[14] As of the end of 2016, Canada had recognized only 10.6 percent of our land and inland waters as protected, which amounts to an increase of only 1 percent since 2010.[15] This reality, coupled with the increasing rate of biodiversity loss, makes it clear that Canada's current conservation efforts are inadequate. As well, Aichi Target 11 is considered an interim goal, and the report recognizes that in the longer term we need to substantially exceed this target to safeguard Canada's natural heritage.[16]

In response to the Standing Committee`s report, and realizing the state of conservation in Canada and the importance of meeting Aichi Target 11–Canada Target 1, the federal, provincial, and territorial ministers responsible for protected areas and biodiversity conservation launched the Pathway to Canada Target 1[17] with the following goal:

> **In partnership with all Canadians, and in particular Indigenous peoples, develop a pathway, grounded in science and traditional knowledge, to achieve Canada Target 1 and establish a coordinated network of parks and conservation areas throughout Canada that will serve as the cornerstone for biodiversity conservation for generations to come.**[18]

As part of the Pathway to Canada Target 1 process, the federal Minister of Environment and Climate Change and Alberta's Minister of Environment and Parks appointed the National Advisory Panel (NAP). The purpose of NAP is to advise the ministers on how governments, non-governmental organizations, the private sector, and all Canadians could collectively achieve the protection of 17 percent of land and freshwater by 2020, as part of a long-term response to threats to biodiversity. NAP's mandate includes two key components: (1) advising on governance, legislation, incentives, and funding to ensure conservation of biodiversity for generations to come; and (2) making recommendations for how diverse groups can work together to achieve Canada Target 1, to establish coordinated networks of protected areas and other effective conservation measures (OECMs), and to resolve barriers to achieving Canada Target 1 and to implementing the NAP's recommendations over the long term.[19] While not explicit in the mandate, the NAP recommendations reflect the importance of implementing all Aichi Targets and other CBD commitments to achieve effective, long-term, biodiversity conservation.

The NAP, officially launched in June 2017, consists of individuals with a range of perspectives, including Indigenous, conservation NGO, industry, academic, and youth. NAP's work was informed by the knowledge and experience of their members and a number of background reports. For example, the NAP built upon the findings and recommendations in the report of the House of Commons Standing Committee on Environment and Sustainable Development, and also on reports of task teams that worked on specific topics relevant to Pathway to Canada Target 1. NAP's work was also informed by the teachings and guidance of Indigenous elders who participated in the NAP meetings. In this regard, the concept of ethical space for engagement among individuals and groups with different worldviews became a fundamental principle for our deliberations and recommendations.[20]

The NAP identified five fundamental components for effective and sustained nature conservation in Canada.

- Creating ethical space for engagement among groups with different worldviews, in particular, among Indigenous and non-Indigenous peoples
- Establishing a new nature conservation architecture and ensuring adequate

14 Ibid, p. 1.

15 See Pathway to Canada Target 1, http://www.conservation2020canada.ca/home/. See also Report of Protected Area in Canada (as of December 2016) at http://ccea.org/CARTS/CARTS%202016/CARTS2016ReportEN.pdf

16 House of Commons Standing Committee, p. 3.

17 Note: the Pathway to Canada Target 1 is addressing the land and inland waters component of Aichi Target 11–Canada Target 1. Implementation of the marine component is being led by Fisheries and Oceans Canada.

18 Pathway to Canada Target 1, Project Goal, http://www.conservation2020canada.ca/

19 See the NAP mandate on page 10.

20 See page 11 for description of ethical space.

investment for Canada to develop, coordinate, and sustain biodiversity conservation across all jurisdictions in Canada

- Identifying and completing early opportunities to immediately establish protected areas and fulfill Canada Target 1

- Planning for beyond 2020 to ensure effective biodiversity conservation in the long term, including assessing gaps in current networks of protected areas and OECMs, addressing qualitative measures, and including Indigenous protected areas and protection of aquatic and riparian areas

- Integrating biodiversity conservation and climate change strategies to advance action on both fronts

In this report the NAP makes recommendations concerning each of these key elements of biodiversity conservation. All recommendations represent general consensus among NAP members. The views expressed in this report are those of the individual NAP members.

Canada is committed to the United Nations Declaration of the Rights of Indigenous Peoples, which is a global effort to achieve reconciliation around the world between Indigenous and non-Indigenous people and with the natural world.

1. LEADERSHIP IN THE CONTEXT OF RECONCILIATION

Canada is committed to the United Nations Declaration of the Rights of Indigenous Peoples, which is a global effort to achieve reconciliation around the world between Indigenous and non-Indigenous peoples and with the natural world. It articulates the principle of "Recognizing that respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment."[21] Further, the Truth and Reconciliation Commission Principles describe how Canadians need to work within a framework of reconciliation with Indigenous peoples and with the Earth:

> **Reconciliation between Aboriginal and non-Aboriginal Canadians, from an Aboriginal perspective, also requires reconciliation with the natural world. If human beings resolve problems between themselves but continue to destroy the natural world, then reconciliation remains incomplete. This is a perspective that we as Commissioners have repeatedly heard: that reconciliation will never occur unless we are also reconciled with the earth.**[22]

The NAP acknowledges that Canada has a long way to go on the path toward reconciliation among people and the Earth, but establishing and maintaining protected areas and OECMs offers an enormous opportunity to make progress.

Creating Ethical Space of Engagement

A First Nations elder attended every NAP meeting, and in recognition of oral practice and ceremony, the meetings started and concluded in a good way. We also benefited from the presence of three Indigenous NAP members and an Indigenous facilitator.

To help the NAP move in the right direction, Indigenous panel member Dr. Reg Crowshoe helped us understand, explore, and embrace the concept of ethical space, which is defined by Willie Ermine in this way:

> **The "ethical space" is formed when two societies, with disparate world views, are poised to engage each other. It is the thought about diverse societies and the space in between them that contributes to the development of a framework for dialogue between human communities.**[23]

The process of creating ethical space establishes an environment for people to come face to face and listen to each other's perspectives and to co-create solutions to problems. This means not only hearing different points of view and therefore points of departure for decision making but also facing the question together of what do we do now. The opportunity to create an ethical space to actively work to bring together Indigenous and Western scientific knowledge systems provides a vital step toward achieving the shared, long-term, fundamental goal of reconciliation with the Earth.

21 United Nations Declaration on the Rights of Indigenous Peoples, p. 2. Available at http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

22 Truth and Reconciliation Commission of Canada, *What We Have Learned: Principles of Truth and Reconciliation*, 2015, p. 123. Available at http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Principles_2015_05_31_web_o.pdf

23 Willie Ermine, The Ethical Space of Engagement, *Indigenous Law Journal*, 6(11), 2007, p. 193.

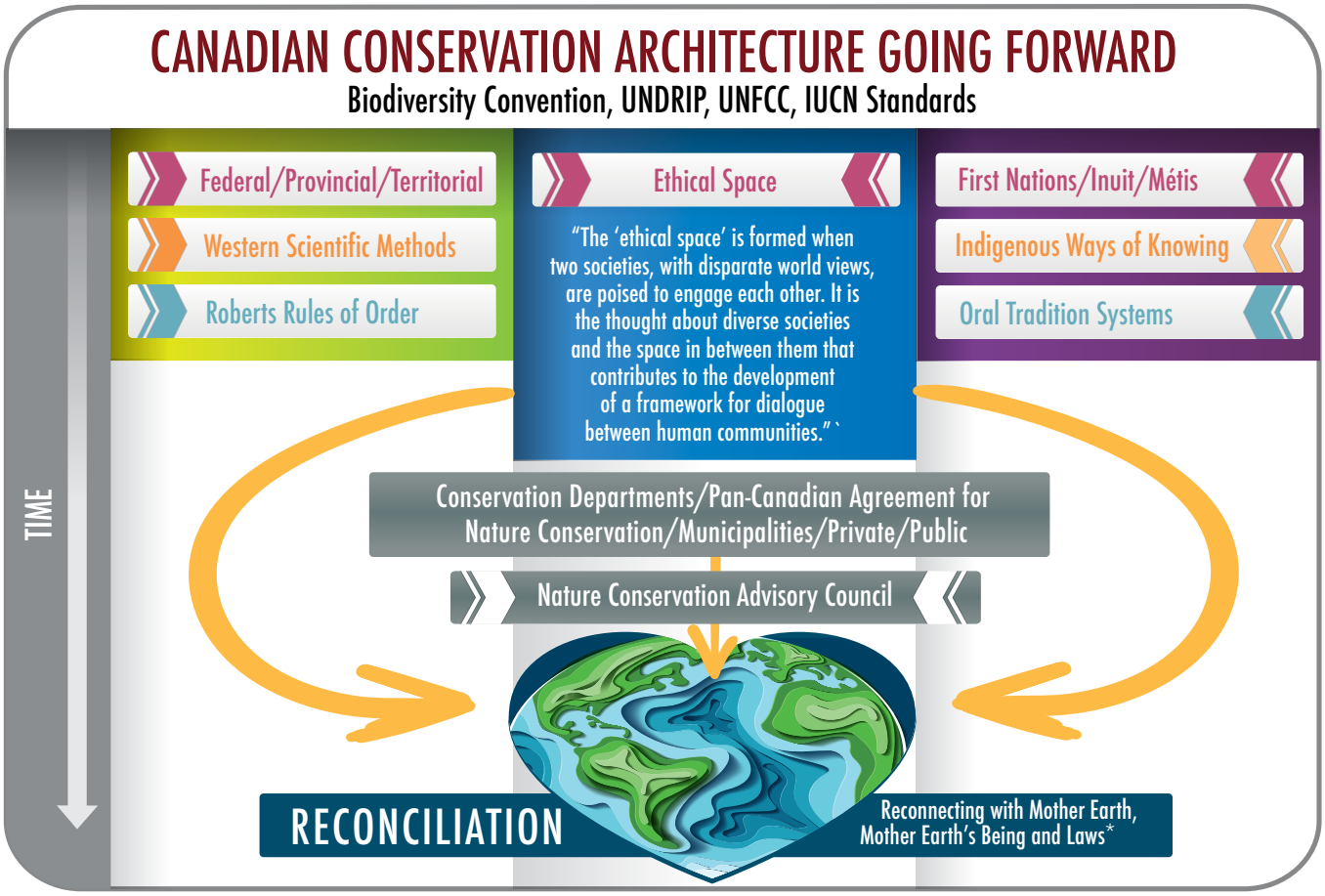


Figure 1. Canadian conservation architecture going forward

* Note: These laws were emphasized by more than 2,000 Indigenous Chiefs and the Crown in 1764 at the Treaty of Niagara and later in 1815 when the Crown produced the Pledge of the Crown (Wampum) Belt and Sir William Claus proclaimed "it will be our love and affection" that will guide our way through challenges.

An important consideration throughout our discussions was to ensure that all short-term and long-term action toward biodiversity conservation in Canada be undertaken in a way that contributes to reconciliation between Indigenous and non-Indigenous peoples in Canada. Our goal is to move ahead with the methods and practices we already have to protect biodiversity, while simultaneously creating an ethical space for the necessary work to bring together Indigenous knowledge and Western science approaches to address the challenges of biodiversity conservation. This commitment to advancing conservation goals within an ethical space is integral to all the NAP recommendations. Figure 1 illustrates the creation of ethical space as central to the new nature conservation architecture for Canada.

Canada as a Global Leader in Biodiversity Conservation

Canada has long engaged with international mechanisms for protecting Nature: for example, from the Migratory Bird Convention signed with the United States in 1916 to the UN Convention on Biological Diversity signed in 1992. Canada hosts the Secretariat of the CBD in Montreal, and actively participates in the International Union for Conservation of Nature (IUCN), the world's leading conservation organization, which brings together government and non-government members and experts in the world's largest and most diverse environmental network.

Canada has both a responsibility and an important opportunity to be a global leader in conserving biological diversity. Specifically, Canada can fulfill and exceed our international commitments, work toward reconciliation among people and with the Earth, and implement innovative and conservation-oriented landscape plans. The NAP identified the following key ways that Canada can take global leadership.

1. Canada needs to achieve our obligations under Aichi Target 11–Canada Target 1[24] and also focus on achieving all our commitments under the UN Convention on Biological Diversity. This includes considering how the CBD intersects with our other international responsibilities, including the United Nations Declaration on the Rights of Indigenous Peoples, the Paris Climate Change Agreement, and the United Nations Sustainable Development Goals.

2. Canada can demonstrate leadership in shaping better relationships between Indigenous and non-Indigenous peoples and with Nature by bringing together Indigenous and non-Indigenous worldviews and knowledge systems to achieve reconciliation with one another and the Earth; this means working together in ethical space to forge a path to living in harmony with Nature.

24 Note: To emphasize the importance of the quality measures of Aichi Target 11 for protecting and maintaining biodiversity and achieving Canada Target 1, and to ensure that these qualitative aspects are addressed along with the quantitative aspects, the NAP refers to Aichi Target 11–Canada Target 1.

3. Canada can be at the forefront of developing and applying natural solutions for climate change mitigation and adaptation by working on strategies for integrating biodiversity conservation and action on climate change.

4. Canada must deliver on our international commitments to achieve at least 17 percent protection of our land and freshwater and 10 percent of our oceans by 2020 according to international standards. Already over half the signatories to the UN Convention on Biological Diversity have achieved the 17 percent terrestrial target,[25] and many of these countries are already discussing new targets for the next decade.

5. Canada needs to address both the quantity and quality measures outlined in Aichi Target 11. Whereas quantity refers to how much area is protected, the quality aspects include (a) connectivity, that is, completing interconnected networks of protected areas and OECMs that will be resilient to climate change; (b) representation, that is, having adequate examples of all ecosystem types in the network, including freshwater aquatic and riparian areas; (c) ensuring areas of particular importance for biodiversity and ecosystem services are conserved, (d) are effectively and equitably managed, and (e) are integrated into the broader landscape and seascape.

Canada can demonstrate leadership in shaping better relationships between Indigenous and non-Indigenous peoples.

6. Canada needs to shift to proactive landscape-level planning for conservation and development, based on Indigenous knowledge and Western science, with the goal of ensuring the long-term health of Nature and people. This role requires (a) integrating well-designed networks of protected areas and OECMs of all governance types within connected and sustainably managed landscapes, and managing them as a whole; (b) supporting new economies rooted in conservation and sustainability; and (c) recognizing the value and benefits of Nature and, consequently, investing adequately to sustain all life on Earth.

7. As a country responsible for the stewardship of globally significant ecosystems, Canada needs to focus on large-scale, landscape-level, comprehensive approaches to conservation. For example, the Hudson and James Bay Lowlands is one of the planet's largest remaining intact wetland complexes, covering a region over 360,000 km^2 and encompassing the single largest carbon-rich peatland system on Earth. The mountain ecosystem stretching from Yellowstone National Park in the United States and north through the Yukon Territory is the most ecologically intact on Earth. Forty percent of the hemisphere's birds breed in the boreal forest. The Arctic is vitally important to Canada and to the planet, supporting 60 percent of the world's polar bears and 70 percent of the world's beluga whales. Temperate grasslands are the most endangered type of ecosystem in Canada and around the world, and our Prairies include some of the largest and best grassland areas remaining anywhere. Canada has an important role to play in planning and prioritizing the protection of significant ecosystems on this continent and globally.

Taking all these points together, for Canada to become a global leader in protecting and conserving biodiversity, the first step is to create a shared vision for nature conservation.

Recommendation 1
We recommend that all governments in Canada adopt a shared conservation vision that

- recognizes Canada's globally significant natural values, and also our cultural values that align with conserving Nature;

As a country responsible for the stewardship of globally significant ecosystems, Canada needs to focus on large-scale, landscape-level, comprehensive approaches to conservation.

- embraces Indigenous world views that acknowledge we are one species among many that share the Earth with the rest of life;

- achieves our collective conservation goals within a framework of reconciliation and the creation of ethical space;

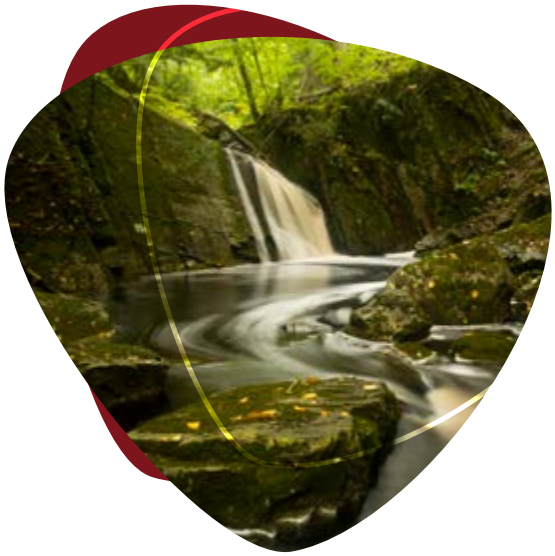
- affirms that a core strategy for conserving biological diversity is an interconnected network of protected areas and OECMs, integrated into the wider landscape; and

- supports Canada in becoming a global leader in living harmoniously with Nature.

Recommendation 2
We support the recommendations of the House of Commons Standing Committee on Environment and Sustainable Development in their report on protected areas and, in particular, "that the Government of Canada set even more ambitious targets for protected areas than those established in the Aichi Target 11."[26]

25 See UNEP-WCMC, *Protected Planet Report 2014*, at https://www.unep-wcmc.org/system/dataset_file_fields/files/000/000/289/original/Protected_Planet_Report_2014_01122014_EN_web.pdf?1420549522

26 Note: The NAP unanimously agrees with all Standing Committee report recommendations, except for Recommendations #3 and #27. See the complete set of their recommendations in Appendix B.



Indigenous governments can work with resource-sector partners and others to implement landscape-level conservation plans.

Biodiversity Conservation Throughout Canada

It is important to note that biodiversity is unevenly distributed across Canada and faces different challenges in different regions of the country, in large part because of land-use histories. To be effective, conservation strategies need to reflect these regional differences. For example, in heavily settled and species-rich southern Canada, strategies need to focus on private, municipal, and regional land-stewardship tools to maintain what natural areas are left, and work to restore a healthier natural landscape over time. This is where most Canadians live, and where there is a significant opportunity to engage urban Canadians in conservation. In the Far North, where there are still large areas of unfragmented forest and tundra, Indigenous-led land-use planning processes mandated by land claim agreements offer an opportunity to proactively plan for conservation and development, based on the needs of Nature and communities.

In the middle area of Canada, both the state of ecosystems and the opportunities for conservation vary from region to region. Largely composed of public land, this area is where most natural resource industry activity occurs. Crown and Indigenous governments can work with resource-sector partners and others to implement landscape-level conservation plans in the different regions of this area.

2. A NEW NATURE CONSERVATION ARCHITECTURE FOR CANADA

The NAP has concluded that to implement a shared long-term vision of conservation in Canada, there needs to be a fundamentally new approach. The existing structure has not proven successful, having protected only 1 percent of our landscape over the last seven years. For example, there has been a lack of coordination within and between jurisdictions, lack of landscape-level planning for conservation, and inadequate funding and political will to effectively conserve biodiversity, resulting in an ongoing and accelerating decline. A new approach will require a redesigned institutional architecture and the funding to implement.

In response to NAP's mandate to advise on foundational elements such as governance, legislation, incentives, and funding, the NAP has envisioned and developed a new institutional architecture to strengthen nature conservation in Canada and to more effectively drive pan-Canadian conservation action. Specifically, we recommend a new governance framework and cost-shared funding model "for designing, establishing, and effectively managing a coordinated and connected terrestrial network of protected and conserved areas throughout the country that would serve as the foundation for biodiversity conservation for generations to come."[27] This new cost-shared funding model would be similar to funding formulas used in Canada to drive action on other shared priorities, for example, climate change, health care, and infrastructure.

Recommendation 3

We recommend that Canada create a new nature conservation architecture consisting of a new federal Nature Conservation Department, a Pan-Canadian Agreement for Nature Conservation, and a Nature Conservation Advisory Council, enabled by a new federal Act.

Recommendation 4

We recommend that provincial and territorial governments also streamline responsibilities for conservation within one department that aligns with Canada's obligations to the UN Convention on Biodiversity (CBD).

This new approach is intended to encourage focus and coordination, while recognizing provincial, territorial, and Indigenous jurisdiction over land-use decision making. For example, in the case of freshwater, where there is federal jurisdiction, it would provide a more focused way of exercising federal jurisdiction to protect freshwater systems through the development of a pan-Canadian water strategy to protect lakes, rivers, and wetlands.[28] It would also ensure provinces, territories, and Indigenous governments have access to adequate funding for conservation, and that international definitions and guidance are applied consistently across Canada.

Indigenous-led land-use planning processes mandated by land claim agreements offer an opportunity to proactively plan for conservation and development, based on the needs of Nature and communities.

Nature Conservation Department

To meet Canada's national objectives and international obligations for protecting and conserving biodiversity, federal government leadership and coordination is essential. Therefore, the NAP recommends the establishment of a new federal Nature Conservation Department. This department will be charged with ensuring effective nature conservation occurs in Canada,

27 See the NAP mandate on page 10.

28 See Recommendation 29.

and by so doing, ensure Canada meets and exceeds our international commitments under the CBD.

The Nature Conservation Department would be responsible for all areas of federal jurisdiction related to nature conservation. These include protected areas, such as national parks, wildlife sanctuaries, and marine protected areas, as well as areas managed by other federal agencies: for example, the National Capital Commission. This new department would also be responsible for leading nationwide delivery on CBD obligations by providing knowledge support and funding to other levels of government and partners. It would ensure all aspects of nature conservation in Canada adhere to international standards and support a new initiative called the Pan-Canadian Agreement for Nature Conservation. Existing federal conservation programs—such as Parks Canada, the Canadian Wildlife Service, and aquatic ecosystem conservation programs—would be brought into this department under its focused conservation mandate.

Recommendation 5
We recommend that the federal government move immediately to create a Nature Conservation Department with the following aims and responsibilities:

- To ensure that Nature is effectively conserved in Canada and that our international obligations under the CBD are met on an ongoing basis
- To oversee all areas of federal jurisdiction relating to nature conservation, including protected areas such as national parks, wildlife sanctuaries, and marine protected areas, as well as those managed by other federal agencies, like the National Capital Commission
- To lead nationwide delivery on CBD obligations and provide knowledge support and funding to other levels of government and partners to enable them to meet international standards and commitments
- To support the Pan-Canadian Agreement for Nature Conservation (See Recommendation 6.)

Pan-Canadian Agreement for Nature Conservation

Canada is a federation, and federal government leadership is essential. However, the provinces, territories, and Indigenous governments have jurisdiction over most of the country's land-base. As well, municipalities, non-governmental organizations, and the private sector have important roles and responsibilities in conserving biodiversity. In this context of shared responsibility, to effectively conserve Nature, Canada needs a Pan-Canadian Agreement for Nature Conservation. This agreement would involve an interjurisdictional political commitment of federal, provincial, and territorial governments to meet and exceed Aichi Target 11–Canada Target 1 and other CBD commitments in Canada.

Recommendation 6
We recommend that federal, provincial, and territorial governments enter into a Pan-Canadian Agreement for Nature Conservation: an interjurisdictional political commitment to achieving Canada's biodiversity conservation commitments, starting with Aichi Target 11–Canada Target 1. We also recommend that there be an ongoing intergovernmental ministers council focused on implementing the Agreement in a framework of reconciliation, and building on the Pathway to Canada Target 1 process. (The proposed elements of this agreement are articulated in Recommendation 1.)

Nature Conservation Advisory Council

To ensure that Canada's nature conservation work is carried out within a framework of reconciliation among Indigenous and non-Indigenous peoples, the NAP recommends the formation of a Nature Conservation Advisory Council, whose membership consists of an equal number of Indigenous and non-Indigenous individuals. The Nature Conservation Advisory Council would advise on creating ethical space within which to achieve our collective conservation goals. It would be supported by a budget and secretariat that is independent of the Nature Conservation Department.

The NAP has determined that the creation of ethical space for consideration of all aspects of nature conservation is key to achieving the shared vision that is fundamental to the new nature conservation architecture. The creation of ethical space requires focus and determined effort and also an institution dedicated to stewarding the process and measuring its progress.

Recommendation 7
We recommend the creation of a Nature Conservation Advisory Council of thought leaders, with equal membership of Indigenous and non-Indigenous appointees and supported by a budget and secretariat that is independent of the Nature Conservation Department. The Nature Conservation Advisory Council would advise governments and report to Canadians at least every two years on Canada's progress on (1) achieving our collective conservation goals and responsibilities within a framework of reconciliation, and (2) creating ethical space for the integration of Indigenous knowledge systems and Western scientific approaches.

The Nature Conservation Department would be responsible for all areas of federal jurisdiction related to nature conservation.

3. INTERNATIONAL STANDARDS FOR PROTECTED AREAS AND OTHER CONSERVATION MEASURES

To achieve Aichi Target 11–Canada Target 1 by 2020, Canada must comply with international standards for protected areas and other effective area-based conservation measures (OECMs) throughout Canada.

Definitions and Guidance

For many years the concept of *protected areas* has been a mainstay of nature conservation around the world; however, the idea of *other effective area-based conservation measures* was introduced in Aichi Target 11 in 2010. For definitions and guidance on both of these conservation measures, the international community has turned to the IUCN.

The IUCN definition and guidance for protected areas is the globally accepted standard, including by the CBD:

> **A protected area is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.**[29]

In addition, between 2015 and 2017, IUCN conducted a global process to develop the definition and guidance for other effective conservation measures (OECMs); these were shared in October 2017 publicly and with the CBD for their consideration.[30]

Canada accepts the IUCN definition and guidance for protected areas—including for management categories and governance types (see Appendix C)—and uses this framework to report on protected areas.[31] However, there is some inconsistency in how different jurisdictions apply the IUCN framework in reporting on what is included in Canada's system of protected areas. For example, some jurisdictions recognize and report on all governance types, including Indigenous and privately protected areas, whereas others recognize only Crown government–protected areas. Consequently, there is a need for more consistent reporting that follows IUCN definition and guidance.

In regard to OECMs, and given the robust process and importance of consistent reporting under the Convention on Biodiversity, the NAP agrees with the IUCN proposed definition of an OECM as "a geographically defined space, not recognized as a protected area, which is governed and managed over the long-term in ways that deliver the effective and enduring in-situ conservation of biodiversity, with associated ecosystem services and cultural and spiritual values."[32]

The core difference IUCN identified between protected areas and OECMs is that protected areas should have a primary conservation objective, whereas OECMs should meet their defining criterion of delivering effective and enduring in-situ conservation of biodiversity, regardless of their objectives (see Appendix D).

The NAP supports the IUCN recommendation that areas that meet all elements of the IUCN definition of a protected area and are recognized as such by the governance authority should be reported in official databases as protected areas, rather than as OECMs. For example, this would apply to privately protected areas that satisfy IUCN criteria for protected areas.

Measuring and Reporting Progress

Related to the definitions of protected areas and OECMs is the matter of measuring progress toward achieving Aichi Target 11–Canada Target 1 in a credible and consistent way. This requires rigorous and consistent application of the IUCN definitions and guidance by all jurisdictions.

Canada's current protected areas database is called the Conservation Areas Reporting and Tracking System (CARTS) and is organized according to IUCN categories and governance types. Federal, provincial, and territorial (FPT) governments report updates to their protected areas data annually to Environment and Climate Change Canada (ECCC) for inclusion in CARTS, and this is then used by ECCC for national and international reporting.[33] CARTS is a collaborative project of federal, provincial, and territorial governments and the Canadian Council on Ecological Areas (CCEA).

> We recommend that the Government of Canada work with all jurisdictions to review protected areas and OECMs for consistency with IUCN definitions and guidance.

Inconsistencies remain in how jurisdictions report protected areas, including for privately protected areas and other governance types, and such inconsis-tencies need to be resolved by federal, provincial, and territorial governments working together and with Indigenous governments, civil society, and private conservation interests.

29 Nigel Dudley (Ed.), *Guidelines for Applying Protected Area Management Categories*, IUCN, Switzerland, 2008. Available at https://portals.iucn.org/library/sites/library/files/documents/PAG-021.pdf

30 IUCN WCPA Task Force on Other Effective Area-Based Conservation Measures, OECMs, https://www.iucn.org/theme/protected-areas/wcpa/what-we-do/OECMs

31 *Canadian Protected Areas Status Report, 2006–2011*, p. 14. Available at http://publications.gc.ca/collections/collection_2016/eccc/En81-9-2011-eng.pdf

32 IUCN WCPA, *Guidelines for Recognising and Reporting Other Effective Area-based Conservation Measures (Draft)*, Version 1, IUCN, Gland, Switzerland, 2018. Available at https://www.iucn.org/sites/dev/files/content/documents/guidelines_for_recognising_and_reporting_OECMs_-_january_2018.pdf2

33 National reporting includes Canadian Protected Area Status Reports and Canadian Environmental Sustainability Indicators (CESI) led by ECCC. International reporting under the CBD, also led by ECCC, is to the World Database on Protected Areas, a partnership between United Nations Environment Programme and IUCN.

Recommendation 8

We recommend that the Government of Canada work with all jurisdictions to review protected areas and OECMs for consistency with IUCN definitions and guidance, and to rigorously apply these definitions and guidance in their reporting. This should be done through a transparent public process coordinated by the new federal Nature Conservation Department. Private, co-managed, Indigenous, Crown, and local government–protected areas and OECMs should all be counted when they meet the IUCN definitions and guidance.

The Government of Canada should appoint an external advisory committee to assist with this work, and to make publicly available their recommendations for upgrading protection of areas, where necessary for them to meet the IUCN definitions and guidance.

Monitoring and Accountability

The NAP recognizes the importance of measuring, monitoring, and public reporting. The federal, provincial, and territorial ministers, Indigenous governments, and the Nature Advisory Council will provide oversight. In addition, the NAP recommends the auditor general be engaged to provide regular accountability.

Recommendation 9

We recommend that the mandate of the Office of the Auditor General of Canada be modified to include tracking and reporting every two years on the performance of all federal aspects of the new nature conservation architecture, and CBD obligations, including adherence to international standards, and that the Office be provided with the resources to do so. We further recommend that equivalent provincial and territorial auditors general be given a similar mandate to track performance.

4. QUALITY MEASURES OF AICHI TARGET 11

The quality measures of Aichi Target 11 are important for planning an effective network of protected areas and OECMs. The following three qualitative measures relate to conservation planning:

- Representation of Canada's diverse ecology in protected areas and OECMs
- Areas of importance for biodiversity and ecosystem services
- Connectivity of protected areas and OECMs and their integration into the wider landscape

Representation of Canada's Diverse Ecology

Ecological representation of all of Canada's 194 ecoregions is essential to ensuring that a network of protected areas and OECMs adequately represents the full range of landforms, species, ecosystems, and their supporting processes throughout the country. The government assembled–task team paper on representation describes ecological representation as follows:

> **Networks of protected areas and other effective area-based conservation measures are considered to be ecologically representative if they contain adequate samples of the full range of biodiversity within an ecologically defined region. In its simplest terms this is achieved through the inclusion of the full range of natural, terrestrial and aquatic ecosystems, special habitats and populations, geological and physiographical sites of importance within the networks.**[34]

Each Canadian ecoregion is unique, and representation cannot be averaged. Additionally, gaps in representation are significant and vary from one ecoregion to the next. Currently, ecological representation is generally reported based on the percentage of each ecosystem type that is in protected areas.

Canada reports on ecological representation in protected areas at the Canadian ecozone level (through the Canadian Environmental Sustainability Indicators).[35] However, there is a general consensus that the Canadian ecoregion level is more appropriate for reporting nationally on ecological representation. Currently, only 5 of 18 terrestrial ecozones have at least 17 percent of their area protected in Canada. Figure 2 illustrates the percentage of each Canadian ecoregion protected as of 2017.

Canada has a hierarchical system of ecological land classification—the Canadian Ecological Framework—that delineates, classifies, and describes ecologically distinct areas of the country at different levels of generalization, using abiotic and biotic factors.[36] The coarsest scale of generalization in Canada is called an ecozone, followed by finer resolution ecoregions and ecodistricts. In 2014, three ecozones were added to the 1996 national framework to better integrate regional ecological classification systems; however, the ecoregions have not yet been updated to reflect these changes.[37] Canada is now divided into 18 terrestrial ecozones, 194 ecoregions, and 1021 ecodistricts.[38]

34 J. Elliott, E. Gah, K. Hartley, and C. Vis, Discussion Paper: Ecological Representation, Pathway to Canada Target 1, 2017, p. 2.

35 Ecological Stratification Working Group, *A National Ecological Framework for Canada*, Agriculture and Agri-Food Canada, Research Branch, Centre for Land and Biological Resources Research and Environment Canada, State of the Environment Directorate, Ecozone Analysis Branch, Ottawa/Hull, 1995. Available at http://sis.agr.gc.ca/cansis/publications/ecostrat/cad_report.pdf

36 Canadian Council on Ecological Areas (CCEA), Ecozones Introduction, http://www.ccea.org/ecozones-introduction/

37 Note that globally, ecological representation in protected areas is reported by international "ecoregion," which is equivalent in scale to Canadian "ecozone." See UNEP-WCMC and IUCN, *Protected Planet Report 2016*, UNEP-WCMC and IUCN, Cambridge, UK, and Gland, Switzerland, 2016. Available at https://www.protectedplanet.net/c/protected-planet-report-2016

38 Government of Canada, Canada's Protected Areas, https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/protected-areas.html

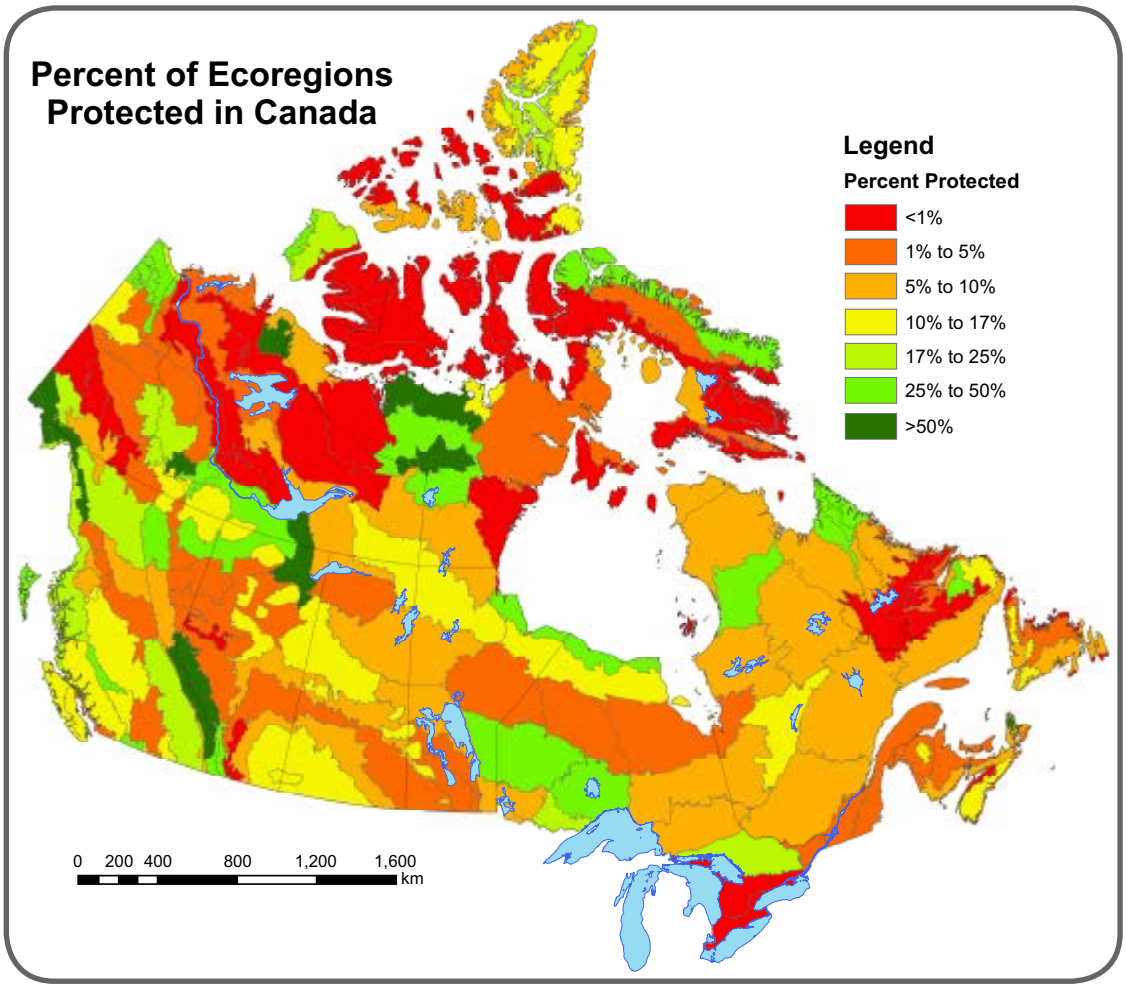


Figure 2. Percent protection of Canada's ecoregions

Recommendation 10
We recommend, by 2019, the completion of a gap analysis of existing protected areas and OECMs in Canada to inform the identification of future protected areas and OECMs needed to fulfill the representation, connectivity, and key areas for biodiversity elements of Aichi Target 11–Canada Target 1 and long-term conservation goals.

Recommendation 11
We recommend that jurisdictions utilize the Canadian Ecological Framework as an equivalent comparative framework to guide ecological representation in conservation planning.

Recommendation 12
We recommend that, by 2020, Canadian ecoregions should be the basis for determining and reporting on ecological representation at the national level.

We further recommend that Canadian ecoregions (circa 1996) be updated to ensure alignment with Canadian ecozones (circa 2014).

Areas of Importance for Biodiversity

Canada has not yet defined what "an area important for biodiversity" means, and there is no central repository for biodiversity data in Canada. As a result, conservation-related decisions are often made based on incomplete data and information. Across the country, governments and non-governmental organizations have established individual approaches to identifying areas important for biodiversity. However, a nationally consistent approach to identifying areas important for biodiversity does not exist in Canada.

IUCN has developed "A Global Standard for the Identification of Key Biodiversity Areas." This guidance provides a framework for a consistent approach that can be applied to any jurisdiction. The IUCN framework identifies key biodiversity areas as those that (1) have threatened species or (2) geographically restricted species, (3) occur in areas with ecological integrity, or (4) have specific, significant biological processes, and (5) have high irreplaceability as identified through quantitative analysis.[39]

IUCN has developed "A Global Standard for the Identification of Key Biodiversity Areas." This guidance provides a framework for a consistent approach that can be applied to any jurisdiction.

39 IUCN, *A Global Standard for the Identification of Key Biodiversity Areas, Version 1.0*, Gland, Switzerland, 2016. Available at https://portals.iucn.org/union/sites/union/files/doc/a_global_standard_for_the_identification_of_key_biodiversity_areas_final_web.pdf. See also https://www.iucn.org/sites/dev/files/content/documents/identifying_key_biodiversity_areas_-_cop13_inf_final.pdf

Recommendation 13

We recommend that all jurisdictions in Canada apply the global IUCN Key Biodiversity Area (KBA) standard to identify globally significant areas of importance for biodiversity. We further recommend that jurisdictions work together and with partners to develop and apply a Canadian standard, consistent with this global standard, to identify nationally significant areas of importance for biodiversity to inform conservation planning.

Ecological Connectivity

Habitat fragmentation is one of the greatest threats to biodiversity worldwide and in Canada. Habitat fragmentation obstructs gene flow between populations, which can lead to inbreeding, dramatically increasing the risk that a species will disappear. In the face of climate change, ecological connectivity is all the more important to enable plants and animals to shift their ranges in response to changing conditions.

As a response to the threat posed by increasingly fragmented ecosystems, Aichi Target 11 requires that systems of protected areas and OECMs be well connected and integrated into the broader landscape and seascape. Wild animals and plants, water, and air all move and flow within and beyond protected areas.

To maintain and restore connected landscapes in Canada, including aquatic systems, a variety of considerations and approaches are needed, such as the following:

1. Strategic placement of new or expanded protected areas and OECMs to maintain existing connections, to fill gaps in fragmented landscapes, or as stepping stones for migratory species such as birds and butterflies

2. Management of landscapes between protected areas to ensure functional ecological connectivity is maintained or restored

3. Better consideration of connectivity in planning for and managing roads, railways, dams, and culverts to mitigate their impact and maintain or restore movement and flow of species

Furthermore, the state of ecological connectivity differs in different regions of Canada and in different ecosystem types (e.g., aquatic and terrestrial), and each situation requires assessment of the most effective approach.

Recommendation 14

We recommend that the federal government lead the development, by 2020, of a nation-wide ecological connectivity strategy. The strategy will be based on science and Indigenous knowledge, involve collaboration with partners, and contain the following actions:

- Evaluate the current status of ecological connectivity in terrestrial and freshwater ecosystems, and identify priorities for action appropriate to each ecosystem and regional context (part of the gap analysis referenced in Recommendation 10).

- Define measures and standards for assessing connectivity at multiple scales.
  - Use structural connectivity indicators at the national scale to evaluate the current network and to plan for new protected areas and OECMs.
  - Elaborate functional connectivity indicators for focal species to establish management targets at regional and local scale.

- Invest in existing ecological connectivity initiatives in Canada.

- Reflect climate change considerations.

- Consider the emerging IUCN Connectivity Conservation Area guidelines.

- In areas without transborder connectivity initiatives, investigate opportunities for developing connectivity initiatives across borders within Canada and with the United States.

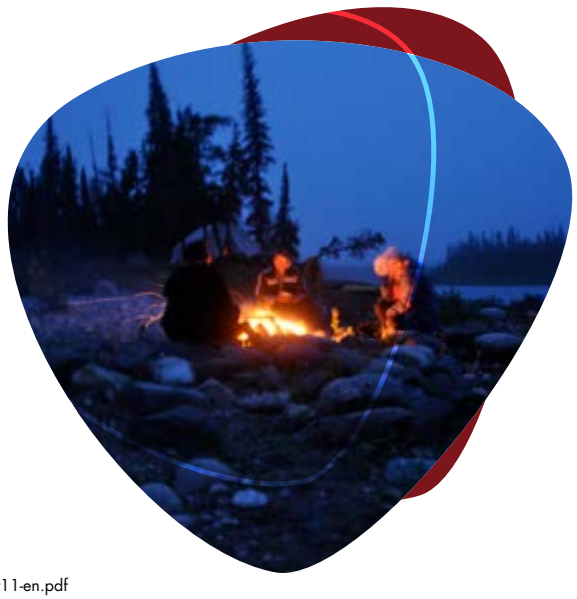
Effective and Equitable Management

The Convention on Biological Diversity includes directives for implementing effective and equitable management of protected areas; specifically, it provides a framework for monitoring, evaluating, and reporting. According to Aichi Target 11, the area conserved should be "effectively and equitably managed – with planning measures in place to ensure ecological integrity and the protection of species, habitats and ecosystem processes, with the full participation of indigenous and local communities, and such that costs and benefits of the areas are fairly shared."[40] The NAP was directed to provide recommendations concerning the effective management of protected areas and OECMs and also equitable management of protected areas from a local community perspective.

Effective Management

Canada has committed to evaluate and improve the effectiveness of protected area management under the Convention on Biological Diversity[41] and to report results to the World Database on Protected Areas.[42] In simple terms, protected area management effectiveness (PAME) evaluations are assessments of how well a protected area is being managed, including considerations of equity.

The Convention on Biological Diversity includes directives for implementing effective and equitable management of protected areas.



40 Convention on Biological Diversity, Quick Guide to the Aichi Biodiversity Targets, https://www.cbd.int/doc/health/quick-guides/t11-en.pdf

41 Convention on Biological Diversity, Protected Areas Management Effectiveness, https://www.cbd.int/protected-old/PAME.shtml

42 Convention on Biological Diversity, COP Decision X/31, Protected Areas, https://www.cbd.int/decision/cop/default.shtml?id=12297

There are usually three main themes to PAME:

- design considerations related to both individual sites and protected area systems,
- adequacy and appropriateness of management systems and processes, and
- delivery of protected area objectives and, in particular, biodiversity outcomes.

Evaluation is fundamental to understanding how well an area is achieving the in-situ conservation of biodiversity.

Evaluation is fundamental to understanding how well an area is achieving the in-situ conservation of biodiversity. Ecological monitoring programs are needed to provide information to inform these assessments. Repeated evaluation allows trends in ecosystem health to be identified, which should guide management actions. This ongoing monitoring and assessment is the cornerstone of an adaptive management approach.

Key challenges that need to be addressed in the alignment of effective and equitable management between Aichi Target 11 and Sustainable Development Goal 14[43] include the development and implementation of management effectiveness assessments for both networks of protected areas and single sites.

Recommendation 15
We recommend that all jurisdictions apply management effectiveness assessments according to CBD guidance, and commit to having 60 percent of protected areas and OECMs assessed for effective management by 2020 and 100 percent assessed by 2030. Management effectiveness should be measured both at the network scale and the site-specific scale every five years. Canada should report results to the World Database on Protected Areas.

Recommendation 16
We recommend that to achieve effective management, protected areas and OECMs have ecological integrity monitoring programs that are based on Western science and Indigenous knowledge and, where possible, include Indigenous Guardians and other stewardship initiatives in their implementation.

Equitable Management and Local Community Engagement

Equitable management refers to the fair distribution of benefits and costs among individuals and groups of people. These include the distribution of economic benefits (money, resource rights); the impact and benefit of conservation actions; and the process by which stakeholders are included and provided with opportunities to be involved in planning, management, and governance of a protected area. The use of equitable approaches to establishing and managing protected areas has invariably led to greater acceptance of protected area conservation policies and regulations by local communities.

Equitable management incorporates the fundamental principles of the United Nations Declaration of the Rights of Indigenous Peoples. It involves close collaboration and equitable processes that recognize and respect the rights of Indigenous peoples; local communities; and vulnerable groups, such as people with disabilities or mental health issues, seniors, and children. Where equitable management is applied, the communities (1) fully engage in governing and managing protected areas according to their rights, knowledge, capacities, and institutions; (2) share in the benefits arising from protected areas; and (3) would not bear inequitable costs.

The goals of equitable management apply not only to the local communities, they are also important for the many others who care about how Canada's protected areas are managed.

The goals of equitable management apply not only to the local communities, they are also important for the many others who care about how Canada's protected areas are managed. For example, a broad constituency of Canadians are passionate about their protected areas: some live inside parks or in nearby communities whose economies are closely tied to parks; some live in cities far away and visit occasionally; some simply want to know our protected areas are there protecting Nature.

Our national parks are dedicated to all Canadians and to future generations, and our management of Canada's World Heritage Sites is on behalf of all humanity. While it is essential to keep in mind the purpose of protected areas, local community interests and national interests need to be reflected in the public interest.

Recommendation 17
We recommend that the relevant government assure equitable distribution of costs and benefits of protected areas by mitigating costs and risks; sharing benefits fairly; addressing barriers to accessing benefits that may exist for marginalized groups; and assuring a broad understanding of the benefits, costs, and risks, while balancing the broader national interest.

5. OPPORTUNITIES FOR ESTABLISHING PROTECTED AREAS BY 2020

As of December 31, 2016, Canada has 10.6 percent of our land and inland waters in recognized protected areas. Recognizing

43 UN Sustainable Development Goal 14 is as follows: Conserve and sustainably use the oceans, seas and marine resources (http://www.un.org/sustainabledevelopment/oceans/)

TOTAL AREA OF CANADA (LAND AND FRESHWATER)[44]	9,984,670 km²
TOTAL AREA CURRENTLY PROTECTED[45]	1,052,642 km²
ADDITIONAL AREA TO PROTECT TO ACHIEVE 17%	644,752 km²
EARLY OPPORTUNITIES LIST	approx. 360,000 km²

there are fewer than three years to meet and ideally exceed Canada's commitment to protect 17 percent by 2020, we outline opportunities for protecting and conserving Nature in both the short term and long term.

In the short term, the priorities include (1) supporting initiatives that are already underway, (2) providing incentives for new protection through land-use planning or species-recovery planning, and (3) investing the resources and political will to spur the necessary decision making and action for establishing protected areas. In the long term, the priorities include planning for large-scale, high-quality conservation measures beyond 2020.

As a fundamental consideration for all action moving forward, we want to affirm the importance of working within a framework of reconciliation for potential short-term opportunities as well as for longer-term land protection efforts, which would include free, prior, and informed consent by Indigenous peoples.

New Protected Areas in Canada

To address the short-term 2020 goals, the NAP compiled a list of areas and initiatives across Canada where work is already underway or well advanced toward establishing protected areas (see Appendix E). The initiatives we include have, to the best of our knowledge, one or more of the following characteristics:

- are well advanced, active, or ongoing within government or other processes
- can be quickly reinvigorated
- have been developed by Indigenous peoples for their traditional territories

The list is based on the networks and experience of NAP members and is not meant to be exhaustive or exclusive of other initiatives. We acknowledge that some of the areas listed are initiatives or processes that still require further engagement. There are likely other areas in Canada that present similar short-term opportunities, and we encourage governments, private interests, and civil society to continue to build on this initial list.

If protected, the areas the NAP has identified as early opportunities for meeting Aichi Target 11–Canada Target 1 could advance Canada to an estimated 14 percent protection of our land and inland water areas, leaving a gap of just under 3 percent.

Additional progress can be made—including toward important quality measures such as representation and connectivity—by looking to ongoing landscape-level planning initiatives. For example, when completed, areas designated as protected in the Nunavut Land Use Plan will make a considerable contribution. As well, the following initiatives provide opportunities for establishing protected areas through landscape-level planning.

- Indigenous-led land-use planning initiatives currently underway across the country—including in the Yukon, Northwest Territories, Saskatchewan, Manitoba, Ontario, Québec, and Newfoundland—that will likely identify areas to be protected as Indigenous or co-managed protected areas (IPAs), as well as other conservation designations. The completion of these plans could be accelerated with increased Crown government support, and this would set the stage for a significant number of new Indigenous protected areas and other protected area proposals over the next three years. Interim protection for IPAs identified by Indigenous nations pending completion of broader land-use plans could also help to accelerate this work.
- Landscape-level conservation planning as part of forest management initiatives, for example, protected areas identified through the Canadian Boreal Forest Agreement and forest certification, but that have not been recognized as protected areas to date.
- Habitat protection initiatives for species at risk provide significant opportunities for establishing protected areas. For example, in southern Canada, privately protected areas, which often focus on conservation of species at risk, are important. Further north, provinces, territories, and Indigenous governments are developing "range plans" for boreal woodland caribou; the tools for protected areas could help them deliver on their species-at-risk and protected-area obligations in an integrated way. In several regions across the boreal, the forest sector has been working with environmental groups and First Nations to identify potential protected areas as part of caribou conservation plans.

44 Statistics Canada, Land and Freshwater Area, by Province and Territory, http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/phys01-eng.htm

45 Canadian Council on Ecological Areas, Conservation Areas Reporting and Tracking System (CARTS), 2017. Data are current as of December 31, 2016.

INTEREST IN INDIGENOUS PROTECTED AREAS

There is significant interest in the idea of Indigenous protected areas across Canada. For example, the Ktunaxa Nation Council in British Columbia describes the importance of protecting cultural, spiritual, biological, and other values in their declaration of interest in establishing an Indigenous protected area in part of their territory.

Also, the Ktunaxa Nation sent the following note to the NAP:

> In 2010 the Ktunaxa Nation Council (KNC) presented the "Qat'muk Declaration" to the BC Legislature. The declaration established protection of the core of the Qat'muk area (Central Purcell Mountains) in Ktunaxa law. The declaration is intended to protect Ktunaxa cultural and spiritual values associated with the grizzly bear spirit and grizzly bears themselves, as well as other biological, water and other values. The KNC has since been working to develop a stewardship plan for the area.
>
> The declaration applies to only a small portion of the area known to the Ktunaxa as Qat'muk and the Ktunaxa are interested in exploring with the governments of Canada and BC the establishment of a possible "Indigenous Protected Area" over a broader area, encompassing Qat'muk within the central Purcell area.

In addition, Indigenous government representatives and individuals told the House of Commons Standing Committee on Environment and Sustainable Development about how Indigenous protected areas would provide opportunity for both conservation and reconciliation.

The Chief of Moose Cree First Nation, Patricia Fairies, emphasized the importance of protecting the North French River Watershed, which is at the heart of her peoples' homeland, *"where the Moose Cree life and culture continue to thrive."*

Steven Nitah of Lutsel K'e Dene First Nation spoke to the Committee about protecting Thaidene Nene—Land of the Ancestors—which is the heart of the Nation's homeland around the East Arm of Great Slave Lake.

The Mikisew Cree First Nation also shared with NAP their letter to the Standing Committee, which identified the importance of expanding protection around Wood Buffalo National Park to address threats to this World Heritage Site by better protecting wood bison habitat and watersheds that form part of the Peace Athabasca Delta.

Recommendation 18

We recommend that Aichi Target 11–Canada Target 1 be achieved primarily through protected areas. OECMs could be used to complement protected area networks and may play a greater role post-2020.

Recommendation 19

We recommend that to achieve the short-term quantitative target of 17 percent protection by 2020, governments should start by completing protected area proposals and commitments already underway. (A list of early opportunities is included in Appendix E.[46]) To fill the remaining gap, ongoing landscape-level planning initiatives may provide opportunities to protect more areas: for example, Indigenous-led land-use planning, forest management planning, non-governmental conservation planning initiatives, and plans to protect critical habitat for caribou and other recovery plans for species at risk. In all cases, protected areas and OECMs should be created within a framework of reconciliation, including through free, prior, and informed consent of Indigenous peoples.

Traditional Indigenous knowledge systems and protocols have been developed in specific places and for specific conditions. These need to be recognized and followed in establishing and sustaining protected areas under Indigenous management.

6. INDIGENOUS PROTECTED AREAS

The term *Indigenous protected area* (IPA) has been used to describe a wide variety of objectives and aspirations. It describes a spectrum of Indigenous involvement in *protected areas* that meet current IUCN standards. The term IPA also refers to the protected areas part of Indigenous Protected and Conserved Areas (IPCA), and Indigenous and Community Conserved Areas (ICCA). The work of the NAP on Indigenous protected areas occurred alongside that of the Indigenous Circle of Experts (ICE), who examined the spectrum of IPCAs. The NAP and ICE were both part of the Pathway to Canada Target 1 initiative and had valuable interactions, but they each had a different mandate, and their work was conducted separately.

The report of the House of Commons Standing Committee on Environment and Sustainable Development affirms the importance of a establishing a new relationship between Crown governments and Indigenous peoples "through nation-to-nation, government-to-government discussion about collaborating to achieve a common conservation objective."[47] Canadian leadership in establishing Indigenous protected areas (IPAs) could ultimately contribute to Canada's global leadership in shaping better relationships between Indigenous and non-Indigenous peoples and with Nature.

The creation of mindful, ethical space provides a process for Indigenous and

46 While there is consensus that existing protected area proposals should be the starting point for meeting the target, one NAP member expressed concern over including a list of protected area proposals in this report without having sufficient time to thoroughly review each proposal to understand the ecological value, whether there was strong Indigenous support, and the socioeconomic implications.

47 As explained by Steven Nitah to the House of Commons Standing Committee

non-Indigenous peoples to find new ways to enhance biodiversity outcomes, while achieving reconciliation among people and with Mother Earth. The opportunity lies in embracing Indigenous knowledge systems and bringing them together with Western knowledge systems to co-create a better future for people and Nature. Indigenous ways of being have led to a functional relationship with Nature since time immemorial. Scientific views and approaches can align with Indigenous perspectives in that they can lead to improved methods and practices of nature conservation and biodiversity protection.

Traditional Indigenous knowledge systems and protocols have been developed in specific places and for specific conditions. These need to be recognized and followed in establishing and sustaining protected areas under Indigenous management. As well, consultation and consideration of local customs and values within each specific region is essential for successful management of protected areas that involve the rights and responsibilities of Indigenous people.

Note that the NAP had no contact with Inuit Tapariit Kanatami, a nonprofit organization that represents over 60,000 Inuit, and so we have not included comments related to Inuit peoples or land under their jurisdiction. However, future engagement with Inuit is especially important for further consideration of Indigenous protected areas and OECMs.

Legal Frameworks for IPAs

Indigenous Protected Areas (IPAs) that meet international standards can play a major role in moving toward Aichi Target 11–Canada Target 1 objectives in the short term and, along with other tools, in moving rapidly beyond the interim Aichi Targets to deliver truly effective, large-scale conservation over the long term. This could come about in two ways: through use of existing protected areas legislation and through new legal mechanisms that might include IUCN protected areas and OECMs.

Existing Legal Mechanisms for Indigenous Protected Areas

Four legal mechanisms are currently in use in Canada to specifically engage Indigenous interest in protected areas.

- *National parks and park reserves.* These areas enable the creation of national parks with Indigenous participation in management. They remain in reserve status pending the result of a Treaty. Examples include Gwaii Haanas, where the parties agree on protected areas under their respective laws, notwithstanding differing views of title, and Nahanni, where the Dehcho First Nations and Parks Canada use a consensus management approach.

However, future engagement with Inuit is especially important for further consideration of Indigenous protected areas and OECMs.

- *Conservancies under British Columbia's Provincial Parks Act.* These areas are created by the government on public land. Their purpose is to (a) protect and maintain their biological diversity and natural environments, (b) preserve and maintain social, ceremonial, and cultural uses of First Nations; (c) protect and maintain their recreational values; and (d) ensure that development or use of their natural resources occurs in a sustainable manner consistent with (a), (b), and (c). These are important aspects of the Great Bear Rainforest.

- *Indigenous government–created protected areas on Indigenous land subject to Indigenous land-use planning established by modern day Treaty.* An example is the Tłı̨chǫ Dınàgà Wek'èhodì Habitat Management Zone, which was created through a land-use plan passed by the Tłı̨chǫ government in 2013 to manage Tłı̨chǫ lands, with the goal of protecting Tłı̨chǫ culture, heritage, and traditional way of life. The land-use plan creates zones that are the basis for considering applications for the use of all Tłı̨chǫ lands. The goal of the Dınàgà Wek'èhodì Habitat Management Zone is to protect selected areas of permanent or seasonal wildlife and bird habitat on Tłı̨chǫ lands. The objectives for the Habitat Management Zone include restricting land uses to preserve and protect the selected areas, encouraging research and review to improve protection measures for existing sites, and identifying other sites that would benefit from habitat protection measures. Only the following land uses may be considered: camp or cabin, non-exploitive scientific research, transportation corridor, and eco/cultural tourism. In addition to its ecological significance, elders have noted important traditional use and cultural values of this zone. This Indigenous protected area meets all the criteria necessary to qualify as a Category IV IUCN protected area.

- *Areas of exclusive Indigenous title*, as established under the test set out in the Tsilhqot'in (Chilcotin) decision. Such an area under Indigenous management could count as an IUCN protected area if it was dedicated as a protected area by the Indigenous title holder in a similar manner as described under item 3, *Indigenous government–created protected areas*. It could also be leased out by the Indigenous title holder to a Crown government agency to manage in the public interest for biodiversity objectives. In Australia, Kakadu and Uluru National Parks are examples of this latter approach.

In addition to these four existing legal mechanisms, the Government of the Northwest Territories is currently developing legislation for Indigenous protected areas. Also, there have been efforts by Indigenous governments to declare certain areas as protected, without these areas being recognized as such by

other levels of government. The reasons for these assertions range from claims of sovereignty or title to plans for meeting conservation objectives. As these cases raise constitutional and legal issues beyond our mandate, the NAP makes no comment on them, except to say there may be opportunities for such initiatives that are dedicated to conservation and that would meet international standards to fit into one of the four categories of legal mechanisms just described. Alternatively, such cases could be addressed through government-to-government conversations within an ethical space and new legislative mechanisms.

TARGET 7
By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

TARGET 18
By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Source: Convention on Biological Diversity, Aichi Biodiversity Targets, https://www.cbd.int/sp/targets/

Recommendation 20
We recommend that all jurisdictions fund and actively encourage the use of all legal and policy mechanisms supporting Indigenous participation in establishing and managing protected areas.

New Legal Frameworks for IPAs

New legal mechanisms could be created for Indigenous protected areas and potentially for OECMs that meet Indigenous objectives and international standards at the same time.

For example, legal mechanisms could be developed for Indigenous protected areas that are owned by federal, provincial, or territorial governments and managed by Indigenous peoples, who have the rights and responsibilities for the management of the protected area for biodiversity conservation in the public interest in their traditional territories. In addition, IPAs could be created on lands already dedicated to Indigenous peoples, such as Indian reserves; this idea requires further legal analysis.

All these approaches to establishing and managing Indigenous protected areas—using either existing or new legal tools—could simultaneously advance biodiversity conservation and resilience and achieve reconciliation among peoples and with Mother Earth.

Recommendation 21
We recommend that federal, provincial, and territorial governments engage in ethical space with Indigenous governments and peoples to develop new legal and policy mechanisms for Indigenous protected areas and OECMs that meet international standards for protecting areas over the long term, and that public funding be designated for the establishment and management of these areas.

Recommendation 22
We recommend that federal, provincial, and territorial governments engage in ethical space with Indigenous governments and peoples to reconcile Western and Indigenous legal mechanisms with the goal of establishing and supporting IPAs at all levels, including by promoting the use of existing legal and policy mechanisms and creating additional supportive tools where needed.

Recommendation 23
We recommend that the experience of engaging in ethical space to support Indigenous protected areas, along with associated Indigenous principles and values, should be applied to all existing and projected protected areas in Canada, as these are effective tools for reconciliation with each other and Mother Earth, and because each protected area has a place on the spectrum of Indigenous-Crown governance models.

Canada has a globally important renewable and nonrenewable resource economy.

Recommendation 24
We recommend that systems be put in place so that protected areas, including Indigenous protected areas, build Indigenous capacity for management and meaningful operational participation on the land, prioritizing Indigenous ways of connecting with the land as a long-term strategy to conserve biodiversity.

Recommendation 25
We recommend that all forms of protected areas and OECMs explicitly promote cultural exchange and understanding, leading to engagement in ethical space for conservation decision making.

7. LANDSCAPE-LEVEL BIODIVERSITY CONSERVATION FOR THE LONG TERM

Canada has made four global commitments related to biodiversity conservation and reconciliation: the United Nations Convention on Biological Diversity, which has led to Canada Target 1; the United Nations Framework Convention on Climate Change; the Sustainable Development Goals; and the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP). We also have several World Heritage Sites under the World Heritage Convention.

In addition, the Strategic Plan for Biodiversity under the CBD includes the need for both reconciliation and a large-landscape approach to conservation. For example, Aichi Targets 7 and 18

include directives specifically related to conservation-oriented land-use management and reconciliation with Indigenous peoples.

During NAP's deliberations, we recognized the importance of the broad context of all Aichi Targets; that is, although we focused on protected areas and OECMs, we knew these measures on their own could not address the challenges and opportunities related to all of the CBD strategic goals and the Aichi Targets. We also recognized the need to look beyond the timeframe of the Aichi Targets (2020) to plan for what's necessary to conserve Nature in the long term. Thus, we recognized that large-scale landscape planning is needed.

Canada has a globally important renewable and nonrenewable resource economy. In some regions, resource development is the dominant generator of economic activity and employment opportunities for Canadians, including Indigenous peoples. Rather than viewing resource extraction and nature conservation as incompatible, the NAP believes that biodiversity conservation can be achieved while allowing for a healthy natural resource economy.

A landscape-level approach to conservation planning can ensure that new protected areas enable quantity and quality measures to be achieved, and can bring together the different land users to find alternative approaches that allow both sustainable development and biodiversity conservation to coincide. To ensure a healthy natural environment for generations to come, national action is needed for landscape-level conservation planning. Protected areas and OECMs should be seen as part of a larger concerted effort to manage and protect wildlife and ecological services.

Recommendation 26
We recommend that the following key principles of landscape-level conservation planning be adopted by all jurisdictions:

1. Understand and obtain clear evidence about what is needed to maintain ecological integrity and function at the local, regional, and national levels, and incorporate findings into conservation planning and management, and sustainable development.

2. Commit to working on a nation-to-nation or Inuit-to-Crown basis with Indigenous peoples, including valuing both Indigenous and non-Indigenous ways of knowing and creating an ethical space to reconcile people and Nature.

3. Understand the value of the land (ecological, traditional, spiritual, and socioeconomic), and ensure that the significance of different values are considered in conservation planning.

4. Use all legal and policy instruments, innovative technologies, and creative partnerships to meet conservation objectives.

Recommendation 27
We recommend the Government of Canada and also provincial, territorial, and Indigenous governments and governance bodies place priority on landscape-level conservation planning across Canada.

Recommendation 28
We recommend identifying and prioritizing opportunities for landscape-level conservation in areas of national and hemispheric importance to conservation and connectivity, such as Prairie grasslands, the Hudson and James Bay Lowlands, Canada's Northwest Passage, the Mackenzie Basin, the Yellowstone-to-Yukon region, the Algonquin-to-Adirondacks region, and the Northern Appalachians-to-Nova Scotia region.

8. AQUATIC AND RIPARIAN AREAS

Aquatic ecosystems include lakes, rivers, streams, estuaries, and wetlands that are connected to riparian areas and included in watersheds. Riparian areas are areas adjacent to waterbodies, including streams, rivers, wetlands, and the marine environment.

Currently, Canada does not adequately focus on protecting freshwater systems for biodiversity. Our aquatic and riparian ecosystems are rapidly losing biodiversity, primarily due to the human-caused impacts of habitat fragmentation and climate change.

Aquatic ecosystems need to be explicitly reflected in Canada's progress toward Aichi Target 11–Canada Target 1. In particular, the conservation of aquatic and riparian areas fulfills three important quality measures of Aichi Target 11: connectivity, areas of importance for biodiversity, and

ecosystem representation. They also need to be recognized as critical components of large-scale landscape planning, for example, by considering the health of watersheds, and for their significant value in mitigating and adapting to climate change.

An important interface between terrestrial and aquatic ecosystems, riparian areas are very rich in biological diversity; provide important habitat for aquatic and terrestrial species; provide essential ecosystems services, including maintenance of clean water; and contribute to the overall health of watersheds. Watersheds provide an integral link to the cultural and spiritual well-being of many Canadians. For all these reasons, aquatic and riparian areas need to be an important consideration for conservation efforts.

The Strategic Plan for Biodiversity under the CBD includes the need for both reconciliation and a large-landscape approach to conservation.

Federally, riparian areas have not been a significant focus of protected areas planning. However, protection and enhancement measures for riparian areas are included in a number of provincial, territorial, municipal, and federal laws. As well, in some cases, industry management practices have complemented the regulatory framework across Canada and enhanced riparian conservation.[48]

Recommendation 29
We recommend that federal, provincial, and territorial governments enact means to protect aquatic ecosystems through the development of a pan-Canadian water strategy.

Recommendation 30
We recommend all jurisdictions investigate designations such as Heritage Rivers, Ramsar wetlands, and Biosphere Reserves, with the aim to determine how strengthening the protection associated with such designations may provide opportunities for Canada to meet our Convention on Biological Diversity targets.

9. IMPORTANCE OF CIVIC AND MUNICIPAL ACTION IN NATURE CONSERVATION

Private and Civic Action

Governments cannot deliver on the Pathway to Canada Target 1 on their own. Broad engagement and support of civil society, private landowners, and industry is needed to successfully create and manage an effective network of protected areas and OECMs.

Many Canadians are already involved in a wide range of activities to help establish and manage protected areas: as individuals, through civil society organizations, and/or through government or private corporations. This provides a good foundation for scaling up public and private engagement.

For example, many citizens from across Canada financially support or work with land trusts to purchase private land or place conservation easements on properties to protect their ecological values. In southern Canada, where most land is privately held and many species are at risk, the action of private organizations and citizens is a primary mechanism for creating protected areas and OECMs, along with municipal and regional government action. Further north—in the area where 90 percent of Canada's landscape is publicly owned and managed by federal, provincial, territorial, and Indigenous governments on behalf of their constituents—protected areas and OECMs are created and managed through public policy decisions.

To support conservation-focused decisions, many thousands of Canadians support and actively volunteer with non-governmental conservation organizations that bring a strong collective voice of public support for protected areas. Other Canadians participate in NGO, community, private, or government on-the-ground citizen science or ecological restoration projects in and around existing protected areas.

Private corporations and philanthropic organizations also contribute to protected areas and OECMs in a variety of ways. Some provide financial and in-kind support to conservation organizations and local and Indigenous communities, while others encourage their employees to get directly involved in on-the-ground conservation projects. For example, a number of Canadian forestry companies have set aside protected or conserved areas of high conservation value through third-party voluntary certification systems, or worked collaboratively with conservation organizations, Indigenous peoples, and local communities to identify areas for conservation. Similarly, some resource-sector companies have agreed to relinquish leases or permits to enable ecologically important lands and waters to be protected.

In southern Canada, where most land is privately held and many species are at risk, the action of private organizations and citizens is a primary mechanism for creating protected areas and OECMs, along with municipal and regional government action.

As we create a new and improved paradigm for conservation in Canada, we must reinforce a culture where each of us, as citizens and communities, not just governments, embrace our responsibility to do what we can, using the tools at our disposal, to help establish and manage an effective network of protected areas and OECMs. Ensuring strong public support at the local level is critically important as a foundation for on-the-ground action. The places Canada aims to protect are the places where people live, harvest, work, and play. As we embrace the connection between conservation and culture, we need to identify and facilitate the tangible and meaningful ways Canadian civil society, businesses, philanthropic groups, community organizations, families, and individuals can act to advance conservation goals. There are already exciting and innovative examples of organizations, corporations, communities, and individuals taking action to protect wild lands and species that can be a foundation for scaled-up civic action in the long term.

Recommendation 31
We recommend that a special emphasis be applied to identifying and supporting the various ways Canadians can act to advance protected areas and OECMs within their spheres of influence. We further recommend that Pathway to Canada Target 1 support and celebrate the contributions of civil society and private interests, as well as governments, to effective, well-connected networks of protected areas and OECMs.

Role of Municipal Governments in the Conservation of Biodiversity

Loss of and threats to biodiversity and associated ecosystem services are

48 Many municipalities and the private sector have implemented eco-certification and performance programs that conserve and enhance aquatic biodiversity and functional habitat for fish. These include forest certification, such as CSA, FSC, or SFI; salmon-safe certification (http://www.salmonsafe.org/about); and environmental farm plans.

particularly acute in areas of southern Canada that fall within municipal jurisdictions. Municipalities, including regional governments, have the ability to acquire critical lands and manage these areas to enhance conservation of biodiversity. Although this is typically achieved through municipal parks departments, funds for this purpose are limited. However, the federal green infrastructure funding program provides a potential opportunity for funding the establishment and/or restoration of municipal protected and conserved areas: specifically, through the $2B Disaster Mitigation and Adaptation Fund, which explicitly includes "natural infrastructure" as a means to reduce disaster risks.

The role of municipalities in conservation and landscape-scale land management can be strengthened, and their acquisition and management of lands for this purpose can contribute to a developing network of linked and interconnected protected and conserved areas and conservation corridors across Canada. By supporting the direct involvement of municipalities in conservation and landscape-scale land management, the federal government will help engage Canada's major population centres in facing the challenges of conserving biodiversity and also encourage Canadians' involvement in conservation through, for example, citizen science initiatives.

Recommendation 32
We recommend that federal government funding programs include support for municipal and regional government protected areas and OECMs that meet international standards as well as landscape-level planning, particularly to address connectivity.

To support conservation-focused decisions, many thousands of Canadians support and actively volunteer with non-governmental conservation organizations that bring a strong collective voice of public support for protected areas.

ACTIONS ALREADY UNDERWAY

- In 2017 the Nature Conservancy of Canada (NCC) purchased the 1000 ha Big Trout Bay property, an undisturbed stretch of boreal forest along the shore of Lake Superior that is home to bald eagles, nesting peregrines falcons, and rare arctic and alpine plants. This privately owned property was to be converted into cottage lots until the NCC stepped in and bought the property, which will now become part of a chain of protected areas along Lake Superior's north shore.

- Mining and mineral development company Teck Resources purchased approximately 7,150 ha of private lands in the Elk Valley and Flathead River Valley of British Columbia for wildlife and habitat conservation purposes. The company is working in cooperation with First Nations, communities, and other stakeholders to develop management plans for these properties.

- The Canadian Parks and Wilderness Society (CPAWS), Dehcho First Nations (DFN), tourism outfitters, Wildlife Conservation Society Canada, and others partnered on a decade-long public campaign to expand Nahanni National Park Reserve—a UNESCO World Heritage Site—to protect the South Nahanni River watershed. This public campaign included a nationwide "Nahanni Forever" speaking tour, well-publicized river trips, and many other engagement activities. In response to strong public and Indigenous government pressure and support, in 2009 the park was expanded sixfold to 3 million ha, and is now Canada's third-largest national park.

- All forest companies that are members of the Forest Products Association of Canada are certified by one of three voluntary third-party forest certification bodies: Canadian Standards Association (CSA), Forest Stewardship Council (FSC), and Sustainable Forestry Initiative (SFI). Forest certification provides independent assessments of forest operations against social and environmental sustainability standards. All three certification bodies include indicators related to the maintenance and monitoring of biodiversity; these indicators are consistent with the Canadian Council of Forest Ministers (CCFM) criteria and indicators and, when implemented, contribute to Aichi Target 7. As well, components of the certification require forest companies to set aside areas of significant or high conservation value, and these areas may meet the IUCN definition and guidance for protected areas and OECMs. There are a number of examples where forest companies have set aside candidate areas for conservation, both within and adjacent to forest management tenures.

- Canada has 18 UNESCO Biosphere Reserves designated across the country. These reserves focus on communities living sustainably within landscapes that have protected areas at their core, and they operate through partnerships and volunteerism.

- At Long Point, a world-renowned national wildlife area with UNESCO Biosphere Reserve designation on the north shore of Lake Erie, one of Canada's most pernicious invasive species, *Phragmites australis*, is destroying wetland habitats. Twenty-three communities, landowners and conservation organizations have joined forces to develop and implement a united and well-planned management approach to control this invasive species in the protected area.

10. SUBSTANTIAL INVESTMENT IN NATURE CONSERVATION

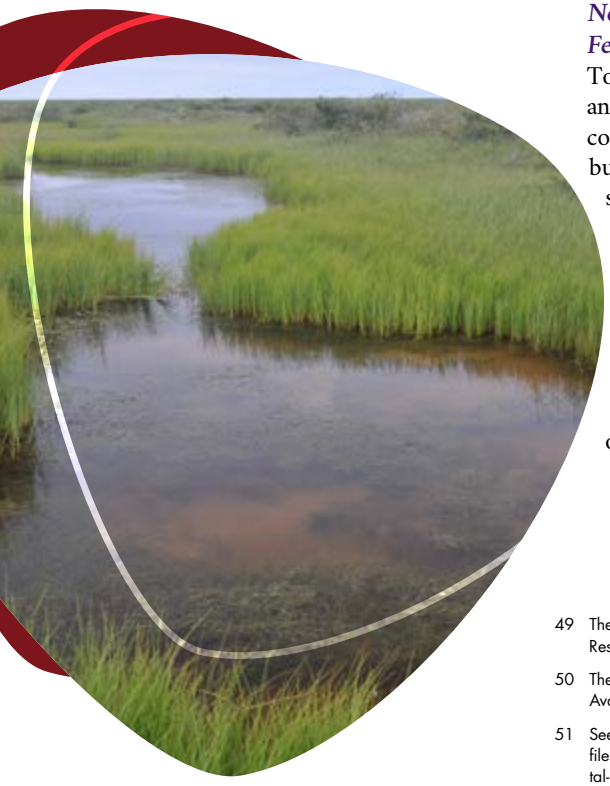
To provide ongoing protection and support for the health of Nature throughout Canada, there needs to be a substantially increased investment of financial resources and a new approach to funding. The NAP recognizes the economic benefits that accrue from nature protection and conservation, but also asserts that Canada's protected areas systems are underfunded.

For example, in terms of benefits, protected and conserved areas can serve as a foundation of conservation economies in rural communities, and these should be encouraged. In addition, Canada's parks and protected areas generate significant economic benefits, particularly for rural and remote communities. A 2012 study conducted for the Canadian Parks Council found that every dollar spent on parks by federal, provincial, and territorial governments resulted in a $6 contribution to GDP; parks agency and visitor spending supported 64,000 jobs across Canada; and 44 percent of government spending on parks returned to governments through tax revenues[49]

Protected areas also generate billions of dollars in ecosystem goods and services that provide cost-effective benefits to society year after year, including water and air purification, flood and drought mitigation, and climate regulation through carbon capture and storage. For example, according to one study, Canada's national parks store approximately 4.43 billion tonnes of carbon, which is approximately 23 times Canada's 2009 annual greenhouse gas emissions.[50]

Despite these significant environmental, social, and economic benefits, auditors general in various jurisdictions have repeatedly reported that Canada's protected areas systems are underfunded.[51]

Protected areas also generate billions of dollars in ecosystem goods and services that provide cost-effective benefits to society year after year, including water and air purification, flood and drought mitigation, and climate regulation through carbon capture and storage.



New Funding Model: Federal and Cost-Shared

To resolve the challenge of underfunding and to deliver on nationwide, shared conservation priorities, we recommend building on the long tradition of cost-shared funding models in Canada. Whether applied to health care, infrastructure, agriculture, or climate change, this is a tried and true model: the federal government provides funding based on meeting agreed-to criteria or standards, and this funding leverages provincial, territorial, and other investments to deliver outcomes.

The NAP recommends the development of a similar shared-funding model to ensure Canada meets all obligations for Aichi Target 11–Canada Target 1 by 2020 and to set the stage for fulfilling all Convention on Biological Diversity commitments post-2020. This model would consist of (1) federal investment in conservation in areas of federal responsibility and for initiatives led by Indigenous peoples, and (2) cost-shared funding arrangements to support action by provincial, territorial, and municipal governments, and non-government and private-sector partners. All funding would be tied to delivering on Canada's commitments to the Convention on Biological Diversity.

Recommended principles for this conservation funding include the following:

- That funding is contingent on contributing to Convention on Biological Diversity commitments and meeting international standards (e.g., IUCN)
- That cost-share arrangements are incentives for action by provinces, territories, municipalities, NGOs, private sector, and citizens
- That funding be available to support Indigenous-led initiatives, including for capacity building
- That additional funding sources be invited to complement government funding responsibilities (e.g., philanthropy of individuals and industry)
- That the value of protected areas be recognized in terms of how they deliver billions of dollars in direct and indirect economic benefits, including ecosystem goods and services

We considered recommendations that have been developed by other groups on what is required to meet Aichi Target 11–Canada Target 1 obligations.[52] We also considered what investments are needed to align our

49 The Outspan Group Inc, *The Economic Impact of Canada's National, Provincial and Territorial Parks in 2009*, Canadian Parks Council Research Bulletin, 2011. Available at www.parks-parcs.ca/english/cpc/economic.php

50 The Canadian Parks Council Climate Change Working Group, Canadian Parks and Protected Areas, Parks Canada Agency, 2013. Available at http://www.parks-parcs.ca/english/CPC%20Climate%20Change%20Report%20FINAL%20engLR.pdf

51 See, for example, the reports of the BC, Ontario, and federal auditors general, respectively:http://www.bcauditor.com/sites/default/files/publications/2010/report_3/report/OAGBC_Parks%20Report_OUT2.pdf ; http://docs.assets.eco.on.ca/reports/environmental-protection/2017/Good-Choices-Bad-Choices.pdf ; http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201311_02_e_38672.html#hd5g

institutions, laws, and policies with our responsibilities under the Convention on Biological Diversity, and to ensure conservation work is embedded within a framework of reconciliation.

Most funding for protected areas in Canada comes from federal, provincial, and territorial governments through tax revenues and user fees; however, other market and non-market mechanisms exist.

Recommendation 33
The NAP recommends additional federal investment for nature conservation that includes the following priorities:

Federal action

1. Federal "house-in-order." $100M over three years and $50M per year ongoing to support getting the federal house in order to lead a nationwide effort to conserve biodiversity in the long term; includes establishing a new Act, Nature Conservation Department, and Nature Conservation Advisory Council and Secretariat

2. Federal protected areas. $94M per year ongoing for establishing new national parks and national wildlife areas by 2020, and improving management of existing federal protected areas; also a one-time $50M investment to resolve third-party interests in proposed protected areas[53]

3. Federal leadership. $6M per year, ongoing to support federal leadership and collaboration among government and non-government partners, and policy/legislative upgrades

4. Connectivity strategy. $3M per year for three years to develop a nationwide ecological connectivity strategy, with government and non-government partners

Incentives for other government and non-government action

5. Other government new protected areas and OECMs. $120M per year ongoing for a fund to support planning, establishment, and management of new protected areas and OECMs by provincial, territorial, municipal, and Indigenous governments; to be fully funded for Indigenous governments and cost-shared for provincial, territorial and municipal governments

6. Capacity building for Indigenous protected areas (IPAs). $200M per year ongoing to support capacity building and necessary legal and other institutional arrangements to support Indigenous protected areas; including Guardians and other IPA capacity-building initiatives

7. Privately protected areas. $50M per year for NGOs and others to protect private lands

8. Resolving third-party interests. $100M one-time investment for resolution of third-party interests to enable establishment of protected areas

9. Coordinated conservation policy framework. $50M over three years to support development of a Canada-wide, coordinated, conservation policy framework and agreement that aligns with the Convention on Biological Diversity and United Nations Declaration on the Rights of Indigenous Peoples

10. Planning for conservation. $200M over five years and $50M per year ongoing to support regional planning initiatives focused on identifying conservation needs and based on Western science and Indigenous knowledge

11 Effective management. $30M over three years to assess management effectiveness for existing protected areas; ramped-up funding (to $250M per year) to support management upgrades and meet standards

12. Public engagement partnerships. $20M per year ongoing to support a partnership fund with the goal of engaging the public in conserving Canada's land and inland waters

13. Knowledge centres. $130M over three years and $100M per year ongoing to support five university-based Conservation Knowledge Centres (focused on conservation practices that integrate Western science and Indigenous knowledge), and a Tri-Council (NSERC, SSHRC, CIHR) Strategic Research Network program

We note the federal government could allocate portions of already allocated resources, for example, green infrastructure and climate change adaptation funds, to contribute to these priority funding needs, recognizing the important role that protected and conserved areas play in providing ecosystem services to communities, such as clean water and reduced risks of flooding, and also their important role in helping people and Nature adapt to climate change.

52 See the Green Budget Coalition recommendations for federal funding to deliver on Canada Target 1, available at http://greenbudget.ca/budget2018/.

53 Ibid.

Significantly, there is scientific evidence that one-third of the objectives of the Paris Climate Agreement's emission-reduction goals could be achieved through "natural solutions."

Innovative Financing for Protected Areas

The NAP did not conduct a thorough review of innovative funding mechanisms for conservation, but we noted examples of different approaches within Canada and other countries that may offer future opportunities to diversify and increase funding for nature conservation and establishment of protected areas.

Most funding for protected areas in Canada comes from federal, provincial, and territorial governments through tax revenues and user fees; however, other market and non-market mechanisms exist. For example, the federal government's Ecogift program provides tax relief for private landowners who want to conserve ecologically significant lands. The Capital Regional District government in Victoria, British Columbia, has instituted a $20 per household tariff that is channelled directly into a land acquisition fund for conservation purposes. Charitable contributions to NGOs are also a significant contributor to protected areas in Canada. In addition to land acquisition, philanthropic funds support NGOs to conduct public education and outreach campaigns, as well as research and conservation planning initiatives, and they support Indigenous governments and individuals to engage in conservation.

A range of approaches to financing conservation have been used in different countries, including the following: Brazil applies a small percentage overhead for conservation on all approved development projects. California imposes a development impact fee. Russia and many other countries impose a fine on "polluters" that is then directed towards protecting Nature. Costa Rica has charged water fees on hydroelectricity producers in support of national parks, and Australia and Costa Rica have allocated gas tax revenues to conservation.

An innovative idea that can potentially raise money for conservation is federal government Green Nature Conservation bonds issued at a rate of interest below market returns. This idea warrants further investigation because both individual and institutional investors are increasingly aware and committed to investing sustainably. In some cases—such as Social Return on Investment (SROI) fund managers and foundations—there's a willingness to include a social return with a financial return on their investment. This means these investors are willing to accept a less competitive yield in consideration that their investment will also return the benefit of a more sustainable future.[54]

Recommendation 34

We recommend the federal government explore innovative financing mechanisms to help fund nature conservation across Canada, including the idea of Nature Conservation Bonds.

Climate Change Mitigation and Adaptation Funds

Climate change mitigation refers to strategies intended to address the causes of climate change, and climate change adaptation refers to ways of reducing the effects and risks that result from climate change. To date, climate change adaptation and mitigation strategies and funds in Canada have focused on reducing fossil fuel emissions and on adapting to climate change through built infrastructure. We have put in motion steps to reduce greenhouse gas emissions, primarily from the combustion of carbon, through the Pan-Canadian Framework on Clean Growth and Climate Change. However, insufficient attention has been paid to the carbon stored in ecosystems, or to the resilience and adaptation of the ecosystems that are the foundation of all life on Earth. With our vast carbon-rich ecosystems, as well as northern regions that are dramatically affected by climate change, Canada needs to focus on integrating our climate change and biodiversity strategies.

Some countries have already integrated nature conservation with climate change adaptation and mitigation strategies. For example, 18 Latin American countries, including those that are stewards of the Amazon region, presented the REDPARQUES Declaration on Protected Areas and Climate Change to the Paris Climate Conference in 2015.[55] This declaration calls for the integration of protected areas into national and global climate planning and financing strategies and clearly highlights the vital role

54 Convention on Biological Diversity, Green Bonds, https://www.cbd.int/financial/greenbonds.shtml

55 Declaration by the Latin American Network for Technical Cooperation on National Parks, Other Protected Areas, and Wild Flora and Fauna (REDPARQUES) to the 21st Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change. Available at http://d2ouvy59p0dg6k.cloudfront.net/downloads/redparques_declaration.pdf

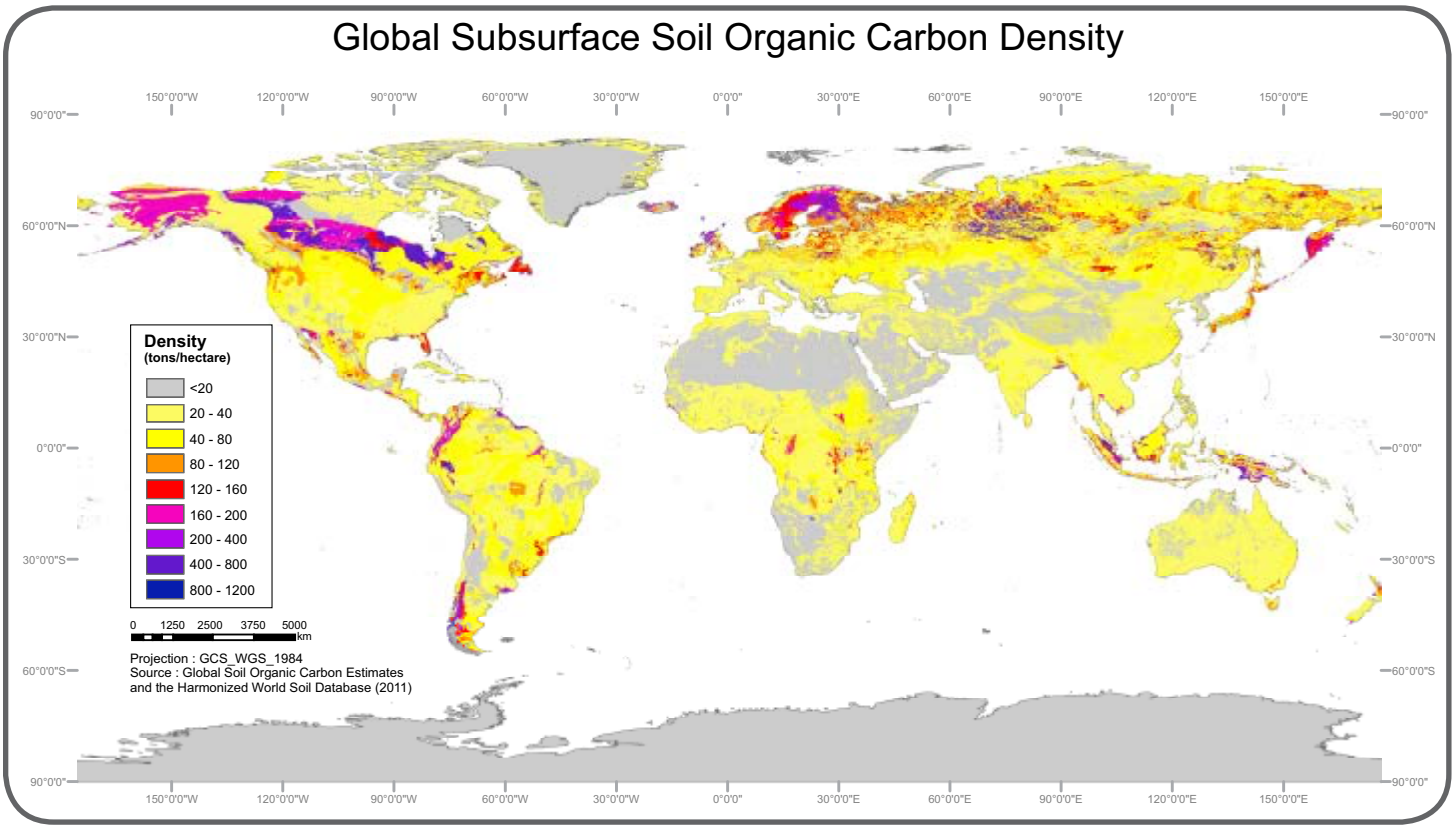


Figure 3. Soil organic carbon density (tons/hectare)[56]

of protected areas as a natural and cost-effective solution for mitigating greenhouse gas emissions and adapting to climate change.

This approach to climate change mitigation is now commonly referred to as "natural solutions." For example, Griscom and colleagues determined that, at the global scale, the avoidance of forest conversion and the avoidance of peatland disturbance are the most significant low-cost natural solutions for climate change mitigation.[57] Significantly, there is scientific evidence that one-third of the objectives of the Paris Climate Agreement's emission-reduction goals could be achieved through "natural solutions"—nature conservation worldwide.

The ecosystem service most relevant to climate change is the regulating function of carbon sequestration and storage. Figure 3 shows that soil carbon densities for most of Russia, Siberia, Europe, Alaska, and Canada exceed the combined carbon densities of soil and trees in all tropical areas of the world. In particular, the soils and wetlands of the James Bay Lowlands and the Mackenzie Basin are widely regarded as critical to the storage of carbon on global scale.

Maintaining carbon-rich areas should therefore be part of Canada's climate change strategy, advanced through landscape-level conservation planning and funded with carbon mitigation and adaptation funds.

To manage our terrestrial carbon reserves, Canada needs to develop a carbon inventory based on the best available science and a regulatory framework that counts carbon exchanges as part of our commitment to climate change. Areas where industrial tenure exists, but agreements have created protected areas, could also be considered as potential carbon offsets in a way that does not compromise the targets for reducing the emissions from carbon combustion.

Recommendation 35

We recommend Canada's landscape-level planning include consideration of how to maximize the protection, maintenance, and enhancement of carbon-rich ecosystems, and that Canada allocate funding earmarked for climate change mitigation and adaptation for this purpose.

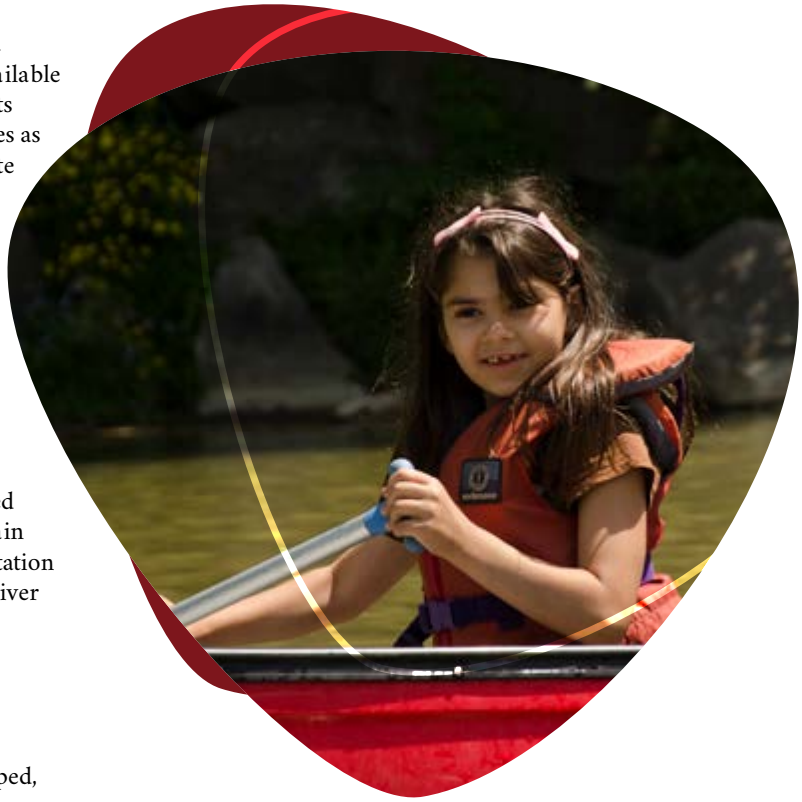
Some countries have already integrated nature conservation with climate change adaptation and mitigation strategies.

56 R. Hiederer and M. Köchy, Global Soil Organic Carbon Estimates and the Harmonized World Soil Database. EUR 25225 EN, Publications Office of the European Union, 2011. doi:10.2788/13267.

57 Bronsom Griscom et al., Natural Climate Solutions, *PNAS*, 114 (44) 11645–11650, 2017. Available at https://doi.org/10.1073/pnas.1710465114

Recommendation 36

We recommend that Canada develop a carbon inventory based on the best available science and monitoring, and that counts terrestrial and aquatic carbon exchanges as part of Canada's commitment to climate change: for example, an enhanced carbon budget model that builds upon the carbon budget model developed by Natural Resources Canada.[58]



Recommendation 37

We recommend that all jurisdictions include in their climate change adaptation strategies an objective of completing networks of well-connected protected areas and OECMs that contain climate change refugia.[59] Climate adaptation funding should be allocated to help deliver on this objective.

Recommendation 38

We recommend that research is commissioned and funded and that adaptive management tools are developed, disseminated, and applied to better understand and accommodate species range shifts in the face of climate change.

58 Natural Resources Canada, Carbon Budget Model, http://www.nrcan.gc.ca/forests/climate-change/carbon-accounting/13107

59 Climate change refugia are defined as areas relatively buffered from climate change over time. See Morelli et al., Managing Climate Change Refugia for Climate Adaptation, *PLoS One*, 11(8), 2016. Available at doi: 10.1371/journal.pone.0159909

CONCLUSION

With this report, the NAP provides recommendations for Canada to achieve our conservation goals and responsibilities and to meet and exceed our international commitments, specifically those under the UN Convention on Biological Diversity.

Our recommendations include both identifying early opportunities to protect at least 17 percent of our land and inland waters by 2020 and also setting the stage to substantially exceed Aichi Target 11–Canada Target 1 as part of an effective, long-term, Canadian conservation strategy. These actions will require (1) incentives and investing funds to spur decision making for establishing new protected areas, including through land-use planning or species-recovery planning; (2) efforts to identify further opportunities for protected areas, such as initiatives based on Indigenous-led land-use plans, forest management plans, habitat protection for species at risk, and protection of freshwater ecosystems; and (3) planning for high-quality, landscape-level, conservation measures beyond 2020.

Considering the failure so far to achieve conservation goals and obligations, the scale and multifaceted nature of the endeavour, and the many people and jurisdictions to be involved, the NAP concludes that nature conservation

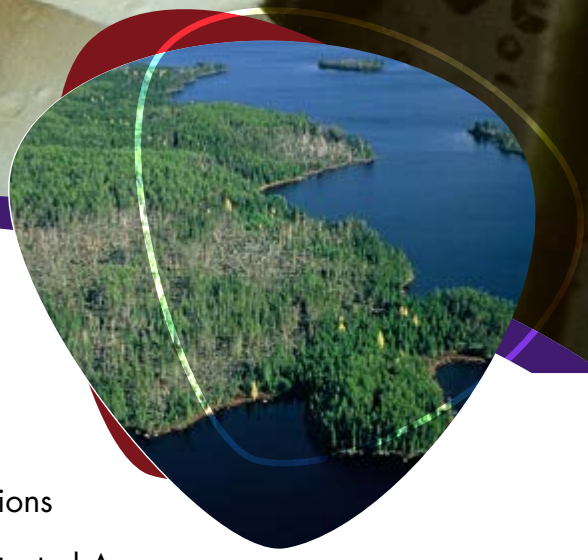
in Canada needs to be reimagined. Canada needs a coherent, nationwide approach to conserving Nature, with adequate investment, and partnerships with Indigenous peoples in the spirit of reconciliation, rights, and responsibilities. The NAP therefore recommends the creation of a new nature conservation architecture that includes a new federal Nature Conservation Department, a Pan-Canadian Agreement for Nature Conservation, and a Nature Conservation Advisory Council, enabled by a new federal Act, and a parallel effort by provincial and territorial governments to align their institutional arrangements. To support this new, coordinated approach to conservation, and also action on the ground to 2020, the NAP proposes a new funding model that includes investment in areas of federal responsibility and for Indigenous peoples' initiatives, and cost-shared arrangements to support conservation initiatives by provincial, territorial, and municipal governments, and also with non-government and private-sector partners.

This new approach is meant to encourage focus and coordination at the federal level, while recognizing provincial, territorial, and Indigenous jurisdiction over land-use decision making. It would also ensure provinces, territories, and Indigenous governments have access to adequate funding for conservation, and that international standards are applied consistently across Canada. Achieving a new approach to conservation in Canada will require significant leadership from the federal government as well as from Indigenous, provincial, territorial, and municipal governments, industry, and NGOs. This will be an effort for all Canadians.

With commitment to this large-scale, coordinated approach for achieving Canada's conservation goals, we can fulfill our international obligations, become a global leader in conserving Nature and biodiversity, address priorities such as climate change, and take steps toward reconciliation among peoples in Canada and with the Earth.

With commitment to this large-scale, coordinated approach for achieving Canada's conservation goals, we can fulfill our international obligations, become a global leader in conserving Nature and biodiversity, address priorities such as climate change, and take steps toward reconciliation among peoples in Canada and with the Earth.

APPENDICES



APPENDIX A: Aichi Biodiversity Targets

APPENDIX B: ENVI Committee Report Recommendations

APPENDIX C: IUCN Definition and Guidance for Protected Areas

APPENDIX D: IUCN Guidance on OECMs

APPENDIX E: Early Opportunities for Progress toward Target 1

APPENDIX A: AICHI BIODIVERSITY TARGETS

Source: Convention on Biological Diversity, 2010, Strategic Plan for Biodiversity 2011–2020, Aichi Biodiversity Targets. Available at https://www.cbd.int/sp/targets/

Target 1
By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2
By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3
By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.

Target 4
By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Target 5
By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6
By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7
By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8
By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9
By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10
By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Target 11
By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Target 12
By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13
By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Target 14
By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15
By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16
By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Target 17
By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18
By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of

indigenous and local communities, at all relevant levels.

Target 19
By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20
By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.

APPENDIX B: ENVI COMMITTEE REPORT RECOMMENDATIONS

Source: House of Commons Standing Committee on Environment and Sustainable Development (2017), Taking Action Today: Establishing Protected Areas for Canada's Future, p. 21. Available at https://www.ourcommons.ca/DocumentViewer/en/42-1/ENVI/report-5

We recommend Canada's landscape-level planning include consideration of how to maximize the protection, maintenance, and enhancement of carbon-rich ecosystems, and that Canada allocate funding earmarked for climate change mitigation and adaptation for this purpose.

ASSESSMENT AND PLANNING TO MEET PROTECTED AREAS TARGETS

Recommendation 1
The Committee recommends that the Government of Canada establish a permanent national conservation body consisting of federal, provincial, territorial, municipal and Indigenous representatives that will lead planning to meet the Aichi targets as well as setting and implementing overarching longer-term conservation plans. In order to facilitate the work of this body, the Committee further recommends:

- That a national stakeholder advisory group to advise the conservation body be established representing, among others, municipal governments, civil society, private landowners, conservation specialists, industry, academics and Indigenous groups; and

- That a process be put in place through which individuals, in particular Indigenous peoples, or organizations may suggest priority areas for protection.

Recommendation 2
The Committee recommends that the Government of Canada lead a science-based, whole-of-Canada, terrestrial and marine, conservation assessment in partnership with the provinces and territories, Indigenous people, municipalities and other stakeholders. The assessment should look to the integration of greater protected area ecosystems, identify priority areas and important connection corridors to ensure a sustainable ecosystem, maintain our biodiversity and develop appropriate targets for Canada.

Recommendation 3
The Committee recommends that the Government of Canada:

- Undertake an assessment of Canada's freshwater ecosystems and set specific targets for the conservation of important rivers, wetlands, lakes and their biodiversity; and

- Protect freshwater rivers, wetlands, lakes and their biodiversity by introducing legislation that mirrors the United States' Wild and Scenic Rivers legislation or South Africa's freshwater conservation goals.

Recommendation 4
The Committee recommends that the Government of Canada focus the expansion of protected areas not only on quantity to meet Aichi 11 targets, but also to protect terrestrial and marine areas with the highest ecological value in the country.

Recommendation 5
The Committee recommends that the Government of Canada set even more ambitious targets for protected areas than those established in the Aichi Target 11.

Recommendation 6
The Committee recommends that the Government of Canada develop a "corridors of connectivity" and "buffer zone" strategy to protect and enhance ecologically valuable networks of protected areas and regions on the periphery of protected areas.

Recommendation 7
The Committee recommends that the Government of Canada ensure efforts focus on the addition of meaningful terrestrial and marine areas and not simply count existing programs and protected areas to meet Aichi 11 Targets.

Recommendation 8
The Committee recommends that the Government of Canada accelerate data collection for inventory management of protected areas. This could include the creation of a complementary conservation database where individuals and groups could upload data independently as part of a national collection of other effective area-based conservation measures above and beyond Canada's Aichi targets.

Recommendation 9
The Committee recommends that the Government of Canada, in partnership with the provinces and territories, Ducks Unlimited Canada and other non-governmental organizations, support the completion of the Canadian Wetland Inventory.

FEDERAL IMPLEMENTATION AND COORDINATION

Recommendation 10
The Committee recommends that the Government of Canada create a federal protected areas system plan that incorporates not just national parks but all federal protected areas, terrestrial and marine.

Recommendation 11
The Committee recommends that the Government of Canada take a whole-of-government approach towards contributing to national conservation commitments and targets and that all departments be encouraged to participate in conservation efforts by being made aware of the benefits of protected areas to regional development.

Recommendation 12
The Committee recommends that the Government of Canada coordinate its efforts and work collaboratively between departments and agencies to expand the network of marine protected areas.

Recommendation 13
The Committee recommends that the Government of Canada ensure that government-sponsored activities within protected areas adequately take into consideration their potential impact on landowners in the adjacent landscape.

Recommendation 14
The Committee recommends that Parks Canada Agency revisit its system plans and that in the interim, it does not reject protected area proposals simply because they do not fit within the current system plans. As an example, updated system plans could account for corridors, buffers and climate change.

Recommendation 15
The Committee recommends that Parks Canada Agency consider developing a national urban parks system plan to act as a framework to guide the creation of urban parks as opportunities arise with willing municipal and provincial partners.

Recommendation 16
The Committee recommends that the Government of Canada expand work being done in collaboration with other countries, particularly those within our hemisphere and with which we share migratory wildlife, in order to achieve common conservation objectives.

Recommendation 17
The Committee recommends that the Government of Canada fully implement and enforce the Species at Risk Act while also focussing on achieving the objectives of the Act through enhanced conservation initiatives.

Recommendation 18
The Committee recommends that the Government of Canada ensure that the Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals is applied to any proposal to acquire or to dispose of federal lands, such as the transfer of 700,000 hectares of native grasslands in 62 community pastures to the Government of Saskatchewan. Another example is the Department of National Defence's proposed disposal of lands including Royal Roads University. In addition, no federal land should be disposed of unless it has been established that the proposed disposal would not be contrary to national conservation objectives.

Recommendation 19
The Committee recommends that the Government of Canada lead an effort to determine the capacity of Canada's natural spaces to release and sequester carbon and to evaluate the potential for increasing their capacity to sequester carbon.

PROTECTION IN INDIGENOUS TRADITIONAL AREAS: CONSERVATION AND BEYOND

Recommendation 20
The Committee recommends that, in partnership with Indigenous peoples, the Government of Canada establish a national program of Indigenous guardians, who are community-based land and water stewards managing lands and waters using cultural traditions and modern conservation tools. The program should support sustainable livelihoods and protected areas operations. All Indigenous peoples should have the opportunity to participate in the program.

Recommendation 21
The Committee recommends that the Government of Canada pursue common conservation objectives and reconciliation through a nation-to-nation relationship with Indigenous peoples. More particularly, the Government of Canada should:

- In partnership with Indigenous peoples, pursue the expansion of federal protected areas to protect areas of highest ecological value within traditional territories of Indigenous peoples;
- Implement and respect co-management arrangements with Indigenous partners for federal protected areas in Indigenous traditional territories;
- Establish a federal point of contact with decision-making authority to facilitate negotiations for federal protected areas in Indigenous traditional territories; and
- Work with Indigenous peoples to designate and manage Indigenous protected areas within their traditional territories, and incorporate these areas into Canada's inventory of protected areas by amending applicable legislation, for example the Canada Wildlife Act.

Recommendation 22
The Committee recommends that the Government of Canada place a priority on collaborating with Indigenous peoples, Northern governments and stakeholders to protect highest ecological value arctic waters for traditional uses and future generations.

ACCELERATING ESTABLISHMENT OF PROTECTED AREAS AND ENSURING SUFFICIENT LEVELS OF PROTECTION

Recommendation 23
The Committee recommends that the Government of Canada expeditiously introduce a bill to formally legislate protection for all federal lands that Parks Canada currently manages, where appropriate.

Recommendation 24
The Committee recommends that Fisheries and Oceans Canada explore more effective and innovative mechanisms to expedite protection for marine and coastal areas.

Recommendation 25
The Committee recommends that Fisheries and Oceans Canada, Parks Canada Agency and Environment and Climate Change Canada consider opportunities to designate multiple protected areas concurrently.

Recommendation 26
The Committee recommends that the Government of Canada confirm minimum conservation standards of protection for each category of federal protected area to meet accepted international standards.

Recommendation 27
The Committee recommends that the Government of Canada ensure that no federal policy or legislation, such as the Mineral and Energy Resource Assessment and the Canada Petroleum Resources Act, slows the process of establishing protected areas. Further, no federal policy or legislation should impinge on minimum standards of protection established for that type of federal protected area, such as in the case of Sable Island National Park Reserve.

Recommendation 28
The Committee recommends that Parks Canada Agency adhere to existing limits placed on development as outlined in legislation or in management plans, guidelines and policy. Development proposals as well as any changes to existing limits should be subject to a transparent and publicly inclusive decision-making process. Municipalities within park boundaries should have more flexibility to make certain decisions – such as allocate business licences – within their existing footprints and limits.

Recommendation 29
The Committee recommends that Environment and Climate Change Canada, Parks Canada and Fisheries and Oceans develop relevant management plans to ensure that the protected areas under their jurisdiction will fulfill their intended purposes as refuges for biodiversity. These management plans should be updated on a regular basis in order to effectively address emerging threats to ecological integrity, and departments must be given sufficient budgetary resources to implement these plans.

Recommendation 30
The Committee recommends that the Government of Canada amend and strengthen the *National Marine Conservation Areas Act* and the *Oceans Act* in order to:

- Enable interim protection of national marine conservation areas before they are formally established, subject to pre-existing legal rights of others;
- Specify a shortened timeframe for the development and implementation of a national network of marine protected areas; and
- Enshrine the restoration and maintenance of ecological integrity as the overriding priority for Canada's marine conservation areas in parallel with the *Canada National Parks Act*.

Recommendation 31
The Committee recommends that the Government of Canada develop, implement and sufficiently fund effective monitoring programs in order to measure the successful achievement of ecological integrity of protected areas.

Recommendation 32
The Committee recommends that when possible, the Government of Canada partner with provincial, municipal, territorial or other governments to protect terrestrial and marine areas using internationally recognized standardized criteria. In particular, the Committee recommends that the Government of Canada – for the purposes of assessing its progress towards Aichi Biodiversity Target 11 and regardless of ownership (federal, provincial/territorial, Indigenous, private or other) – adopt and apply the definition of "other effective area-based conservation measures" determined by the International Union for the Conservation of Nature (IUCN), and hold all Canadian protected areas not included in the IUCN's protected areas categories to this minimum standard.

FUNDING

Recommendation 33
The Committee recommends that the Government of Canada place a greater priority on and dedicate a larger amount of resources to meeting our Aichi Biodiversity Target 11 commitment by 2020, while recognizing that this is a minimum target.

Recommendation 34
The Committee recommends that the Government of Canada provide consistent, predictable, ongoing funding to all protected area programs under its jurisdiction and should regularly undertake analyses to assess whether the funding is sufficient to achieve Canada's conservation objectives.

Recommendation 35
The Committee recommends that the Government of Canada consider innovative funding and other mechanisms to support and expand conservation and protected areas, including:

- By examining ways – including compensation – by which it can partner with provinces and territories to further support and encourage ranchers, farmers and other private land owners to implement conservation measures;
- By providing incentives to landowners to donate ecologically sensitive lands for conservation purposes by permitting the intergenerational transfer of any unused tax credits to an inheriting landowner on the death of the donor to realize the benefit of a conservation gift as part of intergenerational estate planning;
- By assessing the feasibility of introducing an initiative similar to the U.S. Landscape Conservation Cooperative Network that would bring governmental and nongovernmental stakeholders together to work on designated conservation objectives;
- By establishing a dedicated acquisition fund for federal protected areas;
- By considering the creation of a new component of the Natural Areas Conservation Program to fund conservation initiatives of community organizations;

- By reporting to the House of Commons on best practices to encourage, incentivize and recognize the willing relinquishment of acquired mineral, oil, gas or logging rights;
- By examining the possibility of expanding the Green Municipal Fund, with its federal funds managed by the Federation of Canadian Municipalities;
- By establishing a distinct and significant envelope of funding for conservation initiatives and associated infrastructure with a view to regional economic development; and
- By exploring financial and non-financial incentives for Canadians to support expanded conservation efforts in Canada.

Recommendation 36

The Committee recommends that the Government of Canada ensure that current and future levels of investment to maintain capital assets within the national parks system meet commonly recommended asset investment benchmarks and that any shortfall in levels of investment to maintain assets within existing parks not be a barrier to providing funding for new park establishment.

APPENDIX C: IUCN DEFINITION AND GUIDANCE FOR PROTECTED AREAS

Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. x + 86pp. WITH

Stolton, S., P. Shadie, and N. Dudley (2013). IUCN WCPA Best Practice Guidance on Recognising Protected Areas and Assigning Management Categories and Governance Types, Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland: IUCN. Available at https://portals.iucn.org/library/sites/library/files/documents/PAG-021.pdf

The International Union for the Conservation of Nature (IUCN) defines a protected area as "A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values."

The definition is expanded by the following management categories:

Ia Strict Nature Reserve
Category Ia are strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphical features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.

Ib Wilderness Area
Category Ib protected areas are usually large unmodified or slightly modified areas, retaining their natural character and influence without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

II National Park
Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities.

III Natural Monument or Feature:
Category III protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

IV Habitat/Species Management Area:
Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many Category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

V Protected Landscape/ Seascape:
A protected area where the interaction of people and nature over time has produced an area of distinct character with significant, ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

VI Protected Area with Sustainable Use of Natural Resources:
Category VI protected areas conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

APPENDIX D: IUCN GUIDANCE ON OECMS

IUCN WCPA, 2018. (Draft) Guidelines for Recognising and Reporting Other Effective Area-based Conservation Measures. IUCN, Switzerland. Version 1.
Available at https://www.iucn.org/sites/dev/files/content/documents/guidelines_for_recognising_and_reporting_OECMs_-_january_2018.pdf

An "other effective area-based conservation measure" (OECM), as referenced in Aichi Biodiversity Target 11, is defined in these Guidelines as "A geographically defined space, not recognised as a protected area, which is governed and managed over the long-term in ways that deliver the effective in-situ conservation of biodiversity, with associated ecosystem services and cultural and spiritual values."

The distinguishing criterion is that protected areas should have a primary conservation objective, whereas an OECM should deliver the effective in-situ conservation of biodiversity, regardless of its objectives.

APPENDIX E: EARLY OPPORTUNITIES FOR PROGRESS TOWARD TARGET 1

To help governments achieve the short-term quantitative target of 17% protection by 2020, the NAP compiled a list of areas and initiatives across Canada where work is already underway or well-advanced towards establishing protected areas. The list is based on the networks and experience of NAP members and is not meant to be exhaustive or exclusive of other initiatives.

As a fundamental consideration, we want to affirm the importance of working within a framework of reconciliation for these potential short-term opportunities as well as for longer-term land protection efforts, which would include free, prior and informed consent by Indigenous peoples.

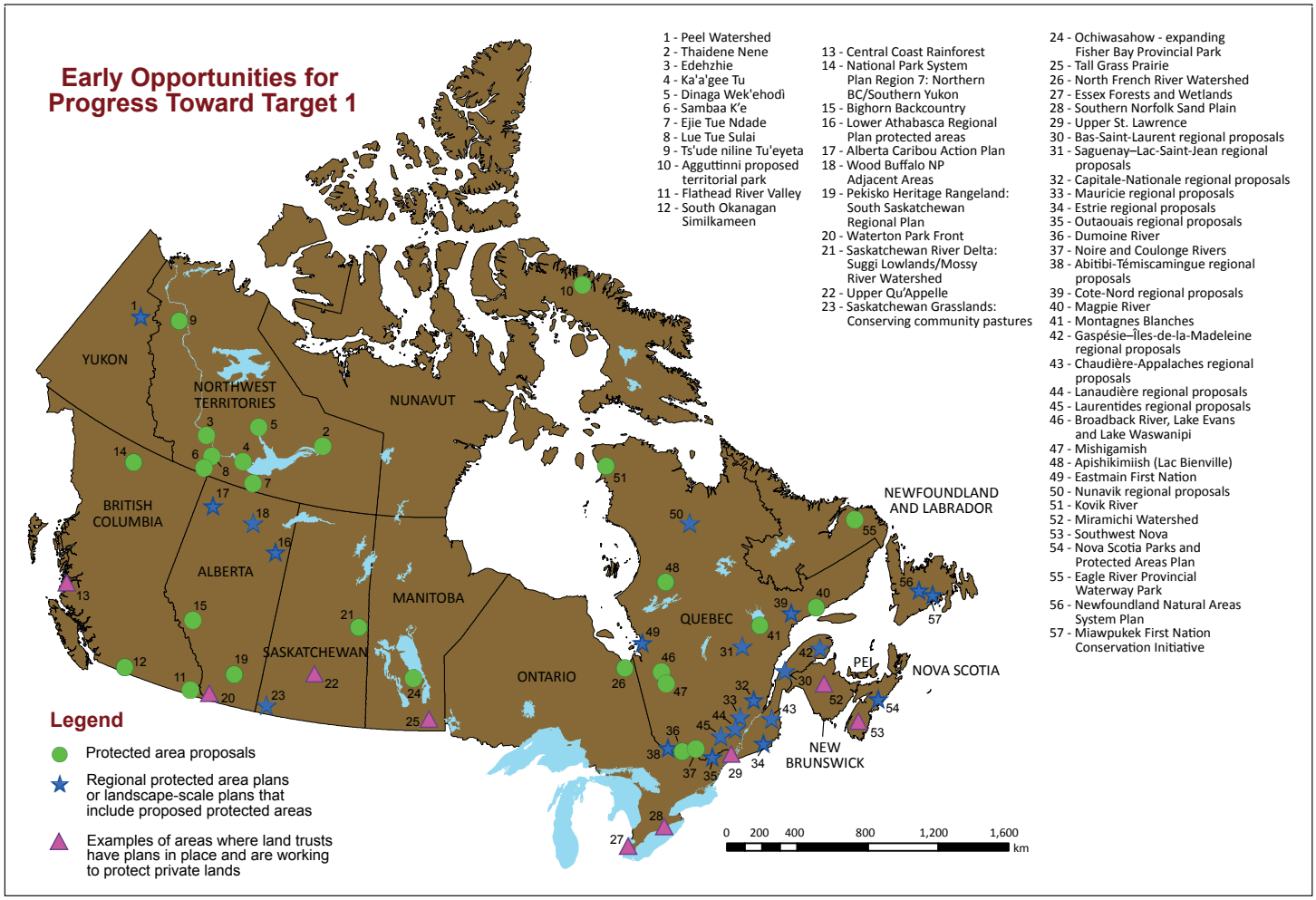
See page 42 of the report for more details.

PROVINCE/TERRITORY	NAME	REFERENCES FOR MORE INFORMATION
Yukon	Peel Watershed	http://peel.planyukon.ca/
Northwest Territories	Thaidene Nene	landoftheancestors.ca/
	Edehzhie	http://www.enr.gov.nt.ca/sites/enr/files/hlhp_cnp_priorities_2016-2021.pdf Healthy Land Healthy People, Conservation Network Plan (see page 13 for map)
	Ka'a'gee Tu	Same as above
	Dinaga Wek'ehodì	Same as above
	Sambaa K'e	Same as above
	Ejie Tue Ndade	Same as above
	Lue Tue Sulai	Same as above
	Ts'ude niline Tu'eyeta	https://sahtulanduseplan.org/web-map
Nunavut	Agguttinni proposed territorial park	https://www.gov.nu.ca/sites/default/files/3213-025_clyde_eng.pdf http://www.nunavut.ca/files/2016DNLUP/2016_Schedule_A_Designations_Eng.pdf
British Columbia	Flathead River Valley	https://flathead.nationbuilder.com/
	South Okanagan Similkameen	http://www.newswire.ca/news-releases/working-together-to-establish-a-national-park-reserve-in-south-okanagan-653642733.html
British Columbia/ Yukon	National Park System Plan Region 7: Northern BC/Southern Yukon	https://www.pc.gc.ca/en/pn-np/plan
Alberta	Bighorn Backcountry: North Saskatchewan Regional Plan	https://landuse.alberta.ca/RegionalPlans/NorthSaskatchewanRegion/Pages/default.aspx
	Lower Athabasca Regional Plan protected areas	https://www.landuse.alberta.ca/RegionalPlans/LowerAthabascaRegion/LARPMap/Pages/default.aspx
	Alberta Caribou Action Plan	http://aep.alberta.ca/fish-wildlife/wildlife-management/caribou-management/caribou-action-range-planning/documents/AlbertaCaribouActionPlanFS%202016.pdf
	Wood Buffalo NP Adjacent Areas	See page 22: Interest in Indigenous protected areas
	Pekiska Heritage Rangeland: South Saskatchewan Regional Plan	https://www.landuse.alberta.ca/RegionalPlans/SouthSaskatchewanRegion/Pages/default.aspx
Saskatchewan	Saskatchewan River Delta: Suggi Lowlands/Mossy River Watershed	http://cbfa-efbc.ca/wp-content/uploads/2016/03/20160302_PA-Letter-to-Kevin-Murphy.pdf
	Saskatchewan Grasslands: Retaining conservation measures for community pastures	http://cpaws-sask.org/campaigns/prairies#threats
Manitoba	Ochiwasahow – expanding Fisher Bay Provincial Park	http://www.fisherriver.ca/category/reports/
Ontario	North French River Watershed	https://www.ourcommons.ca/DocumentViewer/en/42-1/ENVI/meeting-29/evidence https://www.youtube.com/watch?v=23SBHB55cRk

PROVINCE/TERRITORY	NAME	REFERENCES FOR MORE INFORMATION
Québec*	Bas-Saint-Laurent regional proposals	
	Saguenay–Lac-Saint-Jean regional proposals	
	Capitale–Nationale regional proposals	
	Mauricie regional proposals	
	Estrie regional proposals	
	Outaouais regional proposals	
	Dumoine River	
	Noire and Coulonge Rivers	
	Abitibi-Témiscamingue regional proposals	http://www.mddelcc.gouv.qc.ca/biodiversite/aires_protegees/consultation/abitibi-temiscamingue/documentation.htm http://www.mddelcc.gouv.qc.ca/biodiversite/aires_protegees/consultation/abitibi-temiscamingue/documents/Document_synthese_Region_AbitibiTemiscamingue.pdf
	Cote-Nord regional proposals	
	Magpie River	
	Montagnes Blanches	http://mffp.gouv.qc.ca/publications/faune/napperon-caribou-forestier-2016.pdf
	Gaspésie–Îles-de-la-Madeleine regional proposals	
	Chaudière-Appalaches regional proposals	
	Lanaudière regional proposals	
	Laurentides regional proposals	
	Broadback River Lake Evans, and Lake Waswanipi	http://www.eeyouconservation.com/broadback-watershed-conservation-plan.html http://mffp.gouv.qc.ca/publications/faune/napperon-caribou-forestier-2016.pdf"
	Mishigamish	http://www.eeyouconservation.com/projects/Mishigamish.pdf
	Apishikimiish (Lac Bienville)	http://www.eeyouconservation.com/apishikimiish.html
	Eastmain First Nation	
	Nunavik regional proposals	
	Kovik River	https://www.premier-ministre.gouv.qc.ca/actualites/communiques/details.asp?idCommunique=2661 http://plannord.gouv.qc.ca/wp-content/uploads/2015/03/L-Patrick-Beauchesne.pdf
Nova Scotia	Nova Scotia Parks and Protected Areas Plan	http://novascotia.ca/parksandprotectedareas/plan/
Newfoundland and Labrador	Eagle River Provincial Waterway Park	http://www.releases.gov.nl.ca/releases/2010/env/0205n08.htm
	Newfoundland Natural Areas System Plan	https://gov.nl.ca/wp-content/uploads/Minister_Trimper_Mandate.pdf http://cpawsnl.org/news/cpaws-welcomes-new-provincial-government-promise-to-prioritize-protected-ar
	Miawpukek First Nation Conservation Initiative	
Nationwide (southern Canada)**	Proposed and existing privately protected areas not currently accounted for in Canada's protected area system	

*Between 2011 and 2015, regional governments throughout Quebec identified regional proposals for protected areas to contribute to Aichi Target 11. These proposals have been submitted to the provincial government, and are publicly available for some regions. In other regions, Indigenous governments are producing conservation plans. Together, these areas provide opportunities for QC to pursue as it works to achieve the 2020 target.

** In Canada, many organizations such as land trusts are working to protect private land. There are opportunities for these proposed and existing private protected areas to contribute to Canada's target, where they are not already reported. The map Early Opportunities for Progress Toward Target 1 includes several examples of areas where plans are in place and work is underway to protect private lands.


Early Opportunities for Progress Toward Target 1
1 - Peel Watershed
2 - Thaidene Nene
3 - Edehzhie
4 - Ka'a'gee Tu
5 - Dinaga Wek'ehodì
6 - Sambaa K'e
7 - Ejie Tue Ndade
8 - Lue Tue Sulai
9 - Ts'ude niline Tu'eyeta
10 - Agguttinni proposed territorial park
11 - Flathead River Valley
12 - South Okanagan Similkameen
13 - Central Coast Rainforest
14 - National Park System Plan Region 7: Northern BC/Southern Yukon
15 - Bighorn Backcountry
16 - Lower Athabasca Regional Plan protected areas
17 - Alberta Caribou Action Plan
18 - Wood Buffalo NP Adjacent Areas
19 - Pekisko Heritage Rangeland: South Saskatchewan Regional Plan
20 - Waterton Park Front
21 - Saskatchewan River Delta: Suggi Lowlands/Mossy River Watershed
22 - Upper Qu'Appelle
23 - Saskatchewan Grasslands: Conserving community pastures
24 - Ochiwasahow - expanding Fisher Bay Provincial Park
25 - Tall Grass Prairie
26 - North French River Watershed
27 - Essex Forests and Wetlands
28 - Southern Norfolk Sand Plain
29 - Upper St. Lawrence
30 - Bas-Saint-Laurent regional proposals
31 - Saguenay–Lac-Saint-Jean regional proposals
32 - Capitale-Nationale regional proposals
33 - Mauricie regional proposals
34 - Estrie regional proposals
35 - Outaouais regional proposals
36 - Dumoine River
37 - Noire and Coulonge Rivers
38 - Abitibi-Témiscamingue regional proposals
39 - Cote-Nord regional proposals
40 - Magpie River
41 - Montagnes Blanches
42 - Gaspésie–Îles-de-la-Madeleine regional proposals
43 - Chaudière-Appalaches regional proposals
44 - Lanaudière regional proposals
45 - Laurentides regional proposals
46 - Broadback River, Lake Evans and Lake Waswanipi
47 - Mishigamish
48 - Apishikimiish (Lac Bienville)
49 - Eastmain First Nation
50 - Nunavik regional proposals
51 - Kovik River
52 - Miramichi Watershed
53 - Southwest Nova
54 - Nova Scotia Parks and Protected Areas Plan
55 - Eagle River Provincial Waterway Park
56 - Newfoundland Natural Areas System Plan
57 - Miawpukek First Nation Conservation Initiative
YUKON
NORTHWEST TERRITORIES
NUNAVUT
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEWFOUNDLAND AND LABRADOR
PEI
NOVA SCOTIA
NEW BRUNSWICK
Legend
Protected area proposals
Regional protected area plans or landscape-scale plans that include proposed protected areas
Examples of areas where land trusts have plans in place and are working to protect private lands
0 200 400 800 1,200 1,600
km

NOTES

NOTES

NOTES