University of Alberta

National Parks Legislation and the Protection of Canadian Biodiversity

by

Guang Yang ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements for the degree of Master of Laws.

Faculty of Law

Edmonton, Alberta

Spring 2002

University of Alberta

Library Release Form

Name of Author:	Guang Yang
Title of Thesis:	National Parks Legislation and the Protection of Canadian Biodiversity
Degree:	Master of Laws
Year this Degree Granted:	2002

YangGuang

Guang Yang

April 12, 2002

University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled *National Parks Legislation and the Protection of Canadian Biodiversity* submitted by Guang Yang in partial fulfilment of the requirements for the degree of **Master of Laws**.

Elaine L. Hughes

Guy S. Swinnerton

David R. Percy

Abstract

This thesis will demonstrate how Canada's national parks help to fulfill international obligations to conserve biodiversity by: describing the international commitments required by the Biodiversity Convention; examining Canadian national parks' changing objectives since their creation; demonstrating the ecological problems confronting today's national parks; and finally, exploring feasible legal ways trying to balance conflicts between human use and park resources protection in order to maintain parks' ecological integrity as well as conserve biodiversity.

This thesis will, in particular, examine national parks legislation to demonstrate that Canada's efforts at conserving its biodiversity are partly successful because of its protection of national parks. Also, this study briefly reviews other initiatives contributing to biodiversity conservation in the whole of Canada, such as the protection of marine conservation areas and species at risk. Via this analysis, it concludes that Canada's mechanisms for conserving its biodiversity will be much stronger not only by improving its exiting laws, but by passing the proposed laws specifically designed to protect wildlife species and their marine habitat, and by increasing cooperation with provinces.

ACKNOWLEDGEMENTS

There are many people who deserve to be thanked for making this thesis a reality.

First of all, I would like to thank Elaine L. Hughes, who is a professor in the Faculty of Law, University of Alberta. Professor Hughes is an environmental law expert in Canada. As my supervisor, she supervised me during the whole process of preparing and writing this thesis. She taught me how to do legal research and helped me develop my ideas into a detailed outline, and then reviewed all my chapter drafts until the whole thesis was finished. All my improvements, especially the enhancement of my English writing ability was contributed greatly by her help. I would like to say that this thesis would not have happened without her involvement.

Two individuals who also deserve special recognition are Linda C. Reif and Frederick DeCoste, who are both professors in the Faculty of Law, University of Alberta. Through their help, I was accepted to come to Canada to study law two years ago and was able to receive financial support during the past two years. I would like to thank them for their encouragement.

During the past year, I spent most of my time researching and writing this thesis in the Weir Law Library. I was very fortunate to obtain all the librarians' help when I had difficulty in finding particular documents. I would like to thank them all.

Also, I would like to express great appreciation to all Faculty members, most especially to the staff, Kim Wilson, Cheryl Robison, Sheila Parr, and Louisa Maciuk. Ann Wynn, who is a micro-computer specialist, also needs to be thanked.

Professor David R. Percy and Doctor Guy S. Swinnerton, who kindly agreed to be my thesis committee, deserve to be thanked too.

Finally, I would like to thank some of my friends. Glenroy Bastien, who is a second-year law student, helped me greatly on my ability to speak English. Huanchen Liu, who is a second-year computer science student, supported me with his excellent skills at using the computer system.

Table of Contents

Thesis Introduction

By 1992, humans had realized that some wildlife had become endangered, threatened or even extinct, which caused a loss of biodiversity and unbalanced the ecosystem. In response, the 1992 United Nations Convention on Biological Diversity[1] was signed by numerous countries, aiming at providing a blueprint for conserving biodiversity globally. Chapter 1 of my thesis addresses this international environmental issue. It identifies some of the international obligations required by the Biodiversity Convention. It also explores flaws of the Convention and argues that nations should act locally so that biodiversity can be conserved effectively. Chapter 1 further examines Canada's implementation of the Convention and, finally, argues that Canada needs to speed up fulfillment of its obligations to conserve biodiversity, which in part requires maintaining ecological integrity in Canada's national parks.

Chapter 2 of my thesis explores the creation and the evolution of national parks in Canada. From the initial purpose of obtaining economic benefits (by developing commercial uses and encouraging tourism in national parks), to the recognition of the need to provide wildlife with desirable habitat, national parks' objectives changed through Canada's history. Chapter 2 focuses on this process of change, and then examines the negative impacts on ecological integrity confronting Canada's national parks in modern times. This problem has its origins in the different philosophies of managing a park. Thus, the different standpoints, represented by conservationists, preservationists and recreationists, are explored in Chapter 2. The conclusion of this Chapter is that since the major conflict facing today's Canadian

---

[1] The Convention on Biological Diversity of the United Nations Conference on the Environment and Development, June 5, 1992, Art. 2, U. N. Doc. DPI/1307, reprinted in 31 I.L.M. 818.

national parks is between human recreational use and wildlife and natural resource protection, it is a challenge to Canadian law to balance these objectives.

Chapter 3 of my thesis then demonstrates that today's Canadian national parks legislation and policy have explicitly established that maintaining or restoring ecological integrity is the overriding priority when managing a national park. This evolution is traced from the first *National Parks Act* in 1930[2], through the 1964[3] and *1979 National Parks Policies*[4], to the 1988 *Amendment to the National Parks Act*[5], the 1994 *Guiding Principles and Operational Policies*[6], the 1998 *Parks Canada Agency Act*[7], the 1999 *Panel on Ecological Integrity Report*[8], and finally to the 2000 *Canada National Parks Act*[9].

However, merely making clear the management priority in law and policy is not strong enough to achieve national parks protection. As a result, Chapter 4 of my thesis explores visitor use management in national parks, because effectively managing human use is key to balancing the modern conflict. Since national parks can not sustain all types of human use and

---

[2] *National Parks Act*, S.C., 1930, c.33.

[3] National and Historic Parks Branch, *National Parks Policy* (Ottawa: Queen's Printer, 1964).

[4] Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979).

[5] *National Parks Act*, S.C., 1988, c.48.

[6] Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994).

[7] *Parks Canada Agency Act*, S.C., 1998, c.31.

[8] Parks Canada Agency, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks* Report of the Panel on the Ecological Integrity of Canada's National Parks (Ottawa: Minister of Public Works and Government Services Canada, 2000).

[9] *Canada National Parks Act*, S.C., 2000, c.32.

activities, the concepts of "allowable" and "appropriate" uses, as well as "basic and essential services" are examined in this Chapter. It furthers suggest the precautionary principle should be adopted as a rule for determining whether a particular type or level of human activity is appropriate in a specific national park. The zoning approach and the use of management plans are also explored as effective tools for managing a national park and balancing the conflict. In all, human use in national parks should be based on one principle: use without abuse.

Chapter 5 of my thesis focuses on current problems, such as parks boundaries that are not large enough to include all lands that need to be protected, and lands surrounding national parks which are not used for protection. These problems make national parks into ecological islands. Nevertheless, to maintain ecological integrity and conserve biodiversity, national parks need to be managed as the core in a greater ecosystem. Chapter 5 thus explores ecosystem-management and examines an ecological model. In addition, cooperation between the federal government and other levels of governments is an important issue discussed in this Chapter.

After examining all these issues above, the last Chapter focuses on the 2000 *Canada National Parks Act*. It compares the new Act with the old National Parks Act, to determine whether the 2000 Act helps resolve the existing problems. It also examines whether the 2000 Act effectively implements the obligations required by the Biodiversity Convention. The final conclusion, though there are still problems unresolved, is that the 2000 Act has contributed greatly to the framework for maintaining ecological integrity and therefore conserving biodiversity in national parks, primarily by making it clear that protection of ecological integrity in national parks is the first priority. In addition, it increases protection for wildlife and other park resources, it streamlines the mechanisms for park establishment and

enlargement, and it controls commercial development in park communities. Along with other proposed legislation on species at risk and marine conservation, this new Act is a key initiative toward fulfillment of Canada's international commitment to biodiversity conservation.

Finally, a brief note on terminology. Prior to 1998 "Parks Canada" was a federal government department; it is now a stand-alone Agency. In this thesis the term Parks Canada is used to describe both management structures, except if the new Agency's structure or powers may be of significance to the discussion, or where modern (post-1998) initiatives are the subject of comment.[10]

[10] See Chapter 3, section A.b.(f), *infra*.

Chapter I. Biodiversity Conservation

Introduction

This Chapter provides a general overview of biodiversity conservation. It will first define the concept of biodiversity, and outline its components. It will then address a general concern that the decline in biodiversity has become a serious international environmental issue. Second, it will identify some of the international obligations provided by the 1992 Convention on Biological Diversity[1], as well as explore some of its flaws. Third, this Chapter will argue that nations must act locally in accordance with the requirements of the Convention, in order to fulfill their commitments and to conserve biodiversity effectively.

After discussing the responsibilities required by the Biodiversity Convention, this Chapter will examine Canada's implementation of it. It will argue that although Canada was a major contributor to the Biodiversity Convention, it has been quite slow to take steps to fulfill its obligations. Finally, this Chapter attempts a general review of the national parks system in Canada and will also argue that national parks, as a key component of a whole system of protected areas, play a critical role in conserving biodiversity and ecological integrity.

A. Biological Diversity

a. The Concept of Biodiversity

Before beginning the discussion of the importance of conserving biodiversity, it is

---

[1] The Convention on Biological Diversity of the United Nations Conference on the Environment and Development, June 5, 1992, Art. 2, U. N. Doc. DPI/1307, reprinted in 31 I.L.M. 818. [hereinafter Biodiversity Convention].

necessary to define the term "biodiversity". Biodiversity is short for biological diversity and is defined as the variety and variability among living organisms occurring at different levels, including animal and plant species as well as the ecological complexes within which they live.[2] Article 2 of the United Nations Convention on Biological Diversity defines the term "biological diversity" as "the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."[3]

In general, biodiversity is a broad term that encompasses three main levels of diversity: genetic diversity, species diversity, and ecosystem diversity. Among them, genetic diversity is concerned with the richness of the gene pool in populations of a species; species diversity is generally understood as the number of fauna and flora in a region; and ecosystem diversity refers to the habitat and biological communities in a given area. These three levels are mutually dependent and together constitute the biodiversity of a region. Meanwhile, each type of diversity is of importance.[4]

b. Biodiversity Functions, but Diminishes

Biodiversity is very important for an ecosystem to function. As Dobson said, "biodiversity serves a myriad of useful functions in the contexts of local, regional and global

---

[2] Center for International Environmental Law, Biodiversity and Wildlife Program, website <http://www.ciel.org/Biodiversity/programbio.html>, visited on June 18, 2001.

[3] Biodiversity Convention, *supra* note 1, Article 2.

[4] Catherine J. Tinker, "Introduction to Biological Diversity: Law, Institutions, and Science" (1994) 1 Buffalo Journal of International Law 1 at 2-3. Landscape diversity is also recognized by many analysts.

ecosystems."[5] For instance, it helps maintain oxygen in the air, enrich the soil, and purify the water. It also helps provide for basic human needs, such as food, shelter, and medicine. Moreover, biodiversity has recreational, cultural, and aesthetic values.[6] Accordingly, biodiversity is an essential component of natural systems and it is well known that in many cases loss of a single species can alter the operations of an ecosystem. Furthermore, loss of several organisms will likely damage the entire ecosystem.[7]

Despite its obvious importance, biodiversity, in recent years, has diminished rapidly.[8] A major reason for this decline is that human beings fail to understand the relationships between them and nature. They ignore the fact that humans are one of the organisms living within a terrestrial ecosystem, but believe that creatures can be exploited to satisfy their needs and desires. This mentality and its corresponding behaviour have resulted in the rapid acceleration of biodiversity loss and species extinction.[9] The causes of biodiversity loss and

---

[5] Tracy Dobson, "Loss of Biodiversity: An International Environmental Policy Perspective" (1992) 17 North Carolina Journal of International Law and Commercial Regulation 277 at 278-279.

[6] Biodiversity and Wildlife Program website, *supra* note 2.

[7] Dobson, *supra* note 5 at 280.

[8] According to a new report released by the North American Commission for Environmental Cooperation, North America is facing a "widespread crisis" due to its shrinking biodiversity. The report says, "[h]alf of North America's most biodiverse eco-regions are now severely degraded and the region now has at least 235 threatened species of mammals, birds, reptiles and amphibians. Remaining natural environments have been placed under enormous stress, and continued to be fragmented, polluted or damaged." North American Commission for Environmental Cooperation, Significant Biodiversity Loss Across North America, NAFTA Body's State of the Environment Report Says, website <http://64.4.20.250/cgi-bin/linkrd?_lang=EN&lah=4f9f4edd8a1b5fbdc503c6ce0145bd5a&lat=1011841928&hm__action=http%3a%2f%2fwww%2ecec%2eorg%2fsoe>, visited on January 8, 2002. [hereinafter CEC Report]

[9] *Ibid.*

species extinction resulting from human activities are numerous. Illegal hunting and human exploitation were reasons leading to the extinction of some plants and animals, but by far the major cause of species extinctions is the loss and fragmentation of their habitat.[10] For instance, national parks in North America, which provide key habitat for lots of wildlife, are suffering from overuse by human beings.[11] If the habitat damage continues, those species failing to adapt to their habitat change will be in danger of becoming extinct.[12] Unfortunately, in early days people did not realize that the loss of biodiversity could be detrimental to their own lives, and they did not regulate their behavior to stop damaging wildlife habitat. Thus, more than 10,000 species have become extinct and this figure has continued to increase at an alarming rate in recent years.[13] Globally, biodiversity loss has become a serious environmental issue and it is undeniable that human activities are responsible for the accelerating loss of global biodiversity.[14]

---

[10] Julie B. Bloch, "Preserving Biological Diversity in the United States: The Case for Moving to an Ecosystem Approach to Protect the Nation's Biological Wealth" (1992) 10 Pace Environmental Law Review 175 at 183. Also, the CEC Report shows that over the past few decades, the loss and alternation of habitat has become the main threat to biodiversity. CEC Report, *supra* note 8.

[11] CEC Report, *ibid.*

[12] Dobson, *supra* note 5, at 290.

[13] According to the statistics by the Biodiversity Resource Center at the California Academy of Sciences, website <http://cas.calacademy.org/<<degrees>>library/biodiv/biodiv.html>, visited on June 18, 2001.

[14] The report continues, "[t]he decline in habitat, plus species hunting and harvesting practices, has led to a widespread crisis not confined to any one country or region." CEC Report, *supra* note 8.

B. Biodiversity Conservation[15]

a. Initiatives at the Global Level

(a) Overview

Before a specific treaty aimed at protecting global biodiversity was created, a good many international treaties had been negotiated to protect species and their habitat. The Convention on the Conservation of Migratory Species of Wild Animals[16], and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)[17], both mainly attempted to provide protection against over-exploitation of species by humans and have been categorized by Bodansky as "wildlife protection treaties".[18] Other treaties were specially developed to conserve wildlife habitat, such as the Convention on Wetlands of International

---

[15] The idea of biodiversity conservation is relatively new compared with other environmental protection issues. It builds on the conservation movement's core thought that resources should be scientifically (namely rationally) managed to serve the public interest. A. Dan Tarlock, "Environmental Protection: The Potential Misfit Between Equity and Efficiency" (1992) 63 University of Colorado Law Review 871 at 879.

[16] The Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, 19 I.L.M. 15 [hereinafter Bonn Convention]. The parties to the Bonn Convention are to act within the Convention's framework to conserve migratory species and their habitat. Parties can undertake to (1) adopt strict measures protecting migratory species categorized in Appendix I as endangered and (2) adopt agreements to conserve and manage migratory species whose conservation status is unfavourable or which would significantly benefit from international cooperation. Lyle Glowka, Françoise Burhenne-Guilmin, and Hugh Synge in collaboration with Jeffrey A. McNeely and Lothar Güünding, *A Guide to the Convention on Biological Diversity* (Gland, Switzerland: IUCN - the World Conservation Union, 1994) at 110.

[17] The Convention on the International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 993 U.N.T.S. 243, reprinted in 12 I.L.M. 1085 [hereinafter CITES]. CITES regulates international trade of all species listed in its Appendices (I, II and III). Appendix I lists species threatened with extinction which are or my be affected by trade. Trade in these species is banned except in exceptional circumstances, in accordance with the provisions of the Convention. Appendix II lists species not yet threatened with extinction, but which may become so unless their trade is subject to regulation within its jurisdiction to prevent or restrict exploitation, and which require the cooperation of the other CITES parties in the control of international trade. *Ibid.*

[18] Daniel M. Bodansky, "International Law and the Protection of Biological Diversity" (1995) 28 Vanderbilt Journal of Transnational Law 623 at 627.

Importance Especially as Waterfowl Habitat[19], and the Convention Concerning the Protection of the World Cultural and Natural Heritage[20]. These treaties are categorized as "habitat protection treaties", according to Bodansky, because they generally establish a system for countries to designate protected areas.[21]

Despite the existence of these treaties since the 1970s, it seemed that the system was still weak in preventing biodiversity from declining. This situation was recognized by the IUCN[22] in its 15th Session of the General Assembly as "rapidly increasing human population, wasteful consumption, misuse of technologies and over-exploitation of natural resources lead to soil erosion, desertification, deforestation, loss of cropland, degradation and destruction of species and ecosystems which prejudice the future of mankind."[23] The IUCN therefore urged states to

---

[19] The Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Feb. 2, 1971, 996 U.N.T.S. 245, reprinted in 11 I.L.M. 963 (1972) [hereinafter Ramsar Convention]. The Ramsar Convention requires each party to promote the conservation of internationally important wetlands and the wise use of all wetlands within its territory. Conservation measures are to be established in wetland areas to promote wetland and waterfowl conservation. Each party designates at least one wetland area of international significance to be included on the world list maintained under the Convention. Glowka, et al., *supra* note 16, at 110.

[20] The Convention Concerning the Protection of the World Cultural and Natural Heritage, Nov. 23, 1972, 1037 U.N.T.S. 151, reprinted in 11 I.L.M. 1358 [hereinafter World Heritage Convention]. The World Heritage Convention requires parties to take steps to identify, protect, conserve, present and transit to future generations the cultural and natural heritage within their territories. Cultural and natural areas of outstanding universal value are eligible for listing on the World Heritage List and the Convention establishes the World Heritage Fund which can be used by the World Heritage Committee to assist countries with establishing and conserving World Heritage Sites. *Ibid.*

[21] Bodansky, *supra* note 18, at 628.

[22] IUCN is an abbreviation of the "International Union for Conservation of Nature and Natural Resources". This World Conservation Union was founded in 1948, aimed at ensuring the conservation of nature, and especially biological diversity, as an essential foundation for the future. IUCN, website <http://www.iucn.org>, visited on March 27, 2002.

[23] IUCN, 15th Session of the General Assembly of IUCN Christchurch, New Zealand, 11-23 October 1981, website< http://www.iucn.org/Resolutions/IUCN_ENx/00000006/00000006.pdf>, visited on March 27, 2002.

act further to adhere to the existing treaties.[24] However, some analysts suggested that there should be a convention serving as an umbrella agreement by consolidating the many existing wildlife treaties.[25]

(b) Biodiversity Convention

In 1992, the Biodiversity Convention was signed at the United Nations Conference on Environment and Development, and is regarded as the preeminent international agreement on biodiversity conservation.[26] However, this Convention has built upon, rather than replaced the existing treaties.[27]

In the Preamble to the Biodiversity Convention, nations state their general concern that "biological diversity is being significantly reduced by certain human activities" and affirm that "the conservation of biological diversity is a common concern of humankind".[28] The Preamble continues by noting that "it is vital to anticipate, prevent, and attack the causes of significant reduction of loss of biological diversity at source."[29] Therefore, the Convention seeks to provide a legal framework for biodiversity conservation at the global level by outlining common goals.

Article 1 of the Biodiversity Convention sets out the Convention's objectives, including,

---

[24] *Ibid.*

[25] Bodansky, *supra* note 18, at 629.

[26] Kathleen Rogers & Dr. James A. Moore, "Revitalizing the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere: Might Awakening a Visionary but "Sleeping" Treaty be the Key to Preserving Biodiversity and Threatened Natural Areas in the Americans?" (1995) 36 Harvard International Law Journal 465 at 480.

[27] Bodansky, *supra* note 18, at 629.

[28] Biodiversity Convention, *supra* note 1, Preamble.

[29] *Ibid.*

> the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.[30]

The Convention then calls for countries to develop their national plans and policies for conservation and sustainable use of biodiversity. Article 6 says,

> [e]ach Contracting Party shall, in accordance with its particular conditions and capabilities: (a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, *inter alia*, the measures set out in this Convention relevant to the Contracting Party concerned, and (b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.[31]

According to these provisions, the contracting parties are required to incorporate biodiversity conservation into their national strategies, plans or programs to reflect the measures set out in the Convention. This article essentially creates an obligation for nations to prepare and adopt a national way to fulfill the Convention's obligations and achieve the Convention's objectives.[32]

The Biodiversity Convention further addresses the need to regulate human activities that threaten biological diversity. It requires contracting parties to identify and monitor activities that "have or are likely to have significant adverse effects" on biological diversity.[33]

---

[30] Biodiversity Convention, *supra* note 1, Article 1.

[31] *Ibid.*, Article 6.

[32] Glowka, et al., *supra* note 16, at 29.

[33] Biodiversity Convention, *supra* note 1, Article 7. "Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques."

Emphasis is placed on *in-situ* conservation by the Convention,[34] which calls for measures ranging from the establishment of a system of protected areas, to the rehabilitation of degraded ecosystems and recovery of threatened species, the protection of natural habitat and the maintenance of viable populations of species in natural surroundings.[35] Among these provisions, Article 8(k) requires contracting parties to provide legislation needed to protect threatened

---

[34] *Ibid.*, Preamble. "*In-situ conservation* means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties."

[35] *Ibid.*, Article 8.
"Each Contracting Party shall, as far as possible and as appropriate:
(a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;
(b) Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;
(c) Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;
(d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;
(e) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;
(f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, *inter alia*, through the development and implementation of plans or other management strategies;
(g) Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;
(h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;
(i) Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;
(j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;
(k) Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations;
(l) Where a significant adverse effect on biological diversity has been determined pursuant to Article 7, regulate or manage the relevant processes and categories of activities; and
(m) Cooperate in providing financial and other support for *in-situ* conservation outlined in subparagraphs (a) to (l) above, particularly to developing countries."

species and populations. This is an important rule provided by the Convention because when states take actions to conserve biodiversity, laws become one of the most effective measures.[36] *Ex-situ* conservation measures[37] are also required by the Convention.

In accordance with the Biodiversity Convention, countries are directed to minimize the adverse impacts of resource use on biodiversity,[38] and to conduct research compatible with the goal of biodiversity conservation and the sustainable use of its biological components[39].

In all, the Biodiversity Convention is a landmark from several points of view. For example, it is the first time that biodiversity has been comprehensively addressed in a binding global treaty. It is also the first time that the conservation of biodiversity is recognized as the common concern of all humankind.[40]

(c) Flaws

With its forty-two legally binding articles involving a wide range of biodiversity issues, the Biodiversity Convention has drawn the outline for conserving biodiversity at the global

---

[36] Glowka, et al., *supra* note 16, at 49.

[37] Biodiversity Convention, *supra* note 1, Preamble. "*Ex-situ conservation* means the conservation of components of biological diversity outside their natural habitats."

[38] *Ibid.*, Articles. 10 &14. Article 10 requires that "[e]ach Contracting Party, as far as possible and as appropriate, shall: (a) Integrate consideration of the conservation and sustainable use of biological resources into national decision-making; (b) Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity." Article 14 requires that "[e]ach Contracting Party, as far as possible and as appropriate, shall: (a) Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures."

[39] *Ibid.* Article 12.

[40] Glowka, et al., *supra* note 16, at 3.

level. However, it failed to fully detail those provisions.[41] For example, statements provided by the Convention are mostly in the form of broad goals and procedures. Some statements are only included in the Preamble, which have no binding authority.[42] Moreover, the Convention is short of substantive requirements on how countries could incorporate the biodiversity conservation mission into their domestic law and projects. In addition, the language adopted by the Convention is very loose and general, containing qualifying terms like "as far as possible and appropriate...", which creates a lack of effectiveness. In all, in its present form, the Convention contains serious defects, which could prevent it from adequately being implemented. As one commentator indicated, "[t]he Convention's provisions establish minimum, not maximum standards. They are too general and limited to be final goals. Instead, they are starting points, seeds that must grow and reproduce."[43] Thus, more actions must be taken in order that the Biodiversity Convention can serve as a mechanism which is workable to promote the biodiversity conservation goals. In particular, strong domestic implementation will be needed.

b. Actions at the National Level

As noted above, provisions in the Biodiversity Convention are mostly expressed as general goals. For example, unlike the CITES, which restricts international trade of species

---

[41] Michael A. Gollin & Sarah A. Laird, "Global Policies, Local Actions: The Role of National Legislation in Sustainable Biodiversity Prospecting" (1996) 2 Boston University Journal of Science and Technology Law 16 at paragraph 14..

[42] "In any convention, the preamble is part of the legal agreement, but it does not itself establish binding obligation. Instead, it is where the negotiating States set out their concerns and motivations. In particular, it is where they outline the issues to be addressed and justify the need for a convention." Glowka, et al., *supra* note 16, at 9.

[43] David Downes, "Biodiversity Symposium: The Convention on Biological Diversity: Seeds of Green Trade?" (1994) 8 Tulane Environmental Law Journal 163 at 167.

listed in its Appendices, the Biodiversity Convention has no lists, nor Annexes about species to be protected. Accordingly, the Biodiversity Convention leaves it up to contracting parties to determine how most of its provisions are to be implemented.[44] In accordance with Article 6, actions should be taken by nations locally. It is also true that "global initiatives are generally inadequate without national actions attuned to the different needs of each locality."[45] The emphasis on national action is desirable for several reasons. First, although biodiversity resources are viewed as a global resource, they are indeed located primarily within national jurisdictions.[46] Second, it is arguable that rather than abiding by a global treaty, nations are more likely to adhere to their national strategies, plans or programmes. Third, the conservation of biodiversity is a very complex issue, and the exact tasks needed can better be determined and carried out at the national level.[47] Therefore, effectively conserving biodiversity, to a great extent, depends on national actions.

According to the Convention[48], if a state produces a national project or implements domestic legislation or policies to address the conservation of biodiversity, that state has fulfilled a portion of the obligations required by the Convention. However, an international treaty can not force nations to take action they do not otherwise want to do; all actions depend

---

[44] Glowka, et al., *supra* note 16, at 1.

[45] Gollin, et al., *supra* note 41, at paragraph 2.

[46] Victor M. Marroquin-Merino, "Wildlife Utilization: A New International Mechanism for the Protection of Biological Diversity" (1995) 26 Law and Policy in International Business 303 at 309.

[47] Glowka, et al., *supra* note 16, at 5.

[48] Biodiversity Convention, *supra* note 1, Article 6.

on each nation's decision to implement the treaty in good faith.[49] It thus seems that national initiatives will eventually determine the strength or weakness of the Convention.

This thesis will now turn to Canada's actions to address this issue, and thus Canadian domestic strategies, laws, and policies on biodiversity conservation are the main focus. Specifically, Canadian national parks, and their role in conserving biodiversity and ecological integrity, will be discussed. It is obvious that the biodiversity protection issue does not merely fall within the exclusive duties of the federal government, since provincial and local governments also have authority to act. Thus, provincial strategies, laws, and policies are of great importance to the overall framework, within which the federal National Parks are just one small part. So although this thesis will focus on exploring Canadian national parks, it must be recognized that provincial parks and other protected areas are also significant to protect biodiversity in the whole of Canada.

C. Canada's Commitments

a. Canada's Biodiversity Strategy

Internationally, conserving biodiversity has been recognized as an urgent mission. As outlined above, Article 8 of the Biodiversity Convention commits party nations to a variety of obligations, which include protecting ecosystems and natural habitat, as well as maintaining viable populations of species. The obligations also include rehabilitating and restoring degraded ecosystems, fostering the recovery of threatened species, preventing the introduction of non-

[49] Bodansky, *supra* note 18, at 631.

native species, and passing legislation to protect threatened species.[50] In signing the Biodiversity Convention, Canada committed to conserving its biodiversity and thus has the responsibility to protect plant and animal species, as well as the habitats and processes sustaining them. According to the 1994 *Guiding Principles and Operational Policies*, Parks Canada[51] has assumed the obligation to implement the Biodiversity Convention. It says,

> ... Parks Canada plays a major role in implementing the Convention on Biological Diversity, adopted in Rio de Janeiro in 1992. ...In fulfilling its mission in this regard, Parks Canada promotes the protection of ecosystems and natural habitats, the maintenance and recovery of viable wild populations of species in natural settings, as well as the environmentally sound management of surrounding or adjacent areas.[52]

Thus, the policies of the federal government have the same objective as the Biodiversity Convention to support biodiversity conservation.

In addition, federal government has passed several acts, such as the *Canada Wildlife Act*[53], the *Migratory Birds Convention Act*[54], and the *Fisheries Act*[55], to address different kinds of species protection issues. Recently, the *Species at Risk Act*[56] has been introduced into

---

[50] Biodiversity Convention, *supra* note 1, Article 8.

[51] As mentioned in the Introduction, Parks Canada here refers to the organization made up of federal bureaucrats working with the usual departmental structure of government. After 1998, a new Agency was established, which is called the Parks Canada Agency. See Chapter 3, section A.b.(f), *infra*.

[52] Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994) at 9. [hereinafter Parks Policy]

[53] *Canada Wildlife Act*, R.S.C., 1985, c. W-9.

[54] *Migratory Birds Convention Act*, S.C., 1994, c. 22.

[55] *Fisheries Act*, R.S.C., 1985, c. F-14.

[56] Bill C-5, *An Act Respecting the Protection of Wildlife Species At Risk in Canada*, 1 st Sess., 37 Parl., 2001, 1 st reading 2 February 2001.

Parliament to provide the legislative framework for fulfilling the government's commitment to protect endangered species in Canada. Also, a *National Marine Conservation Areas Act*[57] is being proposed in order to protect Canada's marine conservation areas.

Meanwhile, in accordance with the Biodiversity Convention, party nations are required to prepare a national strategy to conserve biodiversity.[58] Thus, as a party to the Convention, Canada developed the *Canadian Biodiversity Strategy*[59] in 1995. The 1995 Strategy outlines a variety of approaches for the conservation of biological resources, including the roles of science, ecosystem management, legislation and regulation, education and international cooperation. It is regarded as a guide to implementing the Biodiversity Convention.[60]

The Biodiversity Convention also requires states to develop guidelines for the selection, establishment and management of protected areas.[61] Those guidelines should include maintaining ecological integrity, and thus conserving the entire ecosystem, and its species and genetic diversity. In Canada, national parks, as one part of a system of protected areas[62], play a major role in conserving Canada's biodiversity.

---

[57] Bill C-10, *An Act Respecting the National Marine Conservation Areas of Canada*, 1 st Sess., 37 th Parl., 2001, 1 st reading 20 February 2001.

[58] Biodiversity Convention, *supra* note 1, Article 6.

[59] *Canadian Biodiversity Strategy, Canada's Response to the Convention on Biological Diversity* (Ottawa: Minister of Supply and Services Canada, 1995).

[60] Environment Canada, Conserving Wildlife Diversity - Implementing the Canadian Biodiversity Strategy, website <http://www.ec.gc.ca/press/conserv_b_e.htm>, visited on October 30, 2001.

[61] Biodiversity Convention, *supra* note 1, Article 8.

[62] According to the Biodiversity Convention, protected areas are "a geographically defined area which is designated or regulated and managed to achieve specific conservation objections." Biodiversity Convention, *ibid* Article 2.

b. Using National Parks to Conserve Biodiversity

(a) National Parks, Their Biodiversity and Ecological Integrity

In fact, national parks are becoming increasingly important in both national and international efforts to conserve biodiversity. National parks are

> natural areas of lands and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations; (b) exclude exploitation or occupation inimical to the purposes of designation of the areas; and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.[63]

National parks play an important role in conserving biodiversity in Canada. It is stated that "[n]ational parks ... have a mandate to be representative examples of Canada's natural regions. This implies that all native biodiversity is present at viable population levels, and ecological processes are present to support those populations."[64] This statement describes the national parks' functions; it then indicates that conserving its biodiversity is supposed to be a long-term task in a national park. As we shall see, within national parks, maintaining ecological integrity is also a legal requirement, which constitutes an important part of Canada's national and international commitments to conserve biodiversity.

The concept of ecological integrity, based on biological understanding, refers to maintaining whole and complete biological systems, including species, landscape elements and processes. The *State of Protected Heritage Areas 1999 Report* describes ecological integrity as "a condition of an ecosystem where the structure and function of the ecosystem are

---

[63] IUCN, The World Conservation Union, *Guideline for Protected Areas Management Categories*, 1994.

[64] Robert Page, Suzanne Bayley, J. Douglas Cook, Jeffrey E. Green, and J.R. Brent Ritchie, *Banff-Bow Valley At the Crossroads* (Ottawa: Minister of Supply and Services Canada, 1996) at 155.

unimpaired by human activity, and the ecosystem's biological diversity is likely to persist."[65] Accordingly, there are a number of qualities that an ecosystem with ecological integrity should possess, one of which is biological diversity.[66] In turn, if national parks are to conserve biodiversity, their ecological integrity must remain intact. These two conditions are interrelated. In a word, maintaining ecological integrity involves conserving the diversity of genes, species and ecosystems and that is the commitment made for national parks.

(b) National Parks System

Canada has tried to fulfill its international obligations of biodiversity conservation through its national parks system. Canada's national parks system began in 1885 when the federal government reserved 26 square kilometers around the mineral hot springs near the Banff townsite.[67] The Banff Hot Springs Reserve was officially set aside for public use by the *Rocky Mountains Park Act of 1887*.[68] When the first *National Parks Act* was introduced in 1930[69], there were 14 parks. Today, there are 39 national parks in Canada. These 39 national parks and reserves cover 244,540 square kilometers and represent approximately 2.6 per cent of Canada's

---

[65] Parks Canada Agency, *State of Protected Heritage Areas 1999 Report* (Ottawa, Parks Canada Agency, 2000) at 19. [hereinafter 1999 Report]

[66] Others are ecosystem health, including the ability to evolve, develop, and adapt to change; the ability of plant and animal communities to resist or adapt to stresses and change; the ability of plants and animals to sustain healthy populations; and the integration of people into the environment in ways that sustain both human quality of life and biological diversity. Parks Canada, *Jasper National Park of Canada Management Plan* (Ottawa: Minister of Public Works and Government Services Canada, 2000) at 9.

[67] Parks Canada, *National Park System Plan* (Ottawa: Minister of Supply and Services Canada, 1997), at 3. [hereinafter System Plan]

[68] *Rocky Mountain National Park Act*, S.C., 1887, c.32.

[69] *National Parks Act*, S.C., 1930, c.33.

whole land mass.[70] Also, there is evidence to show that national parks contain a majority of Canada's native land and fresh water plants (approximately 70 per cent) and animals (approximately 80 per cent).[71] Large numbers of endangered or threatened species inhabit national parks too. For example, Canadian national parks contain a majority of species at risk (56.9 per cent of vascular plants and 48.4 percent of vertebrates) in Canada.[72]

It seems that with their wide distribution across the whole country, as well as the species richness within the park boundaries, Canadian national parks contribute to biodiversity conservation.

c. The Slow Steps

Despite these efforts, Canada's environment and its biodiversity are still in jeopardy. A new study comparing Canada's environmental records to those of other industrialized countries ranks Canada as the second worst.[73] Although the study concludes that "major strides have been made in Canada in creating new protected areas with the percentage of land protected has increased 42% since 1983", a problem is also noted by the study that "less than half of the area protected in Canada meets international standards for strict protection".[74] Furthermore, the

---

[70] Parks Canada Agency, *Parks Canada Agency Annual Report 1999-2000*, website <http://parkscanada.pch.gc.ca/Library/DownloadDocuments/DocumentsArchive/PCA_99_00report_e.pdf>, at 7 visited on July 20, 2001.

[71] *Ibid.*

[72] 1999 Report, *supra* note 65, at 20.

[73] Eco-Research Chair of Environmental Law and Policy, University of Victoria, *Canada vs. The OECD: An Environmental Comparison*, website <http://www.environmentalindicators.com/htdocs/execsum.htm>, visited on March 27, 2002.

[74] *Ibid.*

study shows that the number of endangered species on Canada's national list increased from 178 species in 1988 to 364 in 2000.[75] It is thus clear that Canada's steps to protect its biodiversity and protected areas are still slow.

One reason is that, apart from national parks, there are some other areas which need to be protected. These areas include provincial parks, wildlife management areas, heritage rivers, wilderness areas, marine conservation areas, and special management areas established under First Nations' land claims, which together with national parks constitute a network of protected areas system in Canada.[76] However, not all of Canada's ecological regions are represented in the existing protected areas network. For example, Canada has not yet finished completing its national parks system. Parks Canada has identified 39 terrestrial natural regions across Canada based on geology, physiography and vegetation and intends to establish at least one national park in each natural region.[77] To date, only 25 of these natural regions are represented by the existing 39 national parks. Fourteen natural regions are not yet represented by a national park (because a number of natural regions are contained in two or more national parks).[78]

Additionally, the progress towards completing the national parks system is a complex

---

[75] *Ibid.*

[76] Parks Canada Agency, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks* Report of the Panel on the Ecological Integrity of Canada's National Parks (Ottawa: Minister of Public Works and Government Services Canada, 2000) Vol. II Chapter 8, at 2.

[77] Parks Policy, *supra* note 52, at 25.

[78] *Parks Canada Agency Corporate Plan 2000/01-2004/05*, website <http://www.parcscanada.gc.ca/library/DownloadDocuments/DocumentsArchive/PC_CorporatePlan2000_e.pdf>, at 24, visited on July 18, 2001.

issue that can not be determined solely by the Parks Canada Agency.[79] A major problem is that there is little land now in Canada that does not have some sort of interest or commitment for uses such as oil and gas development, mining, hydro-electricity, forestry, agriculture and private recreation. When resource industries find potentially profitable natural resources in an area, they usually pressure the government to disestablish a national park.[80] Also, similar pressure comes from commercial tourism companies when they believe establishing a new national park will reduce the benefits to be made from tourism. Moreover, the public at large may have an objection if their recreational opportunities are impaired. Canada's aboriginal people will even disagree about limiting their "traditional use" of park resources and this may result in reductions to the area available for national parks.[81] These political tensions have been evident throughout the national park system's first hundred years, and are still a problem.[82] A legal issue contributing to the problem is that, land-use and jurisdictional conflicts have to be resolved by the federal government in cooperation with the provincial and territorial governments, and the concerns of local residents have to be addressed.[83] All these issues make the steps of acquiring lands to establish new national parks and completing the national parks system slow.

As a result, habitat loss still happens, and the population of wild species continues to decrease. Overall, Canada's steps toward meeting its international obligations under the

[79] See Elaine L. Hughes, "Environmental Protection in National Marine Parks" (1992) 41 UNB Law Journal 41 for a detailed discussion.

[80] L. Bella, *Parks for Profit* (Montreal: Harvest House, 1987) at 158.

[81] *Ibid.*

[82] *Ibid.*

[83] System Plan, *supra* note 67, at 10.

Biodiversity Convention are still slow, notwithstanding that it was a major contributor to the process by which agreement on biodiversity conservation was reached.

Conclusion

Recognizing that biodiversity is important to human beings, this chapter shows that although the Biodiversity Convention offers a blueprint for global biodiversity conservation, it is heavily reliant on national actions. Canada is taking steps to abide by Article 6 of the Convention to incorporate biodiversity conservation into its national projects, which contributes to fulfilling the treaty obligations. Although Canada's steps are slow and there are gaps which need to be bridged, Canada has actually tried to design a biodiversity strategy and establish its national parks system as part of a protected areas network. However, maintaining the integrity of biodiversity is not simply a matter of establishing protected areas. Problems in national parks' management exist. For instance, the conflict between human use and natural resources protection is still fierce. Meanwhile, there exist arguments about national parks' objectives, namely, whether maintaining biodiversity and ecological integrity should be given the overriding priority, or whether providing for human uses should take a major place. In all, Canada needs to attach more importance to its national parks' management since national parks play such a critical role in maintaining biodiversity and ecological integrity both nationally and globally. It is also necessary to complete the network of protected areas, in order that biodiversity conservation can be implemented effectively through an ecosystem-based management model, within that larger system. These issues are the next subjects of discussion.

Chapter II. Purposes of and Conflicts within National Parks

Introduction

Since the establishment of Banff National Park in 1885, Canada has continued to make efforts to develop its individual national parks and its national parks system. In the eyes of Canadians, national parks are a source of inherent beauty and national pride which, as some of the world's greatest natural treasures, are favourite destinations of both Canadian tourists and international visitors.[1]

Yet national parks in Canada were established for a variety of reasons, some of which had caused barriers for ecosystem protection. Initially, Canadian national parks were created for profit because they could bring about economic benefits - both from tourism activities and from commercial use of park resources.[2] Parks also provided visitors with opportunities for outdoor recreation and appreciation of nature. Although national parks exist for public enjoyment, they are also places inhabited by wildlife. Some are havens for endangered and threatened species.[3] Therefore, national parks serve non-profit oriented objectives, such as protecting those endangered and threatened species living within park confines.

This Chapter focuses on the creation and the evolution of national parks in Canada. The initial purposes behind the establishment of national parks will be briefly discussed. The conflict between human use and nature preservation will also be explored, by examining the

---

[1] *State of the Parks 1997 Report* (Ottawa: Minister of Public Works and Government Services Canada, 1998) at 1. [hereinafter 1997 Report]

[2] L. Bella, *Parks for Profit* (Montreal: Harvest House, 1987) at 1.

[3] 1997 Report, *supra* note 1, at 9.

negative impacts and threats confronting national parks and wildlife resulting from human use. In order to do to this, arguments between conservationists, preservationists, and recreationists are reviewed by providing their respective viewpoints on the objectives of national parks. Finally, the conclusion will show that the conflict between human use and ecosystem protection should be balanced by law, in order to provide desirable habitats for wildlife in national parks.

A. Purposes of National Parks

a. The Initial Purposes of National Parks

In the late 1800s, the national park idea was born in an environment of unbridled industrial development.[4] The year 1872 saw Yellowstone National Park created in the United States. This park was regarded as the world's first national park. With respect to Canada, the impetus for its first national park was the discovery of a hot springs by two employees of the Canadian Pacific Railway in 1883.[5] The federal government denied those two employees' claim to reserve the hot springs for their personal profit and commercial development. Instead, in November 1885, the federal government reserved 26 square kilometres areas around the hot springs in order to exploit the economic profit for government benefit.[6] Two years later,

---

[4] Parks Canada Agency, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks* Report of the Panel on the Ecological Integrity of Canada's National Parks (Ottawa: Minister of Public Works and Government Services Canada, 2000) Vol. I, at 3-4. [hereinafter Panel Report]

[5] Philip Dearden & Rick Rollins, eds., *Parks and Protected Areas in Canada Planning - Planning and Management* (Toronto: Oxford University Press, 1993) at 8.

[6] *Ibid.*, at 8-9.

in 1887, Parliament passed the *Rocky Mountains Park Act*[7], which officially set aside the Banff Hot Spring Reserve as "a public park and pleasure ground for the benefit, advantage and enjoyment of the people of Canada."[8] Under this legislation, the federal government could make rules for preserving some of the park's natural features and to control the cutting of timber. This was regarded as an acknowledgement of the need to conserve park resources, though during that time, "preserving natural scenery was being done to retain the park as a tourist attraction".[9] The *Rocky Mountains Park Act* marked the creation of Canada's first national park, and the 1930 *National Parks Act*[10] officially established the Banff National Park.[11]

It is obvious that Banff National Park, like Yellowstone National Park in the United States, was established by emphasizing the nation's beauty for the enjoyment of the population. Some scholars even believed that Yellowstone was used as a model for Canada's first parks.[12] However, the motives of these two countries were somewhat different. In addition to displaying nature's beauty, the Canadian government saw a commercial

---

[7] *Rocky Mountain National Park Act*, S.C., 1887, c.32.

[8] *Rocky Mountain National Park Act*, S.C., 1887, c. 32., s. 2.

[9] Kevin McNamee, *From Wild Places to Endangered Spaces - A History of Canada's National Parks* in Dearden, et al., *supra* note 5, at 20.

[10] *National Parks Act*, S.C., 1930, c.33.

[11] Parks Canada, *National Park System Plan* (Ottawa: Minister of Supply and Services Canada, 1997) at 3. [hereinafter System Plan]

[12] W. F. Lothian, *A Brief History of Canada's National Parks* (Ottawa: Minister of Supply and Services Canada, 1987) at 23.

opportunity and thereby created parks for the benefit of the national economy.[13] Thus, timber cutting, mineral development, and grazing were allowed in early national parks.[14] In addition, tourism and the associated economic returns are also a continuing reason for establishing national parks in Canada.[15]

b. Changing Objectives with National Parks' Development in the Early Days

Between 1911 and 1936, J. B. Harkin, the first Commissioner of the Canadian National Parks, emphasized recreational uses in national parks. Harkin regarded recreational development as a viable means of providing the interest in (and funding to develop) the national parks system. He said,

> the day will come when the population of Canada will be ten times as great as it is now, but the national parks ensure that every Canadian ... will still have free access to vast areas possessing some of the finest scenery in Canada, in which the beauty of the landscape is protected from profanation, the natural wild animals, plants, and forests preserved, and the peace and solitude of primeval nature retained.[16]

As a result, the period after 1910 experienced increased tourism and commercial development in the national parks system.[17] The construction and expansion of roads and other facilities was encouraged during this period. For instance, the Banff Springs Hotel and Chateau Lake Louise were built to draw tourists to the park, and the Banff-Radium and Banff-Jasper highways were

---

[13] Maria Theresia Kothbauer, *National and Provincial Park Service Responses to Human-Induced Ecological Change in Ontario* (University of Guelph, 1988) at 9.

[14] McNamee, *supra* note 9, at 20.

[15] Lothian, *supra* note 12, at 25; also Bella, *supra* note 2, at 1.

[16] Panel Report, *supra* note 4, Vol. II Chapter 1, at 1.

[17] J. G. Nelson, "Canada's National Parks: Past, Present and Future" (1973) 86 Canadian Geographical Journal at 69-89.

built in the 1920s and 1930s to make transportation more convenient.[18] This period also saw the Canadian national parks system expanded to thirteen parks, with legislation favourable to facilitate further expansion.[19] By 1930, the following parks had been established: Banff (1885), Yoho (1886), Waterton Lakes (1895), Jasper (1907), Elk Island (1913), Mount Revelstoke (1914), St. Lawrence Islands (1914), Point Pelee (1918), Kootenay (1920), Wood Buffalo (1922), Prince Albert (1927), Riding Mountain (1929) and Georgian Bay Islands National Park (1929).[20]

However, the concepts of conservation and preservation were in the embryonic stage during the 1930s.[21] Section 4 of the 1930 *National Parks Act*, referred to as the "dedication clause", stated,

> [p]arks are hereby dedicated to the people of Canada for their benefit, education, and enjoyment, subject to the provisions of this Act and Regulations, and such Parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations. [22]

However the ambiguity of this phrasing made park managers confused about the objectives, and the functions, of national parks. The 1930s represented a decade of few commercial developments because of the increased interest in conserving and preserving nature in Canada, but only two parks were created: the Cape Breton Highland National Park in 1936, and Prince

---

[18] *Ibid.*

[19] *Ibid.*

[20] 1997 Report, *supra* note 1, at 12.

[21] Stephen W. Boyd, *Sustainability and Canada's National Parks: Suitability for Policy, Planning and Management* (University of Western Ontario, 1995) at 19-20.

[22] *National Parks Act*, *supra* note 10.

Edward Island National Park in 1937.[23]

The 1940s and 1950s experienced a great deal of economic growth and development in North America. Meanwhile, the interest in conservation was less prevalent. By the 1950s, postwar prosperity attracted more tourists to national parks. During this period, parks were established for a variety of purposes, such as to protect scenery for national and international tourist resorts, to provide regional recreational use, to create sanctuaries for wildlife, and to stimulate flagging economies.[24] However, national parks were not explicitly linked to protecting natural resources or biodiversity within them, but predominately to economies. Two more parks were established by the end of the 1950s, Fundy National Park in 1948 and Terra Nova National Park in 1957.[25]

No significant changes occurred until the 1960s. In 1962, Carson's book *Silent Spring*[26] was published in the United States, which promoted an environment protection movement in North America. Countries then began to pay more attention to protecting their natural environment. In Canada, as a reaction to the increased pressure resulting from visitors, the first statement of park policy appeared in 1964.[27] By the 1970s, the first real attempts to balance the conflict between preservation and visitor use in national parks began, as managers

---

[23] 1997 Report, *supra* note 1, at 12.

[24] System Plan, *supra* note 11, at 3.

[25] 1997 Report, *supra* note 1, at 12.

[26] R. Carson, *Silent Spring* (New York: Fawcett Crest, 1962).

[27] National and Historic Parks Branch, National Parks Policy (Ottawa: Queen's Printer, 1964). [hereinafter 1964 Policy]

tried to solve the problem caused by the vague language in the 1930 Act, which was reflected in the 1979 *Parks Canada Policy*.[28] The chosen approach involved setting aside some areas with primarily preservation purposes, and others for recreation and visitor facilities.[29] Also, the concept of a parks system plan was introduced in this policy. Prior to the issuing of the parks system plan, each national park was managed as an individual entity. Now, with the system approach, each park became part of a system nationwide, which reflected a concern for protecting natural resources in the whole country. Detailed discussion about the 1979 Policy will be in Chapter 3.

c. Clear Objective of Parks Today in Law

By the 1980s, Canadian legislation and policy moved to protect park natural resources more strongly. The 1988 amendment to the National Parks Act[30] seemed to solve the problem of confusing objectives that had resulted from the 1930 Act's "dedication clause", by adding and emphasizing *ecological integrity* as the first priority in specific fields of park management, as Section 5(1.2). However, the 1988 Amendment still had the same clause (Section 4) as the 1930 Act, which continued confusing park managers about the major objective when managing a national park. Were national parks to be "maintained ... unimpaired" or to be "made use of"? This problem went on until the late 1990s. In 1994, the Parks Canada *Guiding*

---

[28] Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979).

[29] Boyd, *supra* note 21, at 24.

[30] *National Parks Act*, S.C., 1988, c.48.

Principles and Operational Policies[31] provided a strong statement about ecological integrity. Later, the 1998 *Parks Canada Agency Act*[32] clarified the Parks Canada Agency's mandate, and the new 2000 *Canada National Parks Act*[33] made the parks' management objectives even clearer, to require maintaining or restoring *ecological integrity*. This process, and the corresponding law and policy, will be discussed in additional detail in Chapter 3.

Although it seems that the Parks Canada Agency officially and legally now adopts a more ecological approach, so that the formal objectives are clearer, an ongoing political pressure for more business and tourism expansion still exists, which continues to cause unceasing debate about park objectives.

B. Arguments Between Conservationists, Preservationists and Recreationists

The lack of clear objectives in park laws over the years is in part caused by the fact that different groups of people have different views about park purposes. People argued about the national parks purposes in the early days, and there are still on ongoing arguments. It is important to review these arguments, since these views influenced laws and policies.

a. Arguments Between Conservationists and Preservationists

As early as the 1890's, progressive conservation occurred in response to the

---

[31] Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994).

[32] *Parks Canada Agency Act*, S.C., 1998, c.31.

[33] *Canada National Parks Act*, S.C., 2000, c.32.

destruction of nature by the "utilitarian plunder economy".[34] Progressive conservationists, a group with the progressive ideas of rationality and science, urged the efficient management and "wise-use" of nature.[35] To them, "nature possessed no value other than economic; no purpose other than for human use."[36] Thus, the primary concern of progressive conservation was the use of natural resources for people.

Concurrent with the growth of progressive conservation, the preservation movement appeared, with the aim at protecting wild nature from the harmful effects of human consumption. Led by John Muir, preservationists were opposed to drawing economic values from nature, as advocated by their conservationist cousins. Instead, they upheld the need to preserve the aesthetic and spiritual values of nature.[37] The preservationists committed to making parks available for humans to enjoy aesthetic, spiritual, and recreational experiences.[38] To them, non-consumptive human use is an integral part of the objectives in parks, but is not

---

[34] William Andrew Shutkin, "The National Park Service Act Revisited" (1991) 10 Virginia Environmental Law Journal 345 at 347.

[35] Gifford Pinchot, *The Fight for Conservation* (Seattle: University of Washington Press, 1910) at 1-20, 40-52.

[36] Samuel P. Hays, *Conservation and the Gospel of Efficiency; the Progressive Conservation Movement, 1890-1920* (Cambridge: Harvard University Press, 1959).

[37] Shutkin, *supra* note 34, at 357-360.

[38] Preservation refers to all actions taken to retard deterioration of, or to prevent damage to, a natural or a cultural resource. Preservation encompasses conservation activities that consolidate and maintain the existing form, material and integrity of a resource. Preservation includes short-term protection measures as well as long-term actions. Preservation was often viewed in terms of recognition of limits on use, the need to address improper use, and to avoid inappropriate development within the parks. Panel Report, *supra* note 4, Appendix B, at 15.

the primary one.[39]

One thing which needs to be emphasized is that the term "use" means a different thing to the conservationists and preservationists. In the context of progressive conservation, use refers to a utilitarian or consumptive relationship to nature. That means using nature for materialistic and economic purposes. In contrast, use in the preservationist sense implies an aesthetic, spiritual, or recreational relationship to nature, which is not physically consuming or appropriating natural resources but enjoying them as they are. In all, the preservationists, like the progressive conservationists, do not oppose all forms of development in the parks. They believe that the public must be served, but they only welcome limited development which would facilitate access to the parks without negatively affecting the area.[40]

b. Arguments Between Recreationists and Pure Preservationists

Within both the preservationists and recreationists, there are divisions too. The recreationists and the pure preservationists are two distinct groups who have conflicting modes of thought. In part, recreationists view national parks as areas that should be open for everyone for recreational use.[41] They argue that national parks are created primarily for the enjoyment of the public and thus there should be no limitation on forms of non-consumptive recreational activities. The activities they favour include mountain biking, snowmobiling,

---

[39] Shutkin, *supra* note 34, at 360.

[40] *Ibid.*

[41] Recreation refers to a wide range of human activities that are undertaken for the pleasure of the persons involved. Recreational activities range from relatively structured games to individualized actions which are informal, spontaneous, and variable in location. Panel Report, *supra* note 4, Appendix B, at 15.

sightseeing by automobile, downhill skiing, golfing and using motorized off-road vehicles.[42]

Pure preservationists, on the other hand, regard national parks as windows through which "the nature of past, present and future are reflected."[43] They believe that preserving nature is the most important goal, and thus national parks should remain pristine. This does not mean that pure preservationists oppose any forms of activities in national parks. On the contrary, they would rather people could engage in limited recreational activities, and welcome controlled use that does not adversely affect parks. The difference from recreationists is that pure preservationists maintain that the preservation of nature, not the demands of visitors, should be the primary purpose of parks, and thus the type of recreational use should be confined to low-impact activities, such as picnicking, hiking, backpacking, canoeing and some forms of camping.[44] Accordingly, pure preservation implies not only the protection of nature but also limited use of it for spiritual and aesthetic pleasure.

Although both based on preservation, recreationists prefer developing non-consumptive recreational use, while pure preservationists would rather maintain the national parks pristine. In Canada, national parks are threatened by numerous stresses. Threats are not only caused from pressure for expanded or unlimited human use within park areas, but from activities outside. The increasing severity has influenced the government to shift to a more preservationist view of parks.

---

[42] Nathan L. Scheg, "Preservationists vs. Recreationists in Our National Parks" (1998) 5 Hastings West-Northwest Journal of Environmental Law and Policy 47 at 52.

[43] *Ibid.* at 47.

[44] *Ibid.* at 51-52.

C. Ecological Stresses - Negative Impacts Caused by Human Use

a. Overview

The extent of stresses on the national parks has been documented in the 1997 and 1999 State of the Parks reports.[45] Population growth, urban expansion, resource exploitation disturbances, and increased demand for leisure opportunities all intensify the stresses on the environment within and surrounding national parks.[46] According to the *State of the Parks 1997 Report*, only 1 out of the 38 national parks and park reserves in existence at that time (there are now 39) was considered to be in pristine condition. Of these 38 parks, 31 reported that increased ecological stresses since 1992 have contributed to a significant and accelerated loss in ecological integrity.[47] This implied the need for better biodiversity conservation.

Stresses originate from both inside and outside the parks. Stresses emanating from inside park boundaries are termed "internal threats", such as high levels of visitor use, and the existence of transportation corridors. Stresses from outside are called "external threats" and their sources range from the regional to the global. Threats arising from sources outside but close to the park boundaries are termed "local or regional external threats". Regional threats mainly come from human uses of the lands adjacent to national parks, such as urban development, logging, mining, agriculture, and transportation, which affect the ecosystems within park boundaries. Threats arising from sources distant from park boundaries are termed

---

[45] 1997 Report, *supra* note 1; Parks Canada Agency, *State of Protected Heritage Areas 1999 Report* (Ottawa: Her Majesty the Queen in Right of Canada, 2000).

[46] Panel Report, *supra* note 4, Vol. II Chapter 1, at 6.

[47] *Ibid.*, at 8.

"national or global threats". Global threats, such as long-range movement of air pollutants and climate change, also have negative impacts on ecological integrity within parks.[48]

b. Internal Threats

The earliest internal threat occurring in national parks was the poaching of wildlife. Another internal threat which affected many national parks in the early years came from resource extraction inside park boundaries. In the late 1800's, a "conservationist" management of national parks did not initially rule out various types of resource development, so mining and timber harvesting were conducted in many parks.[49] For example, forestry operations continued inside some national parks until the 1960's. Later, as the understanding of nature preservation grew, Canadians came to recognize that Canada's wild areas are not endless and therefore national parks should be protected from human uses.[50] In response, in 1964, the first national parks policy was created to provide more guidance on protection rather than human use. The 1964 park policy recognized the inherent conflict between logging operations and preservation and took a firm stand against logging in the parks by saying "[t]he existence of licensed timber berths is not consistent with the purposes of National Parks and cutting rights presenting held should be extinguished."[51]

---

[48] Stephen Stouffer Doyle, *External Threats to National Parks: A Case Study of Pacific Rim National Park Reserve* (BC: University of Victoria, 1992) at 15.

[49] *Ibid.*

[50] *Ibid.*, at 17.

[51] 1964 Policy, *supra* note 27, at 17.

Despite a move to a more "preservationist" way of thinking, the most reported internal threat today is heavy visitor use. Many national parks report that stress from visitor use, which is advocated by "recreationists", is one of the most serious problems confronting them.[52] The corresponding developments to accommodate visitors, including transportation corridors, are also reported as constituting internal threats.[53] In Banff National Park, for instance, the physical presence of large facilities and commercial accommodations, such as the Town of Banff, the Hamlet of Lake Louise, the Trans-Canada Highway, and summer use of ski hills have directly and indirectly alienated wildlife habitat in the Banff-Bow Valley.[54] These facilities create the potential for wildlife-human conflicts, increase the risk of animal mortality and, in some cases, obstruct wildlife movements.[55] Based on the *Report of the Panel on the Ecological Integrity of Canada's National Parks*, "[t]ourism and Visitor facilities were ... reported to be causing significant impacts in 26 parks."[56] Therefore, visitor use and recreationist thinking is now seen to constitute a serious internal threat to ecological integrity in national parks.

c. External Threats

As previously mentioned, sources of external threats lie outside park boundaries. They

---

[52] Maria Theresia Kothbauer, *National and Provincial Park Service Responses to Human-Induced Ecological Change in Ontario* (University of Guelph, 1988) at 21.

[53] Doyle, *supra* note 48, at 20.

[54] Robert Page, Suzanne Bayley, J. Douglas Cook, Jeffrey E. Green and J.R. Brent Ritchie, *Banff-Bow Valley Study: At the Crossroads* (Ottawa: Minister of Supply and Services Canada, 1996) at 180.

[55] *Ibid.*

[56] Panel Report, *supra* note 4, Vol. II Chapter 11, at 2.

may be adjacent to the boundary, such as logging along the park boundaries, or may be located thousands of miles away, such as point sources of sulphur dioxide which contribute to the creation of acidic precipitation.[57]

The most frequently identified external threats include air pollution emissions, roads, urban encroachments, and industrial or commercial development on park margins.[58] Among them, the energy and mineral exploration and development undertaken outside park boundaries, such as oil and gas, coal, nuclear, and hydroelectric activities, have the most serious impacts on resources within national parks. For instance, Glacier National Park identified oil and gas activity near the park's boundaries as one of the park's most serious threats.[59] External threats also arise from forestry operations outside the park boundaries because forestry operations lead to fragmentation of surrounding forests, which results in parks becoming "habitat islands".[60]

In all, commercial development on neighbouring lands has many negative ecological impacts. Despite the huge stresses to national parks caused by external threats, the mitigation of such threats is not an easy issue. Arguably, to solve this problem is more difficult than resolving the one caused by the internal threats, because the legislative mandate of the Parks Canada Agency does not extend beyond park boundaries. Thus, cooperation between different levels of governments and other related agencies is needed. This will be discussed in detail in

---

[57] Doyle, *supra* note 48, at 4.

[58] Kothbauer, *supra* note 52, at 21.

[59] Doyle, *supra* note 48, at 29.

[60] *Ibid.* at 28.

later chapters.

d. Global Threats

Global threats are those originating far beyond the boundaries of Canada. The primary global threat to national parks is air pollution in the form of suspended particles, dust, sulphur dioxide, nitrogen oxides, carbon dioxide and other toxic substances.[61] To resolve this problem, cooperation between different countries is needed. An example is the *Convention on Long-Range Transboundary Air Pollution*[62] and its eight protocols[63], which are legally binding tools to deal with problems of air pollution on a broad regional basis. Canada has joined in this intergovernmental cooperation by ratifying the Convention and signing most of those protocols, which contributes to Canada's domestic environmental protection. Nevertheless,

---

[61] *Ibid.* at 44.

[62] *Convention on Long-Range Transboundary Air Pollution*, concluded Nov. 13, 1979, 1302 U.N.T.S. 217, 18 I.L.M. 1442, entered into force Mar. 16, 1983.

[63] Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Long-Term Financing of the Co-Operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP), Sept. 24, 1984, 27 I.L.M. 701 (1988), entered into force Jan. 28, 1988; Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on the Reduction of Sulphur Emissions or Their Transboundary Fluxes by at Least 30 Per Cent, July 8, 1985, 27 I.L.M. 707 (1988), entered into force Sept. 2, 1987; Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Oct. 31, 1988, 28 I.L.M. 214 (1989); Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Volatile Organic Compounds or Their Transboundary Flues, Nov. 18, 1991, 31 I.L.M. 573 (1992), entered into force Sept. 29, 1997; Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Heavy Metals, adopted June 24, 1998, reprinted in 1979 Convention on Long-Range Transboundary Air Pollution and Its 1998 Protocols on Persistent Organic Pollutants and Heavy Metals, U.N. Economic Commission for Europe, U.N. Doc. E/ECE/EB.AIR/66/1999 U.N. Sales No. E.99.II.E.21 (1999); Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants, adopted June 24, 1998, reprinted in 1979 Convention on Long-Range Transboundary Air Pollution and Its 1998 Protocols on Persistent Organic Pollutants and Heavy Metals, U.N. Economic Commission for Europe, U.N. Doc. E/ECE/EB.AIR/66/1999 U.N. Sales No. E.99.II.E.21 (1999); Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone, U.N. Economic Commission for Europe, 17 th Sess., U.N. Doc. EB.AIR/1999/1 (1999).

action on other external threats, such as climate change, is still lacking.

e. Habitat Fragmentation - The Result of all Threats

As previously mentioned, national parks provide habitats for wildlife. Habitats are places or environments where plants and animals naturally or normally live and grow.[64] An intact habitat is critical for wildlife, and thus for biodiversity conservation. As a result of commercial and recreational development, national parks are not immune to human use and consumption, which affects wildlife in national parks by fragmenting their habitats.

Direct habitat fragmentation occurs as a result of human commercial use. Resource harvesting in the region surrounding the park also reduces the wildlife habitat.[65] Though extractive industries are no longer permitted on park lands, human visitation and recreational use have increased tremendously in modern times and have resulted in disturbances to wildlife habitat.[66] In many national parks, for instance, because of the increasing number of visitors, overcrowding remains a serious problem. Moreover, human recreational activities, such as camping, fishing or automobile sightseeing may interfere with wildlife's daily life. In some cases, threats arise even from the services provided to park visitors. For example, roads and highways may cut off living areas of wildlife. Also, some of the park's recreational infrastructure, such as picnic areas, parking lots, campgrounds, ski resorts, golf courses, and scenic viewpoints are located in important wildlife habitat and occupy the areas otherwise

---

[64] National Geographic Society, The Growth of a Forest - Habitats, website <http://www.nationalgeographic.com/habitats/index2.html>, visited on September 2, 2001.

[65] Parks Canada, *Jasper National Park of Canada Management Plan* (Ottawa: Minister of Public Works and Government Services Canada, 2000) at 10. [hereinafter Jasper Management Plan]

[66] Page, et al., *supra* note 54, at 180.

available for wildlife to live.[67]

The result of these negative impacts is that natural habitats are either lost or isolated, which constitutes habitat fragmentation. Habitat fragmentation is a serious problem and constitutes a terrible threat to wildlife in national parks. Species have difficulty surviving in habitats that are broken into isolated fragments, which is a critical reason for wildlife extinctions. As Wilcox and Murphy noted, "habitat fragmentation is the most serious threat to biological diversity and is the primary cause of the present extinction crisis."[68]

D. Need to Balance the Conflict and Provide Desirable Habitat for Wildlife

Development and human use, whether for commercial or recreational or even mere "appreciative"purposes, thus has negative impacts on wildlife and environment in national parks. In fact, this conflict has marked the history of national parks since their creation. The conflict involves different values behind the initial impetus for establishing national parks, which can be regarded as one of the main sources of the human-nature conflict. The problem also has its origins in the dual mandate between managing the park for the enjoyment of visitors and managing the park for the preservation of the wilderness.[69] Today, the conflict between human use and nature preservation still exists. Banff National Park can be taken as a good example of the need to balance this conflict. As previously noted, in Banff National

---

[67] Jasper Management Plan, *supra* note 65, at 10.

[68] Bruce Wilcon & Dennis Murphy, "Conservation Strategy: The Effects of Fragmentation on Extinction" (1985) 125 American Naturalist 879 at 884.

[69] Doyle, *supra* note 48, at 13.

Park, the physical presence and human use of large facilities, such as the Town of Banff, the Hamlet of Lake Louise, and summer use of ski hills have damaged wildlife habitat in the Banff-Bow Valley. Transportation corridors through the park, including the Trans-Canada and other highways, have fragmented the landscape and blocked movement of wildlife. Increasing numbers of residents in the Banff Town and park visitors have contributed to air pollution, sewage discharges, and solid waste.[70] All these conflicts need to be balanced against the need to provide desirable habitats for wildlife in national parks, in order to maintain the parks' role in ecological integrity and biodiversity conservation.

Conclusion

This Chapter has explored the initial purposes of the establishment of national parks and the changing objectives of national parks during their development in Canada. It shows that, for some people, recreational opportunities or developments are the key attractions in national parks. For others, the parks' value lie in the opportunity to experience the wilderness. These are the different propositions represented by recreationists, conservationists and preservationists. As a result, the philosophy of managing the park for enjoyment supports those who argue that national parks should develop large recreational facilities inside the park boundaries to attract visitors. On the other hand, the philosophy of managing the park for preservation creates a contrary need to uphold the preservation of wilderness and wildlife habitat.

Use and enjoyment have been among the historical goals for Canada's national parks

[70] Page, et al., *supra* note 54, at 1.

since the first national park was set aside for attracting tourists. Certainly, parks have been, are, and will continue to be places for people to visit and recreate.[71] However, catering to the desires of tourists led to inappropriate development in the early days and it continues to be a major concern in national parks management today. In modern times, the conflict between human use and natural resources protection in national parks is even more severe, as one of the most serious threats to wildlife in national parks is the habitat damage by humans. Thus, how to balance the conflict and achieve real ecological integrity and biodiversity conservation is a challenge to Canadian law.

[71] Panel Report, *supra* note 4, Vol. II Chapter 11, at 1.

Chapter III. Ecological Integrity as the Priority in National Parks

Introduction

Chapter 2 concludes that it is necessary to balance the conflict between human use and natural resources protection in national parks. This chapter will focus on one approach to try to solve this problem, which is establishing in law and policy the priority of maintaining or restoring ecological integrity.

Since the first national parks were established, both laws and policies governing national parks' management have changed. Once, Parks Canada had a dual mandate of providing for human "use" and of leaving parks "unimpaired". Does this dual mandate still exist? What are the provisions in law and policy about this issue? Is there any linkage between law and policy? This chapter will try to answer those questions and to argue that maintaining or restoring ecological integrity has come to be the overriding priority when managing national parks in Canada. The conclusion will be that to achieve biodiversity conservation, law and policy should secure the main objective of national parks as the maintenance or restoration of ecological integrity, and thus ecological integrity should be regarded as "the primary criterion to be used in all decisions".[1]

---

[1] Parks Canada Agency, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks* Report of the Panel on the Ecological Integrity of Canada's National Parks (Ottawa: Minister of Public Works and Government Services Canada, 2000) Vol. II Chapter 2, at 9. [hereinafter Panel Report]

A. Establishing Ecological Integrity as the First Priority

a. Concept of Ecological Integrity

Before talking about establishing "ecological integrity" as the first priority, it is necessary to explain the concept. As noted in Chapter 1, "ecological integrity", is defined by the Parks Canada Agency in the *State of Protected Heritage Areas 1999 Report* as "a condition of an ecosystem where a) the structure and function of the ecosystem are unimpaired by stresses induced by human activity, and b) the ecosystem's biological diversity is likely to persist".[2]

Woodley, in 1993, provided a more detailed description of ecological integrity as

> a state of ecosystem development that is optimized for its geographic location, including energy input, available water, nutrients and colonization history. For parks and protected areas, this optional state has been referred to by such terms as natural, naturally-evolving pristine and untouched. It implies that ecosystem structures and functions are unimpaired by human-caused stresses, that native species are present at viable population level and, within successional limits, that the system is likely to persist. Ecosystems with integrity do not exhibit the trends associated with stressed ecosystems. Parks and protected areas are part of larger ecosystems and determinations of integrity in national parks must consider these large ecosystems.[3]

This description involves three points: one is that the ecosystem should be unimpaired by human beings; second, native species should persist in the system; and third is that national parks are a part of a larger picture of the whole protected areas. In simple terms, ecological

---

[2] Parks Canada Agency, *State of Protected Heritage Areas 1999 Report* (Ottawa: Parks Canada Agency, 1999) at 19.

[3] This definition is cited in Robert Page, Suzanne Bayley, J. Douglas Cook, Jeffrey E. Green and J.R. Brent Ritchie, *Banff-Bow Valley Study: At the Crossroads* (Ottawa: Minister of Supply and Services Canada, 1996) at 94.

integrity denotes a whole and complete ecosystem, including species, landscape elements, and processes. Arguably, it does not mean that people are excluded from the ecosystem. Rather, people would visit, live in, and use a park in such a way that the ecosystem is not impaired by visitors' activities.

These definitions are helpful for appreciating the concept of ecological integrity. They highlight some important aspects that should be considered. However, it is also recognized that the ecological integrity concept is not a concept that can be easily defined with scientific precision. To some extent, political pressures affect decisions about what will impair ecological integrity within a park (or not). An example is that "traditional uses" by aboriginal people within national parks are often allowed.

Arguably, from a scientific view, a park ecosystem will be considered to have integrity if: its structure and function are intact; its native components and processes are likely to persist; and human uses are compatible with the park ecosystem's finite capacity to sustain them. For example, Vuntut National Park is considered to have ecological integrity because of its full complement of native species, ecological processes and structures.[4] However, the level of ecological integrity depends on many other elements, such as the type, amount, frequency and duration of detrimental impacts or threats to an ecosystem.[5] It also depends on the size of an ecosystem. For instance, small ecosystems with heavy stresses have a low level of ecological integrity, whereas large ecosystems with few stresses maintain a high level of

---

[4] Panel Report, *supra* note 1, Vol. II Chapter 1, at 14.

[5] Page, et al., *supra* note 3, at 94.

ecological integrity.[6] In all, each national park should maintain its ecological integrity, and the point is that maintaining ecological integrity is a continuing task.

b. Provisions in Law and Policy

Chapter 1 shows that national parks have been afforded a major role in the task of protecting representative natural environments in Canada and contribute directly to the conservation of biological diversity. Chapter 2 shows the concerns about the changing objectives of Canada's national parks, which have their origins in the history of the national parks system. Within 115 years, since the first national park was established, the ideas about national parks' purposes have varied. There was a stage when the parks were viewed primarily as commercial, recreational and tourism resources. Later, the emphasis on decreasing the negative impacts caused by human use and development became apparent.[7]

In Canada, National Parks Acts[8] and Parks Canada Policy documents[9] are two bases for directing parks management. Before reviewing Canadian law and policies in this section, it is necessary to note the difference between them. In simple words, a law is approved by a legislature, and must be followed by the government and by the citizenry. It is enforced by an

---

[6] *Ibid.*

[7] Parks Canada Agency, *Parks Canada Agency Corporate Plan 2000/01-2004/05*, website <http://www.parcscanada.gc.ca/library/DownloadDocuments/DocumentsArchive/PC_CorporatePlan2000_e.pdf>, at 16, visited on July 18, 2001.

[8] *The National Parks Act*, S.C., 1930, c.33.; *National Parks Act*, S.C., 1988, c.48; *Parks Canada Agency Act*, S.C., 1998, c.31.; *Canada National Parks Act*, S.C., 2000, c.32.

[9] National and Historic Parks Branch, *National Parks Policy* (Ottawa: Queen's Printer, 1964); Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979); Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994).

independent court system. On the other hand, policy is merely a statement of government intent. It should be followed by the bureaucracy, but it is not enforceable by citizens via the courts.[10]

(a) 1930 National Parks Act

The *Rocky Mountain National Parks Act* of 1887[11] was the first legislation established to preserve Banff National Park. This Act served until 1911, when Hon. Frank Oliver, Minister of the Interior, shifted parks policy from promoting parks as 'primarily places of business' to places where "there would be no business except such as is absolutely necessary for the recreation of the people".[12] Notably, there was no regulation about ecological integrity in the *Rocky Mountain National Parks Act*.

In 1930, the first Canadian *National Parks Act*[13] was passed by Parliament. However, there was nothing specific about ecological integrity in this Act either, though Section 4 set out the general purposes of national parks in Canada. As noted in the preceding Chapter,

> [p]arks are hereby dedicated to the people of Canada for their benefit, education, and enjoyment, subject to the provisions of this Act and Regulations, and such Parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future

---

[10] Paul F.J. Eagles, *Parks Legislation in Canada* in Philip Dearden & Rick Rollins eds., *Parks and Protected Areas in Canada* (Toronto: Oxford University Press, 1993) 57 at 57-58.

[11] *Rocky Mountain National Park Act*, 1887, S.C., c.32.

[12] Foster, J., *Working for Wildlife: The Beginning of Preservation in Canada* (Toronto: University of Toronto Press, 1978) at 75. Also see Kevin McNamee, *From Wild Places to Endangered Spaces A History of Canada's National Parks* in Dearden, et al., *supra* note 10, at 22.

[13] *The National Parks Act*, S.C., 1930, c.33.

generations.[14]

Section 4 was regarded as a "dedication clause" and continued to serve as the main legal guidance for decisions affecting Canada's national parks for about half a century.[15]

As was noted briefly in a previous section, this clause contained dual objectives. On the one hand, national parks shall be maintained unimpaired; on the other hand, they shall be used. At first reading, Section 4 appeared to create a conflict of preservation versus human use, because use inevitably resulted in impairment to park resources. Unfortunately, the clause did not further explicitly show managers the relationship between preservation and use, nor did it tell them how to balance the conflict between these different types of objectives. As a result, this expression sparked a long-lasting debate over whether the fundamental purpose of national parks was preservation or use, enjoyment now or benefit for later generations.[16] It then created ongoing problems for park managers, who struggled to balance the competing interests of providing for human use and enjoyment, as well as ensuring protection of park resources.[17]

Arguably, the word "enjoyment" in Section 4 means the public appreciation of park resources, which include the scenery, the natural and historic places, as well as wildlife living

---

[14] *Ibid.*, s.4.

[15] Karen Janet Wipond, *Interpretation and Implementation of the Mandate to Maintain Ecological Integrity in Pacific Rim National Park Service* (Victoria: University of Victoria, 1996) at 1.

[16] Kamron Keele, "Preservation and Use: Road Building, Overcrowding, and the Future of Our National Parks" (1998) Tulane Environmental Law Journal 441 at 442.

[17] Wipond, *supra* note 15, at 1.

within national parks. Park resources exist for human beings to enjoy, but the allowable types of human use should be limited in scope, leaving park resources unimpaired. From this perspective, both "be maintained unimpaired" and "be made use of" aim at providing enjoyment for present visitors and future generations. Thus, although human use is a part of national parks' purposes, it is not the primary one. The relationship between use and preservation is that use is subordinate to preservation and should be restricted. As Shutkin said, "...use is not the antithesis of preservation, but rather a component of it."[18] In this view, despite the provisions of the 1930 *National Parks Act* embracing both preservation and use, national parks must be managed primarily for the preservation of nature. It is the spectacular scenery, the natural and historic objects, and undisturbed wildlife that constitute the resources of a national park, and thus human use is permitted only to the extent that it does not cause impairment to those natural resources. Arguably, by aiming at preserving park resources, a National Parks Act should give nature and wildlife a priority over human use in the event of conflicts. Accordingly, the clause of the Act would need to be re-stated explicitly, to add a statement clarifying the management priority.

The 1930 Act, in spite of being flawed and inexplicit in some aspects, was valued in one specific way. It called for parks to be left "unimpaired for future generations", an emphasis on intergenerational preservation.[19] The intention of leaving parks "unimpaired" for future generations was a highlight in this Act that implied a strong protection idea, and is

---

[18] William Andrew Shutkin, "The National Park Service Act Revised" (1991) 10 Virginia Environmental Law Journal 345 at 349-350, 370.

[19] Philip Dearden & Rick Rollins, *The Times They are A Changing* in Dearden, et al., *supra* note 10, at 9.

arguably regarded as one of the important aspects of ecological integrity. Happily, the term "unimpaired for future generations" was carried on by subsequent National Parks Acts.

(b) National Parks 1964 Policy

During the past three decades, Canadian national park policies have also demonstrated an increasing emphasis on environmental protection, providing guidance to parks managers. The first national parks policy came in 1964.[20] This policy reaffirmed the idea expressed in the 1930 *National Parks Act*, that the national parks are dedicated to the people of Canada for their benefit, education, and enjoyment while remaining unimpaired for the enjoyment of future generations. However, as previously mentioned, the 1930 Act did not contain the exact term "ecological integrity". It seemed that the 1964 policy did not touch upon the issue of ecological integrity either. This was not surprising, given that the 1964 policy appeared at a time when economic growth and development was prevalent and where emerging social ideas about environmental protection were viewed as secondary in importance to use.[21]

As noted in Chapter 2, parks in this period were seen as a resource, not in the traditional sense, as extractive products, but in terms of their recreational potential, such as aesthetics and enjoyment.[22] This was a period when

> [a]n expanding population, increased urban growth, a buoyant economy, filled by automation and service-related occupations, better working conditions, more paid

---

[20] National and Historic Parks Branch, *National Parks Policy* (Ottawa: Queen's Printer, 1964). [hereinafter 1964 Policy]

[21] Stephen W. Boyd, *Sustainability and Canada's National Parks: Suitability for Policy, Planning and Management* (University of Western Ontario, 1995) at 231.

[22] *Ibid.*

> vacations, improved transportation, a better road network and more disposable income, all resulted in parks becoming destination areas where summer vacations could be spent, and where camping and picnicking activities could be entertained by the general public on a more frequent basis.[23]

The increased recreational demand and the need to meet this demand resulted in promotion of recreational use within national parks. With respect to parks' purposes, the 1964 policy recognized there were variations in different parks. For instance, Prince Edward Island and Riding Mountain Parks were viewed as being more suited to family recreation, as compared with Yoho and Glacier Parks which were cited as being more suitable to offer enjoyment because of their natural scenic beauty.[24]

The emphasis on use, in particular recreational use, was evident throughout the 1964 policy.[25] This could be explained as the result of the lack of awareness and understanding of the negative impacts on park resources potentially caused by recreational activities. However, though recreational use was accepted by the 1964 policy, it was actually viewed as a secondary function and was only advocated where it was in harmony with park purposes, without impairing natural and scenic values or the enjoyment of visitors. The policy noted, "[s]ince the park values are supplied by the natural scene unimpaired, maintaining and preserving the parks for future generations is also a basic part of our obligation."[26] It further stressed that recreational facilities should not be introduced as a means of increasing

---

[23] *Ibid.*, at 232.

[24] 1964 Policy, *supra* note 20, at 3.

[25] Boyd, *supra* note 21, at 232.

[26] 1964 Policy, *supra* note 20, at 3.

visitation.[27] The policy direction shifted even further towards preservation when the national parks policy was updated in 1979, which adopted a stronger statement on parks preservation.[28]

(c) National Parks 1979 Policy

In the late 1960's, public awareness shifted towards ecological and natural systems preservation.[29] This concern for environmental protection set the stage for the 1979 *Parks Canada Policy*.[30] In addition, Canadian national parks had started to play important roles in protecting heritage resources internationally in this period.[31] The 1979 policy reflected this change by stating, national parks are "[t]o protect for all time representative natural areas of Canadian significance in a system of national parks, and to encourage public understanding, appreciation and enjoyment of this natural heritage so as to leave it unimpaired for future generations."[32] It clarified that preservation of natural heritage[33] was one of the primary objectives in Canadian national parks. Despite the fact that this policy did not provide more information on ecological integrity, it said, "[e]cological and historical integrity are Parks

---

[27] Boyd, *supra* note 21, at 232.

[28] *Ibid.*, at 235.

[29] Maria Theresia Kothbauer, *National and Provincial Park Service Responses to Human-Induced Ecological Change in Ontario* (University of Guelph, 1988) at 11.

[30] Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979). [hereinafter 1979 Policy]

[31] Boyd, *supra* note 21, at 237.

[32] 1979 Policy, *supra* note 30, at 38.

[33] The word "heritage" means an inheritance or a legacy; things of value which have been passed from one generation to the next. *Ibid.*, at 11.

Canada's first considerations and must be regarded as prerequisites to use."[34]

In contrast to the 1964 policy, recreation was only encouraged by the 1979 policy when it was directly related to enjoying the natural resources in national parks. It stated,

> Parks Canada will provide opportunities for outdoor recreation within the Parks Canada system as means for present and future generations to understand and enjoy heritage resources in ways consistent with protection of these resources. Parks Canada's primary concern is to protect and present heritage resources of national significance. Thus public demand for outdoor recreation opportunities in a particular locality is not justification for Parks Canada's participation. Certain outdoor recreation activities offer a valuable means for enjoying and understanding heritage resources. Parks Canada will encourage those outdoor recreation uses which are directly associated with, and depend on, heritage resources subject to requirements for resource protection, visitor safety and protection of the rights of other visitors.[35]

Thus, national parks, in this period, were viewed as places from which Canadians could learn about and understand the natural environment.[36]

With respect to the conflict between use and protection, the 1979 policy recognized that the provision of facilities and services for human recreation was dependent on the sensitivity of park environments to human influence.[37] It also acknowledged that parks were not meant to provide all types of recreational uses. The proper use of national parks defined by the 1979 policy was "to encourage public understanding, appreciation and enjoyment."[38] The policy further stated, "Parks Canada will provide for those outdoor recreation activities

---

[34] *Ibid.*, at 12.

[35] *Ibid.*, at 14.

[36] Boyd, *supra* note 21, at 235-236.

[37] 1979 Policy, *supra* note 30, at 42-43.

[38] *Ibid.*, at 38.

which are dependent upon park's natural resources and require a minimum of man-made facilities."[39] Thus, improper use, overuse and inappropriate development had to be avoided if parks were to be left for future generations to enjoy.[40] It is evident that an emphasis was placed on nature protection in the 1979 policy. In all, compared with the 1964 policy, the 1979 policy made a clearer statement on the protection of natural resources, rather than focusing on human use.

(d) National Parks Act Amendment 1988

The National Parks Act was amended slightly in 1974, then was soon updated in 1988.[41] During the 1980s, with visitor demands on national parks escalating, the natural values of national parks became threatened. The pressure on national parks drew attention to the growth of the problem relating to the dual and competing objectives of national parks. In 1988, a major amendment to the National Parks Act was passed.[42] It reflected some of the changes that had taken place since 1930. For the first time, the term "ecological integrity" was incorporated into the statute, and the maintenance of ecological integrity through the protection of natural resources was placed as the first management priority. Section 5(1.2) stated,

> maintenance of ecological integrity through the protection of natural resources shall

---

[39] *Ibid.*, at 43.

[40] *Ibid.*

[41] Parks Canada, Backgrounder - Legislative Framework for the Parks Canada Agency, website <http://parkscanada.pch.gc.ca/Library/NewsReleases/release_e.cfm?bgid=197&andor=bg>, visited on January 16, 2002.

[42] *National Parks Act*, S.C., 1988, c.48.

be the first priority when considering park zoning and visitor use in a management plan.[43]

Thus, the clause suggested that park managers no longer needed to strike a balance between opposing interests, and it indicated the overriding priority of maintaining ecological integrity was established, though only in the two areas of park zoning and visitor use in planning documents.

However, the dedication clause of Section 4 in the 1930 Act still existed in this amendment. Arguably, though, Section 4 was now merely a statement of general purposes[44] of national parks in Canada, while Section 5 was a specific practical provision to be applied to park zoning and visitor use. As a general rule of statutory interpretation, one can argue that the more specific rule prevails over the more general one.[45] Adding the term "ecological integrity" to the law required a fundamental shift, in thought and approach, to managing national parks, which demanded increased understanding and consideration of ecological systems. As some authors noted, "...the amendments of 1988, with their emphasis on ecological integrity and their preference for protection over development, stand in dramatic contrast to the reasons for establishing a park in 1887."[46]

---

[43] *Ibid.*, s.5(1.2).

[44] "The general purposes of a statute may be set forth in order to predispose favourably the audience or the reader towards an enactment, and to support its broad, large and liberal interpretation." Pierre-André Côté, *The Interpretation of Legislation in Canada* (Cowansville, Québec: Editions Y. Blais, Inc., 1991) at 319.

[45] *Ibid.*, at 258-272.

[46] McNamee, *supra* note 12, at 39-40.

Arguably, the significance of the 1988 amendment was that, for the first time in legislation, the protection component of the park's mandate was given clear priority over human use.[47] Moreover, ecological integrity was emphasized in a park's management plan, the main guide to daily operations, which will be discussed in Chapter 4. Thus, the protective obligations were strengthened by law. The shift from human use toward greater protection of ecological systems had much influence on subsequent Acts and policy documents, which has since contributed greatly to protecting parks from both internal and external threats. Unfortunately, the term "ecological integrity" was not defined in this legislation - a problem eventually solved by the 1994 Parks Policy and the 2000 *Canada National Parks Act*.

(e) 1994 Guiding Principles and Operational Policies

The 1990s was a significant decade in the history of environmental protection development. Internationally, in 1992, over 1,500 delegates to the Fourth World Congress on National Parks and Protected Areas declared that the establishment and maintenance of parks and protected areas was essential to sustaining human society, as well as to conserving global biological diversity.[48] Also, in 1992, Canada signed the International Convention on Biological Diversity[49] and committed to conserving biodiversity through protecting its ecosystems. Moreover, a 1993 Survey showed that Canadians viewed the national parks system as an important part of the country's heritage, rather than merely as a promoter of recreational

---

[47] *Ibid.*, at 40.

[48] McNamee, *supra* note 12, at 41.

[49] The Convention on Biological Diversity of the United Nations Conference on the Environment and Development, June 5, 1992, U.N. Doc. DPI/1307, reprinted in 31 I.L.M. 818.

opportunities.[50] According to this survey, most Canadians regarded the protection of ecological significance as the major objective of the national parks system, and rated providing recreational opportunities lower on the list of priorities.[51]

Under these circumstances, the Parks Canada *Guiding Principles and Operational Policies*[52] appeared in 1994 and replaced the 1979 *Parks Canada Policy*. This new policy stressed maintaining the ecological integrity of national parks, which reflects the requirement of Section 5(1.2) of the 1988 Amendment. It is also the first Parks Canada policy that defines the term "ecological integrity" as "a condition where the structure and function of an ecosystem are unimpaired by stresses induced by human activity and are likely to persist."[53] It further states that,

> [i]n the establishment and management of national park, Parks Canada will strive to maintain ecological integrity. ... Protection of ecological integrity and ensuring commemorative integrity[54] take precedence in acquiring, managing, and administering heritage places and programs. In every application of policy, this guiding principle is paramount. The integrity of natural and cultural heritage is maintained by striving to ensure that management decisions affecting these special places are made on sound

---

[50] Angus Reid Group Inc., *A Study of Canadian attitude toward Canada's National Parks* (Calgary: Canadian Parks Service, Western Region, 1993).

[51] Page, et al., *supra* note 3, at 30.

[52] Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994). [hereinafter Parks Policy]

[53] *Ibid.*, at 119.

[54] According to the 1994 Parks Policy, a historic place (national historic site, heritage railway station, federal heritage building, etc.) may be said to possess commemorative integrity "when the resources that symbolize or represent its importance are not impaired or under threat, when the reasons for its significance are effectively communicated to the public, and when the heritage value of the place is respected". *Ibid.*, at 119.

cultural resource management and ecosystem-based management practices.[55]

The 1994 Parks Policy has a strong statement. It supports the priority assigned to ecological integrity and clearly treats recreational use as secondary.[56] The definition of the term "ecological integrity" helps make up for the silence of the 1988 Amendment, as well as now being consistent with the term as described in the 2000 National Parks Act. In all, the 1994 Policy assists Parks Canada to acknowledge the importance of maintaining ecological integrity rather than to enhance human recreational use, which helps to clarify the mandate of the parks. It thus sets guidelines according to which existing parks are to be managed.[57] Nevertheless, there still needed to be new laws to create a binding definition of ecological integrity and to set the scope of powers to maintain ecological integrity, to be more effective and enforceable.

(f) 1998 Parks Canada Agency Act

Historically, Parks Canada was made up of federal bureaucrats working with the usual departmental structure of government. It was hard for Parks Canada to fulfill its mandate of maintaining ecological integrity and conserving biodiversity.[58] Thus, there was a need for a shift in Parks Canada's "organizational culture" from favouring business and recreation toward

---

[55] *Ibid.*, at 16, 33.

[56] Boyd, *supra* note 21, at 248.

[57] *Ibid.*, at 230.

[58] "In the last two decades, Parks Canada employees have witnessed a series of rapid organizational transformations from events such as budget cuts, reviews, a series of re-organizations, the moving of Parks Canada from one federal government department to another, and the wide-scale adoption of a 'business approach'. These changes have not reflected fully the need to involve ecological integrity values in the organization's orientation, leadership, hiring and training, budgeting priorities, and operational management." Panel Report, *supra* note 1, Vol. II Chapter 2, at 2.

conservation.[59]

Early in 1996, the Canadian Government announced its intention to create a Parks Canada Agency.[60] In 1998, Parliament passed the *Parks Canada Agency Act*[61] to establish the Parks Canada Agency as a "departmental corporation", which means Parks Canada Agency now is a separate legal entity, or an arms-length agency.[62] According to this Act, the Parks Canada Agency aims at ensuring that Canada's national parks, historic sites and related heritage areas are protected for this and future generations.[63] Its mandates include,

> to protect the nationally significant examples of Canada's natural and cultural heritage in national parks, national historic sites, marine conservation areas and related heritage areas; ... to carry out Canada's international obligations and agreements to protect, conserve and present that heritage and to contribute towards the protection and presentation of the global heritage and biodiversity; to include representative examples of Canada's land and marine natural regions in the systems of national parks and marine conservation areas; ... to maintain or restore the ecological integrity of national parks; ... to manage visitor use and tourism to ensure both the maintenance of ecological and commemorative integrity for this and future generations.[64]

---

[59] *Ibid.*, at 5. Given the continuing pressures for increasing business and tourism, discussed in Chapter 1, this policy shift was not without controversy.

[60] Parks Canada, Canada-Wide Consultations Launched to Discuss Parks Canada Agency Proposal, website <http://parkscanada.pch.gc.ca/Library/NewsReleases/release_e.cfm?id=222&andor=nr>, visited on January 16, 2002.

[61] *Parks Canada Agency Act*, S.C., 1998, c.31. [hereinafter Agency Act]

[62] Parks Canada Agency, *Parks Canada Agency Annual Report 2000-2001*, website <http://parkscanada.pch.gc.ca/Library/parks_report/AnnualReport2000-01english.pdf>, visited on January 20, at 7. [hereinafter 2000-2001 Report]

[63] Agency Act, *supra* note 61, Preamble.

[64] *Ibid.*

Obviously, the heart of Parks Canada Agency's mandate is to ensure ecological integrity in national parks. Within its mandate, a significant aspect is adding to the restoration of ecological integrity, which means restoring the degraded integrity of ecosystems. The restoration of ecological integrity may involve activities such as the reintroduction of species and the reconstruction of habitat.[65]

Today, the Parks Canada Agency is under the direction of the Minister of Canadian Heritage, and is responsible for the administration and enforcement of the National Parks Act and the Agency's legislation, as well as the policy authority.[66] Established as an independent legal entity, the Agency has been provided with more flexible human resources, and administrative and financial authorities[67], which helps the Agency to exercise its public stewardship and to achieve its mandate of maintaining and restoring ecological integrity.[68] In all, the *Parks Canada Agency Act* established a new, improved operational agency, which was intended to make park management more independent and responsive, though it is not clear

---

[65] Environment Canada & United Nations Commission on Sustainable Development, *Learning From Nature: Canada - The Ecosystem Approach and Integrated Land Management* (Ottawa: Environment Canada, 2000) at 11.

[66] Parks Canada Agency, *Sustainable Development Strategy 2001-2004 - Sustaining Ecological and Commemorative Integrity* (Ottawa: Her Majesty the Queen in Right of Canada, 2000) at 17. [hereinafter Sustainable Development Strategy]

[67] Authorities include: "a) separate employer status to enable the design of a human resources management framework that is more responsive to Parks Canada's particular operational requirements and the conditions in which its employees work; b) full revenue retention and reinvestment to contribute to the financing of services; c) a two-year rolling budget to promote the wise investment of public funds and to allow for funding advances; and d) a non-lapsing account to finance the establishment of new national parks, national historic sites and national marine conservation areas." 2000-2001 Report, *supra* note 62, at 7.

[68] Parks Canada, Parks Canada Agency Proclaimed, website <http://parkscanada.pch.gc.ca/Library/NewsReleases/release_e.cfm?id=112&andor=nr>, visited on January 16, 2002.

yet that we will get different decisions from the Agency as a result. As the Ecological Integrity Panel noted, "Parks Canada can use several statutory requirements in the Agency Act to reposition itself and become an organization with a culture of learning and conservation. Such a shift will help Parks Canada to achieve its mandate and will act as a catalyst for change."[69]

(g) Banff-Bow Valley Study & Panel on Ecological Integrity

In 1994, a Banff-Bow Valley Task Force was established in response to the harm to Banff National Park's ecological integrity caused by visitor uses and development.[70] Its report - the Banff-Bow Valley Study[71] - provided a comprehensive analysis of environmental, economic, cultural and social issues of the Bow River watershed within Banff National Park. The Study raised an important question: since ecological integrity was the primary focus of the National Parks Act and Parks Canada's policy, why did ecological integrity continue to deteriorate? The Study's answer: "Banff National Park suffers from inconsistent application of the National Parks Act and Parks Canada's Policy".[72] This statement indicated that although the laws and policies were fairly good, they were not being applied well; reasons for

---

[69] Panel Report, supra note 1, Vol. II Chapter 2, at 3.

[70] As the Banff-Bow Valley Study noted, "[f]ive million visitors every year, two communities, a transcontinental railway, a four-lane highway, three major ski hills- this growth in visitor numbers and development threatens the mountain environment. If allowed to continue to continue, it will cause serious and irreversible harm to Banff National Park's ecological integrity and its value as a national park. Impairing the ecological integrity and natural beauty of the Park will also weaken its attraction as a tourist destination, and the associated contribution to the local, regional and national economics." Parks Canada, Banff-Bow Valley: At the Crossroads Summary Report, website <http://www.worldweb.com/parkscanada-banff/bveng.pdf>, visited on March 28, 2002, at 4.

[71] *Ibid.*

[72] *Ibid.*, at 14.

this included political and financial obstructions.[73] Thus, the Banff-Bow Valley Study attempted to provide recommendations for more effective methods of managing the area in order to maintain its ecological integrity in the long term, while allowing appropriate levels of development and access for visitors.[74]

The Banff-Bow Valley Study set a basis for ecological integrity management, which was not only for Banff, but an example or model for all national parks across the country. Soon after, a national review about ecological integrity began.

A Panel on Ecological Integrity was struck in November 1998 by the Minister of Canadian Heritage, which was regarded as something of a succession to the Banff-Bow Valley Study and expanded the study to the national parks system. The Panel built on the work of the Banff-Bow Valley Task Force to examine the issues related to ecological integrity of all national parks and the Parks Canada's approach to maintaining ecological integrity, and to provide recommendations for future improvement. Its report "*Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks*"[75] was released on March 23, 2000.

In this report, the Panel concluded that national parks in Canada are under serious threat from stresses originating both inside and outside the parks.[76] It also examined the

---

[73] *Ibid.*, at 19.

[74] The Banff-Bow Valley Study realized although Banff National Park is "the premier attraction in a province where tourism contributes an estimated $6 billion to the economy annually", its role cannot be allowed to put the Park's ecological integrity at risk. *Ibid.*, at 4.

[75] Panel Report, *supra* note 1.

[76] *Ibid.*, Vol. II Chapter 1, at 8.

approaches and programs developed by Parks Canada according to their effects on the maintenance of ecological integrity. In addition, the Panel made recommendations about new approaches for ensuring long-term maintenance of ecological integrity. For instance, it proposed the following definition of ecological integrity: "an ecosystem has integrity when it is deemed characteristic for its natural region, including the composition and abundance of native species and biological communities, rates of change and supporting processes."[77] It further explained that, "ecosystems, in plain language, have integrity when they have their native components (plants, animals and other organisms) and processes (such as growth and reproduction) intact."[78]

In all, the Report was a useful study containing many ideas for better managing national parks in Canada, and was even regarded as one of the most significant influences on Parks Canada in the last few years.[79] In response to this report, Parks Canada renewed its internal focus on ecological integrity in national parks and implemented changes to legislation and policy to ensure protection of ecological integrity.[80] Significantly, the definition of ecological integrity, as formulated by the Panel, is incorporated in the new *Canada National Parks Act*. A more detailed discussion about the recommendations made by the Panel will be in Chapter 5.

---

[77] *Ibid.*, at 15.

[78] *Ibid.*, at 2.

[79] Sustainable Development Strategy, *supra* note 66, at 21.

[80] Parks Canada, Parks Canada Action Plan in Response to the Report of the Panel on the Ecological Integrity of Canada's National Parks, website <http://parkscanada.pch.gc.ca/EI-IE/response_e.htm>, visited on January 20, 2002.

(h) Canada National Parks Act 2000

The new millennium saw the new *Canada National Parks Act*[81] enacted in October, 2000. Passage of this Act provides the Parks Canada Agency a strong and up-to-date legislative framework to ensure that maintaining or restoring ecological integrity is their first priority.

It is significant that this Act finally defines the term "ecological integrity" in Section 2. That is,

> ecological integrity means, with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.[82]

Moreover, in order to reconfirm that ecological integrity is the overriding priority in all parks management and decision-making, section 8 of the new Act has two subsections with respect to the management and administration of parks. Section 8(2) especially relates to ecological integrity as the management priority. It says,

> [m]aintenance or restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority of the Minister when considering all aspects of the management of parks.[83]

This provision finally indicates that ecological integrity should be considered as the priority in *all aspects of parks management*, rather than just the fields of zoning and visitor use in

---

[81] *Canada National Parks Act*, S.C., 2000, c.32. [hereinafter 2000 Act]

[82] *Ibid.*, s.2.

[83] *Ibid.*, s.8(2).

a management plan as provided in the 1988 amendment. The new Act also adds on the requirement for ecological integrity restoration, unlike the former Acts and policy documents. In addition, a mandatory duty of administration is now placed on the Minister[84], not just on the Parks Canada Agency and its employees, which is very important if the Minister is to be held accountable. Although Section 4 still exists in the 2000 Act, as a general description about how national parks are dedicated to all Canadians to enjoy, its existence does not seemingly affect the major duty to maintain or restore ecological integrity. Furthermore, ecological integrity is emphasized in the "management plan section" of the new Act, which states, "[t]he Minister shall, ... prepare a management plan for the park containing a long-term ecological integrity vision for the park, a set of ecological integrity objectives and indicators and provisions for resource protection and restoration ...".[85] Additional discussion about parks management plans will be in Chapter 4.

(i) Sustainable Development Strategy 2001-2004

Also in 2000, the Parks Canada Agency released the new *Parks Canada's Sustainable Development Strategy*[86], which sets out clear, achievable goals and targets for contributing to the long-term integrity and sustainability of Canadian natural and cultural heritage.[87] It also reaffirms the major importance of maintaining ecological integrity in

---

[84] "The Minister is responsible for the administration, management and control of parks, including the administration of public lands in parks and, for that purpose, the Minister may use and occupy those lands." *Ibid.*, s.8(1).

[85] *Ibid.*, s.11(1).

[86] Sustainable Development Strategy, *supra* note 66.

[87] *Ibid.*, at 3.

national parks, by stating,

> [f]or national parks to protect Canada's wild places, their ecological integrity must be maintained, meaning that the structure and function of the national park ecosystems, with their various species and natural processes, are likely to persist unimpaired by human activity. For national marine conservation areas to protect marine environments, conservation objectives must continue to be harmonized with ecologically sustainable use.[88]

Therefore, the priority of ecological integrity is beyond doubt now, and its importance to biodiversity conservation is clearly recognized.

B. Priority is Clear Now

a. There is No Dual Mandate Any More

Modern Canadian legislation and policy on national parks both recognize the overriding priority of ecological integrity maintenance and restoration, and provide direction to the Parks Canada Agency in managing national parks. Reading through its development in law, prior to the 1988 amendment it seemed that Parks Canada had a dual mandate according to the "dedication clause" described in the 1930 National Parks Act.[89] Nevertheless, the debate concerning this dual mandate was statutorily tipped toward the preservation side of the mandate by the 1988 amendment, which provided a legislative requirement, as well as a clearly stated policy goal to consider, that maintaining ecological integrity should be the first or determinative priority when managing a park. This change toward ecological integrity was subsequently regarded as a primary consideration in parks

---

[88] *Ibid.*, at 6.

[89] Panel Report, *supra* not 1, Vol. I at 21.

management, despite the fact that it referred only to park zoning and visitor use. Indeed, the first step in setting the new priority was established by law.

Meanwhile, formal developments in the national parks policies supported placing the maintenance of ecological integrity in the overriding position. A focus on ecosystem management, with priority given to maintaining national parks' ecological integrity, was announced in the 1994 policy. Currently, the 1998 *Parks Canada Agency Act* and the new 2000 *Canada National Parks Act* have gone further in this direction by extending ecological integrity maintenance or restoration to all aspects of parks management. In particular, the 2000 Act requires detailed contents about ecological integrity to be included in the management plan of each park, and places this duty on the Minister as well. Thus, whether in law or in policy, there is no longer a dual mandate for the Parks Canada Agency. In spite of the continued use of a dedication clause, the new 2000 Act explicitly adopts the phrase "the first priority"[90] to stress the overriding importance of ecological integrity. Also, the current policy uses the word "paramount".[91] As noted previously, specific rules prevail over general ones. Therefore, national parks are places for the protection of ecological integrity and for visitors to enjoy nature in a manner that leaves ecological integrity unimpaired. Maintaining or restoring ecological integrity is the overriding priority in all aspects of parks' management now, which will provide the authority for key commitments to biodiversity conservation.

b. A Law-Policy Link

---

[90] 2000 Act, supra note 76, s.8(2).

[91] Parks Policy, *supra* note 52, at 33

Up to now, maintaining or restoring ecological integrity has been clearly defined in the *Parks Canada Agency Act*, in the new *Canada National Parks Act*, and in Parks Canada's *Guiding Principles and Operational Policies*, as the first priority and the major mandate. These laws and policies now constitute the framework for the Parks Canada Agency to manage the national parks. As Hildebrandt noted, "the public policy shift towards protection has been steady over the years and is now more clearly incorporated in the National Parks Act (2000), Guiding Principles and Operational Policies (Canada Heritage 1994), and national park plans."[92] He further concluded, "Parks Canada has benefited consistently from a strong Act and clear policies."[93] It seems that there exists an even stronger link between law and policy.

The National Parks Act, first approved in 1930, then amended in 1988, and now in a new edition in 2000, is the legal basis governing parks' management. However, the Act was written in very general terms, so that it provided weak powers for government implementation. As Eagles commented, "[o]ur governing legislation provides guidance as to what we can do; it does not state what we actually do."[94] In this respect, policies have provided guidance for the planning and management of national parks, yet policies are somewhat open to interpretation and do not carry the same force as law.[95] Wipond said, "policy commitments are frequently vague and difficult to translate into operational level

---

[92] Cited in Page, et al., *supra* note 3, at 295.

[93] *Ibid.*

[94] Eagles, *supra* note 10, at 57-58.

[95] Differences between law and policy are discussed in this Chapter at page 49-50.

strategies and action."[96] As a result, the Parks Canada Agency continues to face the problem of how to translate policies into plans, how to translate plans into action, and how to implement legislation effectively in daily management.[97] Although there exist a few Regulations[98] which provide details in specific areas, there are still shortcomings both in law and in policy. Therefore, the law-policy linkage needs to be strengthened, in part by improving the legal tools available to parks staff.

c. Improving the Legal Tools to Support Ecological Integrity Protection

Although a priority has been established by law and policy, a problem exists in the fact that maintenance or restoration of ecological integrity is not widely understood nor followed by either parks staff or parks visitors, nor are there many practical procedures or methods provided by law and policy on how to implement the principle in practice. For example, the zoning approach is adopted by policy as a method to manage visitor use within parks, but it is not formulated in law, which results in an inability to enforce this approach. Although details of implementation issues are beyond the scope of this discussion, a few general remarks about the practical implications of the legal tools will still be discussed in Chapter 4.

Additionally, problems exist in law itself. For example, in the *Parks Canada Agency Act* there is only a brief statement about the importance of ecological integrity in this Act's

---

[96] Wipond, *supra* note 15, at 12.

[97] Panel Report, *supra* note 1, Vol. I Chapter 1, at 9. See also the Parks Canada Guide to Management Planning, *infra* note 100.

[98] National Parks Building Regulations, C.R.C., c. 1114, (1999); National Parks Business Regulations, S.O.R./98-455; National Parks Camping Regulations, S.O.R./80-127; National Parks Wilderness Area Declaration Regulations, S.O.R./97-150, s.1.

preamble, which is not considered to be legally binding. Therefore, the Parks Canada Agency's mandate is difficult translate into daily operations to help maintain and restore ecological integrity.[99] Furthermore, there are few practical tasks or action statements in this Act that offer guidance for the Parks Canada Agency about how to manage national parks. In this respect, planning documents and procedures as a method to manage national parks are provided for in the 2000 Act. In addition, the *Parks Canada Guide to Management Planning*[100] helps with implementation by providing guidance about methods for involving cooperative managers in planning. However, gaps between law and policy still exist. As Wipond noted, "the lack of clarity suggests that the priority of maintaining ecological integrity remains somewhat of an abstraction that may not be well integrated into the every day operation of the Park."[101]

Merely focussing on clarifying the overriding priority is not enough for ecological integrity protection in practice, though it is the basic requirement. The 2000 Act extends maintenance or restoration of ecological integrity to all aspects of park management, which is a good beginning. Nevertheless, it seems that this change in law alone is not strong enough to protect ecological integrity in parks' daily management. The implementation problems noted above, and the corresponding approaches to solve them will, therefore, be discussed in more detail in the next section.

---

[99] Rick Searle, *Phantom Parks: The Struggle to Save Canada's National Parks* (Toronto: Key Porter Books Limited, 2000) at 124.

[100] Parks Canada, Parks Canada Guide to Management Planning, website <http://www.parkscanada.gc.ca/library/planguide/english/gmp_e.htm>, visited on March 28, 2002.

[101] Wipond, *supra* note 15, at 75.

Conclusion

This chapter mainly focuses on the evolution of ecological integrity in Canadian law and policy associated with national parks. It argues that to successfully manage national parks, Parks Canada must establish a clear vision around this primary objective. In fact, the maintenance or restoration of ecological integrity is now strongly enshrined in the *Canada National Parks Act*, the *Parks Canada Agency Act*, and the *Guiding Principles and Operational Policies*, with both law and policy jointly establishing the priority. Therefore, maintenance or restoration of ecological integrity now stands as the primary goal of, and the core of, Parks Canada Agency's mandate. It takes priority over human use and enjoyment in national parks management, and thus helps achieve the goal of biodiversity conservation at least in theory.

However, significant ecological pressures from human use challenge the Parks Canada Agency's ability to fulfil its mandate of maintaining or restoring ecological integrity in national parks. The details of implementation remain weak, though the *Parks Canada Guide to Management Planning* can help somewhat. Gaps between law and policy exist. In order to solve this problem, concrete and practical management approaches should be provided explicitly in the Act, Regulations, and Policies. The following chapters will focus on discussions of these management issues, with particular emphasis on the role of law.

Chapter IV. Use Without Abuse: Managing Internal Threats to Park Resources

Introduction

Human uses of park resources have been among the historical goals for Canada's national parks, while another of the national parks' major objectives is to protect areas representative of Canada's natural values for present and future generations. National parks cannot sustain all types of activities and development that humans desire. Human use is even regarded as a major internal threat to national parks and thus requires some restrictions. Such restrictions should not be regarded as a limitation on peoples' freedom. Instead, it should be viewed as a means to protect the park for future generations.[1]

Since commercial resource extraction is not allowed in national parks, the challenge for the Parks Canada Agency is to maintain the ecological integrity and biodiversity within national parks, yet at the same time provide opportunities for the public to enjoy parks values. Thus, the conflict between human recreational uses and nature protection has become a major problem within parks in modern times. An active management[2] approach has been supported by Parks Canada to help maintain and restore park's ecological integrity. The 1994 Parks Policy states that, "[n]ational park ecosystems will be managed with minimal interference to natural processes. However, active management may be allowed when the structure or function of an ecosystem has been seriously altered and manipulation is the only possible

---

[1] Robert Page, Suzanne Bayley, J. Douglas Cook, Jeffrey E. Green and J.R. Brent Ritchie, *Banff-Bow Valley Study: At the Crossroads* (Ottawa: Minister of Supply and Services Canada, 1996) at 228.

[2] Active management refers to any prescribed course of action directed towards maintaining or changing the condition of cultural, physical or biological resources to achieve specific Parks Canada objectives. Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994) at 118. [hereinafter Parks Policy]

alternative available to restore ecological integrity."[3]

Consequently, in order to protect ecological integrity and biodiversity, as well as to balance the use vs. protection conflict, human use in national parks must be based on one principle: use without abuse. This means the goal of human use management is to allow people to visit national parks and enjoy park values without damaging parks' ecological integrity and biodiversity.[4] Such human use management aims at keeping national parks' ecosystems evolving in the absence of most human intervention. In practice, Parks Canada manages human activities by controlling the allowable and appropriate uses in national parks. This chapter will explore visitor use management in national parks, and it begins by providing some definitions.

A. Defining Human Uses and Services

a. Allowable Uses

Obviously, not all kinds of recreational uses are allowed within national parks. The Ecological Integrity Panel, in its Report, summarizes the recreational uses allowed by Parks Canada, which include backpacking, fishing, rafting, and heritage appreciation.[5] The Panel further outlines activities prohibited by regulations, such as sport hunting, sky-driving, para-

---

[3] *Ibid.*, s.3.2.3.

[4] Parks Canada Agency, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks* Report of the Panel on the Ecological Integrity of Canada's National Parks (Ottawa: Minister of Public Works and Government Services Canada, 2000) Vol. II Chapter 11, at 1. [hereinafter Panel Report]

[5] *Ibid.*, Vol. II Chapter 11, at 4.

sailing, and off-road motorcycling.[6] According to the Panel's Report, there are some uses without clear status, including baseball, bicycle races, competitive orienteering, cricket, curling, use of personal watercraft (jetskis), lacrosse, lawn bowling, rodeos, and running races.[7] However, with ecological stresses from human recreational uses becoming more and more serious, questions are now being raised. Some uses which were once deemed allowable are not regarded as allowable any more. Therefore, it is time for the Parks Canada Agency to reexamine what kinds of human recreational uses are allowed in national parks.

Although the 1994 Parks Policy states that, "[h]uman activities within a national park that threaten the integrity of park ecosystems will not be permitted"[8], the Ecological Integrity Panel further stressed that recreational uses that are not inherently related to the nature of national parks should be regarded as unallowable on both ethical and environmental bases.[9] Arguably, such uses should be explicitly prohibited by law. For instance, golf is an activity that is being undertaken in some parks, but this use has no justification on ecological integrity grounds since the golf courses consume physical resources which could be wildlife habitat. This human use is also lacks any inherent relationship to the natural values of national parks, and thus should not be allowed.[10] Arguably, the principles of "ecological integrity maintenance" and "no relationship to the values of nature protection" could be regarded as

---

[6] *Ibid.*

[7] *Ibid.*, at 5.

[8] Parks Policy, *supra* note 2, at 35.

[9] Panel Report, *supra* note 4, Vol. II Chapter 11, at 5.

[10] *Ibid.*

criteria to evaluate whether a human use is allowable.

In addition, not every allowable use is appropriate when it is being undertaken in a specific national park or a specific zone of a park. The following section will talk about appropriate uses, which are regarded by the Ecological Integrity Panel as a *sub-set* of allowable uses.[11]

b. Appropriate Uses

Appropriate uses, in national parks, are "those which, by their very nature, are dependent on the unique characteristics of the Parks and which are respectful and non-consumptive of their natural and cultural heritage."[12] This definition implies, when judging whether an allowable use is appropriate for a national park, the grounds for decision-making lie in the unique characteristics of that specific park.

Parks Canada has always wrestled with the question about what constitutes "appropriate" forms of human use. The former national parks acts were largely silent on the matter. Currently, the 1994 Parks Policy has guidance. According to it, an appropriate use is one,

> which is consistent with Parks Canada Policies and the protection of ecological and/or commemorative integrity of protected heritage areas; and is especially suited to the particular conditions of a specific protected heritage area, and provides the means to appreciate, understand and enjoy protected heritage area themes, messages, and stories.[13]

---

[11] *Ibid.*, at 6.

[12] Olson, Douglas & Mitchell, Andy, *Redevelopment Guidelines for Outlining Commercial Accommodations and Hostels in the Rocky Mountain National Parks* (Ottawa: Outlying Commercial Accommodations Panel, 1999) at 110.

[13] Parks Policy, *supra* note 2, at 118.

In other words, appropriate uses are those that allow for the appreciation and enjoyment of national parks values while leaving parks unimpaired for future generations. The 1994 Policy further states that "opportunities will be provided to visitors that enhance public understanding, appreciation, enjoyment and protection of the national heritage and which are appropriate to the purpose of each park".[14]

The Ecological Integrity Panel's Report explores the criteria for judging whether human uses are appropriate in national parks. It says that, "[t]here are two measures of appropriateness: appropriate uses and appropriate levels of use".[15] It then explains, "[a]n allowable activity may be deemed inappropriate for an entire park or an area within a park for various reasons - season, level of use, conflict with national park values".[16] For example, bird-watching would normally be allowable, but may not be appropriate if it occurs during nesting season. Also, large numbers of campers could cause serious stresses on ecological integrity from pollution, sewage, and garbage, which is thus regarded as an excessive level of use. Similarly, hiking will be deemed inappropriate when it conflicts with animal migration, breeding, or feeding ranges.[17] Arguably, to reduce negative impacts from all those inappropriate levels of use, *regulating* appropriate seasons for bird-watchers, defining appropriate limits on camper numbers, as well as designing appropriate trails for hikers will be solutions.

---

[14] *Ibid.*, at 18.

[15] Panel Report, *supra* note 4, Vol. II Chapter 11, at 6.

[16] *Ibid.*, at 7.

[17] *Ibid.*

c. Essential and Basic Services

Services and facilities are provided in national parks for visitors to use. The 1964 Policy termed the supporting facilities as "urban type recreational facilities", and encouraged locating them outside the parks.[18] The 1979 Policy stated that Parks Canada had a responsibility to "ensure that those facilities and services which are essential and appropriate for public access, understanding and enjoyment, are provided and maintained to an appropriate standard."[19] It continued, "[a]ll Canadians have a right to appreciate their natural heritage but the means of doing so and the facilities provided will depend on the sensitivity of the environment to human impact."[20] This statement indicated that evaluating an appropriate service depends on its impact on the environment. The 1979 Policy thus dedicated Parks Canada to encourage "simplicity in facilities" and "self-reliance on the part of visitors".[21] It further noted,

> [w]ithin national parks, preference will be given to basic accommodation facilities such as campgrounds, hostels and shelters which enhance visitors' appreciation and enjoyment of the parks' natural values. Campgrounds and other forms of basic accommodation in national parks will be developed in ways which provide visitors with the greatest possible opportunity to experience the natural environment and require a minimum of support facilities and services.[22]

---

[18] National and Historic Parks Branch, *National Parks Policy* (Ottawa: Queen's Printer, 1964) at 4. [hereinafter 1964 Policy]

[19] Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979) at 15. [hereinafter 1979 Policy]

[20] *Ibid.*, at 42-43.

[21] Rick Searle, *Phantom Parks: The Struggle to Save Canada's National Parks* (Toronto: Key Porter Books Limited, 2000) at 204.

[22] 1979 Policy, *supra* note 19, at 44.

According to the 1994 Parks Policy, "...access and services which relate directly to the objective for national parks will be provided within the parks, while a broad range of needs will be met in the surrounding region."[23] Therefore, current parks policy supports merely providing essential and basic services, and other facilities are encouraged to build outside of park areas.

However, there is no definition of "essential and basic service"provided by the National Parks Act or Policy. Although the 1994 Parks Policy states, "[w]ithin national parks, essential services and facilities will serve the basic needs of the public, and will be directly related to the provision of understanding, appreciation and enjoyment of the natural and cultural heritage"[24], this statement is not a specific definition. As the Banff-Bow Valley Study noted, "there is disagreement about whether the definition of 'basic and essential' and its application is clear from the policy."[25]

Therefore, a clear definition of this term is needed. Arguably, the basic needs of visitors include food, water, lodging, emergency services and transportation. Within national parks, the basic accommodation facilities include campgrounds, hostels and shelters.[26] As the 1994 Parks Policy said, "camping opportunities, activities and services are directly related to the national park mandate of providing benefit, education and enjoyment to park visitors and, therefore, will be the principal form of accommodation made available to the majority of park

---

[23] Parks Policy, *supra* note 2, at 24.

[24] *Ibid.*, s.4.3.4.

[25] Page, et al., *supra* note 1, at 251.

[26] Olson, et al., *supra* note 12, at 1.

visitors."[27] However, even if a service or a facility is essential and basic, it may be used inappropriately or at an inappropriate level, contrary to the principle of ecological integrity maintenance. Hence, it is important to outline some criteria to evaluate "basic and essential services".

Among the criteria for evaluating facilities, "respecting ecological integrity" in national parks is a critical criterion. In this respect, the 1994 Parks Policy states,

> [e]ssential and basic services are provided while maintaining ecological and commemorative integrity and recognizing the effects of incremental and cumulative impacts. Services, facilities and access for the public must directly complement the opportunities provided, be considered essential, take account of limits to growth, and not compromise ecological and commemorative integrity nor the quality of experiences.[28]

The1994 Policy further provides detailed criteria to be considered when judging whether a service or facility is appropriate, such as

> impacts on the ecosystem as well as on specific natural and cultural resources; contribution to the interpretation of park themes and messages; heritage character and historical appropriateness; types of opportunities and activities appropriate to the area, as set out in management plan; a high degree of concern for site planning and choice of construction materials; environmentally appropriate design, aesthetics, architectural motif, and energy conservation; and the needs and expectations of visitors, consistent with park objectives.[29]

The 2000 *Canada National Parks Act*[30] contains a very simple statement about this issue. Section 16 provides, "[t]he Governor in Council may make regulations respecting (h)

---

[27] Parks Policy, *supra* note 2, at 40.

[28] *Ibid.*, at 15.

[29] *Ibid.*, at 40.

[30] *Canada National Parks Act*, S.C., 2000, c.32. [hereinafter 2000 Act]

the restriction or prohibition of activities and the control of the use of park resources and facilities". However, this statement in the Act merely authorizes the Governor in Council to make regulations. It does not have specific guidance on how this goal, to restrict and control the use of facilities in national parks, can best be achieved. Although some specific rules have been enacted in individual Regulations[31] under the National Parks Act, which will be discussed in the next section, it would be preferable if the Act provided criteria for their development. First, the National Parks Act could state clearly that the facilities and services are allowable only if necessary for public enjoyment of the park values. Second, because another of the parks' major roles is to protect natural resources, the National Parks Act could have clarified that only those facilities and services relating directly to this major role of parks, enhancing the enjoyment of the park values without resulting in impairment of park resources, could be provided. Third, the Act could specify that the facilities and services should be located where the least impact on park resources and values will occur, leaving a broader range of services to be met in surrounding regions.[32] Last, in order to reduce external threats to national parks, it could be obligatory that facilities and services should be constructed as harmoniously as possible with their surroundings.

In all, the Parks Canada Agency needs to review existing uses and facilities in every national park, to decide whether those human uses and facilities are allowable, appropriate, and provided so as not to affect the ecological integrity in national parks. Further,

---

[31] *National Parks Building Regulations*, C.R.C., c. 1114, (1999); *National Parks Business Regulations*, S.O.R./98-455; *National Parks Camping Regulations*, S.O.R./80-127.

[32] Parks Policy, *supra* note 2, at 38.

inappropriate uses should not be allowed and facilities that are not essential or basic should not be permitted to be built in national parks. As the Ecological Integrity Panel said, "facilities and activities that do not meet the criteria for appropriateness should be discontinued wherever feasible".[33] Unfortunately, the Act itself imposes little in the way of any requirement for this type of review and re-consideration of past decisions, nor does it address the political controversy which might flow from such decisions.

B. Controlling Allowable Human Uses

a. Overview

In Canada, there are different mechanisms for controlling human uses in national parks, including the Act, its Regulations, and Parks Policies. Although the 2000 Act restricts and prohibits any human activities that will damage park resources, it does not really contain specific guidance on how to control human uses, other than providing a general statement.

However, Regulations under the National Parks Act provide rules that regulate many human uses in national parks. According to the *National Parks Building Regulations*, for example, the authorities may refuse to issue a permit when "the proposed use of the building or structure in the proposed location is not in the interests of the park" or "the building or structure, after the proposed construction, alteration or move, will not meet the zoning regulations applicable to the area in which the building or structure is to be located".[34] Also, in accordance with the *National Parks Business Regulations*, the decision-makers shall

---

[33] Panel Report, *supra* note 4, Vol. II Chapter 11, at 9.

[34] *National Parks Building Regulations*, *supra* note 31, s.7.

consider the effect of a business on "(a) the natural and cultural resources of the park; (b) the safety, health and enjoyment of persons visiting or residing in the park; (c) the safety and health of persons availing themselves of the goods or services offered by the business; and (d) the preservation, control and management of the park",[35] when determining whether to issue a business licence. Similarly, according to the *National Parks Camping Regulations*, the authorities shall specify both the campsite and the time period when issuing a camping permit.[36] Since Regulations are a form of law, they have the same binding legal effects as the Act.[37]

In the field of parks policy, the 1994 *Guiding Principles and Operational Policies* can be regarded as a nationally guiding policy, though not legally enforceable. This policy sets out clear limits on future development. For instance, it says, "given the limited range of unspoiled wilderness left in Canada, it is inappropriate to establish additional communities or intensive infrastructure for recreation in existing and future national parks."[38] It further states that, "[r]oads and trails may be constructed if their primary function is to serve park resources,... New roads and trails that constitute through routes designed to serve other than park purposes will not be considered."[39] An example of the implementation of this policy is the management

---

[35] *National Parks Business Regulations*, *supra* note 31, s.5.

[36] *National Parks Camping Regulations*, *supra* note 31, s.5.

[37] Department of Justice Canada, *A Guide to the Making of Federal Acts and Regulations* (Ottawa: Public Works and Government Services Canada, 1996) at 15.

[38] Parks Policy, *supra* note 2, at 44.

[39] *Ibid.*, at 40.

of Banff National Park. The Banff-Bow Valley Study[40] shows that in Banff National Park, "there will be no new communities, no new golf courses or expansion of existing golf courses, and no new commercial skiing areas."[41] Accordingly, new facilities are not encouraged within national parks by policy.

Whether in the Act, the Regulations, or the Parks Policies, there are several approaches to control human uses in national parks. The following section focusses on exploring three such approaches, including: principles of precaution, the zoning approach, and the national parks management plan.

b. Precautionary Principles

In recent times, the principle of precaution has become very important to Canadian natural resource management and should, arguably, be applied in national parks management. In general, the precautionary principle means that if it is uncertain whether activities will have negative impacts on the park environment, the activities should not be allowed.

The phrase "the precautionary principle" has appeared in a number of international instruments. The 1992 Rio Declaration articulates, "[i]n order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities."[42] The

---

[40] The Banff-Bow Valley Study Task Force Technical Report was published in 1996. It's major objectives are to develop a vision and goals for the Banff Bow Valley that will integrate ecological, social and economic values; to complete a comprehensive analysis of existing information, and to provide direction for future collection and analysis of data to achieve ongoing goals; and to provide direction on the management of human use and development in a manner that will maintain ecological values and provide sustainable tourism. Page, et al., *supra* note 1, at 2.

[41] *Ibid.*, at 27.

[42] Rio Declaration on Environment and Development, U.N. Conference on Environment and Development, June 15, 1992, UNCED Doc. A/CONF. 151/5/Rev. 1, princ. 15, reprinted in 31 I.L.M. 874

1992 Biodiversity Convention[43] also outlines the importance of the precautionary principle. It states, "where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat."[44] This statement emphasizes the precautionary principle by focussing on the need for care and caution. The precautionary principle in international environmental law is a response to the recognition that preventive action is necessary under circumstances where scientific information about future harm is uncertain.[45] Canada is bound by this treaty obligation.

The importance of the precautionary principle is obvious in national parks' management because of the need to protect parks' ecological integrity and their biodiversity for future generations. Where the necessary scientific information on ecosystems in national parks is not complete, the precautionary principle should be used to ensure that activities will not adversely affect the environment. As required by the precautionary principle, scientific information, including both the natural and social sciences, should be the guiding force for determining courses of action for maintaining ecological integrity and biodiversity in national parks. In all, uncertainty about the impact of human use on park environment should result in

---

(1992).

[43] The Convention on Biological Diversity of the United Nations Conference on the Environment and Development, June 5, 1992, Art. 2, U. N. Doc. DPI/1307, reprinted in 31 I.L.M. 818.

[44] *Ibid.*, Preamble, para. 9.

[45] Catherien Tinker, "Responsibility for Biological Diversity Conservation under International Law" (1995) 28 Vanderbilt Journal of Transnational Law 777, at 779.

a decision to stop or delay such activity until critical scientific information is available.[46]

The National Parks Act, Regulations and Policies have no reference to the precautionary principle. According to the Ecological Integrity Panel's Report, "the precautionary principle should be invoked when changes to the environment are contemplated in the absence of information about whether the changes are likely to have negative environmental consequences."[47] The Panel further suggests the Parks Canada Agency improve its scientific capacity for managing a national park[48], and thus adopting the precautionary principle is a very important step. Indeed, it is surprising that the 2000 *Canada National Parks Act* lacks the precautionary principle, since other proposed Canadian legislation, such as the *Species At Risk Act*[49] and the *National Marine Conservation Areas Act*[50], both emphasize this principle, which arguably indicates the Canadian government intends to pay more attention to its importance.

c. Zoning

In order to balance the conflict between human use and natural resources protection, and also in order to protect wildlife and their habitats from intrusion by visitors' activities,

---

[46] Page, et al., *supra* note 1, at 8.

[47] Panel Report, *supra* note 4, Vol. II Chapter 4, at 4.

[48] *Ibid.*, at 11.

[49] Bill C-5, *An Act Respecting the Protection of Wildlife Species At Risk in Canada*, 1 st Sess., 37 Parl., 2001, 1 st reading 2 February 2001.

[50] Bill C-10, *An Act Respecting the National Marine Conservation Areas of Canada*, 1 st Sess., 37 th Parl., 2001, 1 st reading 20 February 2001.

Parks Canada adopts the approach of zoning.[51] The national park zoning system is an integrated method, by which the land and water areas within a national park are classified in accordance with ecosystem and cultural resource protection requirements. The capability and suitability of park areas to provide opportunities for visitor activities is also a consideration in zoning decisions.[52]

The zoning approach was introduced in the 1964 Policy, by classifying the park areas into five zones, which were: special preservation, wilderness, natural environment, outdoor recreation and park services.[53] The zoning approach was addressed in more detail in the 1979 Policy, which affirmed the advantages of the zoning approach by saying, "[z]oning is one the most important tools for the planning, development and management of national parks."[54] It also classified park areas into the same five zones (special preservation, wilderness, natural environment, outdoor recreation and park services), first, according to their need for protection and, second, according to their capability to accommodate visitors.[55] Therefore, the zoning approach "assists in managing the tension between use and preservation".[56]

---

[51] "The zoning system provides a means to reflect principles of ecological integrity by protecting park lands and resources and ensuring a minimum of human-induced change." Parks Policy, *supra* note 2, s.2.2; Also, the 2000 National Parks Act requires the "establishment of zones governing uses of land and buildings". 2000 Act, *supra* note 30, s.16(m).

[52] Parks Policy, *supra* note 2, at 30.

[53] 1964 Policy, *supra* note 18, at 7.

[54] 1979 Policy, *supra* note 19, at 40.

[55] *Ibid.*

[56] *Ibid.*

These five zones are described in detail in Section 2.2 of Parks Canada's 1994 *Guiding Principles and Operational Policies*.[57] According to it, Zone I lands deserve special preservation because they "contain or support unique, threatened or endangered natural or cultural features, or are among the best examples of the features that represent a natural region." Preservation is the key consideration in these areas. Motorized access and circulation is not to be permitted. Zone II contains "extensive areas which are good representations of a natural region and should be conserved in a wilderness state." The key consideration in these areas is maintaining ecosystems with minimal human interference. Zone II areas offer restricted opportunities for visitors to experience the park's natural and cultural heritage values. Zone II areas also provide visitors with outdoor recreational activities, but "the services and facilities should depend upon, and be within the capacity of, the park's ecosystems." Within these areas, opportunities for outdoor recreational activities are encouraged only when they do not conflict with maintaining the wilderness. For this reason, motorized access and circulation is not allowed in this zone either. Zone I and Zone II together contribute greatly toward the maintenance of ecosystem integrity in national parks.[58]

Zone III lands are areas managed as natural environments. They offer opportunities for visitors to experience the park's natural and cultural heritage values through outdoor recreational activities, but require minimal services and facilities. Although motorized access is permitted in these areas, it is controlled. In order to facilitate heritage appreciation, public transit is preferred in this zone. Zone IV lands are for outdoor recreation and "accommodate

---

[57] Parks Policy, *supra* note 2, s.2.2.

[58] *Ibid.*, at 31-32.

a broad range of opportunities for appreciation and enjoyment of the park's heritage values." Related essential facilities and services should follow the rule that their impact on the ecological integrity of the park should be of the smallest extent. Access by motorized vehicles is permitted in Zone IV. Finally, Zone V contains a concentration of visitor facilities and services, such as townsites.[59]

By geographically separating and organizing different land uses, the zoning approach provides a means to protect park resources as well as to ensure a minimum of human-induced changes to the park's environment.[60] In essence, zoning requires limiting access to particularly sensitive areas in national parks by allocating different types of land uses to different areas of a park. Thus, it helps reducing the total quantum and extent of visitor access and contributes to preserving the park resources.[61] In all, zoning is the primary mechanism for balancing the conflict between preservation and visitor access, by setting aside some areas for primarily preservation purposes and others for recreation and visitor facilities.[62] It can be adopted as an effective way to manage visitor use, to protect ecological integrity and conserve biodiversity, as well as to enhance human enjoyment.

Until 1988, all park zoning was implemented only via policy. In law, the designation of wilderness area zones within national parks was first provided in Section 5 of the 1988

---

[59] *Ibid.*

[60] Lara M. Bernstein, "Ecosystem Communities: Zoning Principles to Promote Conservation and the Economy" (1995) 35 Santa Clara Law Review 1309 at 1329-1330.

[61] Stephen W. Boyd, *Sustainability and Canada's National Parks: Suitability for Policy, Planning and Management* (University of Western Ontario, 1995) at 24.

[62] *Ibid.*, at 24.

amendment to the *National Parks Act*.[63] The 1994 Parks Policy concludes that,

> [t]he 1988 amendments to the *National Parks Act* provide for the designation, by regulation, of wilderness areas within a park. It is intended that the designated wilderness area boundaries will be consistent with Zone II boundaries, although the requirement to produce a legal boundary survey may cause some slight variations. In addition, where Zone I areas are included in or are adjacent to Zone II areas, or are large enough to be considered on their own, they may also be included in designated wilderness areas, but will be managed to conform to their special requirements for protection.[64]

Thus, some zones are now established by Regulation instead of Policy, via the *National Parks Wilderness Areas Declaration Regulations*[65], which shows the map plan numbers of wilderness areas zones within Banff, Jasper, Kootenay, and Yoho National Parks.

The 2000 *National Parks Act* carries on the provisions contained in the 1988 amendment with no essential changes. Section 16(m) authorizes the Governor of Council to make regulations respecting "the establishment of zones governing uses of land and buildings."[66] In addition, Section 14 provides,

> [t]he Governor in Council may, by regulation, declare any area of a park that exists in a natural state or that is capable of returning to a natural state to be a wilderness area. The Minister may not authorize any activity to be carried on in a wilderness area that is likely to impair the wilderness character of the area.[67]

It is obvious that the intent of the wilderness declaration is to ensure a high level of ecological

---

[63] *National Parks Act*, S.C., 1988, c.48, s.5.

[64] Parks Policy, *supra* note 2, at 32.

[65] *National Parks Wilderness Area Declaration Regulations*, S.O.R./97-150.

[66] 2000 Act, *supra* note 30, s.16(m).

[67] *Ibid.*, s.14.

integrity in Zones I and II by preventing activities likely to impair wilderness character.

The 2000 Act further requires each park to adopt the zoning approach, as part of a park management plan[68], although it does not specify how the zoning approach will be designed and implemented in a management plan. In reality, the 2000 Act does not provide exact designations of all five zoning areas, nor does it grant park managers the authority to force visitors to abide by the limitations of most zones. Instead, the *National Parks Wilderness Areas Declaration Regulation* only requires the regions and numbers of wilderness areas to be included in an administrative map or a plan of each park.[69] Thus, the zoning approach stays at the level of providing a detailed policy direction for managing park resources and controlling appropriate activities. It is not formulated by the Act as a legal tool. For example, if a person drives a motorized vehicle in Zone I, park managers can not take action to stop this activity. This was a major shortcoming of earlier statutes noted by many authors.[70] However, the 2000 Act has not solved this problem.

Nevertheless, as required by law, the zoning approach is now incorporated into the management plan for each specific national park. For instance, the Banff National Park's

---

[68] Section 11(1) states, "[t]he Minister shall, within five years after a park is established, prepare a management plan for the park containing a long-term ecological vision for the park, a set of ecological integrity objectives and indicators and provisions for resource protection and restoration, zoning, visitor use, public awareness and performance evaluation, which shall be table in each House of Parliament." *Ibid.*, s.11(1).

[69] National Parks Wilderness Area Declaration Regulations, *supra* note 63, s.1.

[70] For example: see Elaine L. Hughes, "Environmental Protection in National Marine Parks" (1992) 41 UNB Law Journal 41.

Management Plan[71] includes a description of the five zones represented within Banff National Park. Accordingly, it is necessary to talk briefly about management plans.

d. Management Plans

As its name states, a management plan is a plan, or guideline, for managing a national park. In the 2000 *Canada National Parks Act*, Section 11 is specific about the "management plan". It says,

> [t]he Minister shall, within five years after a park is established, prepare a management plan for the park containing a long-term ecological vision for the park, a set of ecological integrity objectives and indicators and provisions for resource protection and restoration, zoning, visitor use, public awareness and performance evaluation, which shall be tabled in each House of Parliament.[72]

Accordingly, each national park has a management plan and each management plan contains a statement of park objectives that reflect the role of the park in the national parks system as well as in the natural region in which the park is located.[73] For example, Banff National Park's Management Plan summarises the role of Banff National Park as a place of historical and cultural significance, a place for nature, and a place for people.[74] Park zoning, the zoning map, and other important aspects of managing a national park are also provided in this document.[75]

---

[71] Parks Canada, *Banff National Park Management Plan* (Ottawa: Parks Canada, 1997). [hereinafter Banff Management Plan]

[72] 2000 Act, *supra* note 30, s.11(1).

[73] Panel Report, *supra* note 4, Appendix B, at 6.

[74] Parks Canada, Banff National Park Management Plan Summary, website <http://www.worldweb.com/parkscanada-banff/mp_bnp_e.html>, visited on January 16, 2002.

[75] *Ibid.*

A management plan is "required by legislation, guided by public consultation, approved by the Minister, and tabled in Parliament".[76] Therefore, a management plan must be "consistent with national legislative and policy requirements, and be tailored to address regional requirements and circumstances".[77] In preparing a management plan for a national park, authorities must regard ecological maintenance as the first priority. The 1994 Parks Policy says, "[i]n the preparation of a management plan, the maintenance of ecological integrity through the protection of natural resources and processes will be the first priority when considering zoning and visitor use."[78] As noted in Chapter 3 of this thesis, maintenance of ecological integrity has been extended to all aspects of park management via the 2000 Act. Therefore, preparing such a plan now must consider ecological integrity to be the first priority of all aspects involved in the plan.

The Ecological Panel recommended that detailed contents be included in each management plan, such as,

> provisions for the protection of park values and visitor use; park zoning provisions including wilderness zones and special preservation zones that require more stringent restrictions on use than wilderness zones; a long-term ecological vision of the park; a conceptual model of the park's ecological system; an evaluation of the park's present state; a statement that maintaining and restoring ecological integrity is the overriding priority of the plan, and that all activities and projects contemplated by the plan are compatible with the goal; a specific set of goals and measurable objectives that provide a long-term direction for maintaining and restoring ecological integrity; a comprehensive group of performance targets related to the goals of objectives and tied to a monitoring and evaluation program; a list of indicators designed to

---

[76] Parks Canada, Parks Canada Guide to Management Planning, website <http://www.parkscanada.gc.ca/library/planguide/english/two_e.htm>, visited on March 28, 2002.

[77] *Ibid.*

[78] Parks Policy, *supra* note 2, s.2.1.2.

> adequately assess the ecological integrity of parks; an ecosystem conservation strategy that follows ecosystem-based management principles; provisions for overall visitor limits as well as specific limits for areas where visitor use is a threat to ecological integrity; and other provisions as the Minister considers appropriate.[79]

In all, a management plan is an essential guideline for national parks management. It plays an important roles of directing park managers on how to manage a national park. Banff National Park Management Plan could be such an example, and is now being used as the template for all other national park management plans. However, a management plan is merely a blueprint, and contains no provisions which can be enforced. In addition, a management plan should be periodically reviewed or re-evaluated. As the 2000 Act requires, "[t]he Minister shall review the management plan for each park every five years, and any amendments to a plan shall be tabled with the plan in each House of Parliament".[80] This at least contributes to keeping park management in accordance with any changes.

Conclusion

In modern times, visitor use is one of the great threats to biodiversity and ecological integrity within national parks. Human use should pass the dual tests of allowability and appropriateness. In this respect, it is suggested that the Parks Canada Agency develop a list of both allowable and appropriate activities, and provide criteria for judging "basic and essential services" so that strong and consistent decisions can be made at the national level.[81]

---

[79] Panel Report, *supra* note 4, Appendix C, at 3.

[80] 2000 Act, *supra* note 30, s.11(2).

[81] Panel Report, *supra* note 4, Vol. II Chapter 11, at 1.

Arguably, this list should be incorporated in the National Parks Act.

When managing a national park, if any uncertainty arises, the precautionary principle should be the guiding rule in determining whether a particular type or level of activity is appropriate in a specific national park[82], as required by the Biodiversity Convention. This should be enshrined in law too. The zoning approach should also be formally adopted as an effective legal way to control human use in parks and to balance potential conflict with preservation goals. Though this approach has been enforced in part via the Wilderness Zoning Regulation, it is not fully implemented by the 2000 National Parks Act. The main route to incorporate zones is the requirement for each national park to have its specific management plan, aimed at providing specific guidance to suit the uniqueness of individual parks.[83]

In order to protect ecological integrity and further conserve biodiversity, human use in national parks should be based on one principle: use without abuse. This implies that parks managers should not permit or consider any new activities when those activities do not follow the criteria noted above. If adequate facilities exist, but can be developed outside park boundaries to serve park visitors' needs, such facilities should not be expanded or developed within parks. Arguably, the expansion of existing recreational uses and facilities within national parks must be discouraged, and more detailed legal rules could help ensure progress on these issues. Unfortunately, whether or not the political will exists to enact a stricter regime remains an open question.

---

[82] *Ibid.*, at 2.

[83] An example is the Town of Jasper Zoning Regulations include a detail list of permitted uses corresponding to public open space districts in Jasper Town. *Town of Jasper Zoning Regulations*, S.O.R./92-61, s.5.

Chapter V. Ecosystem-Based Management and the Ecological Model: Managing External Threats

Introduction

In much of Canada, national parks have become ecological islands, disconnected from other natural protected areas. This is because around and beyond the national park boundaries, landscapes have been occupied by ranches, farms, and mines, for the pursuit of economic benefit. Urban development, agriculture, and industrial forestry surrounding national parks affect the ecological integrity within park ecosystems, and are called external threats. As Searle noted, "national parks in Canada are too small, too few, too isolated and too fragmented to adequately protect the ecosystems and species found within their boundaries."[1] His statement identifies one of the major ecological problems, the so-called boundary problem, facing the national parks.

To maintain ecological integrity and biodiversity, national parks need to be managed as the core, and the key part, of a greater ecosystem. This requires the cooperation and the contribution of provincial and territorial governments.[2] To address this challenge, Parks Canada has adopted an approach known as "ecosystem-based management." This chapter explores ecosystem-based management and examines an ecological model's contribution to the ecological integrity and biodiversity conservation in national parks.

---

[1] Rick Searle, *Phantom Parks: The Struggle to Save Canada's National Parks* (Toronto: Key Porter Books Limited, 2000) at 41.

[2] Parks Canada Agency, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks* Report of the Panel on the Ecological Integrity of Canada's National Parks (Ottawa: Minister of Public Works and Government Services Canada, 2000) Vol. II, Chapter 9 at 1. [hereinafter Panel Report]

A. The Boundary Problem in National Parks

Many national parks' boundaries were not established in accordance with an ecological analysis. The result is that park size does not include enough land to contain the entire ecosystem which parks need to protect. Also the park is not placed in the area where the location of the ecosystem is. The failure of national parks boundaries to protect entire ecosystems has exacerbated the negative effects caused by the land use adjacent to parks.[3]

An example of this problem is Pacific Rim National Park.[4] It was established in 1970 mainly for recreation, rather than for the goal of maintaining its ecological integrity. At that time, the BC government did not remove adjacent lands from timber production, which created a narrow coastal strip that is now the park area. Park boundaries were not established based on the principles of biological conservation, resulting in the Pacific Rim National Park being subject to external ecological stresses. Additionally, the park's small size makes it vulnerable to internal disturbances from increased tourism and human recreational use.[5] Thus, this Park's ecological integrity was ranked as among the most stressed of all national parks, according to the *State of the Parks 1997 Report*.[6] The Pacific Rim National Park's problem indicates the importance of ecological integrity consideration when establishing park boundaries in order to conserve biodiversity. Today, to the Parks Canada Agency, how to

---

[3] Stephen Stouffer Doyle, *External Threats To National Parks: A Case Study of Pacific Rim National Park Reserve* (British Columbia: University of Victoria, 1992) at 5.

[4] Panel Report, *supra* note 2, Vol. II Chapter 8, at 8.

[5] *Ibid.*

[6] Parks Canada, *State of Parks 1997 Report* (Ottawa: Minister of Public Work and Government Services Canada, 1998) at 25. [hereinafter 1997 Report]

solve the parks boundary problem is a challenge.

It is obvious that a management priority on ecological integrity within parks has finally been established by modern Canadian law and policy. In addition, the 1994 *Guiding Principles and Operational Policies* requires Parks Canada to pay attention to the following principles when proposing the boundaries of a potential national park. It states that,

> Parks Canada will endeavour to establish a park with a size and configuration that: 1) protects ecosystems and landscape features representative of the natural region; 2) accommodates the habitat requirements of viable populations of wildlife species that are native to the natural region; 3) includes an undisturbed core which is relatively unaffected by impacts originating from the surrounding landscape; and 4) protected exceptional natural phenomena, and vulnerable, threatened or endangered wildlife and vegetation.[7]

This principle contains four points: natural region represented, habitat protected, core areas undisturbed, and wildlife protected. These ideas may help prevent the boundary problem when establishing a new park. As an aside, however, one might note that these four guidelines are very general and do little to alleviate problem in established parks. It is even regrettable that both the national park policy and the National Parks Act fall short of defining a minimum size for a national park.[8]

To prevent the parks boundary problem, some scholars also describe a set of principles for proposing parks boundaries. Firstly, parks boundaries should be established in accordance with an ecological analysis. Noss pointed out that, "political, economic and other

---

[7] Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994) at 25. [hereinafter Parks Policy]

[8] Rick Rollins, *Managing the National Parks*, in Philip Dearden & Rick Rollins, eds., *Parks and Protected Areas in Canada - Planning and Management* (Toronto: Oxford University Press, 1993) 75 at 94.

considerations should not constitute elements during the process of negotiating a national park."[9] That means ecological integrity should be the only consideration. In reality, boundaries are not mainly based on biophysical and ecological factors. Instead, they are often affected by political intervention for economic gains such as logging, mining, and oil and gas exploration. As Kothbauer said, "[p]olitical manipulation of the boundaries intensifies the park's ecological inadequacies by reducing the area of protected habitat."[10]

Secondly, parks size should be large enough in order to absorb perturbance.[11] This is because a large block of habitat contains a larger population of each species, and larger populations of species are usually less vulnerable to extinction than smaller populations. If a park area is too small, a disturbance can easily perturb all members of a species living in the park, thus resulting in species extinction and biodiversity loss.[12] Accordingly, large areas of national parks with large populations of species are superior to small blocks of habitat containing small populations.

Thirdly, connected habitat is better than fragmented habitat.[13] Fragmentation involves a reduction in park size and an increase in isolation of habitat. By the same token, a small and isolated habitat contains a smaller population of wildlife and has less opportunity to be rescued

---

[9] Reed F. Noss, "Some Principles of Conservation Biology, As They Apply to Environmental Law" (1994) 69 Chicago-Kent Law Review 893 at 901.

[10] Maria Theresia Kothbauer, *National and Provincial Park Service Responses to Human-Induced Ecological Change in Ontario* (University of Guelph, 1988) at 29.

[11] Dave Foreman, "The Wildlands Project and the Rewarding of North America" (1999) 76 Denver University Law Review 535 at 544.

[12] Noss, *supra* note 9, at 901.

[13] *Ibid.*

from surrounding disturbance. In contrast, habitat connected by natural movements of animals makes them less susceptible to species extinction than habitat isolated by human activities.[14] This is the rationale for establishing biological linkages. Unfortunately, many national parks are disconnected from other natural habitats and are disturbed by human activities taking place in all surrounding areas.

Fourthly, national parks that are roadless or inaccessible to human visitors are better than those roaded and accessible.[15] It is obvious that an intact habitat can make species free from human interference, and thus is critical for many species to live. In addition, roads may occupy wildlife habitat and road kill is also the cause of many population losses in some parks. In Point Pelee National Park, for example, the Park's East Road has been moved in order to reserve natural habitats. The corresponding benefits include: expanding natural habitat for native species, such as forest breeding birds in that park; decreasing the amount of animal road kill; and reconnecting forest habitats which have been divided.[16] The Parks Canada's zoning approach may be a good way of resolving this problem in theory, but as discussed in Chapter 4, this approach needs to be enforced formally and effectively by law.

According to these principles, Parks Canada Agency needs to begin giving the highest priority to maintaining ecological integrity when establishing national parks and seeking park boundaries, so that natural habitat can be protected. This issue and corresponding principles

---

[14] *Ibid.*

[15] *Ibid.*

[16] Natural Heritage, *Point Pelee National Park of Canada- East Road Removal*, website <http://www.parcscanada.gc.ca/pelee/english/recon2_e.htm>, visited on September 25, 2001.

should be formally addressed by the National Parks Act. In addition, it is not easy to isolate the impact of human activity merely by depending on management inside a national park since activities undertaken in areas adjacent to a national park certainly have impact on the whole ecosystem within the park boundaries.[17] Therefore, regional involvement, during the process of establishing park boundaries and managing a national park, is necessary.

Although the 2000 National Parks Act does not provide criteria for determining park boundaries, it does provide a process for enlarging a park reserve, which helps resolve the problem that park lands are not large enough to protect the natural habitat. Adjustments to park boundaries could also make existing parks more in accordance with ecological borders. Section 6 says, "... the Governor in Council may, by order, for the purpose of establishing or enlarging a park reserve... [alter] the description of the reserve, if the Governor in Council is satisfied that the government of the province in which the lands to be included in the reserve are situated has agreed to their use for that purpose."[18] However, "Her Majesty in right of Canada may not acquire any interest in land by expropriation for the purpose of enlarging a park...".[19] Thus, enlarging established parks or park reserves is heavily dependent on federal-provincial negotiation (a political process), rather than on ecological considerations. This issue will be discussed further in Chapter 6.

The involvement of the provincial government, which has the ownership of, or the

---

[17] Robert Page, Suzanne Bayley, J. Douglas Cook, Jeffrey E. Green and J.R. Brent Ritchie, *Banff-Bow Valley Study: At the Crossroads* (Ottawa: Minister of Supply and Services Canada, 1996) at 282.

[18] *Canada National Parks Act*, S.C., 2000, s.6(1). [hereinafter 2000 Act]

[19] *Ibid.*, s.15(6).

authority to expropriate, the lands adjacent to national parks, is obviously critical. Accordingly, since managing threats from external sources requires management in a bigger area, such ecosystem-based management will involve agencies outside of Parks Canada Agency.

B. Ecosystem-Based Management

a. The Need for Ecosystem-Based Management

Wild animals do not pay attention to political boundaries when they move from one habitat to another; neither do ecological functions follow the jurisdictional boundaries. As a result, protected areas must be managed from an ecosystem perspective rather than according to boundaries defined by other criteria such as political jurisdiction. It is also known that national parks have become islands of ecological integrity, surrounded by human-dominated lands. Their isolated condition from other protected areas has caused national parks to lose species living within them.[20] This problem reminds us to shift our views from national parks and other protected areas as separate from us, toward national parks and other protected areas as being part of the same ecosystem within which we all live. In Canada, national parks are just one part of a network of federal, provincial, territorial, and other protected areas. In all these cases, cooperation between Parks Canada Agency and other agencies is needed, which means integrating park management with surrounding regions. This section will focus on such ecosystem-based management.

---

[20] Annette Luttermann, *Towards Ecosystem-based Management for Protected Areas through Comprehensive Land Claims and Interjurisdictional Cooperation: A Case Study of the Torngat Mountain National Park Proposal in Northern Labrador* (Nova Scotia: Dalhousie University Halifax, 1995) at 39.

b. Definition of Ecosystem and Ecosystem-Based Management

An ecosystem is an area "where boundaries reflect ecosystem population processes and patterns, providing sufficient area, diversity, and complexity for continued self-organization and self-maintenance in the absence of catastrophic external circumstances."[21] According to this definition, an ecosystem refers to a large and interdependent system, which is composed of a complex of plant, human, animal, and micro-organism communities and their non-living environments.[22] Ecosystems provide ecological services such as oxygen production, water purification, and climate moderation. They also produce the soils in which we grow crops, and they remove greenhouse gases from the air. Therefore, a well-functioning ecosystem is essential to humans and to all other living things.[23]

The idea of "ecosystem-based management" was defined by Professor Keiter as follows:

> the concept of ecosystem management, though still often misunderstood, has now been defined with sufficient precision to constitute a viable natural resource management policy. Drawing heavily upon ecological and biological sciences, particularly the field of conservation biology, ecosystem management views the land and resource base in its entirety, as a holistic or integrated entity. Management focuses on entire ecosystems, not just individual resources such as timber and forage. Recognizing the natural systems often cross jurisdictional boundaries, ecosystem management emphasizes the need for inter-jurisdictional coordination to ensure ecological integrity

---

[21] Scott D. Slocombe, "Implementing Ecosystem-based Management: Development of Theory, Practice and research for Planning and Managing a Region" (1993) 43 Bioscience 612 at 614.

[22] Panel Report, *supra* note 2, Appendix B at 10.

[23] Environment Canada & United Nations Commission on Sustainable Development, *Learning From Nature: Canada - The Ecosystem Approach and Integrated Land Management* (Ottawa: Environment Canada, 2000) at 2.

and sustainable resource systems.[24]

We conclude from this description that ecosystem-based management pays attention to the entire ecosystem, and thus stresses the importance of cooperation between different management entities.

Another author, Slocombe, describes ecosystem-based management as "the process of managing and understanding the interaction of the biophysical and socio-economic environments within a self-similar, self-maintaining regional or larger system."[25] Accordingly, ecosystem management requires controlling human activities in such a way that over time, and over an appropriate physical area, all the ecosystem components and structures, as well as the physical, chemical, and biological processes, continue as they should.[26] It is easy to see the relationship between the ecosystem and its ecosystem-based management; "ecosystem" refers to the natural world, while ecosystem-based management implies human involvement in maintaining the natural world. In all, the term "ecosystem-based management" indicates a merging of the natural and the human.[27]

c. Policy and Law

Ecosystem-based management is not new to Parks Canada. As early as 1979, national

---

[24] Robert B. Keiter, "Beyond the Boundary Line: Constructing A Law of Ecosystem Management" (1994) 65 Colorado Law Review 293, at 295.

[25] Page, et al., *supra* note 17, at 283.

[26] *Canadian Biodiversity Strategy, Canada's Response to the Convention on Biological Diversity* (Ottawa: Minister of Supply and Services Canada, 1995) at 53.

[27] Keiter, *supra* note 24, at 300.

park policy talked of managing protected areas in a regional context.[28] Such management aimed at encouraging the park to be integrated with the surrounding landscape.

The background to the 1994 Parks Policy recognized the different regimes governing national parks and the surrounding regions. As a result, the 1994 Policy contains many references to ecosystem-based management. One of the key principles requires Parks Canada to establish and maintain management relationships with owners of land adjacent to the parks. It states, "Parks Canada will seek mutually satisfactory solutions to transboundary concerns associated with the management of shared ecosystem components, the effects of adjacent land use practices on park ecosystems, or the effects of park management practices on the use of adjacent lands."[29] It is thus clear that the Parks Canada Policy encourages adopting an ecosystem-based management approach.

However, as noted above, the National Parks Act itself merely deals with issues within parks boundaries. Human activities outside parks boundaries are , therefore, normally under the jurisdiction of other governments or agencies, such as provincial or territorial governments.[30] The method that the National Parks Act adopts to address this issue is by authorizing park managers to participate as much as possible in the management of human activities outside park boundaries if those activities affect parks ecosystems. At a formal level, the 2000 *Canada National Parks Act* states that,

> [t]he Minister may enter into agreements with federal and provincial ministers and

---

[28] Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979) at 15.

[29] 1997 Report, *supra* note 6, s.3.2.9.

[30] Panel Report, *supra* note 2, Vol. II Chapter 9, at 5-6.

> agencies, local and aboriginal governments, bodies established under land claims agreements and other persons and organizations for carrying out the purposes of this Act.[31]

As Luttermann summarizes: "Parks Canada may not have regulatory powers [in this issue], but it can be argued that it has a *participatory duty*."[32] However, judging from the phrasing "may" adopted in the 2000 Act, this participatory "duty" is not mandatory.

d. Cooperation

Cooperation between different governments and agencies is therefore needed in order to manage national parks based on ecosystem principles. About cooperation, Parks Canada's *Guiding Principles and Operational Policies* provides that,

> Parks Canada will take the lead role in establishing integrated and collaborative management agreements and programs with adjacent landowners and land management agencies. ... Parks Canada will also participate in regional land use planning and management initiatives sponsored by other jurisdictions to encourage the understanding and co-operation of other agencies in protecting park ecosystems, and for Parks Canada to better understand the management concerns of those other agencies.[33]

Accordingly, the Parks Canada policy encourages park managers to get involved in management issues beyond the park boundaries so that a cooperative relationship with other agencies can be established, to secure trans-boundary management, which is critical to ecosystem-based management.

In reality, the ecosystem-based management approach and the corresponding cooperation have had some success. For example, at both Waterton Lakes and Riding

---

[31] 2000 Act, *supra* note 18, s.10(1).

[32] Luttermann, *supra* note 20, at 32-33.

[33] Parks Policy, *supra* note 7, s.3.2.9.

Mountain national parks, park staff and local citizens have formed management and technical committees to find mutually acceptable solutions to solve shared ecological problems.[34] In another example, Parks Canada is in alliance with Deh Cho First Nations and other land managers to protect the ecosystem within Nahanni National Park Reserve.[35] In that area, the land outside the Park Reserve is used for private and commercial tourism, trophy hunting and resource extraction activities, which have negative impacts on critical habitat for grizzly bears living within park boundaries. In response to this situation, Parks Canada has worked with Liidlii Kúé First Nation and Deh Cho First Nations to develop an ecological integrity plan for Nahanni. The Government of the Northwest Territories is also involved in the planning process.[36] These are good examples of involving the surrounding community in the project of ecosystem-based joint management.

Parks Canada, however, has had a mixed history of collaboration and partnership with various partners. It has tried to be committed to partnership efforts, but has met with problems when dealing with different partners.[37] Currently, the Parks Canada Agency is developing new ecological integrity funding, which hopes to promote a broader range of ecosystem-based management. Meanwhile, the Parks Canada Agency is discussing

---

[34] Searle, *supra* note 1, at 189-190.

[35] Parks Canada, Nahanni National Park Reserve of Canada - Greater Nahanni Ecosystem, website http://www.parcscanada.gc.ca/parks/nwtw/nahanni/english/whatsnew2_e.htm, visited on September 25, 2001.

[36] *Ibid.*

[37] People complained that, "there is a long history of national parks being established in a way that does not take into account the interests of the local people." Some of these disputes have led to litigation and protest. L. Bella, *Parks for Profit* (Montreal: Harvest House, 1987) at 135.

management issues with its provincial and territorial partners in the Federal Provincial Parks Council (FPPC), in order to develop a strategy for managing protected areas as a whole network.[38]

In summary, ecosystem-based management needs cooperation that involves many agencies working together to integrate biological, physical, and social information, aimed at creating environmentally, socially healthy parks within broader regional landscapes.[39] Unfortunately, the National Parks Act merely refers to the Minister's "participatory duty", as noted previously, which is not mandatory, and there is nothing more which requires or encourages other groups to cooperate with the federal agency's goals in the law. This is a pity. If laws could do more to enable such cooperative relationships, more participants might be encouraged.

e. An Effective Approach to Conserve Biodiversity

The ecosystem-based management approach places its stress on the long-term maintenance of biological diversity.[40] The focal point is protecting and restoring native species, in order to sustain the integrity of ecological systems. Keiter describes his opinion about the inherent relationship between ecosystem-based management and biodiversity conservation. He says,

---

[38] Parks Canada, *Response to Recommendations of the First Minister's Round Table on Parks Canada*, held April 1-4, 2001- Partnerships in Regional Ecosystems, website <http://www.parcscanada.gc.ca/RoundTable/English/ecoresponse_e.htm>, visited on December 5, 2001.

[39] Parks Canada Agency, *Sustainable Development Strategy 2001-2004 - Sustaining Ecological and Commemorative Integrity* (Ottawa: Her Majesty the Queen in Right of Canada, 2000) at 6.

[40] Karen Janet Wipond, *Interpretation and Implementation of the Mandate to Maintain Ecological Integrity in Pacific Rim* (University of Victoria, 1996) at 7.

> [b]iodiversity conservation is concerned with ensuring the continued existence of species, which means protecting diversity at the genetic, population, ecosystem, and regional levels. Because an array of large, intact ecosystems are necessary to support healthy and diverse populations of native species, management at the ecosystem level is the principal means of achieving biodiversity conservation goals.[41]

This statement further illustrates that ecosystem-based management draws heavily on the health of ecosystems as a whole, rather than on the state of individual species. The result is thus the focus of management shifts from a species base toward a larger system base, namely at the habitat level.[42] Ecosystem-based management is therefore regarded by many authors as "the most effective way to conserve biological diversity."[43]

It is well accepted among ecologists that maintaining biodiversity and ecological integrity depends much on human activities in surrounding regions because ecosystems span jurisdictional boundaries and thus activities on neighbouring lands inevitably affect the park's resources. The Biodiversity Convention[44] also addresses this issue. Article 8(e) implicitly provides that the activities which occur in the areas adjacent to protected areas may be critical to the protected areas's success.[45] On the one hand, this Article commits nations to promote

---

[41] Keiter, *supra*, note 24 at 301-302.

[42] Peter Dykstra, "Defining the Mother Lode: Yellowstone National Park v. The New World Mine" (1997) 24 Ecology Law Quarterly 299 at 928-929.

[43] Amanda Hubbard, "The Convention on Biological Diversity's Fifth Anniversary: A General Overview of the Convention - Where Has it Been and Where Is It Going?" (1997) 10 Tulane Environmental Law Journal 415 at 417.

[44] The Convention on Biological Diversity of the United Nations Conference on the Environment and Development, June 5, 1992, Art. 2, U. N. Doc. DPI/1307, reprinted in 31 I.L.M. 818. [hereinafter Biodiversity Convention]

[45] It states, "[p]romote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas." *Ibid.*, Article 8(e).

development in areas adjacent to protected areas. On the other hand, it commits nations to ensure that development in these areas does not undermine conservation within the protected areas itself, and is both "environmentally sound"and "substainable".[46]

To address this issue, Searle calls on everyone who owns or uses land adjacent to a national park to take a part in this responsibility.[47] He urges them, "to be a good neighbour."[48] He further asks these neighbours to control their actions to lessen the potentially adverse impacts. To him, those who live hundreds or even thousands of kilometres away should take the same responsibility.[49] To solve this shared ecological problem, Searle, suggests developing more effective management relationships inside and outside park boundaries. In turn, such inter-jurisdictional cooperation is believed to be an essential prerequisite for the ecosystem-based management approach, contributing to biodiversity conservation in bigger protected areas.

C. Ecological Model and Protected Areas Network

a. Overview

To manage a national park based on its ecosystem, a model is needed. The "ecological

---

[46] Lyle Glowka, Françcoise Burhenne-Guilmin, and Hugh Synge in collaboration with Jeffrey A. McNeely and Lothar Güünding, *A Guide to the Convention on Biological Diversity* (Gland, Switzerland: IUCN - the World Conservation Union, 1994) at 42.

[47] While Parks Canada has the legal authority to control use and development within national pak boundaries, it has little power to address threats to ecological integrity arising from adjacent land use. In place of coercion, park staff must rely on good working relationship and influence with neighbouring municipalities, farmers, loggers, miners or land developers. Searle, *supra* note 1, at 63.

[48] *Ibid.*, at 80.

[49] *Ibid.*, at 80.

model" is a system that contains core reserves, buffer zones, and biological linkages. Core reserves are protected areas which are strictly managed to protect and restore native biological diversity. Surrounding the core reserves, buffer zones are areas allowing certain levels of compatible human activities. Biological linkages, such as corridors or connective areas, are areas providing secure routes between core reserves "for the dispersal of wild-ranging species, for genetic exchange between populations, for the flow of ecological processes, and for migration of plants and animals in response to climate change."[50] Therefore, an ecological model can be described as a model with two concentric rings and one connective strip. The inner ring is the core reserve, surrounded by the next ring as the buffer zone, and is linked to the next reserve by the corridor.

b. Core Reserves

National parks are examples of core reserves. The management model inside national parks has been talked about in Chapter 4, where the zoning approach was described. The focal point in this section will be the other two components, namely buffer zones and connective corridors.

c. Buffer zones

Buffer zones are strips of land bordering a core reserve, within which human uses of natural resources will be allowed, but where those uses must be compatible with the management objectives of the core reserves.[51] In other words, buffer zones lie outside of

---

[50] Dave Foreman, "The Wildlands Project and the Rewilding of North America" (1999) 76 Denver University Law Review 535 at 545-546.

[51] Dykstra, *supra* note 41, at 305.

national parks but adjacent to them, and resource uses in buffer zones are permitted but restricted to those that do not damage national parks. It is here that ecosystem-based management by "good neighbours" can make a critical impact.

As previously mentioned, the boundaries of early national parks usually did not conform to ecological considerations, thus some national parks are located in areas with heavy human development, or critical habitats are located on lands outside of parks.[52] If national parks are surrounded by degraded habitats, it is almost impossible for them to be able to conserve ecological integrity and biodiversity within their boundaries. This is the reason for the establishment and development of buffer zones.

Buffer zones are specially designated to protect the core reserves. The benefits lie in the fact that they could help the protected areas remain uninjured from external threats.[53] Located surrounding the national parks, buffer zones absorb some of the disturbances from development activities occurring adjacent to parks. Resource uses, such as mining, are not allowed in national parks. Instead, they can be conducted in buffer zone areas, but they must not damage the park environment. Recreation in buffer zones should also be consistent with the purpose of national parks and would only be allowed if it did not damage the park's resources. Accordingly, development activities performed in buffer zones are limited. Those that will damage national parks can only be conducted outside buffer zones, to enable the buffer zones to absorb the negative effects caused by these activities. This is how buffer zones work to protect the park's ecological integrity and biodiversity, at least in theory. The essence

---

[52] Panel Report, *supra* note 1, Vol. II Chapter 9, at 1.

[53] Dykstra, *supra* note 41, at 306.

is placement of different uses in different areas, the theory similar to the zoning model adopted within national parks. By doing this, buffer zones expand the land area that is available for human use, but prohibit those activities that injure the park resources.[54]

Recognizing that buffer zones have so many advantages, an arguable issue will be how to create a buffer zone, including how the buffer zone boundaries could be established, and how much area is enough for a buffer zone. In addition, when a buffer zone is established, a key consideration is how the buffer zone will be managed, since some resources agencies and private landowners are reluctant to see the buffer zones officially recognized and established.

In Canada, national park establishment work is guided by the *National Parks System Plan*.[55] Before the 2000 *National Parks Act*, there were no laws or regulations governing the process of establishing new national parks, other than a general announcement in policy indicating that national parks are "formally established through amendment to the National Parks Act".[56] A more detailed discussion on changes in the 2000 Act about the park establishment process will be in Chapter 6. Briefly, however, the National Parks Policy describes the process of establishing a new national park. The 1994 policy says,

> [t]here is no rigid process for establishing new national parks. Each situation is unique and the steps leading up to the creation of a new national park reflect individual circumstances. The normal sequence, however, is characterized by five steps: identifying representative natural areas; selecting a potential national park; assessing park feasibility; negotiating a park agreement and obtaining clear title; and

---

[54] *Ibid.*, at 313.

[55] Parks Canada, *National Parks System Plan* (Ottawa: Minister of Supply and Services Canada, 1997).

[56] Parks Policy, *supra* note 7, s.1.5.1.

establishing a new national park in legislation.[57]

There is certainly no law or regulations about establishing buffer zones either. Arguably, establishing a buffer zone should adopt the similar process: identifying suitable areas, selecting potential buffer zones, assessing zone feasibility, negotiating a buffer zone agreement or series of agreements, and establishing a buffer zone in legislation where possible. Obviously, the process of establishing a buffer zone could be similar to the process of establishing a national park, but without the need to transfer the land title to federal ownership. Since buffer zones lie outside of national parks, their establishment would not fall into the jurisdiction of the Parks Canada Agency, but instead would fall within provincial and municipal powers. Thus, they would need to be established by negotiation between the Parks Canada Agency and the landowners (including provincial governments) adjacent to the park, with the aim of protecting natural resources within the park. Although there is no exact rule on how much area should be embodied in a buffer zone, the size should be at least large enough to absorb any disturbance caused by the activities outside the buffer zone. According to Dykstra, "[d]esignation of the size and area of buffer zones must take into account the sensitivity of the protected area. Current land use patterns and future development potential should be included in the process of determining the placement and size of the buffer zones."[58] In all, a buffer zone should be created to ensure the protection of the park resources; any other consideration is secondary. This priority is consistent with the mandate of maintaining ecological integrity and biodiversity placed in the National Parks Act.

---

[57] *Ibid.*, s.1.0.

[58] Dykstra, *supra* note 41, at 307-308.

As to how to manage the buffer zones, it should also be the Parks Canada Agency's responsibility to negotiate what kinds of activities are permitted within the buffer zones, via provincial law. As noted above, the primary criterion should be that activities allowed in the buffer areas must be consistent with the management objectives of the core reserves. Thus, the protection of the park's resources should be the first priority. The determination of what kinds of activities are permitted in buffer zones needs an analysis of their effects on the park's resources too. According to Dykstra, "a major aspect of this process is calculating the extent of damage to a park's resources that an activity can have before it is no longer allowed in the buffer zone."[59] Arguably, Parks Canada Agency, by agreement with provincial governments, should develop the minimum limit of or standards for the damage for enactment in law. Another effective approach is to manage buffer zones on a park-by-park basis because individual parks may need buffer zones for different reasons. As Dykstra noted, "the buffer zones around different parks need to be managed in such a way that depends on the needs of individual parks in order to protect each parks' unique resources."[60]

In respect to management at the provincial and territorial level, the Ecological Integrity Panel suggested creating an inter-agency co-ordination structure, such as a co-management board, in order to provide guidance as well as to supervise cooperation on the maintenance of ecological integrity and biodiversity both in national parks and other protected areas.[61] Arguably, general principles or rules of managing buffer zones could be provided by

---

[59] *Ibid.*, at 313.

[60] *Ibid.*, at 319.

[61] Panel Report, *supra* note 2, Vol. II Chapter 9, at 8.

the National Parks Act, and delegated to regional managers, or negotiated for inclusion either in parallel provincial legislation, or in other instruments such as a conservation agreement joined by regional authorities.

d. Biological Linkages

Wildlife do not stay in one protected area all the time but move between protected areas. When they move, they do not stop to consider the political boundaries. The only concern to them is whether the habitat is available at either place and if the passage is safe between the two places. Therefore, it is necessary to link the various protected areas. A biological linkage is "a strip of land with its state as natural as possible, through which wild animals can move safely from one protected area to another".[62] It is also called a corridor.

According to the Banff-Bow Valley Study,[63] a biological linkage has many advantages. It first helps wildlife to move safely between natural habitats. It further allows animals to move freely between different groups, units or populations, thereby counteracting the isolating effects of fragmentation, and contributing to the maintenance of genetic biodiversity.[64] If such a linkage is destroyed, species can not arrive at the desirable habitat safely, which can cause a decline in biodiversity in the long term. Arguably, connecting protected areas with one another by means of corridors is believed to be necessary to effectively conserve biodiversity.

An example would be the Yellowstone to Yukon or "Y2Y" Initiative. The program

---

[62] Panel Report, *supra* note 2, Appendix B at 16.

[63] Page, et al., *supra* note 17.

[64] *Ibid.*, at 190.

aspires to create a continuous corridor spanning the Rocky Mountains and running nearly 3,200 kilometres, from Yellowstone National Park in Wyoming to the Mackenzie Mountains in the Yukon.[65] The mission is to "build as well as maintain a life-sustaining system of core protected areas, and connecting wildlife movement corridors, both of which will be further insulated from the impacts of industrial development by transition zones."[66] The Y2Y Initiative is an ecological model consisting of core reserves linked by corridors and surrounded by buffer zones.

Within Canada, in Banff National Park, efforts have been made to reconnect the habitat separated by the Trans-Canada Highway.[67] Parks Canada first fenced off 47 kilometres of the highway to eliminate road mortality. Furthermore, Parks Canada built underpasses for the exclusive use of wildlife to cross the highway, which helps alleviate the habitat fragmentation caused by the highway and the fence.[68]

These are good examples of attempts to establish biological linkages. Where a corridor lies outside of national parks, the Parks Canada Agency should have a participatory duty in their establishment and management, with the issues being addressed in the same way as those of buffer zones.

e. Man and the Biosphere Program

The ecological model just discussed was inspired by the Man and the Biosphere

---

[65] Searle, *supra* note1, at 187.

[66] Panel Report, *supra* note 2, Vol. II Chapter 9, at 2.

[67] Page, et al., *supra* note 17, at 99.

[68] *Ibid.*

(MAB) program of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1976.[69] The basic idea is already outlined: the protection of core reserves, enhanced through establishing and managing surrounding buffer zones where land use activities are partially restricted or otherwise controlled, so as to be more compatible with protection objectives of core reserves.[70]

The whole of the protected areas under the MAB program are known as biosphere reserves.[71] They are being created in many countries to maintain the diversity and integrity of plant and animal species within natural ecosystems. Selection criteria require this area to be typical of its biogeographic region and to contain a core area of protected, minimally disturbed ecosystem.[72] The 1994 Parks Policy outlines criteria for identifying a representative natural area[73] and further describes considerations when selecting a potential national park[74]

---

[69] Wipond, *supra* note 39, at 49.

[70] *Ibid.*, at 49-50.

[71] According to the MAB program, a biosphere reserve is "an identified geographic area where communities work toward the conservation of ecosystems, sustainable use of natural resources, and research, education, and monitoring related to ecosystems." Environment Canada & United Nations Commission on Sustainable Development, *Learning From Nature: Canada - The Ecosystem Approach and Integrated Land Management* (Ottawa: Environment Canada, 2000) at 7. [hereinafter Learning From Nature]

[72] *Ibid.*

[73] i) The areas must portray the geology, physiography, vegetation, wildlife, and ecosystem diversity characteristic of the natural region; ii) the area's must be in a healthy, natural state, or, if they are stressed or significantly modified, the area must have the potential for being restored to a natural state. Parks Policy, *supra* note 7, s.1.1.1.

[74] In selecting potential national parks, consideration will be given to a wide range of factors, including: i) the extent to which the area represents the ecosystem diversity of the natural region; ii) the potential for supporting viable populations of wildlife species native to the natural region; iii) the ecological integrity of the area's ecosystems, as well as those of the surrounding lands; iv) the occurrence of exceptional natural phenomena, and rare, threatened or endangered wildlife and vegetation; v) the existence of significant cultural heritage features or landscapes; vi) opportunities for public understanding,

which would meet the MAB selection criteria. In Canada, a number of national parks are designated as core reserves within Biosphere Reserves.

Arguably, the MAB program is well-known for the idea of cooperation in managing lands adjacent to the core reserves. Here, the core reserves are surrounded by a "buffer zone", which in turn is surrounded by a "zone of cooperation". The buffer zone structure has been discussed in the previous section. The zone of cooperation is a novel part of a biosphere reserve. Doyle describes it as "a flexible and dynamic zone where conservation knowledge and management skills are applied, where economic and social activities are allowed and where management is cooperative and in harmony with the objectives of the biosphere reserve."[75] Accordingly, the zone of cooperation supports intensive resource uses such as forestry, ranching, farming, and oil and gas extraction. It also contains human settlements and intensive recreation. Yet the goal of establishing and managing the zone of cooperation is to serve biodiversity and ecological integrity maintenance in the core reserves. In all, the UNESCO's Man and Biosphere program provides an appropriate framework for countries to establish and manage their ecological models.[76] Without doubt, the creation and

---

education and enjoyment; vii) competing land and resource uses; viii) possible threats to the long-term sustainability of the area's ecosystems; ix) complementarity with the objectives of existing or planned protected natural areas of other jurisdictions in the region; x) the potential for establishing an adjacent national marine conservation area that is representative of its marine region; xi) the implications of Aboriginal rights, comprehensive land claims and treaties with Aboriginal peoples; and xii) international criteria for national parks. *Ibid.*, s.1.2.2.

[75] Stephen Stouffer Doyle, *External Threats To National Parks: A Case Study of Pacific Rim National Park Reserve* (British Columbia: University of Victoria, 1992) at 54-55.

[76] In addition, the MAB program encourages interdisciplinary research in the fields of education, science, culture and communication. It contributes not only to better understanding of the environment, but also to implementing the Biodiversity Convention by getting involvement of science concerning the wise use of biological diversity. The MAB Program, United Nations Educational, Scientific and Cultural Organization, website <http://www.unesco.org//mab/about.htm#Intro>, visited on Nov 7, 2001.

management of core reserves, buffer zones and zone of cooperation need different entities to work in coordination. If promoted extensively, its international profile and local model might inspire greater cooperation and participation by surrounding communities, and thus help a protected areas network to be established.

f. Protected Areas Network

The ecological model places national parks in a bigger picture of protected areas in Canada because national parks alone cannot serve Canada's biodiversity or ecological integrity goals. To successfully fulfill their mandate, national parks must be embedded within a larger, well-managed landscape. Accordingly, a well-planned system of protected areas is needed.[77] As the Ecological Integrity Panel noted, "[s]uccessful conservation requires a truly national and comprehensive approach that includes national parks, national wildlife areas, heritage rivers, provincial and territorial protected areas, lands protected by Aboriginal peoples, private conservation lands and stewardship of all lands outside of protected areas."[78] Each of these land designations is seen as a system itself, but all are interconnected and meshed together to make up Canada's national protected areas network.[79] Arguably, to establish and manage such a protected areas network is one of the pursuits of the ecosystem-based management approach. In turn, ecosystem-based management based on the ecological

---

[77] Protected areas include national, provincial, and territorial parks; wilderness reserves; forest reserves; ecological reserves; national marine conservation areas; national wildlife areas; marine wildlife areas; and migratory bird sanctuaries. Individual landowners, conservancy groups, industry, Aboriginal people, and governments are among the many who play a role in protecting areas in Canada. Learning From Nature, *supra* note 70, at 10.

[78] Panel Report, *supra* note 2, Vol. II Chapter 9, at 2.

[79] Searle, *supra* note 1, at 186-187.

model plays an essential role in achieving the goals of the protected areas network.

In November 1992, Canada's federal, provincial, and territorial ministers of the environment, parks, wildlife and forestry, met to discuss Canada's network of protected areas.[80] The commitment to establish and protect Canada's protected areas was thus much clearer. For Parks Ministers, the key commitment was obviously to "make every effort to complete Canada's networks of protected areas representative of Canada's *land-based* natural regions and accelerate the protection of areas representative of Canada's *marine* natural regions".[81] Effort has been made since 1992.[82] To date, Canada's parks agencies, both federal and provincial, have added approximately 24,145,096 hectares to the various systems of protected areas.[83] The results have been significant. However, a problem still exists. In Canada, not all ecological areas are represented in the existing protected areas networks. Therefore, amongst many additional initiatives, new protected areas, such as new national parks, are expected to be created. However, as noted earlier, establishing a new national park

---

[80] Manitoba's Protected Areas Initiative, website <http://www.gov.mb.ca/natres/pai/why_are.html>, visited on January 17, 2002.

[81] Parks Canada, the 1992 Statement of Commitment, website <http://parkscanada.pch.gc.ca/library/fppc/english/1992statement_e.pdf>, visited on January 20, 2002.

[82] Initiatives include "*British Columbia's Protected Areas Strategy (1992)*, Alberta's *Special Places Program*, Manitoba's *An Action Plan for Manitoba's Network of Protected Areas 1996-1998*, Ontario's *Living Legacy Land Use Strategy*, Quebec's *Plan d'action sur les parcs: La nature en heritage (1992)*, the Northwest Territories' *Protected Areas Strategy*, the Yukon's *"Wild Spaces, Protected Places": A Protected Areas Strategy for the Yukon (1998) and Nova Scotia's Protected Areas Strategy.*" *Ibid.*

[83] "This figure is the total of figures provided by Parks Canada (6,661,700 ha), Nunavut (127,000 ha), Northwest Territories (5,300 ha), Yukon (16,540 ha), British Columbia (5,120,000 ha), Alberta (650,000 ha), Saskatchewan (2,700,000 ha), Manitoba (4,052,500 ha), Ontario (3,228,994 ha), Quebec (166,000 ha), New Brunswick (12,374 ha), Nova Scotia (291,800 ha), Prince Edward Island (5,900 ha), and Newfoundland and Labrador (1,106,988 ha). *Ibid.*

is a complex and time-consuming process because it cannot be established unilaterally by the federal government. They are always the products of negotiations with other partners' understanding and support.[84] Solving this problem needs cooperation between different levels of government agencies, which will be discussed further in the next chapter.

Conclusion

This chapter first explored the boundary problem facing national parks in Canada. It then examined ecosystem-based management, which has been adopted by Parks Canada as an effective way to maintain ecological integrity and biodiversity. Central to these issues is establishing an effective system of cooperation between Parks Canada Agency and other related agencies. A co-management model based on the concepts of core reserves, buffer zones and biological linkages was then explored, as one system to alleviate the ecological threats arising from land uses and activities conducted outside of park boundaries.

Many ideas in the chapter stem from the Report by the Ecological Integrity Panel[85], which made hundreds of helpful suggestions to the Parks Canada Agency, and with which this author agrees completely. For instance, the Panel suggested that the Parks Canada Agency negotiate park establishment agreements and seek park boundaries that give the highest priority to maintaining ecological integrity.[86] The Panel also recommended that the Parks

---

[84] *Ibid.*

[85] Panel Report, *supra* note 2.

[86] Parks Canada Agency, *Parks Canada: First Priority: Progress Report on Implementation of the Recommendations of the Panel on the Ecological Integrity of Canada's National Parks* (Ottawa: Minister of Public Works and Government Services Canada, 2001) at 50.

Canada Agency increase its participation in local resource management arrangements with provincial, territorial or other agencies that have jurisdiction in greater park ecosystems.[87] Furthermore, aiming at the conservation of ecological integrity and biodiversity within greater ecosystems, the Panel contended that establishing a linked network of protected areas with the participation by all jurisdictions is the best approach,[88] and the establishment of such a linked protected areas network could be best achieved through acquiring habitats adjacent to national parks, creating buffer zones around national parks, and developing corridors and ecological links.[89] Here, international initiatives like MAB could provide guidance for establishing the model and the impetus for cooperation.

As a consequence, this chapter holds the same view as the Ecological Integrity Panel. In addition, with more national parks becoming ecological islands surrounded by land uses over which the Parks Canada Agency has no jurisdiction, the Agency needs to expand its activities outside its own administrative boundaries. Sometimes, the Agency needs to deal at the political level. To fulfill its mandate, strengthening regional cooperation through provincial and territorial legal frameworks is critical. In this respect, Ivvavik National Park provides a good example, where park management is embedded in land claim agreements through co-management boards.[90] In addition, land use and wildlife management outside park boundaries are integrated through co-management boards, hunter-trapper committees, and

---

[87] *Ibid.*, at 53.

[88] Panel Report, *supra* note 2, Vol. II Chapter 8, at 7.

[89] *Ibid.*, Vol. II Chapter 9, at 13.

[90] *Ibid.*, at 3.

other cooperative instruments.[91] Arguably, cooperative management boards or other mechanisms, such as an advisory board which advises governments on management[92], might be provided for in each park's management plan as components for better management. In addition, recent initiatives, such as the proposed ecological integrity funding programs and development of the Federal Provincial Parks Council (FPPC), could encourage a broader range of cooperation so that ecosystem-based management could be applied effectively for managing protected areas as a whole network, which will further Canada's biodiversity conservation goals.

---

[91] *Ibid.*

[92] *Ibid.*, at 8.

Chapter VI. The 2000 National Parks Act: Other Initiatives on Biodiversity Conservation

Introduction

Although the provisions of the National Parks Act already discussed are central to biodiversity conservation, other parts of the 2000 Act and other government initiatives also play a role. In this chapter, discussion will focus on the 2000 *Canada National Parks Act*[1], as compared with the old National Parks Act. In particular, it will examine whether commitments required by the Biodiversity Convention[2] have been implemented by the 2000 National Parks Act. It will also look at additional tools and powers provided under the new regime and some other federal statutes, including the proposed *Marine Conservation Areas Act*[3] and the proposed *Species At Risk Act*[4].

A. 2000 National Parks Act

a. Overview

The first federal National Parks Act of 1930 and subsequent amendments have provided the on-going legal basis for Canadians to manage their national parks. However it

---

[1] *Canada National Parks Act*, S.C., 2000, c.32. [hereinafter 2000 Act]

[2] The Convention on Biological Diversity of the United Nations Conference on the Environment and Development, June 5, 1992, Art. 2, U. N. Doc. DPI/1307, reprinted in 31 I.L.M. 818. [hereinafter Biodiversity Convention].

[3] Bill C-10, *An Act Respecting the National Marine Conservation Areas of Canada*, 1 st Sess., 37 th Parl., 2001, 1 st reading 20 February 2001. [hereinafter Bill C-10]

[4] Bill C-5, *An Act Respecting the Protection of Wildlife Species At Risk in Canada*, 1 st Sess., 37 Parl., 2001, 1 st reading 2 February 2001. [hereinafter Bill C-5]

is inevitable that many changes have happened in more than half a century. As noted earlier, a major change is in the idea of parks' main objective. In response, the 2000 *Canada National Parks Act* is designed to promote the preservation of national parks and to enhance the completion of the national parks system. This Act makes it clear that protection of ecological integrity in national parks is the first priority, which is a significant legal contribution. It also contains major amendments in its approach, as compared to the old Act: increasing protection for wildlife and other park resources; regulating pollution issues; streamlining the park establishment and enlargement process; and controlling commercial development in park communities.[5] Although there are many changes to the law, it is not clear yet that there will be many different decisions from the Parks Canada Agency and it is also not clear yet whether this new legislation will truly improve practical matters. As the Banff-Bow Valley Study noted, many of the obstructions are political and perhaps financial. Thus, the effectiveness of the Parks Canada Agency might not be ensured by the new law alone.

b. Ecological Integrity Priority

Protection of ecological integrity in Canada's national parks is now the Canadian Government's first management priority and, as discussed previously, the new Act makes this clear. Therefore, from on now, there will be no confusion about the major objective and mandate of national parks in Canada. It is obvious that all kinds of park management should place ecological integrity protection in the first position (rather than giving priority to considerations such as tourism, or commercial or recreational development).

---

[5] Parks Canada, Backgrounder – Legislative Framework for Parks Canada, website <http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=283&andor=bg>, visited on September 26, 2001.

As discussed in earlier chapters, however, the real challenge in the 21st century is the broader implementation of biodiversity conservation in an increasingly stressed and fragmented environment. The 2000 Act provides some additional tools to assist in achieving this goal.

c. Wildlife Protection[6]

Although this thesis has mainly focussed on habitat protection within national parks areas, the new National Parks Act also aims at increasing the direct protection of wildlife and other park resources. It says, "[t]he purpose of this enactment is, ...in particular, to enhance protection for wildlife and other park resources;".[7] As noted before, major types of threats to wildlife in national parks include directing hunting, pollution and habitat destruction by development. The following part will explore how the new National Parks Act protects wildlife from those threats.

(a) Trafficking and Poaching Provisions

According to the 2000 Act, it is illegal to traffic in wildlife. This is a new offence. Section 25(1) states, "[e]xcept as permitted by the regulations, no person shall traffic in any wild mammal, amphibian, reptile, bird, fish or invertebrate, any part or an egg or embryo thereof, any plant or part of a plant, or any other naturally occurring object or product of natural phenomena, taken in or from a park." Section 25(3) explains the term "traffic", which means to "sell, offer for sale, expose for sale, buy, offer to buy, solicit, barter, exchange, give,

---

[6] Parks Canada, Backgrounder – Conservation & Protection of Wildlife and Other Park Resources, website <http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=285&andor=bg>, visited on October 1, 2001.

[7] 2000 Act, *supra* note 1, summary.

send, transport or deliver". In addition, Section 25(2) specifies the penalties for those whose actions contravene the Section 25(1).[8]

Section 26 prohibits poaching in wildlife generally, and sets out the corresponding penalties.[9] In addition, Section 26(5) provides some definitions. It explains, "hunt means to kill, injure, seize, capture or trap, or to attempt to do so, and includes to pursue, track, search for, lie in wait for or shoot at for any of those purposes." Meanwhile, "possess, ...includes knowingly having any thing in any place, whether or not that place belongs to or is occupied by the person, for his or her own use or benefit or for that of another person."

In the 2000 Act, Schedule 3 sets out the species of wildlife that receive special protection within national parks and reserves. There are two parts included in the Schedule 3, and species listed in Part I are at greater risk than those listed in Part II.

Compared with the old Act, the new 2000 Act increases the range of available penalties. Section 30 of the 2000 Act provides in detail that,

---

[8] "Every person who contravenes subsection (1) is guilty of an offence and liable (a) on summary conviction, to a fine not exceeding $10,000 or to imprisonment for a term not exceeding six months or to both; or (b) on conviction on indictment, to a fine not exceeding $25,000 or to imprisonment for a term not exceeding one year or to both." *Ibid.*, s.25(2).

[9] "(1) Except as permitted by the regulations, no person shall hunt, traffic in or possess, in a park, any wildlife of a species named in Part 1 of Schedule 3, or traffic in or possess such wildlife taken from a park; (2) Every person who contravenes subsection (1) is guilty of an offence and liable (a) on summary conviction, to a fine not exceeding $150,000 or to imprisonment for a term not exceeding six months or to both; or (b) on conviction on indictment, to a fine not exceeding $250,000 or to imprisonment for a term not exceeding five years to or both; (3) Expect as permitted by the regulations, no person shall hunt, traffic in or possess, in a park, any wildlife of a species named in Part 2 of Schedule 3, or traffic in or possess such wildlife taken from a park; (4) Every person who contravenes subsection (3) is guilty of an offence and liable (a) on a summary conviction, to a fine not exceeding $50,000 or to imprisonment for a term not exceed six months or to both; or (b) on conviction on indictment, to a fine not exceeding $100,000 or to imprisonment for a term not exceeding five years or to both." *Ibid.*, s.26(1)-(4).

> [w]hen a person is convicted of an offence under this Act, the court may, in addition to any punishment imposed and having regard to the nature of the offence and the circumstances surrounding its commission, make an order (a) prohibiting the person from doing any act or engaging in any activity that may, in the opinion of the court, result in the continuation or repetition of the offence; (b) directing the person to take any action that the court considers appropriate to remedy or avoid any harm to any resources of a park that resulted or may result from the commission of the offence; (c) directing the person to pay the Minister an amount of money as compensation, in whole or in part, for the cost of any remedial or preventive action taken by the Minister as a result of the commission of the offence; (d) directing the person to post a bond or pay into court an amount of money that the court considers appropriate for the purpose of ensuring compliance with any prohibition, direction or requirement mentioned in the section; or (e) requiring the person to comply with any other conditions that the court considers appropriate.[10]

According to this provision, the court has a wide ranging authority to order the person convicted an offence under the law to stop his or her actions, to avoid or remedy the harm, or to pay compensation.

(b) Pollution

Pollution caused by human activity is another serious threat in national parks. According to the 1994 Parks Policy, "Parks Canada will prevent new sources of pollution from developing within national parks and will take action to eliminate or minimize existing sources inside or outside parks."[11] The 1988 Amendment contained a pollution prevention

---

[10] *Ibid.*, s. 30.

[11] Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994) s.3.1.3. [hereinafter Parks Policy]

clause,[12] and the 2000 Act has a specific section preventing or mitigating environmental pollution in national parks which adopts a similar prohibition stating,

> [w]here a substance that is capable of degrading the natural environment, injuring fauna, flora or cultural resources or endangering human health is discharged or deposited in a park, any person who has charge, management or control of the substance shall take reasonable measures to prevent any degradation of the natural environment and any danger to the fauna, flora or cultural resources or persons that may result from the discharge or deposit.[13] .

Moreover, both park officials and the Minister have authority to direct the person to take measures to prevent degradation of the natural environment, or else the person will be charged for the costs of the Crown if it has to take the measures itself.[14] These strict provisions help protecting the park resources and wildlife from damage caused by human pollution. In addition, the *National Parks Garbage Regulations*[15] provide similar controls on wastes.

(c) Commercial Development Control[16]

---

[12] "Where any substance capable of degrading the natural environment, injuring the flora or fauna or endangering human health is discharged or deposited within a park, any person who has charge or control of the substance shall take reasonable measures to precent any degradation of the environment and any danger to the flora or fauna or to persons resulting therefrom." *National Parks Act*, S.C., 1988, c. 48, s.8(1.4).

[13] 2000 Act, *supra* note 1, s. 32(1).

[14] Section 32(2) says, "[i]f the superintendent of a park is of the opinion that a person is not taking the measures required by subsection (1), the superintendent may direct the person to take those measures and, if the person fails to do so, the Minister may direct those measures to be taken on behalf of Her Majesty in right of Canada." Section 32(3) says, "[a] person who fails to comply with a direction given by a superintendent under subsection (2) is liable for the expenses reasonably incurred by Her Majesty in right of Canada in taking the measures directed, and those expenses may be recovered from that person, with costs, in proceedings brought in the name of Her Majesty in any court of competent jurisdiction." *Ibid.*, s. 32(2).

[15] *National Parks Garbage Regulations*, SOR/80-217, (1998).

[16] Parks Canada, Backgrounder – Park Communities: Controlling Commercial Development, website <http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=282&andor=bg>, visited on October 1, 2001.

Communities in national parks, such as the Banff Town, contain a concentration of visitor services and support facilities. Under the old legislation, there were no legislated controls on commercial development in the park communities. The 2000 Act adds commercial development regulations in park communities, based on community plans. According to the 2000 Act, a "community plan" means a land use plan for a park community.[17] Section 33(2) provides,

> [a] community plan for a park community must (a) be consistent with the management plan for the park in which the park community is located; (b) accord with any guidelines established by the Minister for appropriate activities within the park community; (c) provide a strategy for the management of growth within the park community; and (d) be consistent with principles of (i) no net negative environment impact, and (ii) responsible environmental stewardship and heritage conservation.

In addition, Section 33(3) requires,

> [a] community plan, or the zoning by-laws ... must include (a) a description of the lands comprising the park community; (b) a description of the lands comprising the commercial zones of the park community; and (c) a measure of the maximum floor area permitted within the commercial zones of the park community

All these provisions reinforce the important principle directing human use: use without abuse. Moreover, park community plans, controlled by legislation, create a legal framework that balances the conflict between the social and economic needs of local residents with the national goal of maintaining ecological integrity, and reflect the zoning rationale, as well as contributing

---

[17] 2000 Act, *supra* note 1, s.2.

to biodiversity conservation.

d. Establishment of New National Parks[18]

In Canada, establishing new national parks so that more lands can be exclusively protected, and the national parks system can be completed soon, is an important step toward protecting natural habitat and providing desirable living places for wildlife. In this respect, the 2000 Act says "[t]he purpose of this enactment is, ... in particular, to (a) provide a procedure for the future establishment of new parks and the enlargement of existing ones".[19]

Generally, a national park is formally established by law by describing its land area in a Schedule of the National Parks Act. Thereafter, the land will be under the protection of the National Parks Act and therefore all regulations provided by the National Parks Act will be applied to the park's management.

The 2000 Act formally established seven new national parks and one national park reserve in Canada. In addition, lands were added to an existing national park. The seven new national parks are: Auyuittuq, Sirmilik, and Quttinirpaaq (Nunavut); Aulavik (Northwest Territories); Wapusk (Manitoba); Grasslands (Saskatchewan); and Gros Morne (Newfoundland). The Act also formally established Pacific Rim National Park Reserve of Canada (British Columbia) and added Middle Island to Point Pelee National Park in Ontario. These actions contributed to completing the national parks system, which seeks to establish at least one national park in each of 39 natural regions. Adding lands to existing national parks is

---

[18] Parks Canada, Backgrounder – New Park Establishment, website <http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=284&andor=bg.>. visited on October 1, 2001.

[19] 2000 Act, *supra* note 1, summary.

also a reflection of the fact that many national parks do not contain enough lands to protect all wildlife living within the area.

Before, the National Parks Act had to be amended in order to establish a new national park or to add lands to an existing park. This process was complex and consumed a long time.[20] The 2000 Act adopts a new Order in Council process to simplify and accelerate the processes of establishing a new park, and of enlarging areas of parks or park reserves. Under the 2000 Act, an Order in Council can be used to entrench the land description of a new national park in the National Parks Act Schedule.[21] Compared with the old legislation, this new rule helps accelerate the establishment process of new parks and facilitate completion of the national parks system. However, this process can only be used to establish new parks or to enlarge existing parks, but not to decrease park size.[22] Of course, when proposing an amendment, the Governor in Council has to be sure about two issues, which are the ownership of the land by the federal government, and the agreement of the provincial government about the land use purpose.

---

[20] The process of establishment may take several years and includes joint discussion and feasibility studies by the federal and provincial governments; agreement on terms of establishment and park boundaries; public involvement; resolution of land-use conflicts including agreement on traditional land uses which may be permitted and other special measures to reduce the impact if a new national park on local occupants or users; land assembly; and amendments to the federal legislation under which national parks are established. Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979) at 38. Also, amending the National Parks Act each time a new park was established was a lengthy process because it had to be done via the full Parliamentary approval process. Each of Parliament's three parts (Her Majesty, the Senate and the House of Commons) must approve a bill before it becomes law. New Park Establishment website, *supra* note 18.

[21] "...the Governor in Council may, by order, for the purpose of establishing or enlarging a park, amend Schedule 1 by adding the name and a decision of the park, or by altering the description of the park, if the Governor in Council is satisfied that (a) Her Majesty in right of Canada has clear title to or an unencumbered right of ownership in the lands to be included in the park; and (b) the government of the province in which those lands are situated has agreed to their use for that purpose." 2000 Act, *supra* note 1, s.5(1).

[22] "No amendment may be made by the Governor in Council to Schedule 1 for the purpose of removing any portion of a park." *Ibid.*, s. 5(2).

B. Other Contributions to Biodiversity Conservation

a. Overview

As a party to the Biodiversity Convention[23], Canada assumed the task of implementing the Convention's requirements to conserve biodiversity. The changes to the National Parks Act are one of many important steps in implementing the treaty obligations, but such implementation does not occur in isolation. This section will briefly review several other important Canadian initiatives that, together with the national parks system, help move Canada forward toward its overall goal.

b. National Strategies, Plans or Programs

According to Article 6 of the Biodiversity Convention, "[e]ach Contracting Country shall, in accordance with its particular conditions and capabilities; [d]evelop national strategies, plans or programs for the conservation and sustainable use of biological diversity...;".

In Canada, national parks and other protected areas, particularly when viewed in a larger ecosystem context, are major means of ensuring biodiversity conservation. There are a number of federal plans or strategies to achieve this goal. For instance, the 1995 *Canadian Biodiversity Strategy*[24] recognizes the need to establish and manage more protected areas, as discussed in Chapter 1. Also, Parks Canada's efforts at protecting terrestrial ecosystems are guided by the 1997 *National Parks System Plan*[25], which, as mentioned previously, aims at representing each

---

[23] Biodiversity Convention, *supra* note 2.

[24] *Canadian Biodiversity Strategy, Canada's Response to the Convention on Biological Diversity* (Ottawa: Minister of Supply and Services Canada, 1995).

[25] Parks Canada, *National Parks System Plan* (Ottawa: Minister of Supply and Services Canada, 1997). [hereinafter System Plan]

of the 39 natural regions at least by one national park and thus requires more national parks be established.[26] Moreover, the simplified procedure of establishing new national parks provided by the 2000 National Parks Act will accelerate the speed of completing the whole national parks system.

In addition to these initiatives, and similar to the terrestrial national parks system plan, there is also a plan for national marine conservation areas in Canada, in the form of the *National Marine Conservation Areas Systems Plan*[27]. According to it, Canada's oceanic waters and Great Lakes are divided into 29 natural marine regions, and each of these regions also needs to be represented by at least one marine conservation area.[28] Further details about national marine conservation areas are discussed below.

c. Protected Areas Selection, Establishment and Management

Article 8 of the Biodiversity Convention further requires, "[e]ach Contracting Party shall, as far as possible and as appropriate: [d]evelop, where necessary, guidelines for the *selection*, *establishment* and *management* of protected areas or areas where special measures need to be taken to conserve biological diversity." In Canada, the 1997 *National Parks System Plan* outlines the process for area selection. The 1997 Plan lists criteria for selecting potential park areas, which include:

---

[26] For a detailed discussion see Parks Canada Agency, *Sustainable Development Strategy 2001-2004 - Sustaining Ecological and Commemorative Integrity* (Ottawa: Her Majesty the Queen in Right of Canada, 2000) at 8. [hereinafter Sustainable Development Strategy]

[27] Parks Canada, *Sea to Sea to Sea: Canada's National Marine Conservation Areas Systems Plan* (Ottawa: Parks Canada, 1995).

[28] See Sustainable Development Strategy, *supra* note 26, at 8.

> quality of natural region representation; potential for supporting viable populations of native wildlife species; ecological integrity of the area's ecosystems; presence of exceptional natural phenomena, and rare, threatened or endangered wildlife and vegetation; significant cultural heritage features or landscapes; opportunities for public understanding, education and enjoyment; competing land and resource uses; possible threats to the long-term sustainability of the area's ecosystems; complementarity with objectives of other existing or planned protected natural areas in the region; potential for establishing an adjacent national marine conservation area that is representative of its marine region; implications for Aboriginal rights, comprehensive land claims and treaties with Aboriginal peoples; and international criteria for national parks.[29]

Parks establishment was discussed previously.[30] As to park management, the 2000 Act says in Section 8(1) that, "[t]he Minister is responsible for the administration, management and control of parks ...", so that the Minister has the ultimate legal authority to manage the national parks in Canada. In accordance with the 1998 *Parks Canada Agency Act*[31], Parks Canada Agency is established as an agent of the Minister, "that may exercise powers and perform duties and functions"[32]. In addition, Section 18 of this Act states, "[t]he Minister may designate persons appointed under the Parks Canada Agency Act, whose duties include the enforcement of this Act, to be park wardens for the enforcement of this Act and the regulations in any part of Canada ...", which authorizes the Minister to appoint Agency personnel as "wardens" to enforce law and park regulations. Similarly, the 2000 Act provides,

> [t]he Minister may designated persons or classes of persons employed in the public service of Canada or by a provincial, municipal or local

---

[29] System Plan, *supra* note 25, at 8.

[30] See Section A.d. of this Chapter, at 127-129.

[31] *Parks Canada Agency Act*, S.C., 1998, c.31. [hereinafter Agency Act]

[32] *Ibid.*, s.3.

> authority, whose duties include law enforcement, to be enforcement officers for the purposes of the enforcement of specified provisions of this Act or the regulations in relation to specific parks...[33]

In 2001, the Minister announced up to 140 RCMP officers would be responsible for law enforcement in 39 national parks.[34]

Management plans are the main method for managing most operations in a national park. Section 11(1) of the 2000 Act provides,

> [t]he Minister shall, within five years after a park is established, prepare a management plan for the park containing a long-term ecological vision for the park, a set of ecological integrity objectives and indicators and provisions for resource protection and restoration, zoning, visitor use, public awareness and performance evaluation, which shall be tabled in each House of Parliament.

According to the *Parks Canada Agency Act*,

> [i]n addition to the duties in relation to management plans for parks under the *National Parks Act*, the Chief Executive Office shall, within five years after the establishment of a national historic site or other protected heritage area, or within five years after the date that this section comes into force, whichever is later, provide the Minister with a management plan for that national historic site or other protected heritage area in respect of any matter that the Minister deems appropriate, including, but not limited to, commemorative and ecological integrity, resource protection or visitor use, and that plan shall be tabled in each House of Parliament.[35]

The proposed *National Marine Conservation Areas Act*[36] has similar provisions about development of management plans for national marine conservation areas. Consequently, such

---

[33] 2000 Act, *supra* note 1, s.19.

[34] Canada NewsWire, RCMP to Assist in Keeping National Parks of Canada Safe, website <http://www.newswire.ca/releases/May2001/17/c5981.html>, visited on January 16, 2002.

[35] Agency Act, *supra* note 31, s.32(1).

[36] Bill C-10, *supra* note 3.

plans play an important role in the management of both national parks and proposed national marine conservation areas.

d. Marine Conservation Areas Act Proposal

In accordance with the concept provided by the Biodiversity Convention[37], biodiversity conservation also include protecting biological diversity in marine areas and other aquatic ecosystems.[38] In Canada, National Marine Conservation Areas are designed to be a part of the protected areas network, and will be established to protect and conserve areas representative of Canada's ocean environments and the Great Lakes.[39] The 1994 *Guiding Principles and Operational Policies* directed parks personnel to establish and manage National Marine Conservation Areas as a matter of policy.[40] In an attempt to enshrine this notion in law, the *Canada National Marine Conservation Areas Act*[41] was tabled before Parliament on February 21, 2001. The Act is dedicated to the establishment and management of national marine conservation areas, and designed to contribute to the establishment of an international network

---

[37] "Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Biodiversity Convention, *supra* note 2, Article 2.

[38] For a detailed discussion about Canadian National Marine Parks environmental protection, see Elaine L. Hughes, "Environmental Protection in National Marine Parks" (1992) 41 UNB Law Journal 41.

[39] Parks Canada, New Release - Sheila Copps Tables Canada National Marine Conservation Areas Act and Highlights Parks Canada's Contribution to National Heritage, website <http://parkscanada.pch.gc.ca/Library/NewsReleases/release_e.cfm?id=464&andor=nr>, visited on January 16, 2002.

[40] Parks Policy, *supra* note 11, Part II-Activity Policies, National Marine Conservation Areas Policy.

[41] Bill C-10, *supra* note 3.

of such protected marine areas.[42]

The proposed legislation provides the powers, authorities and procedures for establishing and administering a system of national marine conservation areas.[43] Clause 8 endows the Minister of Canadian Heritage with the responsibility for administering marine conservation areas. Clause 9 requires the Minister to prepare a management plan for a marine conservation area within five years of its establishment. Preparing such a plan should be based on rules of ecosystem management and the precautionary principle. This idea has its origins in the 1994 Parks Policy.[44] Accordingly, the proposed legislation requires both the precautionary principle and principles of ecosystem-based management to be priority considerations in a management plan.

Also in keeping with the 1994 Parks Policy, which requires national marine conservation areas to be managed for ecologically sustainable use,[45] the Bill prohibits mining, or oil and gas exploration and exploitation, within a marine conservation area.[46] It further prohibits the disposal of any substance into the waters of a marine conservation area,[47] which helps to prevent

---

[42] *Ibid.*, Preamble.

[43] Parks Canada, National Marine Conservation Areas Program, website <http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=380&andor=bg>, visited on November 14, 2001.

[44] "Managing the use of national marine conservation areas will be based on the 'ecosystem management' concept." Parks Policy, *supra* note 11, s.3.0

[45] "The goal of a national marine conservation area management plan is to provide for sustainable use of the area consistent with the need to maintain the structure and function of marine ecosystems. The plan provides guidance to marine conservation area managers and users about the day-to-day management and use of the area." *Ibid.*, s.2.0.

[46] Bill C-10, *supra* note 3, Clause 13.

[47] *Ibid.*, Clause 14.

damage to the environment from pollution. According to Clause 29, any person who is responsible for the polluting substance should have a duty to take "reasonable measures" to prevent or mitigate any damage to the environment.[48] Also, penalties are provided by Clause 24, which are similar to provisions under the National Parks Act.[49] In short, the Bill will extend biodiversity conservation to marine areas in Canada, thus helping to meet the Biodiversity Convention obligations.

e. Species At Risk Act Proposal

Article 8 of the Biodiversity Convention requires, "[e]ach Contracting Country shall, as far as possible and as appropriate: [d]evelop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations". As noted above, the 2000 National Parks Act strengthens wildlife protection. In addition, special attention is being paid to species at risk of extinction and their habitats. Currently, Canada is developing a Species At Risk Act, which is now Bill C-5.[50]

The proposed legislation would create a legal basis for protecting species at risk and their critical habitats in Canada. Clause 6 sets out the purposes of the Bill, which include preventing wildlife species from being extirpated or becoming extinct, providing for the recovery of species at risk as a result of human activity, and managing species of special concern

---

[48] Parks Canada, Summary of the Canada National Marine Conservation Areas Bill, website <http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=381&andor=bg>, visited on November 14, 2001.

[49] Canadian Heritage, Parks Canada, Charting the Course - Towards a Marine Conservation Areas Act, website <http://www.parkscanada.pch.gc.ca/library/to_NMCA_act/to_act1e.htm>, visited on November 15, 2001.

[50] Bill C-5, *supra* note 4.

to prevent them from becoming endangered or threatened. Bill C-5 recognizes that providing legal protection for species at risk would in part meet Canada's obligations under the Biodiversity Convention.[51] In order to do it, the importance of cooperation between different levels of government under the leadership of the Canadian Endangered Species Conservation Council is emphasized by the Bill.[52] According to Clause 7, the Council would be composed of the federal Ministers of the Environment, Fisheries and Oceans, and Canadian Heritage, and the provincial and territorial ministers responsible for wildlife species. Clause 14 and Clause 15 further establish a scientific committee, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), whose functions include classifying species as extinct, extirpated, endangered, threatened or of "special concern". It provides legal status to the Committee for the first time, which perhaps indicates the Canadian government is paying more attention to scientific management. Furthermore, the Bill establishes a legal basis for assessing the status of species at risk in a scientific way. The precautionary principle is endorsed by the statement in the preamble to the Bill, as "if there are threats of serious or irreversible damage to a wildlife species, cost-effective measures to prevent the reduction or loss of the species should not be postponed for lack of scientific certainty."[53] At least, on the face of it, science is emphasized by this Bill.

The proposed *Species At Risk Act* provides measures to protect wildlife species by prohibiting the killing, harming, harassing, capturing or taking of species officially listed as

---

[51] *Ibid.*, Preamble.

[52] *Ibid.*, Preamble.

[53] *Ibid.*, Preamble.

threatened, endangered or extirpated,[54] and protecting portions of wildlife critical habitat by prohibiting the destruction of their residences.[55] The Bill not only includes a List of Wildlife Species at Risk, it also recognizes that protecting habitat of species at risk is key to species conservation, as well as emphasizing the important role of national parks among protected areas in Canada.[56] Clause 57 to Clause 64 are therefore specifically about "Protection of Critical Habitat" in the whole of Canada. Also according to the Bill, each jurisdiction has a responsibility to protect any identified critical habitat, which means the federal government will protect critical habitat on federal land, and the provinces and territories are to protect critical habitat within their borders. Thus, cooperation is needed between different governments but if fully implemented, the proposed Act could make some contribution toward biodiversity conservation goals.

Through policy, Parks Canada already promotes a Species At Risk Program, which focuses on solidifying knowledge of species at risk within protected areas and working together with partners to protect and recover species at risk within, and surrounding, protected areas.[57] One example is Parks Canada working with partners to protect the Banff spring snails.[58] The Canadian Wildlife Service of Environment Canada, World Wildlife Fund Canada, Canadian

---

[54] *Ibid.*, Clause 32(1).

[55] *Ibid.*, Clause 33.

[56] *Ibid.*, Preamble.

[57] Parks Canada, Species At Risk Program, website <http://www.parcscanada.gc.ca/sar-eep/english/main_e.htm>, visited on October 1, 2001.

[58] Parks Canada, The Endangered Banff Springs Snail, website <http://www.parcscanada.gc.ca/sar-eep/english/snail_e.htm>, visited on December 5, 2001.

Millennium Partnership Program, Friends of Banff National Park, and Bow Valley Naturalists have joined the plan and worked together to help the Banff Springs snail recover. The efforts include protecting the snails from human disturbance through the closure of some sites to the public, and research to understand the Banff spring ecosystems and their flora and fauna.[59] Also, this example again indicates the importance of cooperation.

f. Cooperation

Article 8 of the Biodiversity Convention requires that, "[e]ach Contracting Party shall, as far as possible and as appropriate: (e) Promote environmentally sound and sustainable development in areas adjacent to protect areas with a view to furthering protection of these areas." Also, According to Article 5 of the Convention, "[e]ach Contracting Party shall, as far as possible and as appropriate, cooperate with other Contracting Parties, directly or, where appropriate, through competent international organizations, in respect of areas beyond national jurisdiction and on other matters of mutual interest, for the conservation and sustainable use of biological diversity." These Articles show us the fact that biodiversity conservation is a shared responsibility, which requires different units to cooperate with each other. As discussed in Chapter 5, within Canada, cooperation is between different levels of governments, such as federal, provincial, territorial and municipal governments. Along the border and in marine areas, cooperation with other countries may be needed. Unfortunately, the National Parks Act has no provisions on cooperation with foreign governments, but contains a very general expression that "[t]he Minister may enter into agreements with federal and provincial ministers and agencies,

---

[59] *Ibid.*, also, for more information about Species At Risk, see Parks Canada, Species At Risk and Parks Canada, website <http://parkscanada.pch.gc.ca/sar-eep/english/main_e.htm>.

local and aboriginal governments, bodies established under land claims agreements and *other persons and organizations* for carrying out the purposes of this Act."[60] Similarly, the 1998 *Parks Canada Agency Act* provides the general basis for Parks Canada to get involved in co-management with different levels of governments and with foreign states. Section 8 of the Agency Act states, "[t]he Agency may, ... (a) enter into contracts, agreements, memoranda of understanding or other arrangements with a department or agency of the Government of Canada, *with any other government or any of its agencies* or with *any person or organization* in the name of Her Majesty in right of Canada or in its own name". This provision merely endows Parks Canada with the legal authority and the "participatory duty" to enter into or cooperate directly with other related agencies, as well as the ability to develop cross-border arrangements with other states.

Cooperative management has happened between the Waterton Lakes National Park (Canada) and the Glacier National Park (US).[61] When the Wateron/Glacier International Peace Park was established in 1932, Canada and the United States partly solved a boundary dispute and cooperated to protect all the park's inhabitants. Today, cooperative management between both parks extends to a larger part of the ecosystem for protecting wildlife and vegetation.[62] This type of united parks management represents the need for cooperation and stewardship of shared resources between countries.

---

[60] 2000 Act, *supra* note 1, s.10(1).

[61] For a detailed discussion see Waterton Lakes National Park of Canada, About the Waterton/Glacier International Peace Park, website <http://parkscanada.pch.gc.ca/waterton/english/welcome2_e.htm>, visited on January 16, 2002.

[62] *Ibid.*

Conclusion

This Chapter compares the 2000 Act with the old National Parks Act, and examinies whether the new National Parks Act has improved in respect of implementing the obligations required by the Biodiversity Convention. The conclusion is that the 2000 National Parks Act does well toward achieving the goal of protecting ecological integrity in national parks. The new Act not only carries on the merits of the old Act and current policy, it further creates and develops new regulations. For example, the 2000 Act adds regulations controlling commercial development in park communities, which provides a framework for desirable human use management: use without abuse. Moreover, the 2000 Act strengthens the direct protection of wildlife in national parks and retains a system for pollution control. Meanwhile, the 2000 Act also simplified the process of establishing new national parks and accelerated the speed of completing the national parks system once new lands are acquired.

In addition, this chapter explores other aspects of federal biodiversity conservation which were not reviewed in the former chapters, such as the proposed *Marine Conservation Areas Act* and the *Species At Risk Act*. These two new statutes will, separately, provide a framework for protecting both marine areas and endangered species in Canada, thus greatly contributing to the goal of conserving biodiveristy.

It is also realized that since national parks are only one part of the whole protected areas network in Canada, the federal role of protect biodiversity is just a small part of the total commitments, within which the provinces also play an important role. However, discussions about provincial activities have been beyond the scope of this thesis, other than the recognition that they are also an important part of biodiversity protection in Canada, and are important

partners in cooperative initiatives.

Thesis Conclusion

Overall, Canada has made some serious efforts at conserving its biodiversity and thereby contributes greatly to the goal of biodiversity conservation. The international treaty, the Biodiversity Convention of 1992, sets out the obligation to conserve biodiversity, and requires each party nation to take actions to fulfill this goal. Knowing that national parks play an important role in conserving Canada's domestic biodiversity, the Canadian government has paid considerable attention to the development of its national parks system. Certainly, the objectives of national parks have changed since the first national park was established in the late 19th century, from the development of parks resources for human use, toward maintaining ecological integrity within parks for future generations. In modern times, however, ecological threats resulting from human use have become the major problem confronting national parks. As a result, during the 20th Century, the National Parks Act and Policy, as the major federal initiatives controlling national parks management, changed their direction too. One example was that commercial resource extraction was no longer allowed within national parks - by law or policy. At the beginning of the 21st century, the 2000 *National Parks Act* was passed to reflect this new situation. Therefore, along with the 1994 *Guiding Principles and Operational Policies*, the 1998 *National Parks Agency Act*, the 2000 *National Parks Act* constitutes the framework for managing national parks today.

The most significant aspect of the 2000 Act is that it clarifies, in law, that ecological integrity is the first priority in all aspects of parks management. Ecological integrity is also emphasized by the *Parks Canada Agency Act* as the major mandate of the Agency. Furthermore, the 2000 Act: strengthens the direct protection of wildlife and

other park resources; prevents and mitigates environmental pollution in national parks; simplifies the process of establishing new national parks and enlarging existing national parks; and controls commercial development in park communities. However, the 2000 Act also has its shortcomings, one of which is that the Act has few provisions restricting human recreational use. Thus, there is a shortage of legal tools to balance the conflict between human recreational use and the maintenance of parks' ecological integrity, which is the major problem confronting national parks in modern times. A major recommendation of this study, therefore, is that rules for controlling human recreational use should be actualized by Regulations under the Act. Another serious problem is that the 2000 Act has no strong provisions to facilitate cooperation between different levels of government, which is of importance for managing lands adjacent to a national park. Although Parks Canada is regarded as having a "participatory duty", this study recommends that there be a specific section in the Act about "cooperation" to explicitly require Parks Canada to participate in regional area management. Also, this study suggests a statutory section authorizing the Agency to take part in establishing and managing an ecological model around national parks areas, so that an ecosystem-based management could be promoted more systematically. By the same token, some management tools, such as the zoning approach and the precautionary principle, are presently operative only on the policy level, but arguably should instead be included in law, to be more enforceable.

Despite the fact that national parks play a major role in conserving biodiversity in Canada, there are other areas which also need to be protected. For example, National

Marine Conservation Areas are part of the whole protected areas network, and Canada is now proposing new legislation aimed at protecting and managing these marine conservation areas, which is a very good initiative. Also, a new Species At Risk Act is being proposed now for Canada, which will help protect wildlife species from being endangered or threatened, and thus also contributes to biodiversity conservation. Once these two proposed statutes become law, there will be a much stronger level of protection, not only for wildlife species themselves, but also for their living habitat, than the national parks regime can provide on its own. In combination with other provincial and international steps, this developing legal framework will hopefully move Canada toward full protection of biodiversity within its borders. Nevertheless, although it was beyond the scope of the present discussion, there is also a need for more studies by others to work toward better implementation of the various federal, provincial and international instruments.

BIBLIOGRAPHY

TREATIES, ACTS & REGULATIONS

Rio Declaration on Environment and Development, U.N. Conference on Environment and Development, June 15, 1992, UNCED Doc. A/CONF. 151/5/Rev. 1, reprinted in 31 I.L.M. 874 (1992).

The Convention on Biological Diversity of the United Nations Conference on the Environment and Development, June 5, 1992, U. N. Doc. DPI/1307, reprinted in 31 I.L.M. 818 (1992).

The Convention Concerning the Protection of the World Cultural and Natural Heritage, Nov. 23, 1972, 1037 U.N.T.S. 151, reprinted in 11 I.L.M. 1358 (1972).

The Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Feb. 2, 1971, 996 U.N.T.S. 245, reprinted in 11 I.L.M. 963 (1972).

The Convention on the International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 993 U.N.T.S. 243, reprinted in 12 I.L.M. 1085 (1973).

The Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, reprinted in 9 I.L.M. 15 (1980).

The Convention on Long-Range Transboundary Air Pollution, concluded Nov. 13, 1979, 1302 U.N.T.S. 217, reprinted in 18 I.L.M. 1442 (1979).

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Long-Term Financing of the Co-Operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP), Sept. 24, 1984, reprinted in 27 I.L.M. 701 (1988).

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on the Reduction of Sulphur Emissions or Their Transboundary Fluxes by at Least 30 Per Cent, July 8, 1985, reprinted in 27 I.L.M. 707 (1988).

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Oct. 31, 1988, reprinted in 28 I.L.M. 214 (1989).

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Volatile Organic Compounds or Their Transboundary Fluzes, Nov. 18, 1991, reprinted in 31 I.L.M. 573 (1992).

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Heavy Metals, adopted June 24, 1998, reprinted in 1979 Convention on Long-Range Transboundary Air Pollution and Its 1998 Protocols on Persistent Organic Pollutants and Heavy Metals, U.N. Economic Commission for Europe, U.N. Doc. E/ECE/EB.AIR/66/1999 U.N. Sales No. E.99.II.E.21 (1999).

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants, adopted June 24, 1998, reprinted in 1979 Convention on Long-Range Transboundary Air Pollution and Its 1998 Protocols on Persistent Organic Pollutants and Heavy Metals, U.N. Economic Commission for Europe, U.N. Doc. E/ECE/EB.AIR/66/1999 U.N. Sales No. E.99.II.E.21 (1999).

Protocol to Abate Acidification, Eutrophication and Ground-Level Ozone, U.N. Economic Commission for Europe, U.N. Doc. EB. AIR/1999/1 (1999).

Canada National Parks Act, S.C., 2000, c.32.

Parks Canada Agency Act, S.C., 1998, c. 31.

Migratory Birds Convention Act, S.C., 1994, c. 22.

National Parks Act, S.C., 1988, c.48.

Canada Wildlife Act, R.S.C., 1985, c. W-9.

Fisheries Act, R.S.C., 1985, c. F-14.

The National Parks Act, S.C., 1930, c.33.

Rocky Mountain National Park Act, S.C., 1887, c.32.

National Parks Building Regulations, C.R.C., c. 1114, (1999).

National Parks Garbage Regulations, S.O.R./80-217.

Town of Jasper Zoning Regulations, S.O.R./92-61.

National Parks Business Regulations, S.O.R./98-455.

National Parks Camping Regulations, S.O.R./80-127.

National Parks Wilderness Area Declaration Regulations, S.O.R./97-150.

Bill C-10, *An Act Respecting the National Marine Conservation Areas of Canada*, 1 st Sess.,

37 th Parl., 2001, 1 st reading 20 February 2001.

Bill C-5, *An Act Respecting the Protection of Wildlife Species At Risk in Canada*, 1 st Sess., 37 Parl., 2001, 1 st reading 2 February 2001.

BOOKS & MONOGRAPHS

Angus Reid Group Inc., *A Study of Canadian attitude toward Canada's National Parks* (Calgary: Canadian Parks Service, Western Region, 1993).

Bella, L., *Parks for Profit* (Montreal: Harvest House, 1987).

Boyd, S. W., *Sustainability and Canada's National Parks: Suitability for Policy, Planning and Management* (London: University of Western Ontario, 1995).

Carson, R., *Silent Spring* (New York: Fawcett Crest, 1962).

Côté, Pierre-André, *The Interpretation of Legislation in Canada* (Cowansville, Québec: Editions Y. Blais, Inc., 1991).

Crampton, L. C., *Early History of Yellowstone National Park and its Relation to National Park Policies* (Washington D.C.: U.S. Govt. Printing Office, 1932).

Dearden, P. & R., Rollins, eds., *Parks and Protected Areas in Canada* (Toronto: Oxford University Press, 1993).

Department of Justice Canada, *A Guide to the Making of Federal Acts and Regulations* (Ottawa: Public Works and Government Services Canada, 1996).

Doyle, S. S., *External Threats to National Parks: A Case Study of Pacific Rim National Park Reserve* (Victoria: University of Victoria, 1992).

Environment Canada, *Canadian Biodiversity Strategy, Canada's Response to the Convention on Biological Diversity* (Ottawa: Minister of Supply and Services Canada, 1995).

Environment Canada & United Nations Commission on Sustainable Development, *Learning From Nature: Canada - The Ecosystem Approach and Integrated Land Management* (Ottawa: Environment Canada, 2000).

Foster, J., *Working for Wildlife: The Beginning of Preservation in Canada* (Toronto:

University of Toronto Press, 1978).

Glowka, L., F. Burhenne-Guilmin, H. Synge, J.A. McNeely & L. Güünding, *A Guide to the Convention on Biological Diversity* (Gland, Switzerland: IUCN - the World Conservation Union, 1994.

Hays, S. P., *Conservation and the Gospel of Efficiency; the Progressive Conservation Movement, 1890-1920* (Cambridge: Harvard University Press, 1959).

IUCN, The World Conservation Union, *Guideline for Protected Areas Management Categories*, 1994.

Kothbauer, M. T., *National and Provincial Park Service Responses to Human-Induced Ecological Change in Ontario* (Guelph: University of Guelph, 1988).

Lothian,W. F., *A Brief History of Canada's National Parks* (Ottawa: Minister of Supply and Services Canada, 1987).

Luttermann, A., *Towards Ecosystem-based Management for Protected Areas through Comprehensive Land Claims and Interjurisdictional Cooperation: A Case Study of the Torngat Mountain National Park Proposal in Northern Labrador* (Halifax: Dalhousie University, 1995).

National and Historic Parks Branch, *National Parks Policy* (Ottawa: Queen's Printer, 1964).

Nelson, J. G., Needham R. D., & Mann, D. L., ed., *International Experience with National Parks and Related Reserves* (Waterloo: University of Waterloo, 1978).

Noss, R. F., *Maintaining Ecological Integrity in Representative Reserve Networks* (Toronto: World Wildlife Fund Canada, 1995).

Olson, Douglas & Mitchell, Andy, *Redevelopment Guidelines for Outlining Commercial Accommodations and Hostels in the Rocky Mountain National Parks* (Ottawa: Outlying Commercial Accommodations Panel, 1999).

Page, R., Bayley, S., Cook, J. D., Green, J. E., & Ritchie,J. R. B., *Banff-Bow Valley At the Crossroads* (Ottawa: Minister of Supply and Services Canada, 1996).

Parks Canada, *Banff National Park Management Plan* (Ottawa: Parks Canada, 1997).

Parks Canada, *Jasper National Park of Canada Management Plan* (Ottawa: Minister of Public Works and Government Services Canada, 2000).

Parks Canada, *National Park System Plan* (Ottawa: Minister of Supply and Services Canada,

1997).

Parks Canada, *Guiding Principles and Operational Policies* (Ottawa: Minister of Supply and Services Canada, 1994).

Parks Canada, *Parks Canada Policy* (Ottawa: Parks Canada, 1979).

Parks Canada, *Sea to Sea to Sea: Canada's National Marine Conservation Areas Systems Plan* (Ottawa: Parks Canada, 1995).

Parks Canada, *State of the Parks 1997 Report* (Ottawa: Minister of Public Works and Government Services Canada, 1998).

Parks Canada Agency, *Parks Canada: First Priority: Progress Report on Implementation of the Recommendations of the Panel on the Ecological Integrity of Canada's National Parks* (Ottawa: Minister of Public Works and Government Services Canada, 2001).

Parks Canada Agency, *Parks Canada Agency Annual Report 1999-2000*, (Ottawa: Her Majesty the Queen in Right of Canada, 2000).

Parks Canada Agency, *Parks Canada Agency Annual Report 2000-2001*, (Ottawa: Her Majesty the Queen in Right of Canada, 2001).

Parks Canada Agency, *Stated of Protected Heritage Areas 1999 Report*, (Ottawa: Her Majesty the Queen in Right of Canada, 2000).

Parks Canada Agency, *Sustainable Development Strategy 2001-2004 - Sustaining Ecological and Commemorative Integrity* (Ottawa: Her Majesty the Queen in Right of Canada, 2000).

Parks Canada Agency, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks* Report of the Panel on the Ecological Integrity of Canada's National Parks (Ottawa: Minister of Public Works and Government Services Canada, 2000).

Pinchot, G., *The Fight for Conservation* (Seattle: University of Washington Press, 1910).

Searle, R., *Phantom Parks: The Struggle to Save Canada's National Parks* (Toronto: Key Porter Books Limited, 2000).

Wipond, K. J., *Interpretation and Implementation of the Mandate to Maintain Ecological Integrity in Pacific Rim* (Victoria: University of Victoria, 1996).

ARTICLES & BOOK CHAPTERS

Ansson, R. J., "Protecting and Preserving Our National Parks: The Everglades National Park Restoration Project" (2000) 19 Virginia Environmental Law Journal 121.

Bernstein, L. M., "Ecosystem Communities: Zoning Principles to Promote Conservation and the Economy" (1995) 35 Santa Clara Law Review 1309.

Bloch, J. B., "Preserving Biological Diversity in the United States: The Case for Moving to an Ecosystem Approach to Protect the Nation's Biological Wealth" (1992) 10 Pace Environmental Law Review 175.

Bodansky, D. M., "International Law and the Protection of Biological Diversity" (1995) 28 Vanderbilt of Transnational Law 623.

Dobson, T., "Loss of Biodiversity: An International Environmental Policy Perspective" (1992) 17 North Carolina Journal of International Law and Commercial Regulation 277.

Downes, D., "Biodiversity Symposium: The Convention on Biological Diversity: Seeds of Green Trade?" (1994) 8 Tulane Environmental Law Journal 163

Dykstra, P., "Defining the Mother Lode: Yellowstone National Park v. The New World Mine" (1997) 24 Ecology Law Quarterly 299.

Eagles, P. F. J., "Parks Legislation in Canada" in Philip Dearden & Rick Rollins eds. *Parks and Protected Areas in Canada* (Toronto: Oxford University Press, 1993) 57.

Foreman, D., "The Wildlands Project and the Rewarding of North America" (1999) 76 Denver University Law Review 535.

Gollin M. A. & S.A. Laird, "Global Policies, Local Actions: The Role of National Legislation in Sustainable Biodiversity Prospecting" (1996) 2 Boston University Journal of Science & Technology Law 16.

Herman, D. J., "Loving Them to Death: Legal Controls on the Types of Scale of Development in the National Parks" (1992) 11 Stanford Environmental Law Journal 3.

Hughes, E.L., "Environmental Protection in National Marine Parks" (1992) 41 UNB Law Journal 41.

Hubbard, A., "The Convention on Biological Diversity's Fifth Anniversary: A General Overview of the Convention - Where Has it Been and Where Is It Going?" (1997) 10 Tulane Environmental Law Journal 415.

Keele, K., "Preservation and Use: Road Building, Overcrowding, and the Future of Our National Parks" (1998) 11 Tulane Environmental Law Journal 441.

Keiter, R. B., "Beyond the Boundary Line: Constructing A Law of Ecosystem Management" (1994) 65 University of Colorado Law Review 293.

Keiter, R. B., "Preserving Nepal's National Parks: Law and Conservation in the Developing World" (1995) 22 Ecology Law Quarterly 591.

Korhonen, I. M., "Riverine Ecosystem in International Law" (1996) 36 Natural Resources Journal 481.

Marroquin-Merino, V. M., "Wildlife Utilization: A New International Mechanism for the Protection of Biological Diversity" (1995) 26 Law and Policy in International Business 303.

McNamee, K., "From Wild Places to Endangered Spaces - A History of Canada's National Parks" in Philip Dearden & Rick Rollins eds. *Parks and Protected Areas in Canada* (Toronto: Oxford University Press, 1993) 20.

Noss, R. F., "Some Principles of Conservation Biology, As They Apply to Environmental Law" (1994) 69 Chicago-Kent Law Review 893.

Rogers, K. & J.A. Moore, "Revitalizing the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere: Might Awakening a Visionary but "Sleeping" Treaty be the Key to Preserving Biodiversity and Threatened Natural Areas in the Americans?" (1995) 36 Harvard International Law Journal 465.

Scheg, N. L., "Preservationists vs. Recreationists in Our National Parks" (1998) 5 Hastings West-Northwest Journal of Environmental Law and Policy 47.

Shutkin, W. A., "The National Park Service Act Revisited" (1991) 10 Virginia Environmental Law Journal 345.

Slocombe, S. D., "Implementing Ecosystem-based Management: Development of Theory, Practice and research for Planning and Managing a Region" (1993) 43 Bioscience 612.

Tarlock, A. D., "Environmental Protection: The Potential Misfit Between Equity and Efficiency" (1992) 63 University of Colorado Law Review 871.

Temple, S. A., "Book Review of The Fragmented Forest: Island Biogeography and the Preservation of Biotic Diversity" (1986) 50 Journal of Wildlife Management at 176.

Tinker, C., "Responsibility for Biological Diversity Conservation under International Law"

(1995) 28 Vanderbilt Journal of Transnational Law 777.

Tinker, C. J., "Introduction to Biological Diversity: Law, Institutions, and Science" (1994) 1 Buffalo Journal of International Law 1.

Wilcon, B. & Murphy, D., "Conservation Strategy: The Effects of Fragmentation on Extinction" (1985) 125 American Naturalist 879.

WEBSITES

Biodiversity Resource Center at the California Academy of Sciences, http://cas.calacademy.org/<<degrees>>library/biodiv/biodiv.html, visited on June 18, 2001.

Canada NewsWire, RCMP to Assist in Keeping National Parks of Canada Safe, http://www.newswire.ca/releases/May2001/17/c5981.html, visited on January 16, 2002.

Canadian Heritage & Parks Canada, Charting the Course - Towards a Marine Conservation Areas Act, http://www.parkscanada.pch.gc.ca/library/to_NMCA_act/to_act1e.htm, visited on November 15, 2001.

Center for International Environmental Law, Biodiversity and Wildlife Program, http://www.ciel.org/Biodiversity/programbio.html, visited on June 18, 2001.

Eco-Research Chair of Environmental Law and Policy, University of Victoria, *Canada vs. The OECD: An Environmental Comparison*, http://www.environmentalindicators.com/htdocs/execsum.htm, visited on March 27, 2002.

Environment Canada, Conserving Wildlife Diversity - Implementing the Canadian Biodiversity Strategy, http://www.ec.gc.ca/press/conserv_b_e.htm, visited on October 30, 2001.

IUCN, Homepage, http://www.iucn.org, visited on March 27, 2002.

IUCN, 15th Session of the General Assembly of IUCN Christchurch, New Zealand, 11-23 October 1981, http://www.iucn.org/Resolutions/IUCN_ENx/00000006/00000006.pdf, visited on March 27, 2002.

Manitoba's Protected Areas Initiative, http://www.gov.mb.ca/natres/pai/why_are.html, visited on January 17, 2002.

National Geographic Society, the Growth of A Forest - Habitats, http://www.nationalgeographic.com/habitats/index2.html, visited on September 2, 2001.

Natural Heritage, Point Pelee National Park of Canada- East Road Removal, http://www.parcscanada.gc.ca/pelee/english/recon2_e.htm, visited on September 25, 2001.

New Release - Sheila Copps Tables Canada National Marine Conservation Areas Act and Highlights Parks Canada's Contribution to National Heritage, http://parkscanada.pch.gc.ca/Library/NewsReleases/release_e.cfm?id=464&andor=nr, visited on January 16, 2002.

North American Commission for Environmental Cooperation, Significant Biodiversity Loss Across North America, NAFTA Body's State of the Environment Report Says, http://64.4.20.250/cgi-bin/linkrd?_lang=EN&lah=4f9f4edd8a1b5fbdc503c6ce0145bd5a&lat=1011841928&hm__action=http%3a%2f%2fwww%2ecec%2eorg%2fsoe, visited on January 8, 2002.

Parks Canada, Backgrounder – Conservation & Protection of Wildlife and Other Park Resources, http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=285&andor=bg, visited on October 1, 2001.

Parks Canada, Backgrounder - Legislative Framework for Parks Canada, http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=283&andor=bg, visited on September 26, 2001.

Parks Canada, Backgrounder - Legislative Framework for the Parks Canada Agency,

http://parkscanada.pch.gc.ca/Library/NewsReleases/release_e.cfm?bgid=197&andor=bg, visited on January 16, 2002.

Parks Canada, Backgrounder – New Park Establishment, http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=284&andor=bg, visited on October 1, 2001.

Parks Canada, Backgrounder – Park Communities: Controlling Commercial Development, http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=282&andor=bg, visited on October 1, 2001.

Parks Canada, Banff-Bow Valley: At the Crossroads Summary Report, http://www.worldweb.com/parkscanada-banff/bveng.pdf, visited on March 28.

Parks Canada, Banff National Park Management Plan Summary, http://www.worldweb.com/parkscanada-banff/mp_bnp_e.html, visited on January 16, 2002.

Parks Canada, Canada-Wide Consultations Launched to Discuss Parks Canada Agency Proposal, http://parkscanada.pch.gc.ca/Library/NewsReleases/release_e.cfm?id=222&andor=nr, visited on January 16, 2002.

Parks Canada, Nahanni National Park Reserve of Canada - Greater Nahanni Ecosystem, http://www.parcscanada.gc.ca/parks/nwtw/nahanni/english/whatsnew2_e.htm, visited on September 25, 2001.

Parks Canada, National Marine Conservation Areas Program, http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=380&andor=bg, visited on November 14, 2001.

Parks Canada, Parks Canada Action Plan in Response to the Report of the Panel on the Ecological Integrity of Canada's National Parks, http://parkscanada.pch.gc.ca/EI-IE/response_e.htm, visited on January 20, 2002.

Parks Canada, Parks Canada Guide to Management Planning,

http://www.parkscanada.gc.ca/library/planguide/english/two_e.htm, visited on March 28, 2002.

Parks Canada, Response to Recommendations of the First Minister's Round Table on Parks Canada, held April 1-4, 2001, http://www.parcscanada.gc.ca/RoundTable/English/ecoresponse_e.htm, visited on December 5, 2002.

Parks Canada, Response to Recommendations of the First Minister's Round Table on Parks Canada, held April 1-4, 2001- Partnerships in Regional Ecosystems, http://www.parcscanada.gc.ca/RoundTable/English/ecoresponse_e.htm, visited on December 5, 2001.

Parks Canada, Species At Risk Program, http://www.parcscanada.gc.ca/sar-eep/english/main_e.htm, visited on October 1, 2001.

Parks Canada, Species At Risk and Parks Canada, http://parkscanada.pch.gc.ca/sar-eep/english/main_e.htm, visited on January 16, 2002.

Parks Canada, Summary of the Canada National Marine Conservation Areas Bill, http://www.parcscanada.gc.ca/Library/NewsReleases/release_e.cfm?bgid=381&andor=bg, visited on November 14, 2001.

Parks Canada, the 1992 Statement of Commitment, http://parkscanada.pch.gc.ca/library/fppc/english/1992statement_e.pdf, visited on January 20, 2002.

Parks Canada, The Endangered Banff Springs Snail, http://www.parcscanada.gc.ca/sar-eep/english/snail_e.htm, visited on December 5, 2001.

Parks Canada Agency, Parks Canada Agency Annual Report 1999-2000, http://parkscanada.pch.gc.ca/Library/DownloadDocuments/DocumentsArchive/PCA_99_00report_e.pdf, visited on July 20, 2001.

Parks Canada Agency, Parks Canada Agency Corporate Plan 2000/01-2004/05, http://www.parcscanada.gc.ca/library/DownloadDocuments/DocumentsArchive/PC_CorporatePlan2000_e.pdf, visited on July 18, 2001.

Parks Canada Agency, State of Protected Heritage Areas 1999 Report, http://parkscanada.pch.gc.ca/Library/Sop/main_e.htm, visited on July 18, 2001.

The MAB Program, United Nations Educational, Scientific and Cultural Organization, http://www.unesco.org//mab/about.htm#Intro, visited on Nov 7, 2001.

Waterton Lakes National Park of Canada, About the Waterton/Glacier International Peace Park, http://parkscanada.pch.gc.ca/waterton/english/welcome2_e.htm, visited on January 16, 2002.