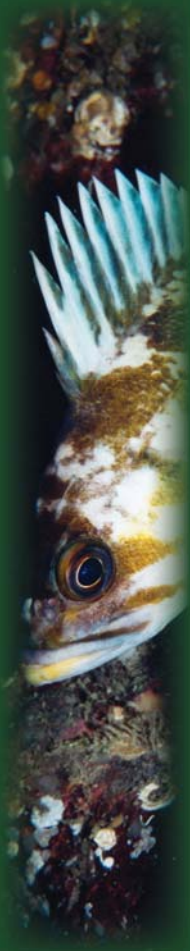


# Canadian Guidebook

for the Application of  
IUCN Protected Area Categories

2008



## CCEA Occasional Paper No. 18

# Canadian Guidebook: for the application of IUCN Protected Area Categories 2008

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# **Canadian Guidebook**

## **for the Application of IUCN Protected Area Categories**

**Canadian Council on Ecological Areas**

**2008**



The Canadian Council on Ecological Areas (CCEA) is a national non-governmental organization with a mission "to facilitate and assist Canadians with the establishment and management of a comprehensive network of protected areas representative of Canada's terrestrial and aquatic ecological natural diversity."

This Guidebook is one of a number of objective, science-based research reports and technical guidance documents prepared by the CCEA to share collective expertise on issues among protected area jurisdictions and the larger protected area community.

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The views expressed in this publication do not necessarily reflect current official positions of Canadian jurisdictions, environmental non-government organizations (ENGOS), agencies, the World Conservation Union or other organizations.

## 1.0 INTRODUCTION

### 1.1 A guidebook for assessing Canada's protected areas

Over the past three decades, the IUCN – World Conservation Union has developed and refined an international system of categories for reporting on protected areas<sup>1</sup> at the global level. The most recent version of this standard, “Guidelines for Protected Area Management Categories” (IUCN and World Commission on Protected Areas 1994)<sup>2</sup>, has been applied in 170 countries around the world. The IUCN anticipated the development of regional or national guidelines to provide a more local focus and clarification. Guidelines have been developed, for example, by Europe (EUROPARC and IUCN 1999) and Australia (World Commission on Protected Areas, Australia and New Zealand Region 2000).

Consistent with the intention of the IUCN, the primary purpose of this Canadian Guidebook is to provide further explanation to the IUCN Guidelines (1994) and to interpret them with the particular circumstances of Canada in mind.<sup>3</sup> The Guidebook will provide a common tool for all Canadian jurisdictions and encourage cooperation in protected areas assessment and reporting. It may also provide an example to other nations who may be struggling with the application of the IUCN system to their protected areas networks.

This initial version of the Canadian Guidebook has been prepared by experts from protected area agencies across the country, and benefited from the experience of the many Canadian jurisdictions that have invested substantial effort to understand, agree upon, and apply the IUCN categories. (See Appendix C.) Individuals from environmental non-government organizations, academia, and the IUCN have also contributed to the document.

The Canadian Guidebook is a milestone document that has resulted from considerable thought, negotiation and consensus-building. The perspectives reflected in this document will no doubt evolve over time through a continual process of practice, learning and discussion at the international and national levels. Nevertheless this guidebook will serve as a solid foundation for future work on categorizing protected areas in Canada.

### 1.2 Background: Protected areas in Canada

Canada's network of public land protected areas dates back to 1885 when Banff National Park was created. The establishment of Banff was followed closely by the first wildlife refuge, Last Mountain Lake in 1887, and Canada's first provincial park, Algonquin, in 1893. Canada's first marine protected area, Rocher-aux-Oiseaux Migratory Bird Sanctuary, was established in Quebec in 1919.

Today, Canada lays claim to a network of well over 4,000 protected areas representing more than 100 different types, ranging from ecological reserves and wilderness areas to community

---

<sup>1</sup> A protected area is “an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means” (IUCN and WCPA 1994). Further explanation is provided in section 2.0 of this Guidebook.

<sup>2</sup> Referred to throughout this document as the IUCN Guidelines (1994).

<sup>3</sup> While this Canadian Guidebook has been developed as a stand-alone document, it is not designed to replace the IUCN Guidelines (1994). That publication remains the primary reference book.

parks and conservation zones. Almost 100 million hectares of terrestrial protected areas have been secured in Canada—an amount equal to 10 percent of this country’s total land mass—and over 3 million hectares or 0.5 percent of Canada’s oceans have been secured as marine protected areas (Environment Canada 2006). Canada’s protected areas represent a significant contribution to global biodiversity protection.

These protected areas are owned and managed by a diverse group of public and private agencies. Some 20 federal, provincial and territorial agencies are responsible for programs designed to protect Canada’s natural diversity contained in its lands and marine waters. In addition, there is a growing number of national and regional environmental non-government organizations (ENGOs) that are acquiring properties, or entering into long-term agreements with landowners, to protect natural areas.

Canada’s federal system has produced protected areas with the same formal designations, such as “wildlife management area,” which are secured under different pieces of legislation with distinct management regimes and conservation objectives. Perhaps the most used protected area term is “park,” which can refer to a highly protected wilderness with limited human access, or a picnic site or boat launch. It has become clear that consideration of Canada’s protected areas based on their names alone provides little insight into the purpose, level of protection or management regime.

### **1.3 Why standardize protected area management categories?**

The complex nature of Canada’s protected areas community has made it difficult to answer a seemingly simple question: “How much protected area is found in Canada?” Addressing this question requires the cooperation of numerous agencies and the application of common standards to facilitate interjurisdictional and national assessments. A standardized compilation of protected areas provides useful information to advocacy groups, policy makers and decision-makers.

National and international commitments and reports drive the requirement to gather and disseminate information on Canada’s protected areas in a consistent manner. Primary among these are the following:

- A decision by the Seventh Conference of the Parties of the Convention on Biological Diversity (COP 7) to encourage parties to report on in-situ conservation of biodiversity by IUCN categories (Secretariat of the CBD 2004);
- Requests from the IUCN World Commission on Protected Areas (WCPA) and the World Conservation Monitoring Centre (WCMC) for information on Canada’s protected areas for international reporting; and
- Reports by the Organisation for Economic Co-operation and Development (OECD) on sustainability.

In addition, standardized protected area data and information can provide useful information for many Canada-wide policy, science and planning initiatives including:

- The Canadian Biodiversity Strategy;
- State of park and protected area reporting (e.g. Environment Canada 2006) and state of environment reporting;

- Environmental and sustainable development policies;
- Protected areas system planning initiatives;
- Ecosystem-level planning and management and regional ecological integrity measurements;
- National environmental accounting (e.g. such as that undertaken by Statistics Canada);
- Criteria and indicators of sustainable forest management (e.g. such as those developed by the Canadian Council of Forest Ministers);
- Other environmental and protected area indicator efforts;
- Protected area geospatial framework mapping (e.g. such as that carried out by Natural Resources Canada); and
- Climate-change impact modeling.

Intergovernmental agencies and national ENGOs also require periodic standardized information on Canada's protected areas. These agencies include the Canadian Parks Council, the Canadian Council on Ecological Areas and World Wildlife Fund Canada. The Nature Conservancy of Canada requires consistent protected area information for conservation planning.

Furthermore, resource sectors such as forestry, fisheries, mining, hydroelectric and oil and gas, in addition to the transportation and tourism sectors, require standardized, up-to-date conservation area data to guide their respective development plans.

From a jurisdictional perspective, standard categories of protected areas may facilitate cross provincial-territorial and ecoregional planning. A standard approach may also be useful to ENGOs and private forestry companies as guidance in the classification of special conservation areas.

A standard scheme for classifying protected areas has several advantages for Canada and the world. The reasons (adapted from IUCN and WCPA 1994) include the following:

- To reduce confusion surrounding the many different terms used to describe different kinds of protected areas;
- To enable consistent regional, country-wide and global assessments and comparisons (e.g. to help identify gaps and new sites in protected areas systems and enable transboundary and ecoregional assessments); and
- To provide a common framework for the collection, handling and dissemination of data about protected areas.

#### **1.4 Scope of the Canadian Guidebook**

The Canadian Guidebook primarily applies to protected areas owned and managed by federal, provincial, and territorial protected area agencies. These agencies own and manage the vast majority of protected areas in Canada, particularly the areas that fall under IUCN Categories I through IV.

The Guidebook may apply equally well to areas owned by other organizations apart from Canada's public protected area agencies. ENGOs that purchase and manage lands and waters have grown in number and importance across Canada. These include national agencies such as the Nature Conservancy of Canada, as well as numerous local and provincial nature trusts that have strong conservation and protection mandates. The areas secured under these programs collectively constitute a significant land base and often protect remnants of the most fragile and modified ecosystems in Canada, although they are often individually small in size.

In short, the inclusion of ENGOs and other government levels is important to obtain a complete picture of Canada's protected areas. However, these organizations and others have not been adequately engaged in preparation of this version of the Guidebook. They will need to be included in future discussions on extending the application of the Guidebook beyond traditional protected area agencies.

### **1.5 Organization and use of the Canadian Guidebook**

This Guidebook attempts to help responsible agencies to apply the IUCN protected area management categories by explaining terms, interpreting international standards in the Canadian context and providing examples intended to demonstrate application of the IUCN system in Canada. It is organized into five main sections, each of which features an integral element of the recommended approach to categorization:

- Section 2.0: The Definition of Protected Area
- Section 3.0: The IUCN Protected Area Management Categories
- Section 4.0: Canadian Interpretation of IUCN Categories
- Section 5.0: Other Important Factors
- Section 6.0: Canadian Examples of IUCN Categories

In practice, the responsibility for assigning categories should reside with protected area specialists within the department or agency responsible for implementing protected areas legislation on behalf of the Crown.

It should be recognized that the IUCN management categories have been developed for international comparisons, and some flexibility in their application is expected among countries. Consistency of application within Canada is a highly desirable and expected outcome. Through the shared experience of using this Canadian Guidebook, it is hoped that a more uniform assignment of categories will emerge over time.

## 2.0 The Definition of Protected Area

The first step in applying the IUCN system of protected area management categories is to determine whether the area falls within the definition of protected area.

For national assessment purposes, notwithstanding federal, provincial, and territorial definitions of protected areas, a protected area must comply with the IUCN definition:

*An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.*

(IUCN and WCPA 1994)

It should be noted that each protected area agency must be free to determine what constitutes a protected area for their planning and management purposes. A jurisdiction may, for example, include heritage sites, picnic sites and boat launches among their protected areas. However, these areas would not meet the IUCN definition of protected area as an area dedicated to the protection and maintenance of biological diversity. Within any jurisdiction, the concordance between this reality and the need for a protected area standard may result in two views with respect to the recognition of a site or area as protected for biological diversity: a jurisdictional perspective that may be influenced by local or political considerations (and subject to debate), and a technical point of view based on science and international protected areas standards. The quality and credibility of each jurisdiction's categorization of its protected areas will depend upon the divergence between these two points of view.

Table 1 provides further explanation in the form of inclusion and exclusion guidelines, to help clarify the IUCN definition in a Canadian context. These guidelines are not intended to override the definition above.

**Table 1: Clarification of terms and phrases in the IUCN Guidelines (1994) definition of protected area.**

| <b><i>Especially dedicated to the protection and maintenance of biological diversity</i></b>   |  |
|--|--|
| <b>Inclusion Guidelines</b>  | <b>Exclusion Guidelines</b>  |
| <p>The primary goal of a protected area is the protection and maintenance of biological diversity. For the purpose of this Guidebook, the definition of "biological diversity" is adopted from the Convention on Biological Diversity: "the variability among living organisms from all sources including, <i>inter alia</i>, 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" (United Nations 1992).</p> <p>Protection and maintenance of biological diversity is the primary intent whether or not this goal is fully achieved.</p> <p>Note that "especially dedicated" is not a statement</p> | <p>The protection and maintenance of biological diversity is a secondary or incidental outcome (such as: 1) a water catchment protected from interference where the primary objective is the supply of potable water or flood control; 2) a forested area where the primary objective is forest harvesting; or 3) a recreational site or picnic area.)</p> |

|  |   |
|--|---|
| of permanence of protection, although protection in perpetuity should be the long-term goal.   |   |
| The enabling legislation, Order in Council, or supporting management plan clearly intends that the primary goal of a protected area is the protection and maintenance of biological diversity. | The enabling legislation, Order in Council, or management plan does not intend that the primary goal of a protected area is the protection and maintenance of biological diversity. |

| <b>Natural and associated cultural resources</b>   |  |
|--|--|
| Inclusion Guidelines   | Exclusion Guidelines   |
| <p>To avoid a strictly utilitarian interpretation, Canada interprets “natural resources” to be natural features, recognizing that there are and will be protected areas established for the protection and maintenance of natural features that will help to achieve the primary goal.</p> <p>Protected areas that encompass cultural resources, which are presented in their natural context (e.g. some historic sites with natural protection objectives), but cultural resource protection is secondary to that of biological diversity and natural features.</p> | <p>An area with the primary goal of protecting “natural resources” as defined by their value for commercial development.</p> <p>An area that protects cultural resources, which are presented with little or no relationship to their natural context (e.g. some historic buildings and settlements, and some picnic parks).</p> <p>An area with the primary goal of protecting cultural resources, without at least an equivalent goal of protecting biological diversity and natural features.</p> |

| <b>Legal or other effective means</b>  |   |
|--|---|
| Inclusion Guidelines   | Exclusion Guidelines  |
| <p>The primary goal is legally defined in a Federal, Provincial, or Territorial Act, or self-governing First Nations legislation, which has as its intent the protection and maintenance of biological diversity.</p>  | <p>An area that is legally established with the intent not directly related to the protection and maintenance of biological diversity (e.g. Crown Leases, Provincial Forests subject to commercial timber extraction, or water catchment areas)</p> |
| <p>An area designated under the provisions of a particular Federal, Provincial or Territorial Act, or Order in Council where the tenure, land use, or boundaries of this area cannot be altered except by a parliamentary or legislative process or by order of a Minister of Parliament or Legislature in consultation with the Minister administering the protected area, preferably with public consultation.</p> | <p>An area designated under the provisions of a particular Act, where the tenure or land use of an area may be altered without parliamentary, legislative or Ministerial order processes.</p>   |
| <p>Sites designated under Municipal charter or bylaw or Council decision, ensuring protection of biological diversity, where land cannot be assigned to a new use, exchanged, or subject to any transaction that will affect its protection, unless the Minister in charge of the recognized protected area has agreed, preferably after public consultation by the municipality.</p>                                | <p>Sites that are not designated to protect and maintain biological diversity (e.g. recreational municipal parks), or where land use may be altered or transactions completed without Ministerial agreement or public consultation.</p>             |

|   |  |
|---|--|
|   |  |
| <p>For sites owned by an ENGO, the ENGO must have a clearly stated charter to purchase or own properties for the purpose of protecting biological diversity and a policy to prevent, by all means within its power (e.g. not granting landowner consent), prospecting, exploration and extraction of subsurface resources from its lands.</p> <p>Includes sites that are donated under federal or provincial ecological gifts legislation and that protect and maintain biological diversity.</p> <p>For private areas other than ENGO lands, sites must have conditions placed on the deed such as conservation easements or legal protected area designations, ensuring protection of biological diversity. Conditions must be accompanied by enforcement responsibility of an ENGO or government.</p> <p>For sites owned by corporations or resource industries, there must be legal means in place to ensure the protection and maintenance of biological diversity, which is binding on the company and all subsequent owners.</p> | <p>The long-term protection or maintenance of biological diversity is not ensured through legal, ownership by a <i>bona fide</i> conservation agency, or through iron-clad provisions.</p> <p>Sites donated under federal or provincial ecological gifts legislation that do not protect and maintain biological diversity.</p> <p>No such conditions on the deed exist or no accompanying enforcement is in place.</p> <p>Sites owned by corporation or resource industries that are set aside through goodwill alone without any legally enforceable means in place to ensure the protection and maintenance of biological diversity, or which are enforceable only while the original consenting owner owns the land.</p> |
| <p>An area subject to protective covenant on title or agreement under the provisions of land or water conservation legislation. The covenant and land uses allowed should be subject to alteration only by the courts or a Minister of Parliament or Legislature in consultation with the Minister administering conservation issues (e.g. Conservation Agreements under the provisions of an Act).</p>   | <p>No such protective covenants exist or are subject to alteration at levels below a Ministerial level.</p>  |
| <p>An area designated or recognized under the provisions of a particular Act and subject to a legally adopted and enforceable management plan with the primary goal of protection and maintenance of biological diversity.</p>  | <p>An area designated or recognized under the provisions of a particular Act that does not have a legally adopted and enforceable management plan with the primary goal of protection and maintenance of biological diversity.</p>   |
| <p>An area of private or community-owned indigenous land or sea that is the subject of a legally enforceable conservation management regime which is endorsed by traditional owners of that land and which has the primary goal of protection and maintenance of biological diversity.</p>  | <p>An area of private or community-owned indigenous land or sea that is not the subject of a legally enforceable conservation management regime endorsed by traditional owners of that land and which has the primary goal of protection and maintenance of biological diversity.</p>  |

## 3.0 The IUCN Protected Area Management Categories

### 3.1 A brief history

The IUCN developed a preliminary system of protected area management categories in 1978, defined by the primary management objective, to provide the conservation world with a 'common language' with which to discuss protected areas (IUCN 1978). The Commission on National Parks and Protected Areas (now World Commission on Protected Areas or WCPA) reviewed the preliminary system and the Fourth World Parks Congress held in 1992 in Caracas recommended changes (IUCN 1992). The IUCN General Assembly approved the recommended changes two years later, resulting in the current IUCN Guidelines (1994).

### 3.2 Definitions of IUCN categories

These brief definitions of each category are from the IUCN Guidelines (1994) (however the short names of the categories have been omitted to avoid drawing inaccurate associations with similar names used in Canada):

- **Category Ia: *Protected area managed mainly for science*** – an area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.
- **Category Ib: *Protected area managed mainly for wilderness protection*** – large area of unmodified or slightly modified land and/or sea, retaining its natural characteristics and influence, without permanent or significant habitation, which is protected and managed to preserve its natural condition.
- **Category II: *Protected area managed mainly for ecosystem protection and recreation*** – natural area of land 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 area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.
- **Category III: *Protected area managed mainly for conservation of specific natural features*** – area containing specific natural or natural/cultural feature(s) of outstanding or unique value because of their inherent rarity, representativeness or aesthetic qualities or cultural significance.
- **Category IV: *Protected area managed mainly for conservation through management intervention*** – area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats to meet the requirements of specific species.
- **Category V: *Protected area managed mainly for landscape/seascape conservation or recreation*** – area of land, with coast or sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the area's protection, maintenance and evolution.

- **Category VI: Protected area managed mainly for the sustainable use of natural resources** – area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while also providing a sustainable flow of natural products and services to meet community needs.

These definitions of categories are just one element of the approach presented in this Guidebook to understand protected areas management and assign IUCN categories. Consideration of all elements is strongly encouraged. A more detailed explanation of the management categories is found in section 4.0.

### 3.3 Assumptions and qualifications regarding IUCN categories

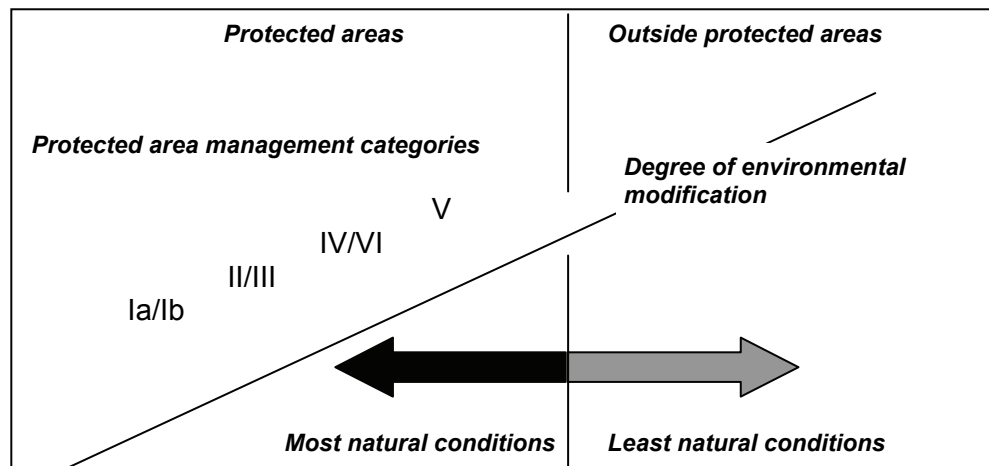
The IUCN protected area management categories are designed to be clear, flexible and logical. They are also based on a number of underlying assumptions and qualifications. These six qualifications are adapted for Canada from the IUCN Guidelines (1994).

- 1. The basis of categorization is by primary management objective.**  
The primary management objective is most often contained within the enabling legislation, or in case of ENGO properties the conservation mandate of the organization, coupled with management plans.
- 2. IUCN categories are not a comment on the effectiveness of management.**  
The IUCN system is based on the stated intentions of what the area should be, and not how effectively the area is managed or an assessment of the number or magnitude of activities that may conflict with the primary management objective. Categorization should take into account the kinds and extent of activities that will be legally allowed, to determine whether the area realistically can meet its stated management objectives.
- 3. The IUCN system is international.**  
The main purpose of the system is to enable comparison between countries. The system is expected to be interpreted with flexibility at national and regional levels. Within Canada, consistency in application between protected area agencies is highly desirable to maintain meaningful assessments.
- 4. The names of protected areas will vary and are not important to classification.**  
The names applied to protected areas are not used in a consistent manner across Canada and can represent a wide range of objectives. Therefore the categorization of protected areas according to the objectives of management and guidance for selection criteria is imperative in applying the IUCN system.
- 5. All categories are important.**  
Each protected area, regardless of its IUCN category, has an important role in the protection and maintenance of biodiversity and in some cases sustainable development. All categories may not be suitable in every country. Areas that are not considered “protected areas” according to the IUCN definition could nonetheless contribute to the protection and maintenance of biological diversity.
- 6. A gradation of human intervention is implied.**  
The degree of naturalness in a protected area is inversely related to the degree of human intervention (i.e. amount of extractive activities, pollutants, and human induced environmental modification), as illustrated in Figure 1. The diagram is a schematic representation of the extent to which the natural environment is likely to have been, or is likely to be, modified in each category of protected area. It does not mean that in every case one category will relate to another as shown, nor is it meant to imply that the environment of protected areas is

invariably less modified than that to be found outside protected areas. However, as the human ecological footprint expands over time, environments inside protected areas are expected to be better protected from human modification than those outside.

IUCN Category VI is the only category where a specific figure for naturalness (66 percent) is stated. Category Ia protected areas should approach 100 percent natural conditions while Category V may have less than 66 percent natural conditions, yet still must be able to protect and maintain biological diversity, and natural and associated cultural features. Aside from a gradation in naturalness, a gradation in the extent, type and magnitude of consumptive uses exists between categories. (See section 5.1.)

**Figure 1: IUCN protected area categories relative to the degree of environmental modification.**  
 (Adapted from: Bishop *et al.* 2004)



## **4.0 Canadian Interpretation of IUCN Categories**

### **4.1 Canadian issues**

The circumstances of Canada that compel interpretation of the IUCN Guidelines include:

- Canada is a federation of provinces and territories, each with their own definitions, strategies and systems plans for protected areas.
- Relative to other countries, Canada has many vast protected areas in Categories I through IV within which there may be small pockets of activities considered inconsistent with those categories.
- Generally speaking, protected area agencies in Canada are responsible for Categories I through IV areas, due to the wilderness nature of many protected areas. Most areas that meet the IUCN definition of a protected area and are consistent with Category V and VI protected area descriptions are beyond the scope of many of Canada's protected area agencies.
- Canada's indigenous aboriginal people have exercised rights to use protected areas for traditional practices such as hunting and trapping, which may otherwise influence categorization. (See section 5.10.)

### **4.2 General statements for guiding Canadian interpretation of IUCN categories**

The following overarching statements clarify or expand on descriptions of the IUCN categories, as they apply to protected areas in Canada:

1. Commercial extraction of any kind<sup>4</sup> and energy development are not acceptable in Categories I through IV. (Where justified, these activities may be grandfathered until pre-existing plans or agreements expire. Historical water control structures that have created modified natural habitats may also be grandfathered.) Any other commercial activity that may alter the habitat or ecological integrity of the protected area, including commercial harvesting at a level or in a manner that may compromise the objectives of management of the protected area, is not acceptable in Categories I through IV.
2. In Categories V and VI protected areas, exploration and commercial extraction would be acceptable only where the nature and extent of the proposed activities is compatible with the objectives of management of those categories.
3. All activities in protected areas should be consistent with the relevant objectives of management. Canada recognizes there will be exceptions to this rule, but they should be justifiable and kept to a minimum.
4. Active management to mimic natural processes may be acceptable if such intervention meets the objectives of management and other guidance for selection

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<sup>4</sup> The phrase "commercial extraction" as used here does not include the fishing, hunting or trapping of animals. The phrase "of any kind" avoids specifying the full list of activities. It is important to note that this document provides guidance from a scientific point of view.

associated with the IUCN category description. (See section 4.3 for category descriptions, and section 5.14 and Appendix A on active management that mimics natural processes.)

### **4.3 Descriptions of categories**

The seven IUCN categories are described in more detail in the following pages, under the following headings:

- Definition
- Objectives of Management
- Guidance for Selection
- Canadian Interpretation
- Canadian Examples

The text for “Definition,” “Objectives of Management” and “Guidance for Selection” is taken directly from the IUCN Guidelines (1994), excluding short names given by IUCN for each area (e.g. Strict Nature Reserve, National Park). The sections entitled “Canadian Interpretation” and “Canadian Examples” are original to this document.

Many protected areas serve more than one objective, so a fundamental task when assigning categories is to determine the importance of each objective in the management of the protected area. Generally speaking, the primary management objectives for a group of protected areas will be found in enabling legislation. Often the goals are vaguely or ambiguously stated making it difficult to determine if the “protection and maintenance of biodiversity, and associated natural and cultural features” is the intended primary objective. Supplementary information may be found in management plans or other supporting documents.

#### 4.3.1 Category Ia: Protected area managed mainly for science

##### Definition

Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

##### Objectives of Management

- To preserve habitats, ecosystems and species in as undisturbed a state as possible;
- To maintain genetic resources in a dynamic and evolutionary state;
- To maintain established ecological processes;
- To safeguard structural landscape features or rock exposures;
- To secure examples of the natural environment for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded;
- To minimize disturbance by careful planning and execution of research and other approved activities; and
- To limit public access.

##### Guidance for Selection

- The area should be large enough to ensure the integrity of its ecosystems and to accomplish the management objectives for which it is protected.
- The area should be significantly free of direct human intervention and capable of remaining so.
- The conservation of the area's biodiversity should be achievable through protection and not require substantial active management or habitat manipulation (c.f. Category IV).

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##### Canadian Interpretation

1. Category Ia applies to areas managed for strict nature protection.
2. All activities should be consistent with the objectives of management and guidance for selection: there should be no non-conforming uses.

##### Canadian Examples (see section 6.0 for descriptions)

|       |  |
|-------|--|
| QC/NU | Boatswain Bay Migratory Bird Sanctuary |
| NL    | Funk Island Ecological Reserve         |
| AB    | Kennedy Coulee Ecological Reserve      |
| NS    | Panuke Lake Nature Reserve             |

### 4.3.2 Category Ib: Protected area managed mainly for wilderness protection

#### Definition

Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

#### Objectives of Management

- To ensure that future generations have the opportunity to experience understanding and enjoyment of areas that have been largely undisturbed by human action over a long period of time;
- To maintain the essential natural attributes and qualities of the environment over the long term;
- To provide for public access at levels and of a type which will serve best the physical and spiritual well-being of visitors and maintain the wilderness qualities of the area for present and future generations; and
- To enable indigenous human communities living at low density and in balance with the available resources to maintain their lifestyle.

#### Guidance for Selection

- The area should possess high natural quality, be governed primarily by the forces of nature, with human disturbance substantially absent, and be likely to continue to display those attributes if managed as proposed.
- The area should contain significant ecological, geological, physiogeographic, or other features of scientific, educational, scenic or historic value.
- The area should offer outstanding opportunities for solitude, enjoyed once the area has been reached, by simple, quiet, non-polluting and non-intrusive means of travel (i.e. non-motorised).
- The area should be of sufficient size to make practical such preservation and use.

---

#### Canadian Interpretation

1. Category Ib applies to areas managed for strict nature protection.
2. All activities should be consistent with the objectives of management and guidance for selection: there should be no non-conforming uses.

#### Canadian Examples (see section 6.0 for descriptions)

|       |   |
|-------|---|
| SK    | Athabasca Sand Dunes Provincial Wilderness Park |
| NL    | Baie du Nord Wilderness Reserve                 |
| BC    | Khutzeymateen/K'tzim-a-Deen Grizzly Sanctuary   |
| NS    | Tobeatic Wilderness Area                        |
| NT/NU | Thelon Game Sanctuary                           |

### 4.3.3 Category II: Protected area managed mainly for ecosystem protection and recreation

#### Definition

Natural area of land 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 area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

#### Objectives of Management

- To protect natural and scenic areas of national and international significance for spiritual, scientific, educational, recreational or tourist purposes;
- To perpetuate, in as natural a state as possible, representative examples of physiographic regions, biotic communities, genetic resources, and species, to provide ecological stability and diversity;
- To manage visitor use for inspirational, educational, cultural and recreational purposes at a level which will maintain the area in a natural or near natural state; and
- To eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation;
- To maintain respect for the ecological, geomorphologic, sacred or aesthetic attributes which warranted designation;
- To take into account the needs of indigenous people, including subsistence resource use, in so far as these will not adversely affect the other objectives of management.

#### Guidance for Selection

- The area should contain a representative sample of major natural regions, features or scenery, where plant and animal species, habitats and geomorphologic sites are of special spiritual, scientific, educational, recreational, and tourist significance.
- The area should be large enough to contain one or more entire ecosystems not materially altered by current human occupation or exploitation.

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#### Canadian Interpretation

1. Category II areas should be large enough to represent ecosystems of the region and maintain ecological integrity while allowing for acceptable recreational uses.
2. Maintenance of ecological integrity should be a prerequisite to use.
3. Commercial extraction of any kind<sup>5</sup> and energy development is not acceptable in Category II. (In some cases, these activities may be grandfathered until pre-existing plans or agreements expire. Historical water control structures that have created modified natural habitats may also be grandfathered.) Any other commercial activity that may alter the habitat or ecological integrity of the protected area, including commercial harvesting at a level or in a manner that may compromise the objectives of management of the protected area, is not acceptable in Category II.

#### Canadian Examples (see section 6.0 for descriptions)

|       |                                    |
|-------|------------------------------------|
| SK/AB | Cypress Hills Interprovincial Park |
| QC    | Parc National des Pingualuit       |
| AB/NT | Wood Buffalo National Park         |

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<sup>5</sup> The phrase “commercial extraction” as used here does not include the fishing, hunting or trapping of animals. The phrase “of any kind” avoids specifying the full list of activities. It is important to note that this document provides guidance from a scientific point of view.

#### 4.3.4 Category III: Protected area managed mainly for conservation of specific natural features

##### Definition

Area containing one or more, specific natural or natural/cultural features of outstanding or unique value because of inherent rarity, representative or aesthetic qualities or cultural significance.

##### Objectives of Management

- To protect or preserve in perpetuity specific outstanding natural features because of their natural significance, unique or representational quality, and/or spiritual connotations;
- To an extent consistent with the foregoing objective, to provide opportunities for research, education, interpretation and public appreciation;
- To eliminate and thereafter prevent exploitation or occupation inimical to the purpose of designation; and
- To deliver to any resident population such benefits as are consistent with the other objectives of management.

##### Guidance for Selection

- The area should contain one or more features of outstanding significance (appropriate natural features include spectacular waterfalls, caves, craters, fossil beds, sand dunes and marine features, along with unique or representative fauna and flora; associated cultural features might include cave dwellings, cliff-top forts, archaeological sites, or natural sites which have heritage significance to indigenous peoples).
- The area should be large enough to protect the integrity of the feature and its immediately related surroundings.

---

##### Canadian Interpretation

1. Commercial extraction of any kind<sup>6</sup> and energy development is not acceptable in Category III. (In some cases, these activities may be grandfathered until pre-existing plans or agreements expire. Historical water control structures that have created modified natural habitats may also be grandfathered.) Any other commercial activity that may alter the habitat or ecological integrity of the protected area, including commercial harvesting at a level or in a manner that may compromise the objectives of management of the protected area, is not acceptable in Category III.

##### Canadian Examples (see section 6.0 for descriptions)

|    |  |
|----|--|
| QC | Île Bonaventure et du Rocher Percé Migratory Bird Sanctuary  |
| YK | Nisutlin River Delta National Wildlife Area, Yukon Territory |
| MB | Tie Creek Basin – Whiteshell Provincial Park                 |

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<sup>6</sup> The phrase “commercial extraction” as used here does not include the fishing, hunting or trapping of animals. The phrase “of any kind” avoids specifying the full list of activities. It is important to note that this document provides guidance from a scientific point of view.

#### **4.3.5 Category IV: Protected area managed mainly for conservation of habitat and species through management intervention**

##### **Definition**

Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

##### **Objectives of Management**

- To secure and maintain the habitat conditions necessary to protect significant species, groups of species, biotic communities or physical features of the environment where these require specific human manipulation for optimum management;
- To facilitate scientific research and environmental monitoring as primary activities associated with sustainable resource use;
- To develop limited areas for public education and appreciation of the characteristics of the habitats concerned and of the work of wildlife management;
- To eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation; and
- To deliver such benefits to people living within the designated area as are consistent with the other objectives of management.

##### **Guidance for Selection**

- The area should play an important role in the protection of nature and the survival of species, (incorporating, as appropriate, breeding areas, wetlands, coral reefs, estuaries, grasslands, forests or spawning areas, including marine feeding beds).
- The area should be one where the protection of the habitat is essential to the well-being of nationally or locally-important flora, or to resident or migratory fauna.
- Conservation of these habitats and species should depend upon active intervention by the management authority, if necessary through habitat manipulation (c.f. Category Ia).
- The size of the area should depend on the habitat requirements of the species to be protected and may range from relatively small to very extensive.

---

##### **Canadian Interpretation**

1. The primary focus of this category is to ensure the maintenance of native species, their habitats, and/or biotic communities. Active management may not be required. In other circumstances active management may be required to meet biological diversity objectives.
2. Areas requiring intensive active management to maintain their desired conditions belong here. Some of these areas may be managed to “enhance” habitat conditions for significant species or groups of species, and others may be managed to restore or maintain physical features of the environment or representative ecosystems.
3. Commercial extraction of any kind<sup>7</sup> and energy development is not acceptable in Category IV. (In some cases, these activities may be grandfathered until pre-existing plans or agreements expire. Historical water control structures that have created modified natural habitats may also be grandfathered.) Any other commercial activity that may alter the habitat or ecological integrity of the protected area, including commercial harvesting at a level or in a manner that may compromise the objectives of management of the protected area, is not acceptable in Category IV.

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<sup>7</sup> The phrase “commercial extraction” as used here does not include the fishing, hunting or trapping of animals. The phrase “of any kind” avoids specifying the full list of activities. It is important to note that this document provides guidance from a scientific point of view.

**Canadian Examples** (see section 6.0 for descriptions)

NL Eastport Marine Protected Areas (Round Island & Duck Islands)  
SK Last Mountain Lake National Wildlife Area

#### **4.3.6 Category V: Protected area managed mainly for landscape/seascape conservation and recreation**

##### **Definition**

Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

##### **Objectives of Management**

- To maintain the harmonious interaction of nature and culture through the protection of landscape and/or seascape and the continuation of traditional land uses, building practices and social and cultural manifestations;
- To support lifestyles and economic activities which are in harmony with nature and the preservation of the social and cultural fabric of the communities concerned;
- To maintain the diversity of landscape and habitat, and of associated species and ecosystems;
- To eliminate where necessary, and thereafter prevent, land uses and activities which are inappropriate in scale and/or character;
- To provide opportunities for public enjoyment through recreation and tourism appropriate in type and scale to the essential qualities of the areas;
- To encourage scientific and educational activities which will contribute to the long term well-being of resident populations and to the development of public support for the environmental protection of such areas; and
- To bring benefits to, and to contribute to the welfare of, the local community through the provision of natural products (such as forest and fisheries products) and services (such as clean water or income derived from sustainable forms of tourism).

##### **Guidance for Selection**

- The area should possess a landscape and/or coastal and island seascape of high scenic quality, with diverse associated habitats, flora and fauna along with manifestations of unique or traditional land-use patterns and social organizations as evidenced in human settlements and local customs, livelihoods, and beliefs.
- The area should provide opportunities for public enjoyment through recreation and tourism within its normal lifestyle and economic activities.

---

##### **Canadian Interpretation**

1. Exploration and commercial extraction would be acceptable in Category V only where the nature and extent of the proposed activities is compatible with the objectives of management.

##### **Canadian Examples**

There are no case studies for Category V at the present time.

#### **4.3.7 Category VI: Protected area managed mainly for the sustainable use of natural ecosystems**

##### **Definition**

Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

##### **Objectives of Management**

- To protect and maintain the biological diversity and other natural values of the area in the long term;
- To promote sound management practices for sustainable production purposes;
- To protect the natural resource base from being alienated for other land-use purposes that would be detrimental to the area's biological diversity; and
- To contribute to regional and national development.

##### **Guidance for Selection**

- The area should be at least two-thirds in a natural condition, although it may also contain limited areas of modified ecosystems; large commercial plantations would not be appropriate for inclusion. The area should be large enough to absorb sustainable resource uses without detriment to its overall long-term natural values.

---

##### **Canadian Interpretation**

1. Exploration and commercial extraction would be acceptable in Category VI only where the nature and extent of the proposed activities is compatible with the objectives of management.
2. The protection and maintenance of biological diversity is the primary objective of Category VI. Sustainable use of resources is a secondary objective. Sites with sustainable use as the primary objective do not meet the criteria for Category VI.
3. The “minimum 66 percent natural area” guideline should not be exchanged against modified areas. For example, forests cannot be harvested and then rezoned as natural landscapes and included in the 66-percent-natural portion of a reserve.
4. Resource use in Category VI protected areas must be defined in the related protected area legislation, management plan or equivalent statement of management intent, which may be subject to a public consultation process.

##### **Canadian Examples** (see section 6.0 for descriptions)

|    |   |
|----|---|
| AB | Black Creek Heritage Rangeland  |
| BC | Churn Creek Protected Area  |
| MB | Partially Protected Component, Whitewater Lake Wildlife Management Area |

#### 4.4 Comparison of IUCN categories

Table 2 summarizes comparative descriptions of each of the IUCN categories, which have been adapted from discussion papers<sup>8</sup> prepared for the IUCN Protected Areas Categories Summit, 7-11 May 2007, in Almería, Spain.

**Table 2: Comparison of IUCN categories**

| <b>Category Ia differs from the other categories in the following ways:</b> |  |
|---|--|
| <b>Category Ib</b>  | Category Ia and Ib are two aspects of the same thing: Category Ib protected areas generally will be larger and less strictly protected from public access. Category Ib areas are usually open to a limited number of people prepared to travel on foot or by boat, which is not always the case in Ia. Category Ib focuses on wilderness protection rather than scientific research and monitoring.  |
| <b>Category II</b>  | Category II protected areas usually combine ecosystem protection with a level of recreation that is not suitable for Category I.   |
| <b>Category III</b>   | Category III protected areas are generally centred on a particular natural and/or cultural feature. The primary focus of management is on protecting and maintaining this feature, whereas the focus of Category Ia is on self-sustaining ecosystem processes.   |
| <b>Category IV</b>  | Category IV protected areas protect fragments of ecosystems or habitats, which often require continual management intervention to maintain. In contrast, Category Ia areas should be largely self-sustaining, with management objectives that preclude such active intervention as well as the level of public access that is common in Category IV. Category IV protected areas are often established to protect particular species or habitats rather than the overall ecosystems and their processes that are the focus of Category Ia. |
| <b>Category V</b>   | Category V protected areas are generally cultural landscapes or seascapes that have been altered by humans over hundreds or even thousands of years, and that rely on continuing intervention to maintain their qualities. Many Category V protected areas contain permanent human settlements. In contrast, Category Ia areas are natural ecosystems that are generally free of human habitation and impacts.   |
| <b>Category VI</b>  | Category VI protected areas contain areas of sustainable use of natural resources, which are incompatible with Category Ia.  |

| <b>Category Ib differs from the other categories in the following ways:</b> |  |
|---|--|
| <b>Category Ia</b>  | Category Ia and Ib are two aspects of the same thing; Category Ia protected areas will generally be smaller and more strictly protected from public access. Category Ia protected areas focus on scientific research and monitoring rather than wilderness protection.   |
| <b>Category II</b>  | Category II protected areas usually combine ecosystem protection with a level of recreation that is not suitable for Category I.   |
| <b>Category III</b>   | Category III protected areas are generally centred on a particular natural and/or cultural feature. The primary focus of management is on protecting and maintaining this feature, whereas the focus of Category Ib is on self-sustaining ecosystem processes.   |
| <b>Category IV</b>  | Category IV protected areas protect fragments of ecosystems or habitats, which often require continual management intervention to maintain. In contrast, Category Ib areas should be largely self-sustaining, with management objectives that preclude such active intervention as well as the level of public access that is common in Category IV. Category IV protected areas are often established to protect particular species or habitats rather than the overall ecosystems and their processes that are the focus of Category Ib. |
| <b>Category V</b>   | Category V protected areas are generally cultural landscapes or seascapes that have been altered by humans over hundreds or even thousands of years, and that rely on continuing intervention to maintain their qualities.   |
| <b>Category VI</b>  | Category VI protected areas contain areas of sustainable use of natural resources, which are incompatible with Category Ib.  |

<sup>8</sup> Prepared by: Dudley and Redford 2007; Dudley 2007; Dudley and Borrini-Feyerabend 2007; Phillips and Brown 2007; Maretti, Cases and Imbroisi 2007.

| <b>Category II differs from the other categories in the following ways:</b> |  |
|---|--|
| <b>Category Ia</b>  | Category II protected areas usually combine ecosystem protection with a level of recreation that is not suitable for Category I.   |
| <b>Category Ib</b>  |  |
| <b>Category III</b>   | The emphasis of Category III management is not on protection of self-sustaining ecosystem processes, but of a particular natural and/or cultural feature(s); otherwise Category III is similar to II and managed in much the same way.   |
| <b>Category IV</b>  | Category IV protected areas conserve fragments of ecosystems, whereas Category II protected areas aim to conserve areas that are large enough to be fully functional as ecosystems. Given that very few protected areas are large enough to protect entire ecosystems in all their aspects, the distinction between Categories II and IV is partly a matter of objective: Category II aims to protect the entire ecosystem and Category IV focuses on a few key species or habitats. |
| <b>Category V</b>   | Current and traditional interaction of people and nature is a critical component of Category V protected areas, while Category II seeks to minimize human activity in the area to allow for “as natural a state as possible.” Category V includes the option of continuous human interaction that helps in shaping and maintaining evolving processes that define the landscape character and associated values.   |
| <b>Category VI</b>  | Category VI protected areas differ from those of Category II in the promotion of sustainable use of natural resources.   |

| <b>Category III differs from the other categories in the following ways:</b> |  |
|--|--|
| <b>Category Ia</b>   | In contrast with Category I, there is no particular stipulation that Category III protected areas should be found in wilderness areas; indeed many natural features are preserved in areas that are otherwise cultural or fragmented landscapes. |
| <b>Category Ib</b>   |  |
| <b>Category II</b>   | The emphasis of Category III management is not on protection of self-sustaining ecosystem processes, but of a particular natural and/or cultural feature(s); otherwise Category III is similar to II and managed in much the same way.           |
| <b>Category IV</b>   | The emphasis of Category III management is not on protection of the key species or habitats, but of a particular natural feature(s).   |
| <b>Category V</b>  | Category III is not confined to cultural landscapes, and management practices will probably focus more on preservation than in the case of Category V.   |
| <b>Category VI</b>   | Category III is not aimed at sustainable use of natural resources.   |

| <b>Category IV differs from the other categories in the following ways:</b> |   |
|---|---|
| <b>Category Ia</b>  | Category IV protected areas focus on the protection of specific species and their habitats rather than entire ecosystems. Category IV protected areas do not prioritize scientific research, although this may take place as a secondary activity.  |
| <b>Category Ib</b>  | Category IV protected areas cannot be described as “wilderness” as the word is used by IUCN. Many will be subject to ongoing management intervention that is inimical to the concept of Category Ib wilderness areas; those that remain unmanaged are likely to be too small to fulfill the aims of Category Ib.  |
| <b>Category II</b>  | Category IV protected areas conserve fragments of ecosystems, whereas Category II protected areas aim to conserve areas that are large enough to be fully functional as ecosystems. Given that very few protected areas are large enough to protect entire ecosystems in all their aspects, the distinction between Categories II and IV is partly a matter of objective – Category II aims to protect the entire ecosystem and Category IV focuses on a few key species or habitats. |
| <b>Category III</b>   | The objectives of Category IV are of a more biological nature than those of Category III, which are more morphologically or culturally oriented.  |
| <b>Category V</b>   | Category IV protected areas often aim specifically to protect identified target species and habitats whereas Category V aims to protect overall landscapes and seascapes that have significant aesthetic, ecological and/or cultural values. Category V protected areas generally will be larger than Category IV and unequivocally possess socio-cultural characteristics that may be absent in Category IV.   |
| <b>Category VI</b>  | Management interventions in Category IV protected areas are primarily aimed at maintaining species or habitats while in Category VI protected areas they are aimed at using resources in a sustainable manner. As with Category V, Category VI protected areas are generally larger than Category IV.   |

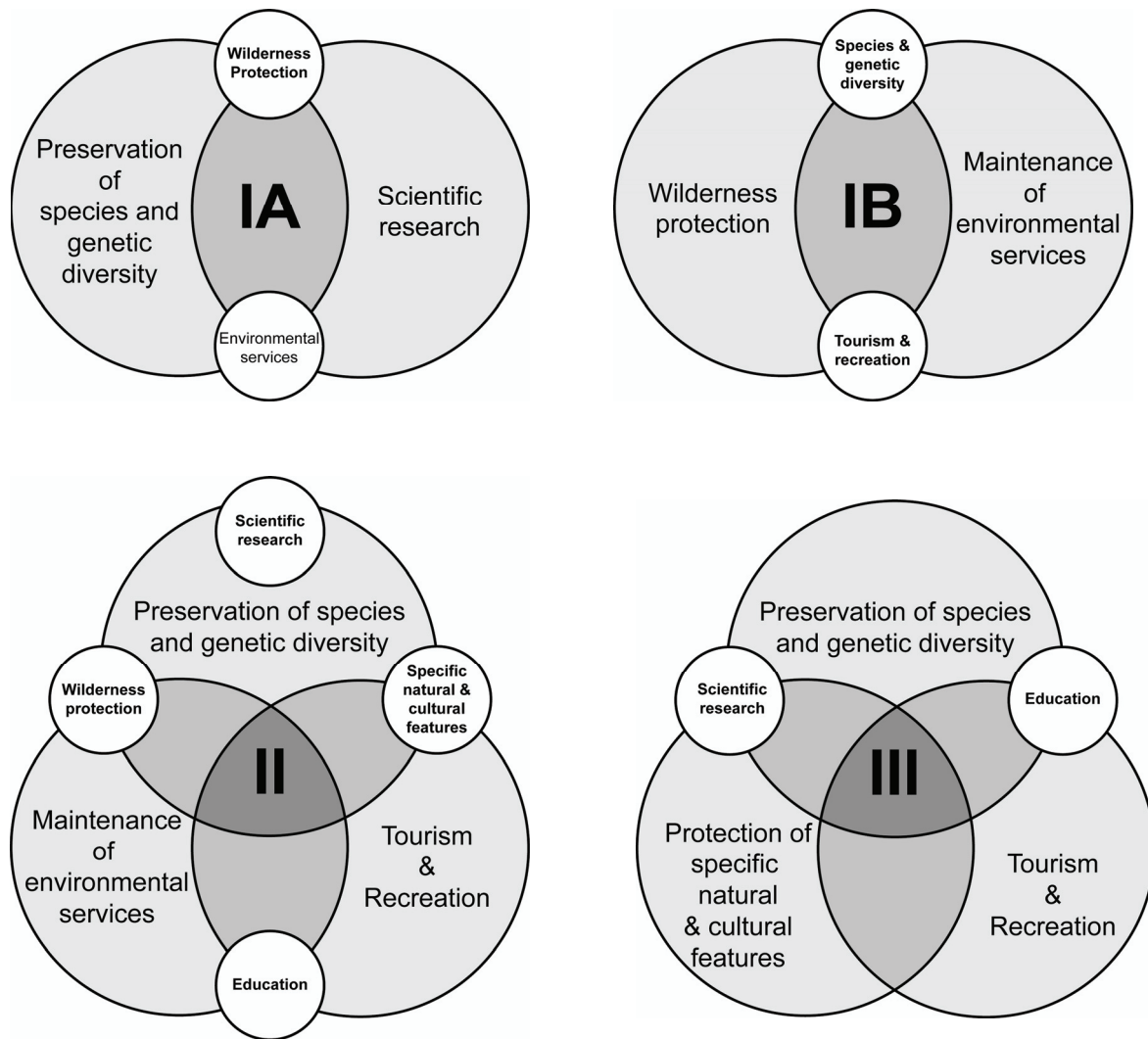
| <b>Category V differs from the other categories in the following ways:</b> |  |
|--|--|
| <b>Category Ia</b>   | Category V protected areas cannot be described as “wilderness.” They are typically lived-in landscapes where the interaction of people and nature over time defines the special values of the landscape. Many will be subject to management intervention.  |
| <b>Category Ib</b>   |  |
| <b>Category II</b>   | Current and traditional interaction of people and nature are a critical component of Category V protected areas, while Category II seeks to minimize human activity in the area in order to allow for “as natural a state as possible.” Category V includes the option of continuous human interaction that helps in shaping and maintaining evolving processes that define the landscape character and associated values.   |
| <b>Category III</b>  | Category V protected areas encompass broader landscapes and multiple values, whereas Category III areas focus on specific features and unique values. Category III does not emphasize the interactions between humans and nature. Category III emphasizes particular natural and/or cultural features, whereas these are not required for Category V protected areas.  |
| <b>Category IV</b>   | Category V aims to protect overall landscapes and seascapes that have value to biodiversity, whereas Category IV protected areas aim often quite specifically to protect identified target species and habitats. Category V protected areas generally will be larger than Category IV protected areas and typically allow more intervention. The human intervention in Category IV areas is meant to mimic natural ecological processes rather than constitute part of the ecosystem fabric as it has evolved.   |
| <b>Category VI</b>   | While Category VI emphasizes human-nature interactions in the present day, Category V reaches into the past, emphasizing the values created by the ongoing interactions of people and nature over time. In Category VI the emphasis is on sustainable use of environmental products and services, whereas in Category V the emphasis is on a broader array of values and on sustainable human interactions with the environment. Category VI specifies two-thirds of the area be undisturbed or pristine, while Category V does not make this requirement. Typically, both Category V and Category VI protected areas occur across larger landscapes than some other categories. |

| <b>Category VI differs from the other categories in the following ways:</b> |   |
|---|---|
| <b>Category Ia</b>  | Category VI protected areas cannot be described as wilderness. They are not strictly protected from human interference, though they are intended to conserve nature, its ecosystems and their contents and conditions including species and genetic diversity. Although scientific research may be considered an important activity in those protected areas, and even promoted, it would be considered a first-order activity only when applied to sustainable uses of natural resources.  |
| <b>Category Ib</b>  |   |
| <b>Category II</b>  | Category VI protected areas differ from the Category II in the promotion of sustainable use of their natural resources.   |
| <b>Category III</b>   | Category III protected areas are generally centered on a particular natural and/or cultural feature, so that the primary focus of management is on maintaining this feature, whereas objectives of Category VI are aimed at the sustainable use of natural resources.   |
| <b>Category IV</b>  | Management interventions in Category IV protected areas are primarily aimed at maintaining species or habitats while in Category VI protected areas they are aimed at using resources in a sustainable manner. As with Category V, Category VI protected areas are generally larger than Category IV.   |
| <b>Category V</b>   | While Category VI emphasizes human-nature interactions in the present day, Category V reaches into the past, emphasizing the values created by the ongoing interactions of people and nature over time. In Category VI the emphasis is on sustainable use of environmental products and services, whereas in Category V the emphasis is on a broader array of values and on sustainable human interactions with the environment. Category VI specifies that two-thirds of the area be undisturbed or pristine, while Category V does not make this requirement. Typically, both Category V and Category VI protected areas occur across larger landscapes than some other categories. |

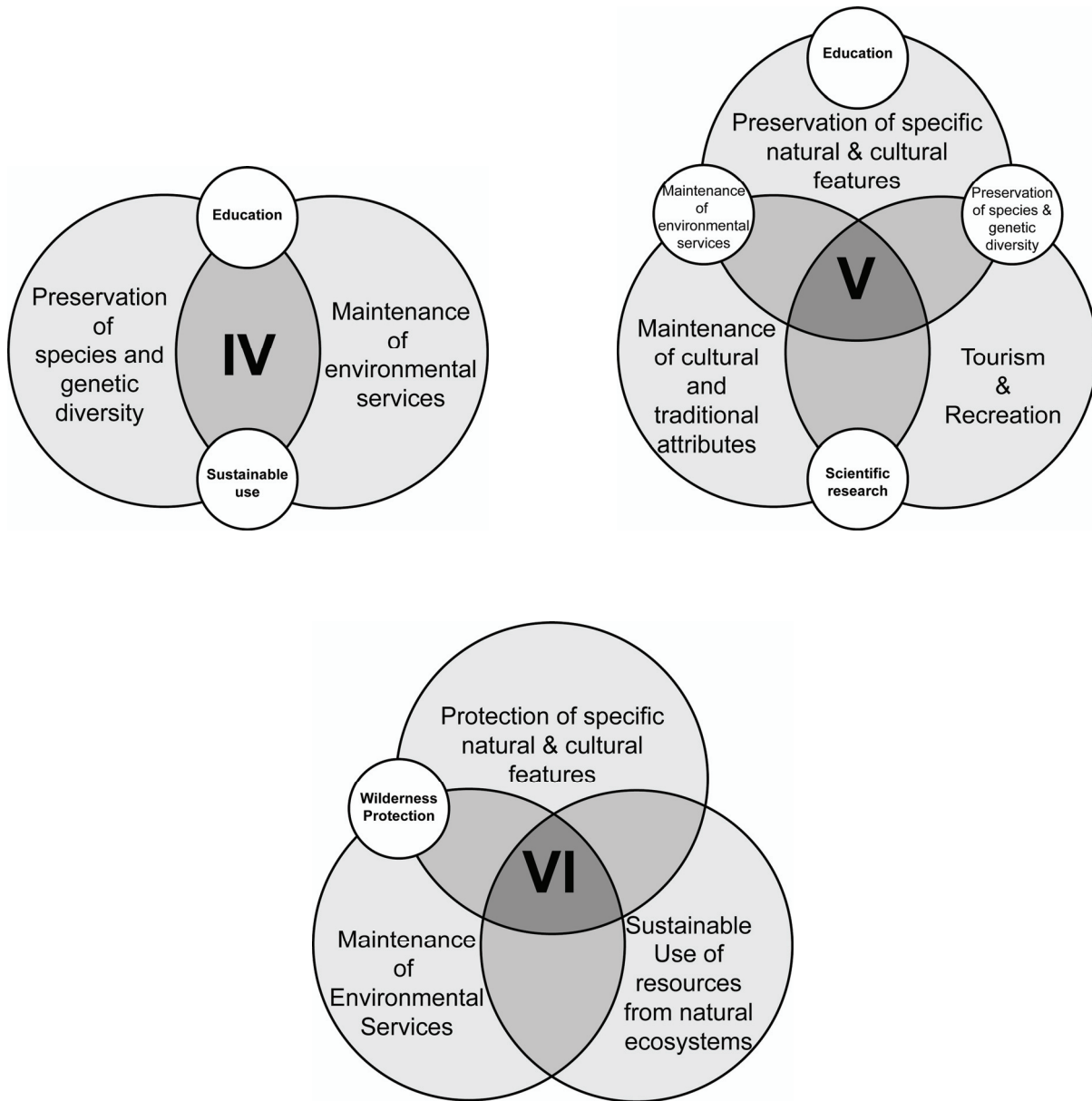
#### 4.5 Primary management objectives of IUCN categories

Figure 2 presents generalized views of the primary management objectives of each IUCN category. Larger circles indicate management objectives of greatest, but not necessarily equal, importance to that category. Some management objectives, particularly secondary objectives, may be entirely absent from particular protected areas. The diagrams simply portray the range of acceptable management objectives that may be found within each category. Note that none of the primary or secondary management objectives are more important than the principal goal of “the protection and maintenance of biological diversity, and of natural and associated cultural resources,” which defines a protected area (see section 2.0).

Figure 2: Primary (large circles) and acceptable (small circles) management objectives of IUCN categories



**Figure 2: Primary (large circles) and acceptable (small circles) management objectives of IUCN categories (cont'd)**



## **5.0 Other Important Factors**

The following are supplementary considerations that are designed to aid the categorization of protected areas. Consideration of these factors may help to clarify whether a particular area is a protected area. However, none of these factors will override the definition and primary intent of a protected area as outlined in section 2.0.

### **5.1 Degree of environmental modification**

The degree of environmental modification refers to the manipulation of an area from a natural state by human intervention. Industrial activities, resource extraction, infrastructure development, habitat disturbance, and human-mediated proliferation of exotic or invasive species all contribute to environmental modification. Modification can also occur through interference with normal natural processes, such as fire and native diseases, which become “unnatural” processes when, because of human influence, they occur outside the range of natural variation.

As noted in Section 3.3, the seven IUCN categories imply a gradation of environmental modification, with Category Ia and Ib considered the most natural (least environmental modification) and Category V the least natural (most environmental modification). Knowledge of the degree of environmental modification existing or permitted in protected areas can be used to assess the likelihood that the management objectives of any particular category will be met, and can thereby inform the categorization process.

The degree of environmental modification is determined by both the intensity of modification and the extent or proportion of area over which it occurs. As a general rule, the IUCN Guidelines (1994) state that 75 percent of a protected area should be devoted to the primary purpose - the protection and maintenance of biological diversity - and that the management of the remaining area should not be in conflict with the prime purpose. However, more category-specific guidance is warranted. For example, in order to meet the objectives of management for Category Ia or Ib, it is suggested that essentially the entirety (i.e., approaching 100 percent) of an area should be dedicated to the primary purpose of biodiversity protection. To meet Category II objectives, perhaps 75-90 percent of an area should be dedicated to the primary purpose. IUCN (1994) gives specific guidance for Category VI areas, stating that at least 66% of an area should remain natural. As noted in Section 3.3, according to IUCN, Category V areas will generally exhibit more environmental modification than Category VI areas, and about the same as many Category IV areas. However, in the Canadian context, Category V areas should exhibit a similar level of naturalness as Category VI areas to meaningfully protect biological diversity.

Naturalness should be viewed in an ecoregional context. For example, wilderness in a protected northern boreal forest should exhibit more naturalness than surrounding exploited forests. A Category V protected landscape that “maintains cultural and traditional attributes” should exhibit more naturalness than similar areas surrounding it that are not protected.

## 5.2 Sustainable use

Sustainable use of natural ecosystems should be evaluated in relation to the level of human intervention in the appropriate category. The type, extent and impact of sustainable uses should be far less in Category III than in Category V or VI. For example, traditional aboriginal hunting and trapping confined in time, extent and intensity may be consistent with Category III, while sustainable forestry activities that modify the landscape may be appropriate for Category V, or the modified portion of Category VI areas.

The term “sustainable use” has come to be used quite loosely. In the context of protected areas, it should be interpreted to mean “use that does not diminish ecological integrity over the short or long term.” Sustainable and non-sustainable uses and modifications that diminish an area’s ability to protect and maintain biological diversity may jeopardize the protected status of an area. The IUCN Guidelines (1994) state that 75 percent of a protected area should be devoted to the prime purpose of a protected area (i.e. the protection and maintenance of biological diversity and associated natural and cultural features) and that the remaining area must not be in conflict with the prime purpose. The phrase “in conflict with the prime purpose” should be interpreted as “activities that are not consistent with the protection and maintenance of ecological integrity of the area or a part of the area.”

## 5.3 Prohibited extractive activities

During the 2000 World Conservation Congress in Amman, Jordan, the IUCN General Assembly recommended changes to application of the IUCN categories. Recommendation 2.82.2 calls upon IUCN’s state members to do the following:

*...prohibit by law, all exploration and extraction of mineral resources in protected areas corresponding to IUCN Protected Areas Management Categories I to IV.*

(IUCN 2000)

Further, the Congress recommended in 2.82.3 that:

*(a) In Categories V and VI, exploration and localized extraction would be accepted only where the nature and extent of the proposed activities of the mining project indicates the compatibility of the project activities with the objectives of the protected area;*

*(b) Authorization for localized exploration and mining require an environmental impact assessment (EIA) of project and approval by the competent authority and stakeholder groups after disclosure of EIA draft document; and*

*(c) Authorized exploration and mining projects be subject to strict planning, operating, monitoring and post-use restoration conditions...*

(IUCN 2000)

Based on these recommendations, prospecting, exploration and extraction of mineral resources including oil and gas, commercial forestry, or hydro-electric development are not acceptable in Categories I through IV. In Categories V and VI, exploration and commercial extraction would be acceptable only where the nature and extent of the proposed activities is compatible with the objectives of management. (For further details, see section 4.0.)

## 5.4 Size considerations

Conservation biology has determined that a protected area's long-term value is a function of its size and connectivity. Maintenance of habitat requires sufficient size of area and ecological integrity to maintain the life cycles of particular species or groups of species. Increasingly, there are examples of regional ecosystem plans or land-use plans designed to maintain ecological integrity over large areas. These factors, along with the actual size and management objectives of the core protected area, could be considered when evaluating size in relationship to the potential achievement of management objectives. Size presents a particular challenge for marine protected areas owing to the fluid nature of oceans. When assessing optimal size for marine protected areas, careful consideration must be given to the surrounding environment.

Future research on management effectiveness of protected areas should provide additional assessment to balance the objectives-based measures. Further guidance with respect to size may be contained in section 4.0. Appendix B provides scientific guidance on size connectivity for protected area.

## 5.5 Permanence

The IUCN Guidelines (1994) do not require a minimum period of establishment for protected areas. However, permanence of protection is an important factor in determining whether an area can reasonably achieve its management objectives.

For example, temporary landowner stewardship agreements can be beneficial conservation tools, but once they expire, can no longer support protected area objectives. Legal protected area designations intended to apply “in perpetuity” can be reversed by Cabinet orders or legislative amendments; however, the intention for most such protected areas should be that they are permanent.

For protected areas with different land-use management zones, modified areas should not be exchanged for protected areas. For example, landscapes characterized by the “floating reserve” concept, where forested areas are exchanged for mature, pristine areas, would not qualify as protected areas.

## 5.6 Categorizing marine protected areas

This guidebook is intended to apply to the variety of terrestrial, freshwater, and marine protected areas in Canada. The following considerations are particular to the categorization of marineprotected areas:

- The definition of protected area as outlined in section 2.0 applies equally to terrestrial and marine protected areas. In addition, marine protected area is defined as:

*Any area of intertidal or subtidal terrain, together with its overlying waters and associated flora, fauna, historical and cultural features, which has been reserved by legislation to protect part or all of the enclosed environment.*

(IUCN 1988)

- This definition of marine protected area provides additional guidance for identifying and reporting on marine protected areas in Canada. Marine protected areas should meet both the original IUCN protected area definition and the supplemental marine

protected area definition. Some marine protected areas may contain zones that do not meet these basic definitions.

Less attention has been given internationally to providing guidance on the categorization of marine protected areas. Concerted efforts are underway to improve upon this guidance, as reflected by a working paper presented at the IUCN Protected Areas Categories Summit, 7-11 May 2007, in Almería, Spain (Laffoley *et al.* 2007) and the following recommendation on IUCN categories by the Fifth World Parks Congress held in 2003:

5. *ADVISE, however, that the new uses of the system require that IUCN, working in collaboration with partner organisations, urgently produce, through an open, participatory process, a revised, up-dated edition of the 1994 guidelines, which:*

...

- f. Gives more emphasis to marine and freshwater protected areas; ...*
- j. Enables protected areas to have more than one category when zones within them have been legally defined for different management objectives;*

7. *RECOMMEND that in such awareness raising and capacity building, priority should be given to: ...*

- c. Providing supplementary guidance on the application of the categories in the marine and freshwater environments; and*
- d. Promoting the use of the categories for protected areas in forest, marine and freshwater environments;*

(IUCN 2003)

Many of Canada's marine protected areas include a hierarchy of protection through a series of distinct zones that each permit or prohibit a range of activities depending upon the specific management objectives. IUCN categories should be applied accordingly to each of these various zones (see section 5.8 for further guidance).

Marine protected areas may also include a range of management objectives and associated permitted or restricted activities at differing depths. For example, differing levels of protection are provided at some marine protected areas in the water column as opposed to the seabed. Various IUCN categories may therefore apply at some marine protected areas for different depths.

Marine protected areas should be nested within an integrated oceans management context to help achieve their management objectives. In the marine context, natural values may be best referred to as health or state of the ecosystems, species and features found in the area.

## **5.7 Zoning**

It is desirable to have one IUCN category for each protected area for national and international reporting purposes. According to the IUCN Guidelines (1994), the category that applies to at least 75 percent of the area should be used. However, there are some instances in Canada where management plans for protected areas identify zones that take into consideration local conditions:

- Marine protected areas, especially those of a larger size, can encompass a hierarchy of protection, ranging from Category Ia to Category VI areas, each with different management objectives within a single management unit.
- In Manitoba, significant effort has gone into subdividing provincial parks into land use categories, each of which has different management objectives and IUCN categories. Similar to marine protected area zoning schemes, these management zones can be assigned separate IUCN categories provided that they have the legal basis that ensures management to the objectives of the category associated with that zoning level.
- In Ontario, there are several hundred nature reserve zones that legally protect certain features and areas of provincial parks that may be assigned a different category than would be appropriate for the overall park.

In these examples, it would be appropriate to assign separate categories. Note that the objectives of management that define zones must be secured in legislation, regulations or other effective means, as if these were separate protected areas. This approach offers the greatest assurance that the area will be managed for the appropriate management objectives as opposed to statements made in management plans.

## **5.8 Multiple designations**

Multiple designations occur when two or more legally identified protected areas overlap with or nest within a larger protected entity that occupies the same geographic area. An example is found in Nova Scotia, where the 24.7-ha Sporting Lake Nature Reserve (designated under the Special Places Protection Act) is completely contained within the 103,780-ha Tobeatic Wilderness Area (designated under the Wilderness Areas Protection Act).

When two or more legal designations are involved, care should be taken to review the legal basis for each area and to consult all management agencies involved to ensure that the areas are correctly classified. In addition, when protected area summaries are prepared, care must be taken not to count the land or water area associated with the overlap more than once, or otherwise acknowledge that the area in question has multiple designations.

## **5.9 Ownership considerations**

Ownership of protected areas should be compatible with the achievement of management objectives. Ownership of land may be held by public, private, community or voluntary sectors, regardless of IUCN category.

Canada's indigenous aboriginal people have exercised rights to use protected areas for traditional practices such as hunting and trapping. These rights are captured under two IUCN management objectives "sustainable use of resources from natural ecosystems" and "maintenance of cultural and traditional attributes," which are found in most IUCN category descriptions. In Canada, the constitutional and treaty rights of Aboriginal people may guarantee traditional uses in protected areas in all categories.

In recent years, First Nations have assumed a more prominent role in the ownership and stewardship of protected areas, such as National Parks. While the relationship may include some special rights and privileges, such as low-density human communities and sustainable

use of available resources to maintain a traditional lifestyle, the prime purpose for protected areas must be the protection and maintenance of biological diversity.

### **5.10 Management responsibility**

As with ownership, the management responsibility for a protected area may rest with the public, private, community, or voluntary sectors, regardless of IUCN category. The designated management authority should be capable of achieving the management objectives for the area. Furthermore, protected area planning and management ideally should be incorporated within larger regional plans and supported by policies adopted for wider areas. The protection and management for biological diversity values within a regional framework is an increasingly important approach.

### **5.11 International designations**

A site that has been assigned an international designation does not, by that designation alone, constitute a protected area in Canada. International designations such as World Heritage Sites, International Biosphere Reserves, and Wetlands of International Importance (Ramsar sites), do not necessarily enjoy protection by “legal or other effective means.” However, if all or a portion of the site is a protected area under Canadian legislation or other effective means, then that portion may be considered a protected area.

This same principle may apply to Canadian Heritage Rivers, which is a national designation.

### **5.12 Representation**

The concept of representation is used by many agencies to identify geographic areas as candidates for protection. The capacity of individual protected areas to contribute to representation goals depends on whether they are large enough to capture representative samples of the typical landforms and natural ecological communities of a region, and whether they are governed primarily by natural forces. Protected areas can be considered “governed primarily by natural forces” if they are protected to a high standard from human influences and will continue to display those attributes if managed as proposed.

Some IUCN protected area management categories have management objectives based on ecosystem representation criteria. For example, Category II protected areas are often selected to capture representative samples of the landscapes in which they occur, and their management objectives place some emphasis on protecting ecological integrity, minimizing human influence, and allowing natural processes to govern.

Category Ib areas are also typically large natural areas protected to a high standard against human influences. The IUCN Guidelines (1994) do not explicitly refer to Category Ib areas as contributing to ecosystem representation goals. However, in fact, such areas often do contribute, because they are both large enough to encompass representative examples of the regions in which they occur, and are protected to such a standard that they are governed primarily by natural forces.

Categories Ia and III tend to be smaller and more focused on outstanding or unique ecosystems or features, or smaller, representative samples of landscapes, than Category Ib or II areas. They may help to fill gaps in representation by protecting ecosystem types not otherwise

captured in the protected areas system. Management objectives for these areas also emphasize protecting ecological integrity, minimizing human influence, and allowing natural processes to govern, and are therefore compatible with representation objectives.

Active management (see next section) undertaken in these categories to mimic natural processes, and that is consistent with the objectives of management and other guidance for selection, should not compromise representation goals.

Management objectives for Category V are designed to maintain areas where the interaction of people and nature over time has produced landscapes or seascapes of distinct character with significant aesthetic, ecological, or cultural value, often with high biological diversity (IUCN and WCPA 1994). As such, they are not governed primarily by natural forces, and should not be considered to contribute to representation objectives.

### **5.13 Active management**

Perspectives vary among Canadian jurisdictions on the extent to which active management is appropriate among the IUCN protected area management categories.

Some contend that most protected areas will require some level of active management to mimic natural ecological processes that have been disrupted or eliminated by humans. They argue that even in Category Ia areas, significant active management could be necessary and appropriate to ensure the survival of native species and ecological communities that depend on processes that, as a result of human activity, are no longer playing their former role in the landscape.

Others, while not disputing that active management may be a necessary tool for protected areas management, point to the IUCN Guidelines (1994), and specifically, the statements of guidance for selection that explicitly accommodate active management to mimic natural processes in Category IV areas, but not in Category Ia or Ib areas. Specifically, guidance in Category IV states that “Conservation of these habitats and species should depend upon active intervention by the management authority, if necessary through habitat manipulation.” In contrast, the guidance in Category Ia states that “The area should be significantly free of direct human intervention and capable of remaining so,” and “The conservation of the area’s biodiversity should be achievable through protection and not require substantial active management or habitat manipulation.” Similarly, the guidance for Category Ib areas indicates “The area should possess high natural quality, be governed primarily by the forces of nature, with human disturbance substantially absent, and be likely to continue to display these attributes if managed as proposed.”

The latter group further points out that while all IUCN categories are important, they imply a gradation of human intervention, and that Categories I to III are mainly concerned with the protection of natural areas where direct human intervention and modification of the environments (including the mimicking of natural processes) has been limited. They suggest that Categories IV, V, and VI are characterized by significantly greater intervention and modification. (See section 4.0 for specific guidance on active management to mimic natural processes relative to IUCN categories.)

Each protected area agency in Canada will evaluate each of its sites and decide which, if any, IUCN Category is appropriate. It would be worthwhile to document the rationale for these decisions, based on the agency’s perspective and the site’s unique history. In this way, a better

understanding of the application of the Canadian Guidebook may be gained over time. The next chapter provides some Canadian examples for each category.

## 6.0 Canadian Examples of IUCN Categories

This section is designed to help protected area agencies to apply the IUCN protected area management categories by providing specific examples drawn from across Canada. The examples, provided by jurisdictional representatives, do not necessarily demonstrate a perfect application of section 2 to 5 of this Guidebook. Category re-evaluation may be undertaken as a result of better understanding of this Guidebook and future discussions.

### 6.1 Category Ia

| <b>Ia</b>   | <b>Boatswain Bay Migratory Bird Sanctuary, Quebec and Nunavut</b>   | <b>Size : 17,900 ha</b> |
|---|---|-------------------------|
| <b>Biophysical description</b>                              | An open bay and surrounding uplands on James Bay, located in the Rupert Bay Ecological Region. The large, shallow bay and shore lands are predominantly covered with aquatic vegetation, and the Sanctuary consists mainly of salt marshes, swamps and mudflats. The Sanctuary was created in 1941 to support the growing use of the area by migrating Canada geese, lesser snow geese and brant geese. |                         |
| <b>Essential natural values, cultural and social values</b> | The Canada goose and the lesser snow goose are the two most numerous species at the site during migration time. There are also numerous brant geese and black ducks, various species of scoter and diving ducks, and many shorebirds.   |                         |
| <b>Legal basis for management</b>                           | <i>Migratory Birds Convention Act (Canada) and Migratory Bird Sanctuary Regulations (Canada)</i>  |                         |
| <b>Management Objectives</b>                                | The management objectives of this site are to maintain local genetic diversity and ecosystem processes so that migrating birds have access to stopover services on this important flyway. To this end, public access is not encouraged or facilitated in any way in the Bird Sanctuary and visitors to this remote site are minimal.  |                         |
| <b>Special notes</b>  |   |                         |

| <b>Ia</b>   | <b>Funk Island Ecological Reserve, Newfoundland &amp; Labrador (Terrestrial portion only)</b>  | <b>Size: 20 ha</b> |
|---|--|--------------------|
| <b>Biophysical description</b>                              | Funk Island Ecological Reserve is located 60 km east of Fogo Island off the northeast coast of Newfoundland in the Eastern Hyper-oceanic Barrens Ecoregion. At 20 ha, the flat granite island is the smallest seabird ecological reserve in Newfoundland and Labrador, but it's also one of the most important.  |                    |
| <b>Essential natural values, cultural and social values</b> | The Reserve is home to more than one million common murrelets, the largest colony in the western North Atlantic. Other seabirds come to the island to nest, including Northern gannet, Northern fulmar, Atlantic puffin, razorbill, thick-billed murre, black-legged kittiwake, and herring and great black-backed gulls.  |                    |
| <b>Legal basis for management</b>                           | <i>Wilderness and Ecological Reserves Act (Newfoundland and Labrador)</i>  |                    |
| <b>Management objectives</b>                                | <p>Biodiversity protection and habitat conservation are two of the key purposes of ecological reserves. Public access for educational purposes or recreational activities is prohibited on Funk Island due to the significance and sensitivity of the site. Landings are restricted to people conducting approved scientific research.</p> <p>The following activities are strictly prohibited in all wilderness and ecological reserves: disturbing, destroying, or removing plants, animals, or fossils; introducing plants, animals or anything else to the reserve landscape; forestry, mining (including exploration), hydro development, agriculture, new roads, tracks, or building construction, and driving off-road vehicles including all-terrain vehicles.</p> |                    |

|                      |   |
|----------------------|---|
| <b>Special notes</b> | In previous centuries, Funk Island was one of the major nesting areas of the great auk, and people came regularly to hunt the birds and take their eggs. The large, flightless birds were eventually hunted to extinction. Legal protection of Funk Island has helped other seabird species recover from similar exploitation and near extirpation. |
|----------------------|---|

| <b>la</b>   | <b>Kennedy Coulee Ecological Reserve, Alberta</b>  | <b>Size: 1,068 ha</b> |
|---|--|-----------------------|
| <b>Biophysical description</b>                              | Kennedy Coulee Ecological Reserve is a representative example of the dry, mixed grassland sub-region. It is characterized by grassland vegetation, woodland communities on sheltered coulee slopes and ephemeral wetlands. The Reserve features numerous springs and seepage areas, as well as outcrops and cliffs, along Kennedy Creek.   |                       |
| <b>Essential natural values, cultural and social values</b> | The purpose of the Reserve is to foster and maintain a mixed grassland ecosystem in climax condition. The Reserve serves as a core area within the broader Milk River Natural Area and provides habitat for plant and animal species associated with taller grasses and greater levels of litter. The area contains rare plants, a panoramic view of Sweetgrass Hills and archaeological sites including aboriginal vision quest sites.  |                       |
| <b>Legal basis for management</b>                           | <i>Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act (Alberta)</i>  |                       |
| <b>Management objectives</b>                                | The management objectives include the following: preservation of species and genetic diversity (protects rare species and managed in association with Milk River Natural Area to provide diversity of species); protection of natural or cultural values (protects rare and significant natural features including springs and seepage areas); wilderness protection (ensures minimal human interference, maintenance of aesthetic character, and minimal use or facilities); and maintenance of environmental services (maintains ecological diversity, ecological processes and native species and habitats, fosters and maintains a mixed grassland ecosystem in climax condition). |                       |
| <b>Special notes</b>  | The primary objective of the Reserve is the conservation of natural and cultural values. Scientific research is secondary, however the area is classified as la because of emphasis on preservation of species diversity. Non-destructive research is permitted but not promoted. Oil and gas activity, hunting, fishing, vehicle use and camping are prohibited, as is grazing, unless approved by the Minister. Grazing by cattle is used very infrequently (i.e. once every 20-30 years) as a management tool to simulate processes that are no longer found in the Canadian prairies.  |                       |

| <b>la</b>   | <b>Panuke Lake Nature Reserve, Nova Scotia</b>  | <b>Size: 151 ha</b> |
|---|---|---------------------|
| <b>Biophysical description</b>                              | Panuke Lake Nature Reserve is located in the South Mountain Rolling Plain Natural Landscape. It contains mixed and almost pure stands of Eastern hemlock on a boulder-strewn slope adjacent to a large freshwater lake. Red spruce dominates much of the understory.  |                     |
| <b>Essential natural values, cultural and social values</b> | The Reserve protects one of the best virgin old-growth eastern hemlock-red spruce forests, a remnant of a once-common forest type in Nova Scotia. Because of the extreme present-day rarity of this forest type, access is limited. Guided walks are given from time to time by the Protected Areas Branch, Nova Scotia Ministry of Environment and Labour, and the property owner, Bowater Mersey Paper Company. |                     |
| <b>Legal basis for management</b>                           | Designated under the <i>Special Places Protection Act (Nova Scotia)</i> and owned by Bowater Mersey Paper Company.  |                     |
| <b>Management objectives</b>                                | Management objectives include the following: preservation of species and genetic diversity; scientific research; wilderness protection; and maintenance of environmental services.  |                     |

|                      |   |
|----------------------|---|
| <b>Special notes</b> | Although the land is privately owned, designation as a nature reserve under the <i>Special Places Protection Act</i> prevents mineral staking, exploration, or mining. The designation binds the original owner who consented to the designation (Bowater Mersey Paper Company), and all subsequent owners as well. |
|----------------------|---|

## 6.2 Category Ib

|   |   |                         |
|---|---|-------------------------|
| <b>Ib</b>   | <b>Athabasca Sand Dunes Provincial Wilderness Park, Saskatchewan</b>  | <b>Size: 192,500 ha</b> |
| <b>Biophysical description</b>                              | Athabasca Sand Dunes Provincial Wilderness Park is located on the south side of Lake Athabasca in northeast Saskatchewan within the Athabasca Plain Ecoregion.  |                         |
| <b>Essential natural values, cultural and social values</b> | The Park is a unique geological and biological area rich in rare and endemic plants considered to be an evolutionary puzzle, and features the largest active sand surface in Canada, one of the most northerly set of major dune fields in the world and outstanding scenery.                                 |                         |
| <b>Legal basis for management</b>                           | <i>The Parks Act</i> (Saskatchewan)   |                         |
| <b>Management objectives</b>                                | The Park is to be “used primarily for the preservation of natural landscapes in a natural state and the pursuit of outdoor recreational activities that are consistent with that use.”  |                         |
| <b>Special notes</b>  | The Park consists of three management zones, each with different guidelines to govern camping and visitor activities. It is accessible only by float plane or boat and recommended only for experienced wilderness users. There are no facilities. Camping and campfires are permitted only in certain areas. |                         |

|   |   |                         |
|---|---|-------------------------|
| <b>Ib</b>   | <b>Baie du Nord Wilderness Reserve, Newfoundland and Labrador</b>   | <b>Size: 289,500 ha</b> |
| <b>Biophysical description</b>                              | The Baie du Nord Wilderness Reserve is rugged country typical of southern Newfoundland with wild rivers, erratic boulders, boreal forests and bogs and fens, all crowned by Mount Sylvester. It is home to the Island of Newfoundland's largest population of caribou with an estimated population of 15,000.   |                         |
| <b>Essential natural values, cultural and social values</b> | The Reserve has the goal of preserving the plants, animals, waterways, and landscapes of this large, pristine, natural area so that Newfoundlanders can continue to enjoy high-quality wilderness recreation including hunting, fishing, canoeing and kayaking. The Reserve is of special significance because it protects a representative sample of the Maritime Barrens Ecoregion–Central Barrens Ecodistrict. |                         |
| <b>Legal basis for management</b>                           | <i>Wilderness and Ecological Reserves Act</i> (Newfoundland and Labrador)   |                         |
| <b>Management objectives</b>                                | Management objectives include the following: wilderness protection; maintenance of environmental services; preservation of species and genetic diversity; recreation and tourism (hunting and fishing allowed); and sustainable use of resources from natural ecosystems.   |                         |
| <b>Special notes</b>  | The Reserve is roadless but allows snowmobiling outside the winter range of the caribou, boating in designated ponds, and aircraft landings, all of which are non-conforming uses but required in such a vast area. An entry permit is required by all users.   |                         |

|                                |  |                        |
|--------------------------------|--|------------------------|
| <b>Ib</b>                      | <b>Khutzeymateen/K'tzim-a-Deen Grizzly Sanctuary, British Columbia</b>   | <b>Size: 44,300 ha</b> |
| <b>Biophysical description</b> | The Khutzeymateen Sanctuary is protected specifically for grizzly bears and their habitat. The valley contains a Sitka spruce rainforest, a productive estuary, a dense grizzly bear population and a rich salmon river all found within one association. The topography of this land and marine sanctuary is diverse, with rugged peaks towering to 2,100 m above the valley and ocean below. |                        |

|   |  |
|---|--|
| <b>Essential natural values, cultural and social values</b> | The primary purpose of the Sanctuary is to protect the north coast grizzly bear by preserving a part of the ecosystem in which they live. Due to the area's high sensitivity and strict conservation orientation, visitor use is not encouraged. However, a limited amount of controlled viewing is allowed under permit. A floating guardian station ensures that viewing is controlled and provides an interpretation opportunity related to the habitat needs of coastal grizzly bears and also serves to share information on the cultural values of the Tsimshian First Nation and of the Gitsi'is Tribe. Hunting of grizzly bear is prohibited and other hunting is restricted to areas above 1,000 m elevation. |
| <b>Legal basis for management</b>                           | Khutzeymateen is continued as a Class A park by being named and described in Schedule C of the <i>Protected Areas of British Columbia Act</i> (British Columbia). It is managed under the <i>Park Act</i> (British Columbia).  |
| <b>Management objectives</b>                                | The park was designated in partnership with the Tsimshian First Nation. Management of the park occurs collaboratively with the Tsimshian First Nation and with the Gitsi'is Tribe, which has traditional uses including hunting and fishing sites within the sanctuary. Management objectives include the following: preservation of species and genetic diversity; maintenance of environmental services; wilderness protection; and sustainable use of resources from natural ecosystems (limited viewing, traditional use and a restricted ability to hunt).  |
| <b>Special notes</b>  | The Province and First Nations are currently in discussion regarding an addition of protected area extending from the estuary to the end of the coastal fjord.   |

| <b>Ib</b>   | <b>Thelon Game Sanctuary, Northwest Territories and Nunavut</b>  | <b>Size: 5,200,000 ha</b> |
|---|--|---------------------------|
| <b>Biophysical description</b>                              | The pristine wilderness of the Thelon Game Sanctuary falls within the Low Arctic Ecoregion, which covers most of the Kivalliq Region. Tundra vegetation of lichens, heath, and low shrubs characterizes much of the Sanctuary. The Thelon River Valley, situated over 160 km north of the tree line, is a unique sheltered oasis, featuring perhaps the largest community of spruce outliers on the barrens.   |                           |
| <b>Essential natural values, cultural and social values</b> | The tundra areas of the Sanctuary, long-time home to the Inuit, are significant in that they remain largely undisturbed and support a diverse wildlife habitat and a unique assemblage of boreal and arctic species. The Sanctuary represents one of the richest areas for mammalian wildlife on the tundra: it is important to caribou, moose, and musk ox. The Sanctuary is an important part of the range and calving grounds of the Beverly caribou herd. Muskoxen are year-round residents of the Sanctuary. The Sanctuary contains numerous archaeological sites and artefacts.              |                           |
| <b>Legal basis for management</b>                           | Currently, the land is withdrawn from disposition under the federal <i>Territorial Lands Act</i> , meaning that no surface or subsurface interests and developments can be established in this area. The <i>Territorial Wildlife Acts</i> (Northwest Territories and Nunavut) prohibit hunting and trapping by any person in a Wildlife Sanctuary. However, the harvesting rights of Inuit of the Nunavut Settlement Area as set out in the Nunavut Land Claims Agreement as well as the Aboriginal and treaty rights of Dene prevail over any inconsistent or conflicting statutory prohibitions. |                           |
| <b>Management objectives</b>                                | Management objectives include the following: wilderness protection; maintenance of environmental services; preservation of species and genetic diversity; recreation and tourism (very low numbers in this extreme, remote environment—tourism is not promoted but considered compatible with the vision and goals of the Sanctuary); sustainable use of resources from natural ecosystems (harvesting of wildlife as per land claim agreements); and ecological research.   |                           |
| <b>Special notes</b>  | Access to much of this vast, remote Sanctuary by visitors, scientists and managers is only possible by air.  |                           |

|   |   |                         |
|---|---|-------------------------|
| <b>Ib</b>   | <b>Tobeatic Wilderness Area, Nova Scotia</b>  | <b>Size: 103,780 ha</b> |
| <b>Biophysical description</b>                              | The Tobeatic Wilderness Area is characterized by unique barren and semi-barren landscapes with outstanding undisturbed glacial landforms. It contains remote and undisturbed wildlife habitat, expansive wetlands, pockets of old-growth pine and hemlock forest, and the headwaters of nine major river systems flowing to both the Atlantic Ocean and the Bay of Fundy.   |                         |
| <b>Essential natural values, cultural and social values</b> | The Tobeatic is the largest remaining wild area in the Maritimes, providing protection for native biodiversity and undisturbed wildlife habitat for many species, including one of the largest populations of remnant native Nova Scotia moose, healthy and abundant black bear, and the re-introduced American marten. Within the Tobeatic lie the spectacular forests of old-growth pine and hemlock, Silvery Lake (an IBP site) and outstanding examples of fire barrens at the Shelburne Barrens (another IBP site). The Tobeatic is interconnected by lakes, streams and rivers, offering outstanding wilderness canoeing, camping and hiking. |                         |
| <b>Legal basis for management</b>                           | <i>Wilderness Area Protection Act</i> (Nova Scotia)   |                         |
| <b>Management objectives</b>                                | Primary management objectives include: wilderness protection; maintenance of environmental services; and preservation of species and genetic diversity. Secondary management objectives include: low-impact forms of wilderness recreation; and scientific research. Sustainable use of resources from natural ecosystems—namely traditional patterns of hunting, trapping, and sportfishing—is also acceptable. One contradictory provision to a Category Ib categorization is that motorized access is not completely prohibited (at this point).   |                         |
| <b>Special notes</b>  | Wilderness education and scientific studies are also encouraged. Sport fishing and traditional hunting and trapping are permitted but controlled to a higher standard than in the surrounding landscape (e.g. no bear-baiting). Factors such as primary wilderness protection, the low degree of human intervention and sustainable use of resources (limited to hunting and fishing) make this a Category I and not a Category VI protected area.  |                         |

### 6.3 Category II

| II  | Cypress Hills Interprovincial Park, Saskatchewan and Alberta   | Size: 38,500 ha |
|---|--|-----------------|
| <b>Bio-physical description</b>                             | Rising up to 600 m above the surrounding prairie, the hills and fescue grasslands of Cypress Hills Interprovincial Park contain four distinct habitats and a climate more moderate than the prairies. The Park is exceptionally rich in plant and animal life.   |                 |
| <b>Essential natural values, cultural and social values</b> | The Park is found on the highest terrain between Labrador and the Rocky Mountains, and is a unique, unglaciated landscape. The Park is the only place in Saskatchewan where Lodgepole pines are found. Pronghorn antelope, mule and white-tailed deer and coyote are common. An island population of elk is in the region. Eighteen species of orchids are among the more than 700 species of plants that thrive here. Prominent birds include the golden eagle, trumpeter swan and Townsend's solitaire. There is a wide array of recreational opportunities, including fishing, horseback riding, bicycle paths, swimming (lake or modern pool), golf and nature hikes, as well as cross-country and downhill skiing in winter. The Park contains historic Fort Walsh. |                 |
| <b>Legal basis for management</b>                           | <i>The Parks Act (Saskatchewan)</i><br><i>Provincial Parks Act (Alberta)</i>   |                 |
| <b>Management objectives</b>                                | Management objectives include the following: preservation of species and genetic diversity (preserves four distinct habitats and plants and animals of this unique landscape); maintenance of environmental services (example); recreation and tourism (wide array of summer and winter activities); scientific research; wilderness protection; protection of specific natural and cultural features; and education. Acceptable uses include grazing of fescue prairie.   |                 |
| <b>Special notes</b>  | Only two to three percent of the Park is taken up by core area development such as campgrounds, day use, park facilities and related infrastructure. Cattle grazing is used mainly for ecological restoration and to reduce fire hazard. Cattle grazing is carefully monitored and permits are issued based on carrying capacity. No plans are in place to introduce bison to the park.  |                 |

| II  | Parc national des Pingualuit, Quebec  | Size: 113,390 ha |
|---|---|------------------|
| <b>Biophysical description</b>                              | Parc national des Pingualuit is located in northern Quebec on the most elevated lands of Ungava. The Quebec government created the park to protect the Pingualuit Crater, one of Quebec's exceptional and internationally acclaimed sites. The crater cradles Lake Pingualuk, and is surrounded by a rocky plateau characterized by rolling hills and a multitude of lakes. It is home to Nordic wildlife such as caribou herds, the arctic fox, polar bear, snowy owl, Arctic char, and other species. |                  |
| <b>Essential natural values, cultural and social values</b> | The Park's main characteristic is the Pingualuit crater, which is unique due to its sharp profile, geological youth and the crystalline purity of its waters. The Park also protects a representative sample of the Ungava Plateau, and a section of the calving area of the Rivière aux Feuilles caribou herd. The Park is located southwest of the Inuit community of Kangiqsujuaq, an area with a wealth of natural resources and traditions.  |                  |
| <b>Legal basis for management</b>                           | <i>James Bay and Northern Quebec Agreement (Quebec)</i><br><i>Parks Act (Quebec)</i>  |                  |

|                              |  |
|------------------------------|--|
| <b>Management objectives</b> | Management objectives include the following: preservation of species and genetic diversity (preserves a representative sample of one of Quebec's largest natural regions); protection of specific natural and cultural features (the exceptional geological phenomenon of the Pingualuit crater); recreation and tourism (facilitates discovery of the environment); scientific research; and education. The Inuit will participate in the protection, development, and management of Nunavik's parks. |
| <b>Special notes</b>         |  |

|   |  |                           |
|---|--|---------------------------|
| <b>II</b>   | <b>Wood Buffalo National Park, Alberta and Northwest Territories</b>   | <b>Size: 4,480,700 ha</b> |
| <b>Biophysical description</b>                              | Wood Buffalo National Park protects representative examples of the Northern Boreal Plains, Southern Boreal Plains, and Northwestern Boreal Uplands. The majority of the park is within the Northern Boreal Plains natural region.  |                           |
| <b>Essential natural values, cultural and social values</b> | The Park features one of the largest free-roaming and self-regulating bison herds in the world; the last remaining natural nesting area for the endangered whooping crane; the Peace-Athabasca Delta, one of the largest inland freshwater deltas in the world; some of the finest examples of gypsum karst landforms in North America; unique salt plains; and vast undisturbed expanses of boreal wilderness. Subsistence hunting, fishing and trapping still occur in the Park, as they have for centuries, and commercial trapping continues as a legacy of the fur trade. |                           |
| <b>Legal basis for management</b>                           | <i>National Parks Act (Canada)</i>   |                           |
| <b>Management objectives</b>                                | Management objectives include: preservation of species and genetic diversity (bison and whooping crane habitat); maintenance of environmental services (representative northern boreal plains ecosystem and inland delta); recreation and tourism (hiking, canoeing and backcountry camping); scientific research; wilderness protection; protection of specific natural and associated cultural features; education; and sustainable use of resources from natural ecosystems (traditional hunting and trapping).   |                           |
| <b>Special notes</b>  |  |                           |

## 6.4 Category III

|   |   |  |
|---|---|--|
| <b>III</b>  | <b>Île Bonaventure et du Rocher Percé Migratory Bird Sanctuary, Quebec</b>  | <b>Size: 1360 ha (862 ha marine + 498 ha land)</b> |
| <b>Biophysical description</b>                              | With a dominant tree cover and relatively little herbaceous vegetation, Île Bonaventure supports some 570 different taxons, including some inhabiting the steep cliffs that rise as high as 75 m on the northeastern shore. Rock outcrops and herbaceous vegetation are the two major habitat types on Rocher Percé.    |  |
| <b>Essential natural values, cultural and social values</b> | Large breeding populations of Northern gannet, black-legged kittiwake and the common murre.   |  |
| <b>Legal basis for management</b>                           | <i>Migratory Birds Convention Act (Canada), Canada Wildlife Act (Canada), Migratory Bird Sanctuary Regulations (Canada)</i>   |  |
| <b>Management objectives</b>                                | Management objectives include: preservation of species and genetic diversity (preserves world renown large breeding colonies of gannets); protection of specific natural and cultural features (protects Roche Percé, a Quebec tourist emblem); and tourism and recreation (allows conservation and public activities). |  |
| <b>Special notes</b>  |   |  |

|   |  |                       |
|---|--|-----------------------|
| <b>III</b>  | <b>Nisutlin River Delta National Wildlife Area, Yukon Territory</b>  | <b>Size: 5,488 ha</b> |
| <b>Biophysical description</b>                              | The Nisutlin River Delta is located at the outflow of the Nisutlin River which flows into Teslin Lake in south-central Yukon. The delta measures four kilometres across and is characterized by wetlands and meandering river channels. In the late spring and early summer, the delta is mostly submerged due to high water levels on Teslin Lake. In late summer and fall, the water level drops rapidly to expose mudflats and plant communities characterized by dense emergent, floating, and submerged vegetation. The entire national wildlife area is essentially pristine wilderness and encompasses the whole river delta. |                       |
| <b>Essential natural values, cultural and social values</b> | The Nisutlin River Delta provides unique habitat in this region and is one of southern Yukon's most important areas for migratory waterfowl and national and territorial species at risk. These and related geographic factors give the delta great cultural importance to the Teslin Tlingit people.  |                       |
| <b>Legal basis for management</b>                           | Established under the Teslin Tlingit Final Agreement. Environment Canada co-manages the area (under the <i>Canada Wildlife Act</i> and Schedule A of the Teslin Tlingit Final Agreement) with the Teslin Renewable Resource Council, the Yukon government, and the Teslin Tlingit First Nation.  |                       |
| <b>Management objectives</b>                                | Management objectives include the following: Protect the full diversity of wildlife populations and their habitats from activities that could reduce the land's unique capability to support wildlife (this effectively protects the entire Nisutlin River Delta ecosystem); recognize and protect the traditional and current use of the area by Teslin Tlingit (this protects hunting, fishing, trapping, and other subsistence uses of the area by the local indigenous people); and encourage public awareness of and appreciation for the area by permitting public access.   |                       |
| <b>Special notes</b>  |  |                       |

|   |  |                       |
|---|--|-----------------------|
| <b>III</b>  | <b>Tie Creek Basin – Whiteshell Provincial Park, Manitoba</b>  | <b>Size: 5,820 ha</b> |
| <b>Biophysical description</b>                              | The Tie Creek Basin – Whiteshell Provincial Park contains numerous lakes and rivers characteristic of the rugged Precambrian Shield. Forested areas are typically boreal forest of black spruce, white spruce and balsam fir, intermixed with trembling aspen, balsam poplar, and poorly drained tamarack or black spruce fens and bogs.   |                       |
| <b>Essential natural values, cultural and social values</b> | The Park protects culturally significant aboriginal sites, including those containing petroforms (aboriginal rock alignments), within the Tie Creek Basin.   |                       |
| <b>Legal basis for management</b>                           | <i>Provincial Parks Act: Heritage Land Use Category (Manitoba)</i>   |                       |
| <b>Management objectives</b>                                | Management objectives include: preservation of species and genetic diversity (managed as a Natural Park with the purpose of preserving areas that are representative of the Lake of the Woods portion of the Manitoba Lowlands Natural Region); and protection of specific natural and associated cultural features (protects historical, cultural and archaeological sites within the Tie Creek Basin, specifically including those containing petroforms). |                       |
| <b>Special notes</b>  | The Tie Creek Basin is not promoted as a recreational or educational site in efforts to fulfil primary purposes and to respect aboriginal culture. It is a highly spiritual site; recreational or educational activities would only be implemented with First Nations involvement.   |                       |

## 6.5 Category IV

| <b>IV</b>   | <b>Eastport Marine Protected Areas (Round Island &amp; Duck Islands), Newfoundland and Labrador</b>   | <b>Size: 210 ha</b> |
|---|---|---------------------|
| <b>Biophysical description</b>                              | The Eastport Peninsula is located in Bonavista Bay where the rugged coastline is interrupted by a number of headlands, coves and beaches. Marine plants such as eelgrass, Irish moss, and various species of rockweed and kelp are common. A multitude of fish, invertebrate, bird and mammal species are found around the Eastport Peninsula. The Eastport MPAs represent two areas of prime lobster habitat on the Eastport Peninsula. Following concern for the local lobster population and many years of cooperative conservation initiatives, these two areas were designated as Marine Protected Areas (MPAs) in October 2005. |                     |
| <b>Essential Natural values, cultural and social values</b> | The lobster fishery has a long history around the Eastport Peninsula. The lobster resource is highly valuable to communities in the surrounding area.   |                     |
| <b>Legal basis for management</b>                           | <i>Oceans Act (Canada), Fisheries Act (Canada) and Species at Risk Act (Canada)</i>   |                     |
| <b>Management Objectives</b>                                | The management objectives of the Eastport MPAs are: to maintain a viable population of American lobster (conservation, protection and sustainable use of resources and habitats); to conserve and protect threatened or endangered species (e.g. wolffish); to encourage participation of interested parties; to increase public awareness and stewardship; and to continue scientific research.  |                     |
| <b>Special notes</b>  |   |                     |

| <b>IV</b>   | <b>Last Mountain Lake National Wildlife Area, Saskatchewan</b>  | <b>Size: 16,898 ha</b> |
|---|---|------------------------|
| <b>Biophysical description</b>                              | The Last Mountain Lake National Wildlife Area is a unique complex of prairie grasslands, shrublands and previously cultivated land, which is being restored to native plant communities and varied wetlands (including marshes, saline ponds and freshwater springs).   |                        |
| <b>Essential natural values, cultural and social values</b> | The National Wildlife Area features a wealth of birdlife. Over 100 species of prairie grassland and wetland dependent birds are documented nesting including the endangered piping plover. It is a major migration stop for arctic nesting waterfowl, shorebirds and passerines including the endangered whooping crane. Peaks of over 700,000 lesser snow geese and thousands birds representing four other geese species have been counted in the fall. The area is North America's first bird sanctuary, with lands reserved for that purpose in 1887. |                        |
| <b>Legal basis for management</b>                           | <i>Canada Wildlife Act (Canada) and Wildlife Area Regulations (Canada)</i>  |                        |
| <b>Management objectives</b>                                | Management objectives include protection of ecosystem and ecosystem functions, and biodiversity including migratory birds and species at risk.  |                        |
| <b>Special notes</b>  |   |                        |

## 6.6 Category V

There are no case studies for Category V at the present time.

## 6.7 Category VI

| <b>VI</b>   | <b>Black Creek Heritage Rangeland, Alberta</b>   | <b>Size: 7,760 ha</b> |
|---|--|-----------------------|
| <b>Biophysical description</b>                              | The Black Creek Heritage Rangeland features a diversity of vegetation types including grassland, forest, shrub and riparian communities associated with the Rocky Mountains Natural Region. A small portion of the Rangeland site is found in the Grassland Natural Region. Several rare or uncommon plant and animal species occur here. Together with the Bob Creek Wildland, the site includes a significant elk wintering range. |                       |
| <b>Essential natural values, cultural and social values</b> | Historically the area was used by aboriginal peoples to hunt buffalo. Cattle ranching has dominated the landscape since the late 1800s.  |                       |
| <b>Legal basis for management</b>                           | <i>Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act (Alberta)</i>  |                       |
| <b>Management objectives</b>                                | The management objective is to preserve the unique heritage, culture and biodiversity of the site for future generations. This includes the maintenance of grazing by domestic livestock as a traditional land use activity.   |                       |
| <b>Special notes</b>  | Adjacent to and managed in conjunction with Bob Creek Wildlands.   |                       |

| <b>VI</b>   | <b>Churn Creek Protected Area, British Columbia</b>  | <b>Size: 36,100 ha</b> |
|---|--|------------------------|
| <b>Biophysical description</b>                              | Located in the Cariboo region south of Williams Lake, Churn Creek represents one of the British Columbia's rarest ecosystems - low, middle and high elevation bunchgrass grasslands.   |                        |
| <b>Essential natural values, cultural and social values</b> | Churn Creek is an unspoiled natural grassland, characterized primarily by an undeveloped wilderness area with few facilities. Activities include wilderness camping, hiking and horseback riding, wildlife viewing, mountain biking and nature appreciation. The Protected Area also reflects the historic importance of the Churn Creek area to First Nations, ranching, hunting, mining, and recreation. This area supports an operating ranch, where carefully managed cattle grazing continues.  |                        |
| <b>Legal basis for management</b>                           | Churn Creek is established by order-in-council under the British Columbia <i>Environment and Land Use Act</i> . The order establishing the area directs that a number of provisions of the British Columbia <i>Park Act</i> apply (i.e. essentially those that pertain to a Class A park), as well as the British Columbia <i>Park, Conservancy and Recreation Area Regulation</i> .   |                        |
| <b>Management objectives</b>                                | The Churn Creek Management Plan has been prepared by British Columbia Parks with the direct involvement of local First Nations and a local Advisory Group to guide management of the Protected Area. Biodiversity conservation is the primary objective, although there are social, economic (e.g. cattle grazing) and other objectives as well. Management objectives include the following: preservation of natural and cultural features; maintenance of cultural and traditional attributes; tourism and recreation; preservation of species and genetic diversity; education; and sustainable use of resources from natural ecosystems. |                        |

|                      |  |
|----------------------|--|
| <b>Special notes</b> | The Protected Area comprises the following:<br>1) 82 percent Natural Environment Zone: no vehicle access, wildlife and livestock grazing allowed<br>2) 6 percent Natural Environment: motorized vehicle access near scenic areas<br>3) 4 percent Special Feature Zone: three large benchmark or no grazing areas, and<br>4) 2 percent Intensive Use Recreation: recreational and ranch site development. |
|----------------------|--|

|   |  |                       |
|---|--|-----------------------|
| <b>VI</b>   | <b>Partially Protected Component Whitewater Lake Wildlife Management Area, Manitoba</b>  | <b>Size: 8,400 ha</b> |
| <b>Biophysical description</b>                              | Whitewater Lake Wildlife Management Area is a nationally significant wetland that provides breeding and staging habitat for migratory birds. It includes Whitewater Lake and a managed marsh unit on the lake's eastern side.  |                       |
| <b>Essential natural values, cultural and social values</b> | The Wildlife Management Area contains habitat that has been used for nesting and foraging by piping plover (a species protected by both the federal <i>Species at Risk Act</i> and the provincial <i>Endangered Species Act</i> ) and Baird's sparrow (a species protected by the provincial <i>Endangered Species Act</i> ). The area also contains at least three plants considered provincially rare. A wildlife viewing site has been developed in cooperation with the Turtle Mountain Conservation District and Ducks Unlimited Canada at the southwest corner of the managed marsh cells.   |                       |
| <b>Legal basis for management</b>                           | Order in Council Regulation under the <i>Wildlife Act</i> (Manitoba).  |                       |
| <b>Management objectives</b>                                | The management objectives include the following: protect a nationally significant wetland that provides breeding and staging habitat for migratory birds (waterfowl and shorebirds); protect habitat known to support nationally or provincially designated endangered species and provincially rare species; provide opportunities for education and tourism through the provision of a wildlife viewing site; accommodate petroleum exploration at times and in a manner that restricts activities inside the Wildlife Management Area to non-sensitive times of the year; and restrict any extraction of petroleum from beneath the Area to activities only using facilities outside the Area.  |                       |
| <b>Special notes</b>  | <p>Activities within the Wildlife Management Area require approval of the Minister. In a <i>Use of Wildlife Lands Regulation</i>, the Minister has prohibited logging, mining (including oil and gas), and hydroelectric development on the eastern and western ends of the marsh that cover about 25-30 percent of the Area. Further, the same Regulation prohibits the Minister from issuing any permits for these activities since the Crown is not bound by the Act. These lands are considered Category IV.</p> <p>The remaining 70-75 percent of the Wildlife Management Area lands are considered Category VI, for the following reasons. In the same Ministerial Regulation, logging and hydroelectric development are prohibited, as is all mineral activity except petroleum. For petroleum activities, low impact exploration is permitted at non-sensitive times of the year (largely winter). Since surface access is prohibited, if drilling is proposed, it can only be directionally from sites outside the Area. Similarly, no oil wells and related structures can be developed in the Area.</p> |                       |

## Appendix A: Glossary

|                               |   |
|-------------------------------|---|
| <b>Active management</b>      | Any prescribed course of action directed towards maintaining or changing the condition of cultural, physical or biological resources to achieve the objectives of management or guidance for selection of IUCN protected area management categories. In the context of IUCN categories, a distinction exists between: 1) active management to mimic natural processes that, due to human influence, no longer operate within their natural range of variability; and 2) active management to secure or maintain habitat conditions necessary to protect significant species, groups of species, biotic communities or physical features of the environment. |
| <b>Biological diversity</b>   | The variability among living organisms from all sources including, <i>inter alia</i> , 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 (United Nations 1992).   |
| <b>Cultural landscape</b>     | Any geographical area that has been modified, influenced or given special meaning by people (Panel on the Ecological Integrity of National Parks 2000).   |
| <b>Ecosystem</b>              | A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (United Nations 1992).  |
| <b>Ecological integrity</b>   | A condition of an ecosystem when it is characteristic of its natural region, including composition and abundance of native species and biological communities, rates of change and supporting processes (Panel on the Ecological Integrity of National Parks 2000).   |
| <b>Environmental services</b> | Natural processes and products produced, created and maintained by organisms and ecosystems (Mosquin and Whiting 1992).   |
| <b>Grandfathering</b>         | The continuation, but not expansion, of a pre-existing activity that would be in violation of current laws of management if established today.  |
| <b>Habitat</b>                | All the elements of the Earth that are used by wildlife species to sustain themselves throughout their life cycles. This includes the spaces (i.e. terrestrial and aquatic) that they require as well as the properties of those places (e.g. biota, climate, soils, ecological processes and relationships). Habitats function in providing such needs as food, shelter, and a home place. Habitats can be thought of as distinctive places or ecosystems, such as prairie habitats or Arctic habitats. (Wildlife Habitat Canada 2001)   |
| <b>Sustainable use</b>        | The use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations (United Nations 1992).  |
| <b>Wilderness</b>             | An enduring natural area of sufficient size to protect pristine ecosystems which may serve physical and spiritual well being. It is an area where little or no persistent evidence of human intrusion is permitted so that ecosystems may continue to evolve. (Freilich 1989)   |



## Appendix B: IUCN Categories and the Size of Protected Areas

Protected areas are part of an ecosystem approach to management when they are planned and managed as part of a continuum with their surrounding landscape and even broader ecological region. Recent advances in ecological theory have deepened our understanding of the effectiveness of protected area design in the conservation of biological diversity. It is clear that protected area size and connectivity are critical factors in the ability of protected areas to conserve biological diversity.

The size and configuration of protected areas can be informed by conservation science. While there are no absolute quantitative rules, it is clear that reserves that are large, have compatible adjacent land or marine uses and are functionally connected to other reserves will protect biodiversity more effectively than small, isolated reserves (see Table B-1).

**Table B-1: Size considerations for protected areas, in relation to conservation objectives and IUCN categories<sup>9</sup>**

| Objective  | IUCN Category  | Scientific-based Size Considerations  |
|--|--|---|
| Conservation of entire ecosystems that have not been harvested and have ecological integrity.              | Category I, II   | For continental ecosystems, the best advice is that extremely large areas are required to conserve all species and processes. In continental North America the estimate is 500,000 ha. These estimates follow the predictions of island biogeography theory. Note that areas are much smaller for island ecosystems. The general rule is that bigger areas will protect more biodiversity than smaller areas. |
| Conservation of entire ecosystems that have sustainable use but are also managed to conserve biodiversity. | Category V, VI   | In general, ecosystems with sustainable use should be larger than unexploited ecosystems to protect the same species.   |
| Conservation of specific species or community.   | Category I, III, IV  | There are many tools available to calculate the area required to protect viable populations or communities. The size required to ensure long-term protection will vary widely. If the objective is to protect a particular plant species, this may be done in an area of a few hectares. If the goal is to protect a viable population of a large predator, the area may be as high as one million hectares.  |
| Ensure connectivity of individual protected areas.   | Consistent with the Biosphere Reserve, Model Forests, Yellowstone to Yukon and other programs. | The probability of conserving biodiversity is higher if individual protected areas are functionally connected. This means that organisms can disperse between sites or make use of more than one site by travelling between them. Functional connectivity may be achieved through compatible land use adjacent to protected areas as well through the provision of corridors.                                 |

<sup>9</sup> This table is meant to be illustrative. It does not imply that all protected areas that are categorized according to IUCN categories must meet these criteria.

## Appendix C: A Historical Perspective on the IUCN Categories

The development of the IUCN protected area management categories has facilitated better communication among countries. Periodic international reports by the IUCN World Commission on Protected Areas (WCPA) have listed protected areas by their IUCN categories. The acceptance of the system has been so widespread that the Fifth World Parks Congress held in 2003 in Durban, South Africa passed the following resolution:

10. URGE IUCN to work with parties to the Convention on Biological Diversity, in preparation for, and during the CBD<sup>10</sup>/COP 7<sup>11</sup>, so as to secure:
  - a. Inter-governmental recognition of the IUCN protected area management categories system as the international method for categorizing protected areas; and
  - b. Agreement to use the system as a basis for national data collection and reporting to the CBD Secretariat on protected areas...

(IUCN 2003)

This recommendation of the World Parks Congress was tabled at the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 7) held in 2004 in Kuala Lumpur, Malaysia. The decision of the COP 7 encouraged member countries, including Canada, to use the IUCN system of protected area management categories as the basis for reporting on progress on in-situ conservation of biological diversity:

31. (The Conference of the Parties...) *Recognizes* the value of a single international classification system for protected areas and the benefit of providing information that is comparable across countries and regions and therefore *welcomes* the ongoing efforts of the IUCN World Commission on Protected Areas to refine the IUCN system of categories and *encourages* Parties, other Governments and relevant organizations to assign protected-area management categories to their protected areas, providing information consistent with the refined IUCN categories for reporting purposes...

(Secretariat of the CBD 2004)

A long-term research program at Cardiff University under the guidance of Prof. Adrian Phillips studied the uses and performance of the IUCN system. The report, entitled "Speaking a Common Language" (Bishop *et al.* 2004), concluded that the IUCN system of protected area management categories has been used in a number of ways not envisaged in the IUCN Guidelines (1994). For example, the system has been used to determine appropriate activities in protected areas, establish relevant criteria to assess management effectiveness, advocate for protected areas, provide a basis for protected areas legislation and policy, and as a tool in bioregional planning (IUCN 2003). In Canada, some jurisdictions have referred to the IUCN categories in legislation, systems planning, and zoning classes.

<sup>10</sup> "CBD" refers to the Convention on Biological Diversity

<sup>11</sup> "COP 7" refers to the Seventh Meeting of the Conference of the Parties

Interpreting the IUCN categories in the Canadian context has some history. Most federal, provincial and territorial agencies have already applied the system to their protected areas data and lists. Some Canadian jurisdictions have taken considerable effort to apply the IUCN categories in a consistent manner. A few examples are described below:

- In 1995, Saskatchewan began to examine and subsequently classify its protected areas using the IUCN system (Lawton 1995).
- In 1999, as part of their strategy to implement the Convention on Biological Diversity as well as developing a provincial protected areas strategy, the province of Quebec applied the IUCN system to some 1,100 protected areas and published the results in the “Répertoire des aires protégées et des aires de conservation gérées au Québec” (Government of Quebec, Minister of the Environment 1999). This interpretation was presented to the Head of the IUCN Programme on Protected Areas at the 2000 World Conservation Congress in Amman, Jordan. In 2002, IUCN categories were included in legislation requiring reporting of data on protected areas in the province.
- As part of Ontario’s Living Legacy program, the Ontario Ministry of Natural Resources carried out a comprehensive evaluation of its protected areas network that consists of over 40 federal, provincial, municipal and private designations involving over 40 different agencies (Gray *et al.* In prep.). Through this process, a preliminary application of IUCN categories was undertaken.
- In 1997, Manitoba began assigning IUCN categories to its provincial park system to fulfil numerous reporting requirements. Various land use class zones within parks were assigned particular IUCN categories according to a flexible formula. The application of IUCN categories at the sub-protected area level marked a new extension and refinement of the system in the Canadian context.

In addition, some national compilations have included the IUCN designation. The Canadian Council on Ecological Areas (CCEA) and its partner agencies developed a listing of Canadian Ecological Reserves (CCEA 1989) that evolved into the Canadian Conservation Areas Database, a comprehensive, stand-alone database of Canada’s protected areas. The list and database contained preliminary classifications of protected areas according to 1978 IUCN system and subsequently the revised 1994 system. Information from this database has been used in protected area status reports at the departmental, national and international levels. The IUCN categories were primarily assigned at the discretion of jurisdictions without the aid of detailed guidance, resulting in numerous omissions and inconsistencies.

The Federal-Provincial Parks Council (now the Canadian Parks Council) developed a Parks and Protected Areas Land Base Inventory that was compiled on an intermittent basis. The inventory used the IUCN categories but included an additional category to accommodate areas with a predominantly recreational management objective.

In 2004 CCEA secured funding from the national GeoConnections<sup>12</sup> program to develop a web-based system to enable standardized reporting and mapping for all Canadian public protected areas. The Conservation Areas Reporting and Tracking System (CARTS) enables users to

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<sup>12</sup> GeoConnections is a national partnership initiative working to build the Canadian Geospatial Data Infrastructure (CGDI), which will make Canada's geospatial databases, tools and services readily accessible on-line. See <http://www.geoconnections.org> for more information.

discover and view spatial representations of Canada's protected areas from data held within each source agency. The system also allows the creation of standardized summary reports, graphs and tables as well as map-image display and querying capability. Initial CCEA collaborators in the development of CARTS included protected area experts from each of Canada's 10 provinces, three territories and three federal agencies with protected areas (Parks Canada Agency, Canadian Wildlife Service and Fisheries and Oceans Canada). World Wildlife Fund (Canada) was also been a major collaborator (see Acknowledgements for a detailed list of collaborators). The Canadian Parks Council, representing Directors of Parks from federal, provincial and territorial agencies, has supported in principle the development of CARTS. Future collaborators will include ENGOs and other levels of government with protected areas.

The preparation and use of this Guidebook as a means to standardize the definition and categorization of Canada's protected areas is of critical importance to the successful implementation of the CARTS project.

## Appendix D: The Future of Protected Area Classification

The current IUCN categories have been applied around the world since 1994. Reviews have determined that the system has been used in ways for which it was not intended. The report, "Speaking a Common Language" (Bishop *et al.* 2004) recommended key priorities for future research including the need for better communication of the categories, and the relationship of the categories to issues such as management effectiveness, certification, and governance.

The Fifth World Parks Congress (IUCN 2003) advised that the new uses of the categories system identified by "Speaking a Common Language" require that the IUCN produce a revised, up-dated edition of the IUCN Guidelines (1994), which, for example:

- Builds on the existing objectives set out for each category, including by improved summary definitions of the categories;
- Explains how the categories relate to ecological networks and wider regional planning;
- Considers removing the generic names of protected areas from the category system, as these may have different meanings in different countries;
- Gives more emphasis to marine and freshwater protected areas;
- Provides guidance on the inclusion, within the system, of private protected areas, and of those managed by local and indigenous communities; and
- Enables protected areas to have more than one category when zones within them have been legally defined for different management objectives.

In 2006, the Eighth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 8) recommended work on the IUCN protected areas category system and measures of national progress, to work towards their goal of assessing and monitoring protected area status and trends:

**Target:** By 2010, national and regional systems are established to enable effective monitoring of protected-area coverage, status and trends at national, regional and global scales, and to assist in evaluating progress in meeting global biodiversity targets.

### **Suggested activities of the Parties**

- 4.3.1 Implement national and regional programmes to monitor and assess the status and trends of biodiversity within protected area systems and sites.
- 4.3.2 Measure progress towards achieving protected area targets based on periodic monitoring and report on progress towards these targets in future national reports under the Convention on Biological Diversity as well as in a thematic report at COP9.
- 4.3.3 Improve and update national and regional databases on protected areas and consolidate the World Database on Protected Areas as key support mechanisms in the assessment and monitoring of protected area status and trends.
- 4.3.4 Participate in the World Database on Protected Areas maintained by UNEP-WCMC, and the United Nations List of Protected Areas and the State of the World's Protected Areas assessment process.
- 4.3.5 Encourage the establishment and use of new technologies including geographic information system and remote sensing tools for monitoring protected areas.

**Suggested supporting activities of the Executive Secretary**

- 4.3.6 Develop and consolidate working partnerships with appropriate organizations and institutions that have developed and maintained monitoring systems and databases on protected areas, in particular with the UNEP-WCMC and the IUCN World Commission on Protected Areas.
- 4.3.7 Explore establishment of a harmonized system and time schedule for reporting on sites designated under the Convention on Wetlands, the World Heritage Convention, and UNESCO-MAB<sup>13</sup> programme, and other regional systems, as appropriate, taking into account the ongoing work of UNEP-WCMC on harmonization of reporting and the IUCN protected area management category system for reporting purpose.
- 4.3.8 Prepare an updated format for the thematic report on protected areas covering, *inter alia*, integration of protected areas and national systems of protected areas into relevant sectors and spatial planning taking into account decision VII/25 on national reporting.

(Secretariat of the CBD 2006)

Canada is actively working in many of the areas recommended above, and this Guidebook will be a cornerstone of these activities, future assessments, and reports.

Canadian protected area specialists have indicated specific measures of protected areas that would be useful, such as measures of allowable activities, visitor statistics, threats and resources for management. While research and development in these areas will be helpful to Canadian protected area agencies, none of these research areas seeks to replace the existing IUCN categories based on management objectives.

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<sup>13</sup> UNESCO-MAB refers to the United Nations Education, Scientific and Cultural Organization Man and Biosphere Programme.

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