Waterton Lakes National Park of Canada

Management Plan

A Portion of Waterton–Glacier International Peace Park

Parks Canada Parcs Canada

Canada

Waterton Lakes National Park of Canada

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A Portion of Waterton-Glacier International Peace Park

May 2000

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Foreword

Protection of the ecological integrity and cultural resources of the Rocky Mountain national parks, for the appreciation and enjoyment of current and future generations, is one of our nation's greatest responsibilities. It is something we owe both to ourselves and to the world which has bestowed world heritage site status on these parks.

In 1997, I approved the Banff National Park Management Plan. This management plan for Waterton Lakes National Park of Canada builds on the key themes and principles of the Banff Plan. National parks are, first and foremost, places for nature and will remain so. They must continue to be places for people and for heritage tourism, places to visit, to experience and to learn. These parks are also places for community and for the highest standards of environmental stewardship. Finally, national parks are places where management is open and transparent.

With Glacier National Park in Montana on its southern border, Waterton Lakes National Park of Canada protects a unique internationally significant ecosystem. Established as the world's first international peace park in 1932, Waterton-Glacier International Peace Park was designated as a World Heritage Site in 1995.

The Rocky Mountain national parks are closely linked from an ecological and visitor use perspective. Thus, the Waterton Lakes National Park of Canada Management Plan was developed in concert with the new management plans for Kootenay, Yoho and Jasper national parks. The management plans outline the key tools we need to meet the challenges facing these special places: a better understanding of the immediate and long-range ecological pressures; a better way to integrate commercial and tourist activities in this magnificent, finite environment; and a higher level of local and national input in decision making.

The Waterton Lakes National Park of Canada Management Plan was prepared through extensive public consultation. It provides a shared vision to guide the park into the 21st century; setting the groundwork for action over the next 15 years.

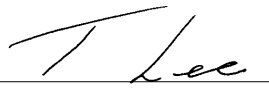
The community of Waterton is a focal point for visitors to Waterton Lakes National Park of Canada. In June 1998, I announced principles to guide the management of national park communities. This management plan provides a framework for how these principles of no net negative environmental impact, appropriate use, responsible growth management, and leadership in environmental and heritage conservation will be applied to the community of Waterton. The management plan ensures that the management of the community of Waterton is integrated with the management of the park. The protection of the park's ecological integrity and cultural resources is the primary consideration of the community. Waterton Park is a model community reflecting the surrounding natural environment, national park values and its cultural heritage.

The Government of Canada is committed to the protection and presentation of our natural and cultural heritage and, as Minister of Canadian Heritage responsible for Parks Canada, it is my duty to safeguard our national parks. It is in keeping with this mandate that I approve the Waterton Lakes National Park of Canada Management Plan.

Sheila Copps
Minister of Canadian Heritage

Waterton Lakes National Park of Canada Management Plan

This plan has been recommended for approval by:



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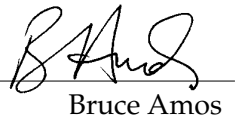

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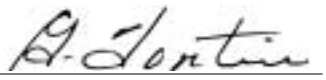

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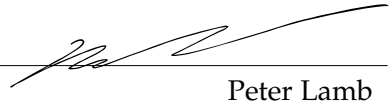

Peter Lamb
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A Vision for Waterton Lakes National Park of Canada

Shaped by wind, fire and water, Waterton remains for all time a place of spectacular and unparalleled beauty—an awe-inspiring legacy of mountains, lakes, prairies, forests, alpine meadow and wildlife. A place where people celebrate the natural world, Waterton's character is welcoming and reminiscent of its early beginnings. Visitors find relaxation, renewal and pride in our country's foresight for the park's creation and in our continuing care of this special part of Canada and the world. Waterton Lakes National Park of Canada is faithful to its past while moving forward to meet tomorrow's challenges.

Key Themes

- The park is a living example of the way in which nature is protected while appropriate kinds and levels of human activity are welcomed (see Table 3. Appropriate Use Criteria).
- The park contributes to a healthy and sustainable region.
- Natural systems and their component native species are free to function and evolve. The park supports and is supported by the natural systems of the region around it.
- The park is available to all Canadians and international guests who wish to participate in a diverse range of appropriate activities. They treat the park with respect. The quality of the natural environment and services provided is fundamental to the visitor experience.
- Understanding the value of our national parks is a part of being Canadian. Education and awareness about the values of the national park, ethics of stewardship, natural and cultural heritage and services are provided both within and beyond the boundaries of the park.
- A healthy economic climate, based on the heritage values of the park, contributes to national, provincial and local economies. Appropriate businesses evolve and operate along aesthetically pleasing and environmentally responsible lines. Innovative ideas, designs and technology related to education, transportation, waste management, and other infrastructure are emphasized when providing services.
- Federal, provincial and municipal authorities cooperate in protecting and managing the regional ecosystem. To achieve this, they nurture cooperation with businesses, organizations, and open, accountable, and responsible decision-making.
- Principles of precaution and adaptive management are exercised when potentially significant effects on the ecosystem are uncertain.
- The Community of Waterton is a leader in environmental and cultural resource stewardship. Residents and businesses pride themselves in accepting their responsibility for protecting and sharing this natural and cultural heritage for the benefit of present and future generations.
- Recognizing the finite supply of facilities and services, the Park plays an active role, through the heritage tourism strategy, in influencing marketing and promotion efforts that affect demand on the park.
- Parks Canada anticipates regional pressures and prepares for them well in advance.
- Success in implementing management plan actions is measured against established standards.

Introduction

1.0 INTRODUCTION

1.1 A Park of Many Places

Located in the southwestern corner of Alberta, where the mountains meet the prairie, Waterton Lakes National Park of Canada protects plant communities and ecological diversity found nowhere else on earth. This 525 km^2 park is a small part of the international Crown of the Continent ecosystem.

In Montana, on the park's southern border, Glacier National Park protects an area more than seven times the size of Waterton Lakes. These two parks, jointly commemorated in 1932 as the Waterton-Glacier International Peace Park, are core protected areas in biosphere reserves established by the IUCN. UNESCO designated the Waterton-Glacier International Peace Park as a World Heritage Site in 1995.

This management plan recognizes that Waterton Lakes National Park of Canada is not one place, but many places. It is, above all, a place for nature -- where the intricate relationships that make up the web of life continue to evolve as they have for thousands of years. It is a place where people can discover the wonder of the natural environment and appreciate, first hand, the richness of their heritage. It is a place that recognizes and celebrates the past. It is a place where people recognize their role in the ecosystem and their responsibility to act accordingly. And finally, it is a place for the future. The *National Parks Act* dedicates national parks "to the people of Canada for their benefit, education and enjoyment…to be maintained and made use of so as to leave them unimpaired for future generations." This management plan is a key tool for shaping that future.

1.2 Management Planning in the Mountain Parks

The National Parks Act requires each of Canada's 39 national parks to prepare a management plan, and, in consultation with Canadians, to update the plan every five years. In the years since the tabling of the 1992 *Waterton Lakes National Park Management Plan* in Parliament, the park has addressed most of that plan's priorities.

In 1996 an independent task force submitted more than 400 recommendations concerning protection of the Bow Valley corridor in Banff National Park. After careful assessment of these recommendations, Parks Canada prepared a new management plan for Banff National Park. The revised management plans for Waterton Lakes, Jasper, Kootenay, and Yoho incorporate key principles and policy direction from the Banff plan.

Other important changes have occurred since the completion of the park's first management plan. New issues have emerged. Governments have set new policies and drafted new legislation. Researchers have improved our unders standing of the critical importance of ecosystem-based management and biodiversity. Tourism has increased rapidly, along with an interest in destinations that offer opportunities to learn about nature and history.

The following examples of legislation, policies and plans have strengthened Parks Canada's commitment to preserving park resources in a way that integrates ecological, social and economic values.

- amendments to the *National Parks Act* (1988)
- the *Strategic Framework to Sustain the Integrity of Ecosystems* (Parks Canada 1992)
- the Biodiversity Convention (1992)
- the *Waterton Community Plan* (1994)
- *Parks Canada Guiding Principles and Operational Policies* (1994)
- designation of Waterton Waterton Lakes-Glacier National Park International Peace Park as a World Heritage Site (1995)
- the *Canadian Environmental Assessment Act* (1995)
- the *Waterton Lakes National Park Framework for Managing Development* (1996)
- *Banff-Bow Valley: At the Crossroads* (1996)
- the *Banff National Park Management Plan* (1997)

Waterton Lakes National Park of Canada Management Plan

Waterton's revised management plan will guide the overall direction of the park for the next 10 to 15 years. The objectives of the plan are to:

- set out a vision for the future;
- preserve and strengthen the ecological integrity of the park in a way that integrates ecological, social, and economic values;
- promote high quality visitor experiences based on the parks ecological and cultural heritage;
- establish clear limits to development associated with appropriate activities;
- support Parks Canada's initiative to renew heritage presentation; and
- involve others in protecting the shared ecosystem.

The public played a key role in shaping the revised management plan. Open houses in several communities attracted hundreds of participants. Parks Canada also distributed more than 3,800 management plan concepts to the public for comment. On-going consultations with stakeholders, including the government of Alberta, have provided valuable insight.

1.3 Cornerstones of Success

Parks Canada will have realized the vision for Waterton Lakes National Park of Canada when the following strategic goals become a reality. Each chapter in this management plan describes objectives and key actions to make that happen.

A Place for Nature

Canadians understand the challenges involved in maintaining the ecological integrity of Waterton Lakes National Park of Canada.

Biological diversity exists at a variety of scales—genetic, species, community, landscape.

Air quality is of the highest possible standard.

Natural geological processes, including erosion and deposition, shape the landscape and its ecosystems.

The natural structure and function of aquatic ecosystems are maintained.

Natural processes determine the long-term composition and structure of vegetation.

The regional ecosystem supports viable populations of native wildlife.

A Place of Historical and Cultural Significance

Cultural resources are protected and the associated themes presented.

Parks Canada and Aboriginal people collaborate on the protection and presentation of Aboriginal heritage in Waterton Lakes National Park of Canada.

A Place for People

Canadians and their international guests enjoy high quality, authentic learning and travel experiences that are based on national park values and that foster a sense of Canadian identity.

A well-informed tourism industry respects the social and ecological values of Waterton Lakes National Park of Canada.

Appropriate facilities and services allow visitors with varying interests to enjoy the park.

Canadians and their international guests appreciate and understand the nature and history of Waterton Lakes National Park of Canada, the role of the park in Canada's national park system, and its international significance.

Outlying commercial accommodation facilities provide an alternative choice for accommodation in a manner that maintains ecological and commemorative integrity.

Information is available to help visitors make informed choices.

Visitors experience the park without impairing its ecological and commemorative integrity.

Transportation and Utilities

National transportation corridors, park roads and secondary roads will be managed in a way that supports Parks Canada's commitment to ecological integrity and enables visitors to experience the park.

The impact of aircraft, and their associated facilities, on ecological integrity and the visitor experience is kept to a minimum.

Utilities have minimal impact on the park's ecological integrity.

A Place for Community

Waterton will be a community where protection of ecological and commemorative integrity will be the primary consideration.

Land use policies will protect the communities visual and historic character and ensure a wide range of affordable and appropriate services and facilities.

Open Management

Key policy, land-use and planning decisions are timely, fair and consistent, and are arrived at in an open and participatory manner.

Ecological, social and economic systems in the park and the Crown of the Continent ecosystem benefit from integrated management.

Research and information, shared among agencies and individuals in the Crown of the Continent Ecosystem, support sound decision making.

Environmental Stewardship

Environmental stewardship supports ecological integrity and heritage tourism, and sets a standard of excellence.

Visitors and residents contribute to the principles of environmental stewardship and sustainability.

In the long term, effluent matches as closely as possible the natural composition of the receiving water bodies.

Ecosystem-Based Management

One of the biggest questions for national parks is how to maintain a healthy environment and protect important cultural resources while at the same time supporting quality visitor experiences and contributing to social and economic needs. To address this challenge, Parks Canada has adopted a system known as "ecosystem-based management."

Ecosystem-based management is a holistic approach that involves working with others to achieve common goals. Productive, positive, long term relationships are the key to its success. Multi-disciplinary in nature, it seeks to integrate biological, physical and social information. The goal—a healthy park, environmentally, economically and socially, within a broader regional landscape.

The following key components are the foundation for ecosystem-based management.

- Regional ecosystems extend beyond park boundaries. Activities on neighbouring lands affect the park's wildlife, water, and vegetation. By the same token, park activities affect our neighbours. Integrated management is essential.
- People are a fundamental part of the ecosystem. Addressing people's social and economic needs makes it possible for them to contribute to a healthy environment. Inside the park, these needs must be considered in the context of protecting ecological and cultural heritage. Outside the park, Parks Canada will encourage activities that incorporate heritage values and sustain traditional land use patterns.
- Understanding the relationship between people and the environment is the foundation of good decisions. In pursuit of this understanding, we can derive inspiration from the human-land relationship of Canada's First Nations.
- Visitor use respects the importance of protecting ecological and cultural resources. Parks Canada must carefully manage visitor use and development, setting limits where necessary.
- Decisions are based on sound information (ecological, cultural and social). Benchmarks and parameters help us understand the park's health.
- Consulting with visitors, residents, businesses and other government agencies is a key component in improving ecological integrity and the protection of our cultural heritage.
- Educational programs for visitors, residents, and businesses, inside and outside the park, create awareness of ecosystems, the challenges involved in protecting them, and the role people can play.

Natural processes, and, where appropriate, technology, are important in maintaining and restoring ecosystems.

The management plan is founded on these ecosystem management components. While individual chapters address different issues, the actions in each are linked. Collectively they represent an integrated approach that Parks Canada believes will ensure Waterton Lakes continues as a living example of national park values.

Planning Context

2.0 PLANNING CONTEXT

2.1 Regional Setting

Waterton's ecological diversity results, in part, from the transition from a moist maritime climate to a semiarid continental grassland over a short distance in an area of great topographical diversity. As a result of this transition, habitats in the park and surrounding area support more than 970 species of vascular plants, thousands of kinds of insects, arthropods and other invertebrates, and 300 vertebrate species. Many plants and animals in Waterton Lakes National Park of Canada are at the edge, or even beyond the edge, of their normal range because they have managed to persist in one or more unique local habitats.

Due to its relatively small size, Waterton Lakes is vulnerable to changes in the greater ecosystem. Many different people and agencies, with a variety of mandates and visions, own land along the park's borders. Land management decisions in these areas have a significant effect on the health of the park ecosystem. Use of these lands can lead to habitat fragmentation and easier access to the park's remote areas.

North, east and west of Waterton Lakes National Park of Canada the provinces of Alberta and British Columbia manage land used for oil and gas wells, forestry, ranching and recreation. The exception is Akamina-Kishinena Provincial Park, a roadless, protected area managed by the province of British Columbia. The plains and foothills to the north (Municipal District of Pincher Creek) and east (Municipal District of Cardston) are primarily privately owned by ranchers, although small recreational holdings have increased in the past decade. The Blood Tribe administers a timber reserve in the Belly River valley, which includes important wildlife habitat and aquatic resources and contains no permanent residences. The much larger Blood Indian Reserve, 148 km northeast of the park, is heavily settled and used primarily for crops and livestock.

South of the park, in Montana, is Glacier National Park which is approximately 7 times the size of Waterton Lakes. The two parks were designated as the world's first International Peace Park in 1932 and subsequently as a World Heritage Site in 1995. Both parks were also designated separately as Biosphere Reserves in the late 1970's. Land use in Glacier National Park is very similar to Waterton Lakes and the parks actively cooperate on a variety of operational, management and planning initiatives. Southeast of the park, the Blackfeet Indian Reservation carries on logging, ranching, hunting and some agriculture.

The health of the regional ecosystem is a major concern. Alberta's Natural Resources Conservation Board, during a 1993 review of a proposed resort 23 km north of Waterton, determined that the cumulative effects of development and disturbance have led to a deterioration in the state of the regional ecosystem, both in quantitative and qualitative terms. They also reached the conclusion that the Crown of the Continent ecosystem is at risk and that the Waterton-Castle area in particular, has deteriorated.

2.2 The Community of Waterton

Established in 1910, Waterton has remained a small community with a year-round population of less than 100 residents. This number increases to 300 when cottagers return in the summer. The community is the focal point for most visitor services in the park providing accommodation, entertainment, and recreational activities.

Like other national park communities, Waterton is subject to the *National Parks Act* and regulations. The federal government has the ultimate authority on planning, land use, development, and environmental issues. In concert with the park management planning process, the park revised the *Waterton Community Plan*.

2.3 Park Management and Land Use

The evolution of Parks Canada's management practices has manifested itself in several areas. In the formative years of the park, the emphasis was on tourism. Concern about protection was limited by our understanding of the natural world and relatively low levels of human use.

Many activities sanctioned by former policies would no longer be considered appropriate in a national park. In fact, many of the park's current efforts are aimed at restoring systems radically altered as a result of former policies, particularly policies on hunting, fish management and fire suppression. Although hunting was prohibited from the time of the park's establishment, it was not until much later that predator control programs ended. Efforts to enhance angling opportunities resulted in the introduction of various non-native species into the aquatic ecosystem. Fire suppression in Waterton Lakes National Park of Canada has interfered with fire's critical link in the natural evolution of the environment, favouring the growth of conifer forests to the detriment of other habitats such as grassland and trembling aspen stands. Today park managers have a better understanding of the importance of natural processes such as fire to ecological integrity. Protection is based on a much broader ecological view and increasing human use demands new approaches.

2.4 Human Use

The number of visitors to Waterton Lakes National Park of Canada has remained fairly constant in recent years. The park attracts about 375,000 visitors each year, primarily in July and August. Typically, visitors are from southern Alberta and the northern United States. Visitors stay an average of 1.4 nights and there are many return visits.

In the summer, facilities are generally filled to capacity while most facilities are closed in winter. Visitor use is centred around the community, parkways and the shores of Upper and Middle Waterton Lakes.

3.0 A PLACE FOR NATURE

3.1 Overview

"Maintenance of ecological integrity through the protection of natural resources shall be the first priority when considering park zoning and visitor use in a management plan."

National Parks Act, 1988

Parks Canada defines ecological integrity as *"a condition where the structure and function of an ecosystem are unimpaired by stresses induced by human activity and are likely to persist"* (*Parks Canada, Guiding Principles and Operational Policies*, 1994). In other words: a national park has ecological integrity if all the plants and animals that should be in the park still thrive

there, and people use the park and its surroundings in ways that respect the needs of those plants and animals and allow fires, floods, weather and other natural processes to create natural habitat.

By this standard, Waterton Lakes National Park of Canada is doing relatively well. Most animals that naturally occur in the park still range freely through the region, thanks to habitats protected in the park and the wise stewardship of neighbouring ranchers and land management agencies. Some rare or endangered species such as the trumpeter swan and bull trout are recovering. Implementation of measures in the 1992 management plan have begun the process of reintroducing such natural processes as fire, flooding and predation.

Ecological integrity is measured in terms of:

- ecosystem health, including the ability to continue to evolve, develop, and adapt to change;
- biological diversity, including the ecological and evolutionary processes that keep species functioning;
- the ability of plant and animal communities to resist or adapt to stresses and change;
- the ability of plants and animals to sustain healthy populations into the future; and
- the integration of people into the environment in ways that sustain both human quality of life and ecological diversity.

3.2 Threats to Ecological Integrity

The *Waterton Lakes National Park of Canada Ecosystem Conservation Plan* (1997), the previous *Park Management Plan* (1992), and the 1991 and 1997 *State of the Parks* reports for Waterton Lakes highlighted concerns about the park's ecological integrity.

Park Management Practices

Most park management practices influence the well-being of park ecosystems. Water and waste management, flood and fire protection, and vegetation management modify natural processes, putting stress on ecosystems.

Vegetation Change

In general, Waterton Lakes National Park of Canada's vegetation is becoming less diverse and more artificial, largely because of fire suppression and the invasion of non-native species. Fewer, smaller fires have meant a gradual aging of forests, significant accumulations of forest fuels, and a loss of important wildlife habitat.

Exotic Organisms

Non-native species have become established due to deliberate introductions or accidental releases. These species have a competitive advantage because they arrived in this area without a full complement of parasites, diseases, predators and other factors that control populations of native species. Some exotic species hybridize with native species. Others are effective predators or carry diseases to which native species lack natural defenses. Some compete with native species and take over.

Habitat fragmentation and wildlife displacement in the greater park ecosystem

Permanent habitat fragmentation and increased human/wildlife conflict may result from subdivision of ranch land north and east of the park, and tourism development in the community of Waterton, Blood Timber Limit and West Castle River areas. Resource harvesting and ranching in the region surrounding the park has reduced habitat effectiveness for some species of wildlife. Industrial access increases activity in once-remote wildlife ranges and leads to greater recreational use of adjacent areas of the park. Traffic on industrial roads and sites also contributes to the spread of exotic weeds by disturbing the soil and spreading weed seeds. Animals such as grizzly bears and elk suffer habitat loss or displacement when roads and development proliferate.

Some of the park's extensive recreational infrastructure—picnic areas, parking lots, hiking trails, campgrounds, scenic viewpoints—is located in important wildlife habitat or areas subject to flooding and other natural processes. This infrastructure gives park visitors unparalleled opportunities to experience and learn about nature. The challenge is to ensure that development does not fragment and degrade the natural systems people come here to visit.

Threats to wide-ranging carnivores (e.g., grizzly bear, wolf, lynx)

Large carnivores are highly valued by most visitors. The continuing existence of these species indicates functioning landscapes, productive habitats, and human understanding and tolerance. These animals need large home ranges and more habitat diversity than the park can provide. They range across jurisdictional boundaries where management objectives vary. The World Wildlife Fund's Carnivore Conservation Strategy and the Yellowstone-to-Yukon Conservation Initiative place a high priority on the conservation of large carnivores in the region.

Degradation of Aquatic Ecosystems

Reservoirs, flood control, angling and the introduction of non-native fish have altered aquatic resources and the natural flow of many streams in the park. The health of some native fish, aquatic invertebrates, and riparian habitats has declined as a result of these changes.

Wildlife Habituation

Animals respond to changes in their environment. As human use of the park and the surrounding landscape intensifies, and as we modify habitats and displace predators, some species of animals adapt to the changes in ways that generate conflict. Conflicts between wildlife and humans, and the associated management actions, often result in wildlife mortalities. Sensitive wildlife avoid areas where there are many people, limiting the amount of habitat available to them.

Global Environmental Change

Many plant and animal species are at the extreme limits of their natural ranges and are likely to experience either range expansions or local extinctions in response to sustained changes in climate or landscape. The abrupt transition change from moist subalpine forest to wind-blasted grassland makes this an area where climatic trends may trigger significant changes in landscape patterns.

The park is already addressing many of these threats. Measures include improved garbage management, an end to fish stocking, closing backcountry roads, temporary and permanent area closures to protect sensitive wildlife species, introduction of prescribed fires, progress on control of non-native plants, and interjurisdictional cooperation in environmental management. These undertakings will provide a strong base for future restoration, maintenance and management.

3.3 A Vision for Ecological Integrity

As part of the Waterton-Glacier International Peace Park—a World Heritage Site—Waterton Lakes National Park of Canada protects and maintains the native biological diversity of this portion of the Rocky Mountains and its associated prairie. The park is a living example of the way in which ecological values are protected and appropriate kinds and levels of human use are welcome. The park ecosystems and their component native species and natural processes are free to function and evolve in the face of global change. The park supports and is supported by the natural ecosystems of the surrounding region.

To maintain the park's ecological integrity in a changing world, Parks Canada will focus on:

- promoting and cooperating in scientific studies that add to our knowledge of ecological integrity in the park and surrounding landscape;
- investigating the ways in which human activities influence the ecosystem;
- managing or reducing stressors that reduce biological diversity or impair ecosystem health;
- applying ecosystem-based management principles in decision making;
- restoring ecological processes, with priority given to those actions which have the potential for significant ecological benefit;
- collaborating with other land managers, neighbouring landowners and interested public organizations to promote ecosystem sustainability and an informed human community in the Crown of the Continent ecosystem; and
- increasing understanding and appreciation of ecosystem processes, landscape history and conservation issues, and opportunities for stewardship among the community of people who visit, occupy or use Waterton Lakes National Park of Canada and surrounding landscapes.

3.4 Communicating the Need for Ecological Integrity

Ecological integrity depends on informed choices by people whose behaviour and decisions influence virtually every ecosystem on Earth. For this reason, Parks Canada has made communication an integral component of every strategic goal in this management plan. This section highlights specific actions to help people understand ecological integrity and its implications. Other chapters, especially A Place for People, describe additional communication initiatives.

3.4.1 Strategic Goal

Canadians understand the challenges involved in maintaining the ecological integrity of Waterton Lakes National Park of Canada.

3.4.2 Objectives

To reach broader audiences with key ecological integrity messages by sharing this responsibility with others.

To ensure Canadians value the park as part of an integrated network of protected areas within a regional ecosystem.

3.4.3 Key Actions

1. Ensure resource and visitor management programs include communication strategies targeted at interested stakeholders and park visitors.
2. Meet annually with the Waterton Natural History Association, licensed private interpretive guides, and recreational guides to develop cooperative ways of reaching park visitors with ecological messages.
3. Work with tourism operators to ensure their clients receive information about the park's ecological value, as well as the role of protected heritage areas and private land conservancy in preserving biodiversity.
4. Regularly update information about ecosystem management, monitoring, and research on the park's web site.
5. Target residents and visitors in the Crown of the Continent ecosystem with a cooperative outreach program that promotes an understanding of ecological issues.
6 Regularly update resource materials to help park staff, heritage tourism operators, and other environmental educators present key ecosystem messages and the park's interpretive themes.
7. In cooperation with other agencies and stakeholders, develop programs to increase the understanding of prairie ecosystems and associated management issues.

3.5 Shared Regional Ecosystems

Waterton Lakes National Park of Canada is inseparable from its surrounding landscape. The interdependence of the park and neighbouring ranches and forestry lands was recognized in 1979 with the establishment of the Waterton Biosphere Reserve. A biosphere reserve has a core protected area and a surrounding landscape, used for a variety of purposes, where active consideration is given to sustainability. Comparative research and public education are two biosphere reserve priorities. A volunteer committee of area residents and Parks Canada representatives manage the Waterton Biosphere Reserve program.

3.5.1 Strategic Goal

Integrated planning and management in the Crown of the Continent Ecosystem.

3.5.2 Objectives

To build relationships and share information among the community of agencies, individuals and interest groups in the regional ecosystem.

To work towards common goals.

3.5.3 Key Actions

1. Support GIS and other research on changes in land use.
2. Actively participate in the Waterton Biosphere Association and the *Crown of the Continent Ecosystem Data Atlas*.
3. Support cooperative fund-raising and educational initiatives that help landowners secure conservation easements or other financial arrangements to protect habitat on private property near the park.
4. Support Yellowstone to Yukon research and management initiatives that clearly contribute to the park's overall goals.
5. Participate in initiatives to keep wildlife and ecological processes from conflicting with the interests of

people who live in and around the park (e.g., elk damage to forage crops, predation of livestock by large carnivores, wildfire)

6. Share information and participate in cooperative planning initiatives with neighbouring land management agencies in Alberta, British Columbia and Montana.
7. Work with the Rocky Mountain Grizzly Bear Planning Committee to conserve and manage grizzly bears at inter-regional and international scales.
    - maintain critical links between habitat (e.g., the Highway 3 corridor)
    - limit habitat fragmentation
    - contribute to a shared pool of information on the grizzly bear population and its management
8. Work with other land management agencies to reduce the number of roads adjacent to park wilderness areas and in key areas throughout the regional ecosystem.
9. Continue to develop the special relationship with Glacier National Park, as defined through the International Peace Park concept.

3.6 Biological Diversity

The best way to protect ecological integrity is by maintaining natural biodiversity. There are four types of biological diversity: landscape, community, species and genetic. Each requires special attention to ensure its continuing viability.

- landscape diversity includes all ecosystems in an area, plant and animal communities, and the physical habitat;
- community diversity encompasses all the species living together in a particular habitat;
- species diversity refers to the variety of plants and animals in an area; and
- genetic diversity refers to the variation in genetic make-up among individuals of the same species.

Biodiversity is linked to ecological processes, such as fire, flood, avalanches, predation, pollination, seed dispersal, and grazing. These natural processes and the physical environment that produces and supports the diversity of life must also be maintained.

3.6.1 Strategic Goal

Biological diversity exists at a variety of scales—genetic, species, community, and landscape.

3.6.2 Objectives

To maintain biological diversity at broad landscape and community scales, including ecological processes.

To maintain and restore viable populations of native species, including the genetic diversity within species.

To protect, maintain or restore rare, vulnerable, threatened or endangered genetic resources, species and biotic communities.

To ensure that natural disturbances (e.g., wind, flood, avalanches, grazing) and their effects function unhindered.

3.6.3 Key Actions

1. Monitor changes in the abundance of plant and animal species; evaluate management decisions that influence those changes.
2. Identify new exotic organisms in the early stages of colonization.
3. Enhance the program to eradicate invasive exotic plants such as spotted knapweed, leafy spurge, toadflax, and common timothy.

4. Keep the risk of genetic pollution to a minimum by using seeds and nursery material obtained from local native stocks.
5. Communicate the importance of genetic diversity and the need for genetic conservation to key target audiences including leaseholders, landscaping companies, utility companies, anglers and others whose activities can change plant and animal communities.
6. Develop recovery plans for plants and animals classed as threatened or endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or red or blue listed by the Province of Alberta.
7. Ensure research and management programs address all aspects of biological diversity including aquatic resources, carnivores, ungulates, small mammals, birds, reptiles, amphibians, and insects.

3.7 Air Quality

Parks Canada has little direct impact on the quality of air or visibility over Waterton Lakes National Park of Canada. Preliminary research suggests that the park receives some sulfur-based pollution when the wind is from the north, and visibility-reducing particulates when the wind is from the southwest. Within the park, smoke can be generated from prescribed and natural fires, camp fires and from burning at the park's waste pit. Because of the park's windy environment and low human use during winter, accumulation of automobile exhaust as smog during temperature inversions has not been identified as a problem.

3.7.1 Strategic Goal

Air quality is of the highest possible standard.

3.7.2 Objective

To work in partnership with others, to ensure that human sources of pollution do not impair visibility, the ability of the ecosystem to support a full range of naturally occurring species, or human safety.

3.7.3 Key Actions

1. Cooperate in air quality monitoring programs that support the *Canada-US Clean Air Accord* and other international environmental conventions.
2. Use Waterton Lakes National Park of Canada as a benchmark to support monitoring of long-term changes in air quality and visibility by agencies responsible for atmospheric science.
3. Link information on global environmental change to trend data from Waterton Lake's integrated monitoring program.
4. Through education and outreach, promote informed action to protect ecosystems from global change.
5. Conduct prescribed fires under conditions that limit, where possible, the volume, intensity and duration of smoke in populated areas.
6. Encourage the use of lighting that is functional and does not detract from the natural environment.

3.8 Geology and Landforms

3.8.1 Strategic Goal

Natural processes, including erosion and deposition, shape and define the landscape and its ecosystems.

3.8.2 Objectives

To protect and restore park landforms and associated physical processes from the impacts of development and use.

To consider the impact of management decisions on landforms outside the park.

3.8.3 Key Actions

1. Keep disturbance of the park's landforms to a minimum. Approve activities that disturb landforms only when rehabilitation plans are finalized.
2. Whenever possible, avoid manipulating natural processes (e.g., avalanches or flooding) to protect facilities that cannot be relocated.
3. Move the Parks Canada storage area from the Blakiston Creek alluvial fan to the government compound; reclaim the area.
4. Rehabilitate disturbed sites such as Red Rock Canyon.
5. Keep the need for aggregate material to a minimum.
6. Obtain construction material from suitable sources outside the park (e.g., sources that do not result in new disturbance to native vegetation, wildlife corridors, riparian areas, or scenic views).
7. Re-design the Waterton Community Golf Course's water supply to eliminate manipulation of the Blakiston Creek flood plain. Work with the golf course on a plan to use the park's treated sewage for irrigation.

3.9 Aquatic Ecosystems

Aquatic ecosystems are vulnerable to disturbance from a number of sources. These include stream bed manipulation to protect roads and facilities, flood plain development, fish stocking and heavy angling pressure**.** The most productive habitats in most landscapes are where water and land meet, but these are also the places where human use is often concentrated. Historically, we manipulated aquatic ecosystems to meet our interests for productive fishing, streamside recreation facilities and flood protection. Restoring the ecological integrity of streams, rivers, lakes and wetlands will require greater understanding of hydrological processes and the nature of natural aquatic ecosystems. The involvement and support of the public and adjacent jurisdictions in restoration activities will also be important.

3.9.1 Strategic Goal

The natural structure and function of aquatic ecosystems are maintained.

3.9.2 Objectives

To maintain water quality, water levels and flow regimes within the natural range of variability.

To manage human use so that visitors can enjoy and learn about the park in a way that protects the integrity of aquatic ecosystems.

3.9.3 Key Actions

Restoration of Aquatic Ecosystems

1. Monitor water quality and the composition of aquatic communities.
2. Protect native fish from competition or hybridization with non-native species.
3. Keep the impact of transportation corridors (culverts, stream channelization, maintenance practices, etc.) on aquatic ecosystems to a minimum; wherever possible, modify the transportation infrastructure, not the ecosystem.
4. Remove the Cameron Creek dam and associated infrastructure.
5. Designate the following aquatic benchmark areas where habitat and native fish populations will be protected and restored and where long-term research will be promoted:
   - Lost Lake;
   - Blakiston and Bauerman Creeks upstream from their confluence;
   - north fork of the Belly River; and
   - Maskinonge wetland and inlet.
6. Evaluate priorities for restoration of aquatic habitat and native species.
7. Implement restoration plans.

Angling

Recreational fishing will continue. Management will focus on ensuring viable native fish populations. This will involve a more comprehensive approach to aquatic ecosystem management

8. Implement regulations to protect and conserve native fish stocks.
9. Limit open seasons for angling to protect native fish during spawning.
10. Where both native and non-native species occur in the same water body, consider implementing catch and release regulations to protect native species.

Communication

11. Offer park visitors opportunities to learn about aquatic ecosystems (e.g., interpretive programs in spawning areas).

3.10 Vegetation

Waterton's vegetation has evolved over thousands of years under the influence of prevailing climatic, geological, and human factors. Vegetation, while important on its own, also provides food, shelter and cover for wildlife.

As with all components of the ecosystem, vegetation is dynamic. The park's vegetation responds to short term natural disturbances such as fire, floods, grazing, avalanches, windstorms, insect infestations and disease.

3.10.1 Strategic Goal

Natural processes maintain the long-term composition and structure of vegetation communities.

3.10.2 Objectives

To maintain and restore the role of fire and other ecological processes, except where limited by safety considerations and the protection of park facilities and neighbouring land.

To control or eliminate non-native species that threaten the integrity of native plant species and communities.

3.10.3 Key Actions

1. Use prescribed fire to restore at least 50% of the long term fire cycle.
2. Give priority to prescribed fires in the foothills parkland and montane ecoregions.
3. Assess scenarios and locations where fires caused by lightning can contribute to the desired fire regimes.
4. Protect facilities, communities and adjacent lands from wildfires through suppression and, where appropriate, fuel management.
5. Monitor and report on the status of plants that are rare, endemic or at the edge of their range.
6. Increase awareness of the importance of natural disturbances (e.g., fire, flooding, grazing, avalanches, etc.) on vegetation communities and associated wildlife.
7. Complete an inventory of non-native species that threaten native plant species and communities. Control or eliminate species as required.
8. Actively manage vegetation (e.g. fescue grassland) and stands of vulnerable species (e.g. whitebark and limber pine) to promote resistance to exotic pathogens or invasive species.
9. Actively promote research into restoration techniques for native fescue grassland.
10. In developed areas, encourage the use of native plants and plant communities to promote safety and reduce the potential for human-wildlife conflicts.
11. Reduce or eliminate the impact of the trade waste pit on the Festuca/Danthonia grassland, an Environmentally Sensitive Site.

3.11 Wildlife

Wildlife such as bears, elk, bighorn sheep and migratory birds range freely across the park boundaries. In fact, for some species like the grizzly bear, trumpeter swan and wolf, most of the productive habitat lies outside the park.

Waterton Lakes has a large variety of rare species. Preliminary research indicates that the park ecosystem contains the following species designated "at risk" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC):

Vulnerable: grizzly bear, wolverine, short-eared owl, northern leopard frog; and

Threatened: Loggerhead shrike, Sprague's pipit, deepwater sculpin, western blue flag iris.

Many animals are on provincial tracking lists for species at risk. Monitoring of selected species is crucial to determine their status and trends, and to focus management efforts in priority areas.

3.11.1 Strategic Goal

Populations of native wildlife are viable within the regional ecosystem.

3.11.2 Objectives

To maintain and, where feasible, restore habitat quality and connectivity for wildlife in the park and on surrounding lands.

To restore long-term patterns of behaviour, distribution and abundance of ungulates.

To reduce human-caused mortality that threatens the viability of wildlife populations in the park and regional ecosystem.

3.11.3 Key Actions

1. Work with adjacent jurisdictions to monitor shared wildlife populations and determine population trends.

2. Collaborate with adjacent jurisdictions, land owners, and the community of Waterton on management programs that:
    - maintain habitat;
    - reduce conflict between people and wildlife (ungulates, carnivores); and
    - reduce human-caused mortality and the displacement of wildlife species and populations.
3. Investigate habitat requirements of species most sensitive to disturbance in the winter. Assess cumulative effects.
4. Use habitat effectiveness goals for each of the park's landscape management units to guide the management of human use.
5. Work with the Waterton Natural History Association, local businesses, or other interested parties on interpretive media about large carnivore conservation. Offer opportunities to see large carnivores at selected front country locations.
6. Ensure opportunities to view wildlife do not displace wintering ungulates.
7. To protect wintering ungulates from disturbance, allow non-motorized access only (bicycles, skiing, hiking) on the Red Rock Parkway between late October and mid-May.
8. Implement seasonal closures of gravel roads on the Blakiston fan if monitoring indicates motorized access displaces elk during the winter and shoulder seasons.
9. Emphasize day use opportunities in the Crypt Lake trail area. Reduce the risk of bears becoming conditioned to human foods and reduce conflicts with people by eliminating overnight use and associated facilities at Wishbone, Crypt Landing and Crypt Lake backcountry campgrounds.
10. Assess the feasibility of reintroducing plains bison during fall and winter to the Blakiston and Waterton valleys.
11. Evaluate methods to restore a wildlife corridor near the community of Waterton and Prince of Wales Hill that will discourage bears and other wildlife from travelling through the community.
12. With the exception of the bunkhouse at the government compound, eliminate staff accommodation outside community boundaries except for park protection purposes (i.e. Park entrance housing). Existing staff accommodation permitted by licenses or concession agreements will be permitted until the existing agreements expire.
13. Study the feasibility of phasing out the bunkhouse; identify alternatives for seasonal staff housing in the park community or existing communities outside the park.
14. Consolidate Parks Canada working office space at the compound in a manner that maintains or reduces the existing footprint of facilities.

3.12 Indicators of Ecological Integrity

To measure the effectiveness of the actions outlined in this chapter, Parks Canada will use certain indicators. Indicators represent components of the ecosystem that are either sensitive to change, or that reflect overall ecosystem health. Indicators must also represent different scales and time frames—from species to landscape and from the short to long term. By comparing the health of an indicator to a target or desired level, researchers can assess progress in achieving the park's goals for ecological integrity.

This approach is directly linked to the *State of the Parks Report,* which identifies three areas for assessing ecological integrity—biodiversity, ecosystem function, and stressors. The indicators chosen will allow Waterton Lakes National Park of Canada to assess its progress in these areas.

Indicators and targets, with the associated research and monitoring, will also help Waterton Lakes National Park of Canada fulfill its obligations to assess the cumulative effects of human use required by the *Canadian Environmental Assessment Act*.

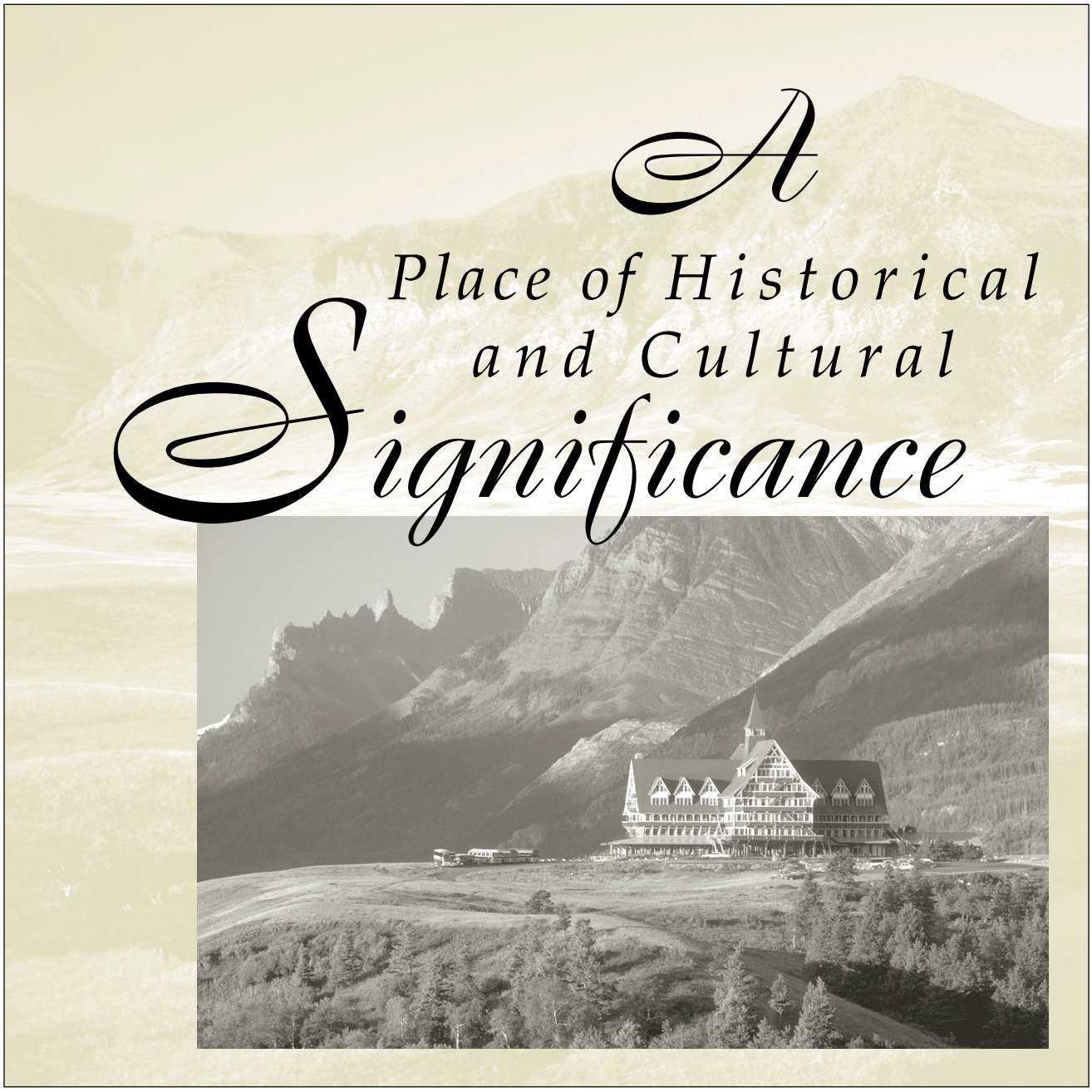
Parks Canada's goal will be to sustain existing levels of integrity and to work towards improvements.

TABLE 1. INDICATORS OF ECOLOGICAL INTEGRITY

INDICATOR	TARGET	COMMENTS
	LANDFORMS AND GEOLOGY	
Degree of naturally occurring connectivity along major streams. Length of flood control berms along park streams.	Continuous riparian vegetation along Waterton & Belly Rivers. 50% of 1994 amount.	
	AQUATIC ECOSYSTEMS	
Extirpated native fish species restored to native waters.	a) 100% reintroduction of extirpated specie stocks. b) reintroduced species become self-sustaining.	
Aquatic plankton community composition.	Restored to natural condition in selected waterbodies.	Exact locations and targets need to be identified.
Amphibian diversity.	Presence of all native species. No sustained decline in priority species.	Continue monitoring program.
Bull trout reproduction.	Minimum of 40 active redds on North Fork Belly River and 15 in Blakiston Creek.	
Percent distribution of non-native fish that compete with native fish.	Reduction in the distribution (range) of non-native fish species.	Exact locations and targets need to be identified. Priority streams include Crooked Creek and Sofa Creek.
Discharge of treated sewage into surface water.	100% elimination.	Sewage effluent to be diverted to golf course irrigation.
	VEGETATION	
Long-term average fire cycle.	50% through prescribed burns and natural fires.	Priority will be aspen parkland and montane ecoregions.
Extent of unrestored areas (e.g., borrow pits, unused garbage dumps).	< 80% of current (1999) disturbed area.	
Condition of five needle pine stands.	Increased reproduction of white-bark and limber pine actively reproducing throughout their range.	
Extent of non-native plant populations.	Significant reduction in the distribution and impact of priority non-native plant species; weed species eradicated or under control in the park.	Target and priority areas to be set once inventory and databases are completed.
Area of grassland.	Reversal in the decline of grassland.	

TABLE 1. INDICATORS OF ECOLOGICAL INTEGRITY

INDICATOR	TARGET	COMMENTS
	WILDLIFE	
Grizzly bear habitat effectiveness.	See Table 2 in section 5.5.	
Grizzly bear habitat security.	See Table 2 in section 5.5.	
Habitat connectivity.	Identification of critical movement corridor areas for large carnivores within three years.	Threshold values, developed through wildlife movement study, will likely include forest cover targets for patch size, connectivity, etc.
Annual grizzly bear mortality.	0% in park < 4% in region.	
Grizzly bear breeding population.	3or more females with cubs less than two years old, per year.	
Wolf population estimate.	One pack ranging into park on a regular basis.	
Songbird diversity.	Presence of all native species. No sustained decline in priority species.	Continue monitoring program.
Elk population demographics.	Establish age/sex ratio targets within three years.	
Raptor breeding success.	Minimum of three prairie falcons, one golden eagle, and three osprey nests fledging young each year.	



4.0 A PLACE OF HISTORICAL AND CULTURAL SIGNIFICANCE

4.1 Overview

By linking past and present, our cultural resources help us appreciate the human experience and understand who we are as Canadians. Waterton Lakes National Park of Canada's rich and distinctive cultural heritage includes two national historic sites, hundreds of known archaeological sites, several heritage buildings and structures, historic objects, and cultural landscapes.

These cultural resources are part of an irreplaceable heritage. They are important in themselves and also for their combined contribution to the significance of a site and a sense of place. There are two classification levels for cultural resources: Level I: which are directly related to reasons of national historic significance and Level II: which are not related to reasons of national historic significance, but have been determined to have heritage value because of local or regional significance based on historical, aesthetic or environmental qualities.

National Historic Sites in Waterton Lakes National Park of Canada

- *First Oil Well in Western Canada*
- *Prince of Wales Hotel*

Parks Canada defines a cultural resource as "a human work, or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has been determined to be of historic value." It applies this definition to a wide range of resources, sites, structures, engineering works, artifacts and associated records. Parks Canada is committed to identify, protect and present the wide range of cultural resources in its care. This commitment is supported by the *National Parks Act* (1988), *Historic Sites and Monuments Act* (1953), *Heritage Railway Stations Protection Act* (1988), *National Archives Act* (1987), *National Parks Regulations*, *Parks Canada's Guiding Principles and Operational Policies* (1994) and the Federal Heritage buildings Review Office *Code of Practices*. *The Parks Canada Cultural Resource Management Policy* (1994) governs the administration of cultural resources in national parks and establishes the following principles by which they will be managed: value, public benefit, understanding, respect and integrity.

Parks Canada is not the only agency responsible for cultural resources in Waterton Lakes National Park of Canada. The residents of Waterton, businesses, organizations and individuals play an important role in maintaining the park's cultural environment. Privately owned heritage buildings present a complex problem, as many of these buildings are very visible and make a significant contribution to Waterton's unique character. *The Waterton Park Community Plan* (2000) and the *Framework for Managing Development* (1996) provide both a vision and principles and a basis for preservation of the park's built heritage.

Despite the completion of some baseline inventories over the last several years, many challenges remain. Better inventories and research will improve cultural resource protection. It will also allow Parks Canada to offer presentation programs that accurately reflect the park's history and that contribute to heritage tourism.

4.2 Strategic Goals

Commemorative integrity of national historic sites is ensured.

Cultural resources are protected and the associated themes presented.

Parks Canada and Aboriginal people collaborate on the protection and presentation of Aboriginal heritage in Waterton Lakes National Park of Canada.

4.3 Objectives

To ensure the commemorative integrity of all national historic sites in Waterton Lakes National Park of Canada.

To highlight Aboriginal cultural heritage in collaboration with First Nations and Metis in ways that respect their traditions and values.

To protect significant built heritage, archaeological resources, historic objects and documentary records in recognition of their value as irreplaceable cultural resources.

To increase the public's appreciation, understanding and respect for cultural heritage through involvement in the management, protection and presentation of cultural resources.

4.4 Key Actions

1. Complete Commemorative Integrity Statements (CIS) for the park's two national historic sites: *Prince of Wales Hotel* and *the First Oil Well*.
2. Use commemorative integrity statements to guide the protection of cultural resources and the communication of messages of national significance as performance indicators in the *State of the Parks* report.
3. Investigate potential agreements with other museums and educational institutions for the protection and presentation of natural and cultural collections.
4. Encourage public awareness of and involvement in the protection and presentation of Waterton Lakes National Park of Canada's cultural resources.
5. Interpret the area's history using the following theme: the connection between people and the land - how the land influenced life, exploration and settlement and, conversely, how human presence altered the landscape people see today.
6. Consult with First Nations to identify, interpret, protect and commemorate the cultural and natural resources associated with their long-standing involvement with the land.
7. In cooperation with adjacent jurisdictions and First Nations, complete an inventory of high elevation archaeological sites and travel corridors through the mountains; include sites in the park and in the region.
8. Update the park's *Archaeological Resource Description and Analysis;* include new research and analyses; provide information in a revised, user friendly format.
9. Complete a *Built Heritage Resource Description and Analysis (BHRDA)* for campgrounds and picnic sites; update existing *BHRDA* for other heritage buildings in the park.
10. Identify and implement measures to use and/or protect the old entrance kiosk building "in situ" or at another location in the park.
11. Prepare *Built Heritage Conservation and Maintenance* manuals for the park's Classified and Recognized Federal Heritage Buildings.
12. Work with residents and the community of Waterton to identify and implement new mechanisms to protect privately owned heritage buildings.

5.0 A PLACE FOR PEOPLE

5.1 Overview

Visitors can explore and enjoy Waterton Lakes National Park of Canada in relative tranquillity, solitude and safety. This tranquillity, however, is fragile. Waterton Lakes National Park of Canada is southwestern Alberta's main tourist attraction. The photograph of the Prince of Wales Hotel perched over Upper Waterton Lake is a classic image in Alberta's tourist literature. The park's link with Glacier National Park in Montana makes it a popular destination for American travellers. Waterton Lakes National Park of Canada is the gateway from the United States to other southern Alberta destinations and, often, to the Rocky Mountain parks to the north.

For some people, the park's value lies in the opportunity to experience, first hand, its exceptional wilderness. For others, recreational opportunities such as horseback riding, climbing, and cross-country skiing are the key attractions. Whatever the reason, the challenge remains the same—to protect the park's ecological integrity while offering visitors the opportunity for a rewarding, enjoyable experience.

A key priority for Parks Canada is providing opportunities for public understanding, appreciation and enjoyment while maintaining ecological integrity. To achieve this, Waterton Lakes National Park of Canada will encourage appropriate activities, carefully plan and manage existing facilities, and provide for renewed emphasis on heritage presentation.

National parks are a cornerstone of Canada's tourism industry. To fulfill this role, and at the same time protect the values on which tourism depends, requires the cooperation of a number of people and organizations. By working with the tourism sector, Waterton Lakes National Park of Canada will improve its ability to offer visitors a high quality experience that better reflects the long term goals of the people of Canada for their national parks and historic sites.

There is no question tourism raises a number of significant issues. How to manage growth, particularly day use? How to make sure that shoulder season use does not disrupt wildlife during the sensitive mating and birthing seasons? How to respond to changing needs and expectations? How to improve aging infrastructure such as roads, campgrounds, and interpretive signs?

To address these issues the park will prepare a heritage tourism strategy that focuses on high quality, authentic learning and travel experiences that are based on the park's key ecological and cultural values. Visitor services and facilities to support these experiences, including overnight accommodation, will be appropriate for their national park setting. Education and awareness programs will engage people's curiosity and help them understand and appreciate the national park, through on-site interpretive programs and a targeted outreach program. A human use strategy will allow people to continue to enjoy the park, while protecting the area's ecological integrity.

5.2 Heritage Tourism

The World Tourism Organization defines heritage tourism as *"an immersion in the natural history, human heritage, arts, philosophy and institutions of a region or country"*. For the purposes of the national parks, this definition has been expanded to include environmental stewardship.

What does this mean for Waterton Lakes? Waterton Lakes National Park of Canada will be a place where people find a range of opportunities to enjoy, understand, appreciate and participate in the preservation of its natural, cultural and scenic features. Powerful and memorable experiences will contribute to Waterton Lake's reputation as one of the world's most unique and environmentally sound tourism destinations.

What does this mean for the tourism sector? A tourism industry that respects the integrity of the natural environment and its importance to long-term economic viability will maintain a competitive advantage in a marketplace that is increasingly demanding quality and authenticity.

5.2.1 Waterton-Glacier International Peace Park's Heritage Tourism Strategy

The *Banff-Bow Valley Heritage Tourism Strategy* has set the future direction for tourism in Canada's Rocky Mountains. A complementary strategy for the Waterton-Glacier International Peace Park will address human use issues by, among other initiatives, promoting appropriate visitor experiences at the right places and the right times.

5.2.2 Waterton Lakes National Park of Canada's Market Position

As global markets change, more travellers are becoming interested in heritage tourism. Waterton Lakes National Park of Canada will focus its marketing efforts on this segment.

The park will promote opportunities for natural and cultural heritage education; wilderness appreciation and enjoyment; exploration and adventure. Our marketing will be in harmony with environmental realities, including seasonal wildlife sensitivities. A variety of messages that are appropriate for the markets and venues will foster appropriate expectations on the part of both the tourism industry and individuals planning to visit the park.

5.2.3 Code of Ethics

Parks Canada will encourage everyone involved in tourism in Waterton Lakes National Park of Canada and area to adopt sustainable tourism practices, such as the code of ethics used by the Travel Industry Association of Canada (TIAC).

Without the appropriate environmental practices to ensure the integrity of the natural environment, heritage tourism cannot survive. The tourism industry and its partners will be encouraged to commit to constant improvement in the management of waste, water and energy. Waterton Lakes National Park of Canada will lead the way with the help of a combined park and community Green Team.

5.2.4 Strategic Goals

A well-informed tourism industry respects the social and ecological values of Waterton Lakes National Park of Canada.

Canadians and their international guests enjoy high quality, authentic learning and travel experiences that are based on national park values and that bolster a sense of Canadian identity.

5.2.5 Objectives

To make all visitors and residents aware they are in a national park.

To promote sustainable tourism by encouraging environmental stewardship.

To encourage opportunities, products and services that are appropriate and consistent with heritage and environmental protection.

To help employees share an understanding of the park's natural and cultural heritage with visitors by improving orientation, training and accreditation programs.

5.2.6 Key Actions

1. Collaborate with businesses, the regional tourism industry and other stakeholders to complete the *Waterton-Glacier International Peace Park Heritage Tourism Strategy* and related products.
2. Develop and market opportunities that enhance understanding and appreciation of the park's natural and cultural values while respecting ecological and social carrying capacities:
    - ensure marketing and awareness programs reflect that Waterton Lakes National Park of Canada is part of a national system available to all Canadians;
    - target marketing efforts;
    - meet the needs of the target markets;
    - promote the Heritage Tourism Strategy, including a *Code of Ethics* for people working in the tourism industry;
    - collaborate with the industry to enhance the development and packaging of local and regional heritage tourism products and services; and
    - work with the tourism industry to create a community of communicators.
3. Strengthen private sector employee orientation, training and accreditation programs related to sharing heritage understanding with visitors.
4. With gateway communities such as Pincher Creek and Cardston, identify heritage tourism opportunities in the region.
5. Identify components of the ecosystem that are particularly sensitive during shoulder and winter seasons. Ensure tourism respects this sensitivity.

5.3 Visitor Services and Facilities

Waterton Lakes National Park of Canada and the Community of Waterton will continue to offer a wide variety of experiences, services and conveniences appropriate to a national park. Parks Canada will make every effort to manage its facilities in a way that provides fair access for a variety of visitors and reduces the potential for conflicting use. Visitors will continue to enjoy sightseeing, cross-country skiing, hiking, horseback riding, watching wildlife, cycling, canoeing, rafting, golfing, fishing, shopping, dining, educational programs and a myriad of other activities and services.

Although most of the park's overnight accommodation is in the community of Waterton, outside the community visitors can stay at the Prince of Wales Hotel or camp at Crandell or Belly River campgrounds. There is also a group campground at Belly River and in the winter Pass Creek Day Use Area is converted to a winter campground. Two youth group camps also operate during the summer.

In a mountainous national park such as Waterton Lakes, public safety is an important concern. Public safety must be a shared responsibility. Visitors must take precautions that reflect the risk involved in their chosen activity. This involves knowledge of natural hazards, proper equipment and provisions, adequate skill and fitness, and the ability to cope with emergencies. Parks Canada will concentrate on information, facility design, and staff trained in public safety.

5.3.1 Strategic Goals

Appropriate facilities and services allow visitors with varying interests to enjoy the park.

Frontcountry outlying accommodation provides an alternate choice for overnight accommodation in a manner that maintains ecological and commemorative integrity.

5.3.2 Objectives

To provide safe, well-maintained, accessible facilities that have a minimal impact on the environment.

To provide services that are responsive and client oriented.

To work with others to provide high quality, appropriate services.

Redevelopment of the Prince of Wales Hotel will be consistent with the park's ecological integrity, visitor management and the commemorative integrity goals of this national historic site.

5.3.3 Key Actions

1. To address changing visitor needs, public safety, educational opportunities, and ecological concerns, allow minor changes to certain campgrounds, picnic sites and pull-offs along parkways.
2. Limit the existing number of picnic day use areas and overall campground capacity to 1999 levels.
3. Manage visitor activities and facilities so they contribute to the specific ecological goals in the sections entitled "Effective Human Use Management" and "A Place for Nature."
4. Ensure equitable access to public services and/or facilities.
5. Allow only one horseback riding concession in the park. The concession will operate in the Blakiston fan area.
6. Along parkways, emphasize opportunities to see wildlife and enjoy the scenery.
7. Retain day use facilities on the Blakiston fan and provide access (motorized and/or non-motorized) to them in ways that respect the dynamic nature of the alluvial fan.
8. Maintain existing cross-country ski trails and associated parking in the Little Prairie-Cameron Lake area.
9. Maintain the current experience opportunities at existing frontcountry campgrounds (Townsite, Crandell and Belly River).
10. Site specific guidelines governing redevelopment of the Prince of Wales Hotel will follow decisions

arising out of the Outlying Commercial Accommodation panel's report and will be considered part of this plan.

11. Increase the emphasis on personal responsibility, particularly for visitors in the backcountry and people engaged in high risk recreational pursuits.
12. Work with the Canyon and Columbus camps to promote safety, environmental stewardship, appropriate activities, and national park values among youth camp participants and leaders.
13. Public safety plans will be updated and used to guide ongoing public safety programs.
14. Provide non-motorized access on Cameron Lake, in part, through a concession agreement.
15. Encourage the golf course to adopt an Integrated Pest Management system and to pursue certification by the Audubon program.

5.4 Awareness and Education

Communication is an essential tool for sustaining Waterton Lakes as a protected area. Interpretation and outreach play a key role in connecting Canadians to our country's heritage and promoting stewardship of park resources. The more Canadians know about the parks, the more they will support and be involved in the management and protection of park resources. As visitors they will become more conscientious. As stakeholders and partners, they will become more involved in long-term protection. Parks Canada is committed to the renewal of heritage presentation in Waterton and the important role it plays in communicating the need for ecological and commemorative integrity and building a supportive constituency of Canadians. Waterton's role in presenting the system of national parks and national historic sites needs to be enhanced in the community.

Parks Canada is responsible for ensuring that all visitors have the opportunity to learn about, understand and appreciate the area's nature and history. In addition, it is important for community residents and regional land management agencies to understand national park conservation issues, especially as they relate to ecological integrity. People who are unable to visit the park will have opportunities to connect to its landscape, history and purpose through outreach programs.

Parks Canada cannot reach all of these audiences through its own programs. The Agency must work with others to reach as many of these audiences as possible. People learn about national parks in many different ways, through many different media. Visiting them is no longer the only way to experience their richness. The advent of new technologies, coupled with traditional means of communicating, has opened new horizons for reaching out to Canadians and international guests of all ages.

Messages of Significance

A system of protected areas: People will understand that Waterton Lakes is a national park in a Canada-wide "family" of national parks and historic sites administered by Parks Canada. They will know and appreciate that Waterton Lakes represents the Rocky Mountains natural region and is part of the Waterton- Glacier International Peace Park World Heritage Site designated by the United Nations.

The commemorative intent of national historic sites: People will understand and appreciate the historic significance of of Waterton Lakes' rich and distinctive cultural heritage, which includes two national historic sites—*First Oil Well in Western Canada* and *the Prince of Wales Hotel* - hundreds of known archaeological sites, heritage buildings and structures, historic objects, and cultural landscapes. Canadians will appreciate that these cultural resources are part of their irreplaceable heritage. They are important in themselves and also for their combined contribution to the significance of Waterton Lakes National Park of Canada.

A sense of place: People will appreciate the special character and representative features of the southern Rocky Mountains, where mountains abruptly meet the prairie. The unique and unusually diverse physical, biological and cultural resources found in the Crown of the Continent ecosystem are protected here, one of the narrowest places in the Rocky Mountain chain. Several different ecological regions meet and interact in a landscape shaped by wind, fire, flooding, abundant plants and wildlife, and human activity. Canadians will appreciate that this landscape and its wilderness characteristics are an enduring legacy that strengthens our identity as Canadians.

Ecological Integrity: People will understand the role of the park as a protected area within a larger regional ecosystem, the threats and challenges to maintaining the ecological integrity of the park, and what is being done to address these. They will understand that the environment they see today has been and will continue to be influenced by human presence. They will understand that Parks Canada is the lead steward in the protection of the park, but success can only be achieved through cooperation and shared stewardship with visitors, communities, and others, both inside and outside the park.

5.4.1 Strategic Goals

Canadians and their international guests appreciate and understand the nature and history of Waterton Lakes National Park of Canada, the role the park plays in Canada's national parks system, and its international significance.

Information is available to help visitors make informed choices.

5.4.2 Objectives

To ensure education and awareness programs build on the idea of shared stewardship and involve third parties.

To foster realistic expectations by providing information that helps visitors understand what a national park can offer and what types of use are appropriate.

To ensure that all information is accurate and includes national messages.

5.4.3 Key Actions

1. Enhance the park's information, interpretive, outreach and educational programs by:
   - improving non-personal media in areas where visitor use is high;
   - providing leadership in creating a "community of communicators"; and
   - pursuing appropriate opportunities for shared funding, partnerships, and sponsorships for the development and delivery of interpretive and outreach programs and products.
2. Increase the emphasis of outreach programs and services relative to in-park visitor programs through implementation of a strategic outreach program targeted initially at youth and urban audiences, and using a variety of key media such as the internet, school curriculum and resources for educators.
3. Use vehicles such as the internet, mass media, park publications, and the tourism industry to ensure visitors have realistic expectations about the experiences the park is able to offer.
4. In cooperation with potential partners, investigate within the next two years, the feasibility of building an interpretive centre in the community of Waterton.
5. Coordinate communication activities with other national and provincial parks and regional visitor information networks.
6. Regularly measure the success of awareness and education activities.
7. When park programs and messages are delivered by others, provide guidance to ensure consistent quality.

5.5 Effective Human Use Management

Human use management is the direction and guidance of people—their numbers, their behaviour, activities, and the infrastructure they require. While human use management may require some restrictions, it should not be seen as limiting peoples' freedom. It should be seen instead, as a means to protect the park for future generations, while allowing as many people as possible to enjoy the experiences and activities it has to offer.

Alternatives for managing access and use range from better signs and education, to more active measures such as quotas, permits, and closures. Our challenge in developing an effective human use strategy is to determine which combination of approaches will address both visitor and ecological needs.

While all the park's major valleys are accessible by road, visitor use is centred around the community, the parkways, and the shores of Upper and Middle Waterton Lakes. Valley bottoms where much of the use occurs are critical areas for many wildlife species, providing food, protection and important travel corridors. Unrestricted human use in these areas and unchecked expansion of facilities to meet ever-increasing demand will result in serious habitat disturbances, increased potential for human-wildlife conflicts, and pressure on park ecosystems.

There are two sides to human use management—supply and demand. Supply is the park's capacity to sustain use

(activity type, location, and timing) given its ecological and social objectives. Once this capacity is defined, the park can then influence demand accordingly. Defining capacity will require Parks Canada to collect and integrate ecological, social, and economic factors (see Landscape Management Units below).

More active management of human use will be required if Parks Canada is to continue to offer visitors the opportunity to enjoy a quality experience and fulfill its mandate to protect ecological integrity.

Landscape Management Units

One of the key challenges for Parks Canada is to integrate ecological and social considerations in the management of human use. To achieve this, the park has been divided into Landscape Management Units (LMUs) that are approximately the size of the home range of an adult female grizzly bear. Each LMU has habitat effectiveness and security targets (Table 2). Parks Canada uses habitat effectiveness for grizzly bears to measure the impact of park management and recreational activities on wilderness and sensitive wildlife. While habitat effectiveness and security targets are useful tools, they have limitations. To manage human use effectively, Parks Canada needs a range of indicators for other ecological components.

In addition to ecological goals, visitor experience objectives for each Landscape Management Unit (LMU) will be developed through consultation.

Backcountry

With increasing development and use of the regional ecosystem, the extent of true wilderness or backcountry is declining. It is crucial to maintain the integrity of the wilderness and the aspects of wilderness that people value.

Recent studies show that human use of backcountry areas has an impact on wildlife, particularly grizzly bears. There are trails in almost every valley bottom. In many valleys, trail use has forced wary wildlife further up mountain slopes and side valleys. This reduces the ability of the mountain national parks and surrounding areas to support a viable population of grizzly bears.

Getting away from facilities and roads, or travelling further into the wilderness are important opportunities that will continue to be available. Parks Canada will use the following parameters to manage wilderness areas:

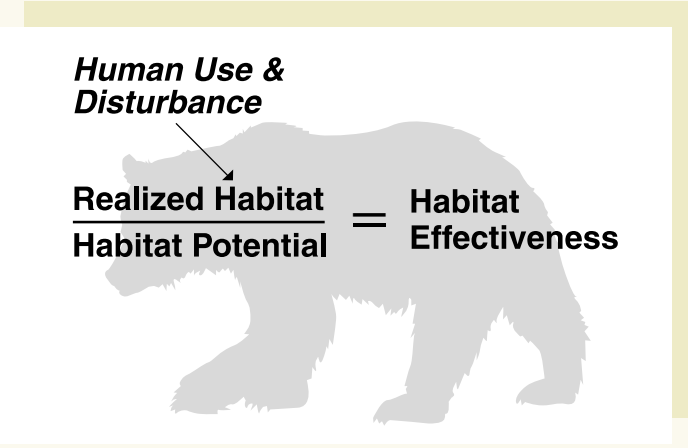
- controlled human use will not damage ecological integrity;
- visitors will experience a sense of freedom, solitude and challenge;
- vast expanses of protected landscapes will support viable populations of wildlife;
- a range of backcountry opportunities will require little or no infrastructure;
- the majority of visitors will be self-reliant and will not depend on mechanized equipment, group tours, or commercial guides;
- small groups will predominate; and
- commercial and non-profit groups will help visitors in some areas learn the skills necessary to enjoy the backcountry.

The following apply to backcountry and wilderness lands or those lands classified as Zone II or Zone III. Zone I areas that are not near highways and developed areas are also included:

- Parks Canada will provide opportunities for high quality, appropriate wilderness experiences. This will emphasize traditional means of travel, self-reliance, appropriate numbers of people, building understanding of the impacts of human use on ecological systems and encouraging appropriate visitor behaviour.
- A wide range of backcountry opportunities will continue to be provided including semi-primitive, primitive and wildland experiences. These categories of backcountry opportunities vary with respect to facilities, infrastructure, degree of management and ease of access. Ecological and human experience goals will determine where each type of experience will be provided. Semi-primitive areas provide the greatest support for visitors. At the opposite end of the spectrum are wildlands where there are no facilities and trails, if they exist at all, receive little maintenance. This Backcountry Opportunity Spectrum (BOS) is based on the recognition that a combination of ecological, physical, sociological and administrative conditions gives value to an area and shapes a visitor's experience.
- Long-standing means of travelling through wilderness such as hiking, cross-country skiing, snow-shoeing and horseback riding will receive preference.
- Mountain bikes are appropriate under specific conditions. Concern about their use to gain faster access to the wilderness means this activity must be assessed using the landscape management unit's goals.

PROFILE: GRIZZLY BEAR HABITAT EFFECTIVENESS & SECURITY AREAS
TWO TOOLS FOR PARK MANAGEMENT

Habitat effectiveness models are one of the many tools Parks Canada relies on to examine the impact of human use on sensitive wildlife species. Using computers, biologists overlay roads, trails, campgrounds, towns, and facilities on a map of vegetation and other landscape features. The resulting model helps determine an area's ability to support species such as the grizzly bear. Habitat effectiveness is a comparison between the *potential* of an area to support grizzly bears and the value of the area as bear habitat, after accounting for human disturbance (e.g., roads or buildings that remove or compromise habitat; high numbers of people causing bears to avoid an area).



To measure grizzly bear habitat effectiveness in Waterton Lakes, the park has been divided into four landscape management units (LMU). Each LMU (except one) is approximately the same size as the home range of a female grizzly bear. Each LMU is classified according to its ability to serve as useful habitat (see Table 2).

The habitat effectiveness model predicts that the grizzly bear will no longer use an area as part of its permanent home range if habitat effectiveness is reduced by more than 20%. Waterton Lakes' goal is to manage human activities in a way that ensures grizzly bear habitat effectiveness is at least 90% in two LMUs. Targets for the remaining LMUs are 70% and 80%. None of the units currently meet their target.

While habitat effectiveness is a useful tool in determining acceptable levels of human caused impact, it has limitations. In order to manage human use effectively, Parks Canada needs a range of indicators for the grizzly bear and other ecological components.

A second tool used to manage landscapes for grizzly bears is core security area analysis. This tool recognizes that the most important factor in grizzly bear survival is minimizing contact with people. Core security areas are areas that give bears refuge from people for short periods of time (24-48 hours). These areas allow bears to feed while remaining wary of human presence. These areas are delineated based on size, habitat quality, elevation and level of human activity. In order to ensure the long term persistence of grizzly bears, researchers recommend that a minimum of approximately 70% of the suitable habitat in a Landscape Management Unit should be secure. Table 2 shows the current security area values for each of the Landscape Management Units in Waterton Lakes National Park of Canada.

Three Landscape Management Units are currently below the target of 68% core security area.

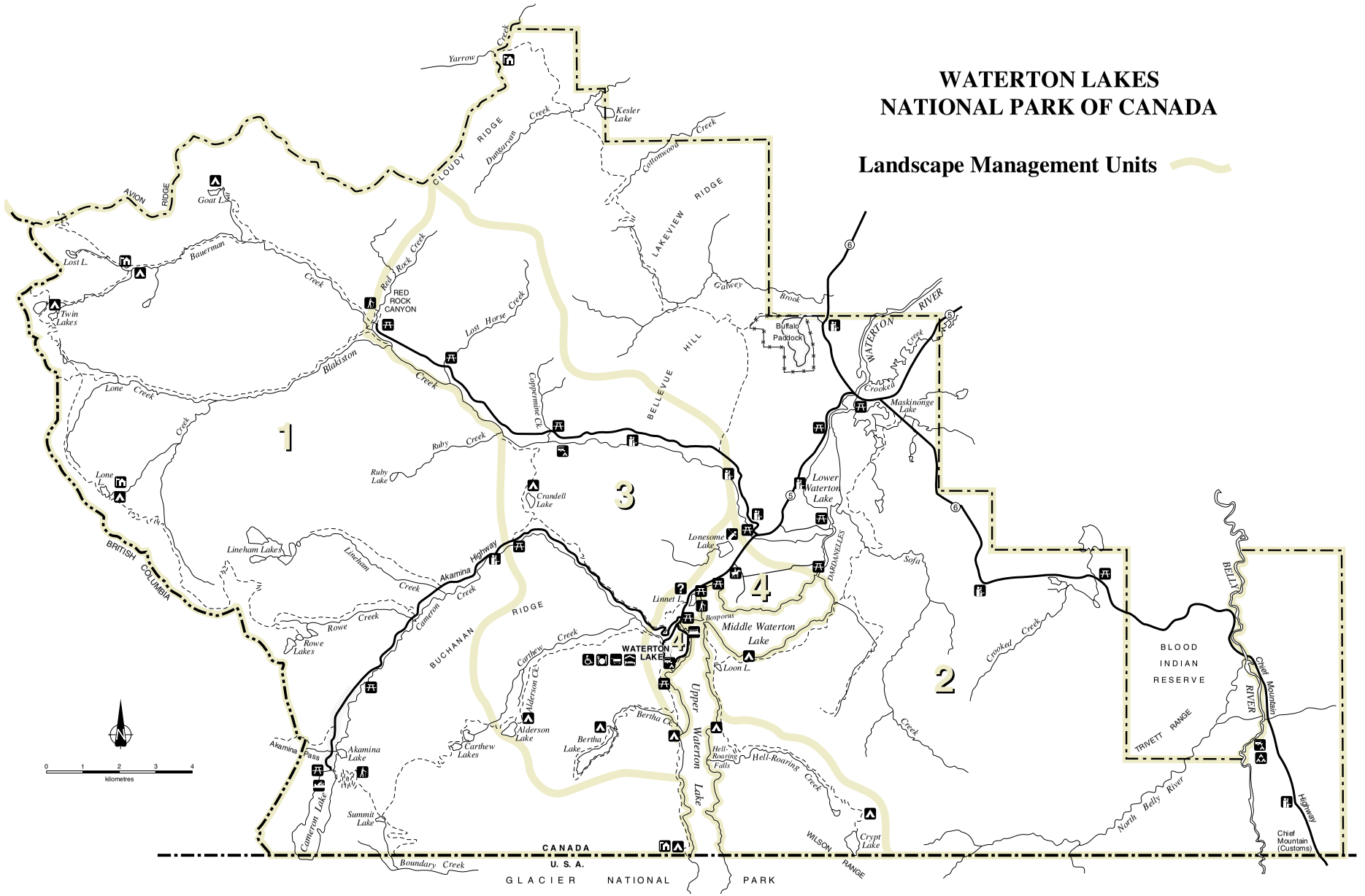

WATERTON LAKES
NATIONAL PARK OF CANADA
Landscape Management Units
1
2
3
4
Yarrow Creek
Kesler Lake
CLOUDY RIDGE
Dungarvan Creek
Cottonwood Creek
LAKEVIEW RIDGE
AVION RIDGE
Goat Lk.
Lost L.
Bauerman Creek
Twin Lakes
Red Rock Creek
RED ROCK CANYON
Lost Horse Creek
Blakiston Creek
Lone Creek
Lone L.
Ruby Creek
Ruby Lake
Coppermine Ck.
BELLEVUE HILL
Galwey Brook
Buffalo Paddock
WATERTON RIVER
Crooked Creek
Maskinonge Lake
Lower Waterton Lake
Crandell Lake
Lineham Lakes
Lineham Creek
Akamina Highway
BRITISH COLUMBIA
Rowe Creek
Rowe Lakes
Cameron Creek
BUCHANAN RIDGE
Lonesome Lake
DARDANELLES
Sofa
Linnet L.
Bosporus
Middle Waterton Lake
WATERTON LAKE
Loon L.
Carthew Creek
Alderson Ck.
Alderson Lake
Carthew Lakes
Bertha Ck.
Bertha Lake
Upper Waterton Lake
Hell-Roaring Falls
Hell-Roaring Creek
Crypt Lake
WILSON RANGE
Akamina Pass
Akamina Lake
Cameron Lake
Summit Lake
Boundary Creek
CANADA
U. S. A.
GLACIER NATIONAL PARK
BLOOD INDIAN RESERVE
TRIVETT RANGE
BELLY RIVER
Chief Mountain
Chief Mountain (Customs)
North Belly River
Highway
0 1 2 3 4
kilometres

TABLE 2. LANDSCAPE MANAGEMENT UNIT HABITAT EFFECTIVENESS (HE) AND SECURITY (SA) TARGETS for Waterton Lakes National Park of Canada*

LANDSCAPE MANAGEMENT UNIT	PRISTINE HABITAT QUALITY	CURRENT HE (SUMMER %)	TARGET HE (SUMMER %)	CURRENT SA	TARGET CURRENT SA
Continental Divide	High	est. 80	90	est. 65	80
Border Ranges	Very High	est. 85	90	est. 75	80
Waterton Lakes West	High	est. 40	70	est. 20	60
Crandell/Crypt	High	est. 70	80	est. 55	70

*Waterton Lakes National Park of Canada has not modeled current grizzly bear habitat effectiveness or security areas for the four Landscape Management Units. Current values may deviate from estimated values.

5.5.1 Strategic Goal

Visitors experience the park without impairing its ecological and commemorative integrity.

5.5.2 Objectives

To integrate ecological and visitor experience goals.

To provide opportunities for high quality, appropriate wilderness experiences.

To coordinate human use management strategies with other neighbouring jurisdictions.

5.5.3 Key Actions

1. Apply the following principles of human use management in Waterton Lakes National Park of Canada.
   - The park will use habitat effectiveness and security area targets, based on landscape management units, as two of their human use management tools. The overall objective will be to maintain secure habitat for large carnivores while providing a range of opportunities for visitors. Proposals for human use management will consider the number of disturbances rather than specific numbers of people.
   - Wildlife travel corridors will remain effective.
   - Principles of precaution and adaptive management will apply when the effects on the ecosystem are uncertain.
   - Proposals to manage human use will be based upon the best available information.
   - The analysis of information and drafting of recommendations will be done at the most appropriate scale (local, landscape, regional).
   - The park will use a variety of techniques for managing human use. These include quotas, relocating trails, moving visitors in groups, removing trail signs and trail head facilities, relocating backcountry campgrounds, and reservation systems.
   - Opportunities for understanding and appreciation of heritage resources will be considered in decision making.
   - Use will be restricted or re-allocated if its impact is unacceptable.
   - Education will be the preferred method of solving conflicts between different types of users and gaining support for human use management.
2. Develop visitor experience and heritage appreciation goals for each landscape management unit.
3. Phase in the implementation of a human use strategy over several years:
   - work with stakeholders, visitors, interested individuals, and adjacent jurisdictions to identify priorities for implementation;
   - develop a data base and technical systems to support the human use management strategy; and
   - consult with the public concerning quotas, the distribution of quotas between users (e.g., horseback riders, hikers, bicyclists, private individuals, commercial operators, organizations, etc.), and the specific tools or techniques for managing use.
4. Use temporary closures or restrictions on activities when necessary for public safety (e.g., avalanches, aggressive wildlife) or to protect sensitive natural or cultural resources.
   - Inform the public about the reason for these actions as quickly as possible
   - Close facilities or areas permanently only after consultation with the public and as part of the management plan review process

5. Permit motor boats on Upper and Middle Waterton Lakes, primarily in support of scenic viewing, angling and access to backcountry trails.
6. Maintain the prohibition on the use of personal watercraft.
7. Monitor day-use to determine if overcrowding affects the visitor experience; identify pressure points and develop strategies to reduce or eliminate them.
8. Review mountain bike use relative to landscape management unit goals.
9. Prohibit aerial sports such as hang-gliding and para-sailing.
10. Prohibit the recreational use of snowmobiles.
11. Permit motor vehicles only on designated roads.
12. Review and designate water bodies and/or locations in the park where scuba diving is permitted.
13. Continue the practice of not licensing commercial fishing guides.
14. On an individual basis, assess the impact of popular recreational activities, such as sport climbing, on the experiences of other visitors; determine ways to reduce their impact.

Backcountry

15. Revise the Backcountry Opportunity Spectrum (BOS) to:
    - address future trends in backcountry use;
    - better define levels of service; and
    - contribute to ecological integrity.
16. Limit commercial horse use in the backcountry to levels permitted in 1999; allow some reallocation where necessary to achieve LMU objectives.
17. Prohibit new mechanized means of access to the backcountry.
18. Review the need for overnight camping facilities for horseback riders. In the interim, provide overnight camping and associated facilities only at Snowshoe and Lone Lake campgrounds.
19. Encourage day-use of the backcountry; review the location and number of backcountry campgrounds.
20. Adopt the National Outdoor Leadership "leave no trace" program as the standard for environmental stewardship by wilderness users.
21. Maintain the current size of the backcountry trail system; allow some trail re-routing and closures for specific reasons such as ecological integrity, visitor experience, duplication of access, or lack of use.
22. Coordinate visitor use strategies with neighbouring jurisdictions.
23. Evaluate proposed new wilderness activities using Parks Canada's criteria for appropriate use (see section 8.0 *Open Management*).

Transportation And Utilities

6.0 TRANSPORTATION AND UTILITIES

6.1 Overview

In a national park, transportation is more than just moving people between destinations. A key part of managing human use, it provides travelers with the opportunity to sight-see and explore the mountain environment. In fact, almost all park visitors see and experience the park from roads or roadside facilities. This is particularly true in Waterton Lakes National Park of Canada where the Red Rock and Cameron Parkways, Chief Mountain Highway and the park entrance road offer visitors unique experiences and access to Waterton's unforgettable mountain and prairie landscapes.

Waterton's scenic parkways were not designed to accommodate large vehicles and increasing volumes of traffic. In recent years, more commercial buses and larger motor homes have contributed to congestion along the parkways and at popular pull-offs and visitor facilities. Congestion is particularly evident on the Red Rock Parkway and at the Cameron Lake parking lot. This has resulted in complaints from visitors and damage to vegetation.

Scenic flights by private and commercial operators are affecting the wilderness quality of other Rocky Mountain parks in Canada and the United States. Parks Canada will work with Transport Canada and pilots to ensure this does not become an issue in Waterton Lakes.

6.2 Strategic Goals

Park roads and scenic parkways support will be managed in a way that supports Parks Canada's commitment to ecological integrity and enables visitors to experience the park.

The impact of aircraft on ecological integrity and visitor experience is kept to a minimum.

Utilities have minimal impact on the park's ecological integrity.

6.3 Objectives

To reduce the environmental impact of roads.

To maintain a secondary road network that allows visitors to see and experience the park.

6.4 Key Actions

1. Restrict the length of vehicles on the Red Rock and Cameron Lake Parkways. These parkways will not be upgraded to accommodate larger vehicles.
2. In cooperation with tour bus operators and the tourism sector, set length restrictions and principles for managing commercial bus traffic; incorporate the management approach into the Heritage Tourism Strategy.
3. Modify or build pull-offs where required for public safety or visitor management purposes.
4. Improve interpretive signs and other media/facilities along park roads to present key park messages.
5. Maintain the Akamina Parkway year round to provide access to cross-country ski trails.
6. Continue to monitor winter use of the Little Prairie parking lot; address congestion issues.
7. Allow vehicles to use the Chief Mountain and Red Rock parkways on a seasonal basis.
8. Initiate a regional transportation study to address visitor access and movement throughout southern Alberta.
9. With Transport Canada, local operators, and private pilots, pursue voluntary guidelines for scenic overflights.
10. Investigate opportunities to bury utility lines.

A Place For Community

7.0 A PLACE FOR COMMUNITY

7.1 Overview

The community of Waterton is nestled at the base of the mountains, along the north shoreline of Upper Waterton Lake. Because it is located in a national park, management of the community takes on a multi-faceted responsibility not commonly found elsewhere.

The community is centrally located within the park and, inevitably, human activity within the community ripples through to the surrounding park. Consequently, if not managed carefully, changes in community development could lead to negative environmental impacts in the surrounding park. Given its setting and heritage resources, the Waterton community presents an excellent opportunity to become a model environmental community, demonstrating leadership in environmental citizenship and stewardship.

The community of Waterton functions primarily as a summer community. Approximately 80 permanent residents live in the community year round. During summer months, there are approximately 300 cottagers and residents in the community.

Over the years growth in the community of Waterton has been slow, with limited cottage and commercial development. However, interest is growing in the community with regard to economic, social and tourism opportunities. This has created pressures for additional commercial development.

Issues that must be considered in managing the community include:

- the impact of the community on the park's ecological integrity;
- protection of built heritage resources;
- managing commercial growth; and
- the desire to maintain the community's leisurely paced, small-scale village character.

The community plan sets out a comprehensive program of land-use policies and other planning and design proposals that will help to determine and guide the future of the community.

It defines specific design parameters and limits to growth to ensure the community and the park remain healthy—environmentally, socially and economically. The plan also recognizes the importance of built heritage resources and identifies measures to protect the heritage character of the community. Applying the principles defined in the plan will help to ensure that the community continues as a living example of national park values.

7.2 Role Statement

The character of the community of Waterton will be that of a leisurely paced, small scale village. The community will consist of low-density, small-scale commercial facilities and cottages which are in keeping with the historic character of the community. Redevelopment will respect existing and historic patterns and details of construction; land-use; protect views of the lake shore, the marina and The Prince of Wales Hotel; conserve the natural landscape; and, maintain existing ground and tree cover. Narrow shop fronts and an abundance of window displays and doorways will give an impression of intimacy. Additional and accessory buildings will match the detailing, scale, colour, finishes and forms of existing buildings where the building has historical and architectural merit.

A variety of public and private sector alliances will be developed to assist Parks Canada in meeting its objectives including: resource protection; enhancing the park experience; managing visitor impacts; sharing responsibility for guiding the future development and operation of the community; and, ensuring that the community of Waterton consistently fulfills its primary function as a visitor centre.

The community will be a seasonal one—festive and active in the summer months, quiet and more relaxed with fewer people in late spring and early fall and, nestled down in the winter months undergoing rest and renewal.

7.3 Key Action

1. Specific guidelines governing development, operation and management of the community will follow decisions arising from the approved community plan and will be considered part of this plan.

8.0 A PLACE FOR OPEN MANAGEMENT

8.1 Introduction

Waterton Lakes National Park of Canada belongs to the people of Canada. All citizens should feel confident they have an opportunity to participate in key decisions concerning their park. Areas that appear to be of the greatest concern for the public are ecological integrity and cumulative effects, access to park areas, limits to growth, appropriate use, and effective public involvement. This section highlights key strategic changes to ensure decisions are made in a consistent, fair, open, and responsive environment.

The following values and principles will guide governance and decision-making in Waterton Lakes National Park of Canada.

Values

- restraint and self-discipline today, for the sake of future generations
- open, participatory decision making
- equal opportunity for a sense of wilderness and a range of quality park experiences
- predictable, consistent and fair regulation
- competent, accountable management
- respect for others

Principles

All actions, initiatives and programs undertaken to realize the Vision are implemented in full accordance with the spirit and requirements of the *National Parks Act*, *Parks Canada's Guiding Principles and Operational Policies*, *the Waterton Community Plan* and the *Waterton Lakes National Park of Canada Management Plan.*

Standards are defined, enforced, and reviewed so as to ensure the maintenance of ecological and commemorative integrity.

Regulation and decision-making are responsive, open, participatory, consistent and equitable.

There is individual and shared responsibility to provide for protection and preservation of heritage resources.

Proactive, adaptive, and precautionary management take into account cumulative effects and limits to growth in recognition of the finite nature of the park.

Stewardship, based on sound science, is practiced through environmentally sensitive management, mitigation and restoration.

Integrity and common sense underlie all decision-making.

Planning and decision-making are coordinated on a regional basis.

Partnerships are encouraged subject to appropriate checks and balances.

There is a shared responsibility to achieve ecological, social, cultural and economic sustainability.

Public participation in decision-making will be guided by the following fundamental practices:

- access to clear, timely, relevant, objective and accurate information;
- adequate notice and time for public review;
- careful consideration of public input;
- feedback on the nature of comments received and on Parks Canada's response to participants; and
- respect for all interested parties and individual viewpoints.

8.2 Public Involvement

Parks Canada is committed to ongoing public involvement. The type of involvement will vary depending on the nature of the decision. Various groups and individuals will be asked for input on implementing this management plan's recommendations. Participation may consist of advisory groups, open houses, working groups, meetings with neighbouring jurisdictions, or commenting via the Internet. Parks Canada will also host an annual public forum to review and discuss the implementation of the management plan. The public will play an important role in designing the kind of forum that best meets their needs.

This plan sets out several public processes. These include the Development Review Process, and a process to review proposed changes in use or level of use, known as the Appropriate Use Framework. Waterton Lakes National Park of Canada is also committed to providing more opportunities for the public to participate in the research program.

8.2.1 Strategic Goal

Key policy, land-use and planning decisions are timely, fair and consistent, and are arrived at in an open and participatory manner.

8.2.2 Key Actions

1. Set up an annual public forum to discuss progress in implementing the management plan.
2. Report regularly to the public on the implementation of the management plan and how it relates to the *Parks Canada: State of the Parks Report*.
3. Set up appropriate processes to consult with the public on future issues.
4. Ensure stakeholders are involved as early as possible.

8.3 Development Review Process

Buildings, roads, bridges, and other facilities are all essential to the enjoyment, operation, and management of a national park. The size, design, and use of these facilities must meet the needs of visitors and at the same time respect the park environment. They must also take into account the legislative and liability questions associated with development in a national park.

Main Components of the Development Review Process

1. The process has two stages—the development permit review and the building permit review.
2. An Advisory Development Board (ADB) facilitates public involvement. The board reviews all applications publicly to ensure they are appropriate and meet the requirements of the *National Parks Act*, regulations and planning. The ADB submits its recommendations to the park superintendent.
3. A District Review Board assesses procedural questions arising from ADB recommendations and decisions by the superintendent.
4. Sunset clauses limit the period during which an approval is valid.
5. High standards for environmental assessment incorporate the requirements of the *Canadian Environmental Assessment Act* (CEAA).

8.3.1 Strategic Goal

The Development Review Process ensures the consistent application of guidelines and public input to all development, including major renovations, in Waterton Lakes National Park of Canada.

8.3.2 Objectives

To ensure development reflects the mandate as described in the *National Parks Act*, Parks Canada's policy, and the *Waterton Park Community Plan*.

To adhere to high standards for environmental assessment.

To improve consistency.

To involve the public.

8.3.3 Key Actions

1. Implement the Development Review Process.
2. Apply appropriate development and business licensing criteria to commercial activities that may not require development but that could have an impact on the park.

8.4 Appropriate Use

Parks Canada is responsible for making decisions about what type of use is appropriate in a national park. In cases where the *National Parks Act* , *Parks Canada Guiding Principles and Operational Policies*, the *Park Management Plan* or the *Waterton Park Community Plan* are not clear on appropriate use, Parks Canada must rely on other, clearly defined criteria in coming to a decision. Adjustments may be necessary at times and the review process must be flexible enough to accommodate changing public values and perspectives.

8.4.1 Strategic Goal

Use is evaluated using clear criteria that respect the mandate as described in the National Parks Act and Parks Canada's policy framework.

8.4.2 Objectives

To apply appropriate use criteria in assessing new activities and uses, and changes in levels of use associated with existing activities.

To encourage public involvement in the assessment of appropriate use.

8.4.3 Key Actions

1. Adopt the criteria from the *Banff National Park Management Plan* (Table 3) to evaluate a new use or a change in existing use.
2. Set up a process to examine, annually, proposed new activities and use, and changes in levels of use.
    - invite the public to review proposed changes
    - assess proposals against the criteria for appropriate use

TABLE 3. APPROPRIATE USE CRITERIA

The following criteria will be used to evaluate the merits of a new use, a change in an existing use, or a significant change in the level or intensity of use. The criteria are all relevant but are not meant to be exhaustive or absolute. They are intended to guide the evaluation process. In applying the criteria, the primary consideration is how the proposed change contributes to or detracts from the spirit and intent of the management plan, the *National Parks Act*, and Parks Canada's policy. The criteria are taken from the Banff-Bow Valley Study Round Table's *Summary Report*.

Impact on Environment

- seeks to assess the extent to which the proposed change impacts the ecological integrity of the region. The assessment will include the effect of participation in the activity as well as the facilities and services required to support the activity.

Effects on Culture and Heritage

- seeks to assess the qualitative dimension and preservation of a use that contributes to the region's heritage and cultural integrity. The assessment will reflect an understanding, appreciation of, and respect for the region's culture and heritage, and evolving cultural identity including Aboriginal people.

Quality of Experience

- investigates the extent to which the participant's and other's quality of experience is enhanced or diminished as a result of the proposed change. Its application recognizes that different visitors seek a broad range of different experiences, and that they value different resources, facilities and services in different ways.

Economic Effects

- attempts to understand the economic effects of the proposed change. Issues that would be considered include: cost for visitors to the park, cost and revenues to Parks Canada, and effect on local, regional and national economies and market conditions.

Public Safety

- used to determine the extent to which the proposed change imposes risks or dangers to participants or others.

Equity and Access

- seeks to ensure that all citizens have a fair, reasonable, and equitable opportunity to participate in, and benefit from, the range of appropriate activities and experiences available in Waterton Lakes National Park of Canada. It will consider such factors as economic status, physical capabilities, and place of residence of the visitor.

Social Effects/Quality of Life

- examines the social implications of the proposed change. Questions applied here would speak to: level of change to the region's existing social patterns and needs, effects on the social service structure, effects on social indicators (e.g., income distribution, housing costs, levels of crime, etc).

Education and Awareness

- focuses on the extent to which the proposed change contributes to better understanding and appreciation of natural and cultural heritage, Waterton Lakes National Park of Canada, its role within the Canadian National Park System and in the larger ecosystem.

Level of Use: Frequency, Timing, and Quantity

- would involve questions such as: How often does a proposed activity occur? When does it occur (e.g., season)? How many individuals are involved? What is the level of support required?

Physical Setting Related

- has two components. The first focuses on whether the proposed change is well-suited to the physical setting of Waterton Lakes National Park of Canada. The second considers to what extent the proposed change is dependent upon a national park setting.

Heritage Tourism

- focuses on the extent to which the proposed change contributes to the park's Heritage Tourism goals.

Environmental Stewardship

- focuses on the extent to which the proposed change contributes to the park's Environmental Stewardship goals.

8.5 Regional Coordination

Parks Canada believes that, for the ecosystem to be sustainable, everyone concerned must be involved in finding solutions to issues and working towards common goals. Research, restoration, education, tourism and stewardship initiatives will all be more successful if we understand the role of the park within the larger region. This coordination will operate at many levels. Some initiatives will be local, while others will involve the entire ecosystem.

Waterton Lakes National Park of Canada works with adjacent jurisdictions on questions of common concern. These cooperative activities usually involve operational staff as well as managers. The Southwestern Alberta Grizzly Management Strategy, initiated by Alberta Environment, is an example of collaborative effort to conserve and protect vulnerable species. Private landowners in the Waterton Biosphere Reserve, Alberta Environment biological and enforcement staff, Parks Canada and others work together to prevent conflicts between grizzly bears and livestock that could result in loss of bears. Waterton resource staff have worked for several years cooperatively with the Blood Tribe, Alberta Conservation Association, Glacier National Park and U.S. Fish and Wildlife Service to study and conserve an international bull trout population in the Belly River system. This strong emphasis on regional coordination bore fruit during the 1998 Sofa Mountain fire when Alberta Lands and Forests, Blood Tribe, RCMP, Municipal District of Cardston, Parks Canada and others jointly established an Incident Command Team within hours of the fire's outbreak. Other collaborative arrangements exist to integrate non-native plant control, ecotourism and backcountry recreation management.

8.5.1 Strategic Goal

Ecological, social and economic systems in the park and greater ecosystems benefit from integrated management.

8.5.2 Objectives

To work with gateway communities to share expertise in heritage presentation and tourism and to increase understanding of park goals.

To work with others in coordinating regional development and use (e.g., tourism strategies, locations and types of developments, and cumulative effects).

To contribute to an integrated network of protected areas.

To encourage cooperative backcountry management with adjacent lands.

8.5.3 Key Actions

1. Continue to participate actively on key coordinating committees established by other agencies in the ecosystem.
   - emphasize participation in the Biosphere Reserve
   - pursue common goals
   - in addition to short-term concerns, consider long-term strategic issues such as ecological integrity and tourism
   - support groups that can help with an integrated approach to issues of mutual concern
2. Support initiatives in the Crown of the Continent ecosystem that enhance overall ecological integrity.
3. Participate in environmental assessments or provincial/regional environmental reviews of projects outside the park that are likely to have an adverse effect on the park's environment.
4. Work with adjacent jurisdictions in managing access to the park's backcountry.
5. Continue to encourage environmental management and stewardship programs in the region.

8.6 Research and Information Management

Many of the actions identified in this plan require the collection and analysis of information. Decision-makers, whether they be park managers, tourism operators, local residents or park visitors, need access to this information and, if information is not available, the ability to gather it efficiently. By helping us understand the relationship between "natural" and human processes, interdisciplinary research makes an important contribution to the park's ecological integrity objectives.

In an era of powerful new data management technologies, one of the biggest challenges for decision-makers is organizing and analyzing the diverse kinds of information available to them. Because ecosystem-based management strives to integrate our understanding of whole ecosystems, scientists and information managers must make difficult choices about what to study and document. Studies must focus on significant issues and assess the area's environmental, economic and social well-being over time. A common approach is to select a component of the ecosystem, called an indicator, and track its health or changes in its status. Careful choice ensures a full range of indicators (e.g., water quality, carnivore populations, vegetation structure or rare and endangered species) reflect the overall ecosystem in a meaningful way.

8.6.1 Strategic Goal

Research and information, shared among agencies and individuals in the Crown of the Continent Ecosystem, support sound decisions.

8.6.2 Objectives

To increase the public's understanding of the information on which decisions are based.

To implement an integrated research and monitoring program.

To collect and better integrate Aboriginal traditional knowledge, local knowledge and scientific information into decision-making.

To support research in the park.

8.6.3 Key Actions

1. Continue to actively support the Mistakis Institute of the Rockies, a non-profit, multi-stakeholder organization that is developing the *Crown of the Continent Ecosystem Data Atlas*.
2. Implement an integrated monitoring program to track trends in ecological and socio-economic indicators.
3. With others, compile biennial State of the Ecosystem reports; post reports on the park's website and include information in *Parks Canada: State of the Parks Report*.
4. Focus research on understanding the park's ecological history and the natural processes that sustain the park's ecological diversity.
5. Maintain a comprehensive database on park resources, visitor use patterns, facilities, and infrastructure.
6. In cooperation other institutions, agencies, and the community of Waterton, investigate the feasibility of establishing a research facility within the community.
7. Share information with other agencies and institutions.
8. Through the annual forum, outlined in 8.2.2, and other consultative means, seek to collect and integrate local and aboriginal traditional knowledge into the development of park management and research strategies and decison making processes.

A Place for Environmental Stewardship

9.0 A PLACE FOR ENVIRONMENTAL STEWARDSHIP

9.1 Overview

Environmental stewardship reduces the impact of our daily activities on the environment. It is concerned with a range of issues from water quality and energy consumption, to chemical use and contaminated sites. It also includes a wide variety of activities from recycling and reducing resource consumption to restoring disturbed landscapes.

While Parks Canada is responsible for providing leadership in environmental stewardship, effective action requires broadly based support from local residents, businesses and park visitors. For example, the Waterton Green Team has and will continue to play a significant leadership role in reducing the waste stream, promoting recycling and other related initiatives.

The Government of Canada is committed to the concept of environmental stewardship. This ensures that every government department or agency meets or exceeds environmental laws and regulations, follows the best environmental practices available, and develops and implements a sound environmental management system. Many of the Government's commitments to the Greening of Government Operations have been formalized through amendments to the *Auditor General's Act* and the appointment of the Commissioner of the Environment and Sustainable Development. As a result, Parks Canada must now report to parliament on its progress in fulfilling its environment responsibilities.

An environmental management system (EMS) helps organizations and businesses apply environmental stewardship considerations to every business decision. It ensures that the greatest environmental risks receive the highest priority.

Leadership targets for effluent from water treatment plants are provided as goals which Parks Canada will work towards, using the best available technology economically achieveable. An approach to continuous improvement, as opportunites rise, will be pursued.

Current federal and provincial guidelines and standards permit some impairment of aquatic environments due to limitations of technology and cost. Leadership targets are set out for the cold and nutrient poor waters in the mountain national parks, in recognition of Parks Canada's mandate to maintain ecological integrity of aquatic environments. To achieve this, higher quality effluent from treatment plants is neccessary. These leadership largest emphasize control of nutrients including nitrogen and phosphorus which are recognized as key factors changing aquatic environments.

9.2 Strategic Goals

Parks Canada demonstrates sound environmental practices in all its activities, services and products.

Environmental stewardship is fundamental to the operation of all businesses and institutions.

Visitors and residents contribute to the principles of environmental stewardship and sustainability.

In the long term, effluent matches, as closely as possible, the natural composition of receiving water bodies.

Sewage from facilities that are not connected to a treatment plant will have minimal environmental impact.

9.3 Objectives

To improve environmental performance by developing and implementing an environmental management system.

To make environmental stewardship an integral part of all new leases, lease renewals and business licenses application.

To encourage local residents, businesses, and park visitors to share responsibility for environmental stewardship.

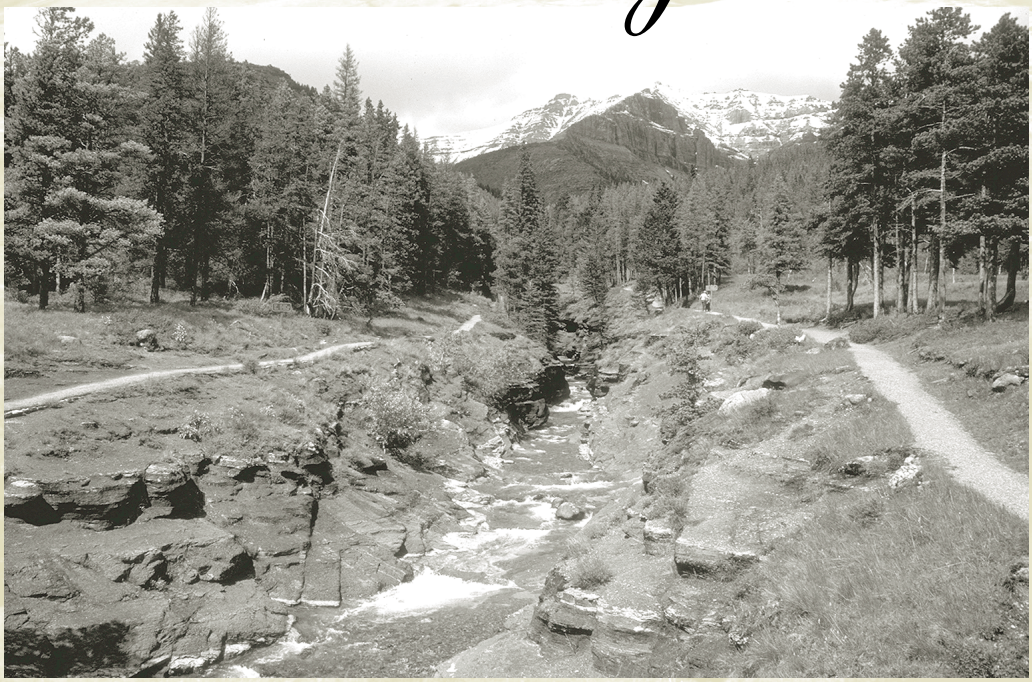
9.4 Key Actions

1. Eliminate any remaining polychlorinated biphenyls (PCBs) in the park.
2. Eliminate the release of ozone depleting substances in park operations.
3. Prevent contamination from petroleum storage tanks and comply with *Canadian Environmental Protection Act* regulations.
4. Employ an integrated pest management system.
5. Apply safe and environmentally responsible management practices to the acquisition, reporting, monitoring, handling, storage, safe use, transportation and disposal of hazardous waste.

6. Implement the contaminated site strategy, focusing on the clean up of priority sites.
7. Reduce air emissions by identifying sources of pollution; minimize activities and products that cause harmful air emissions; establish an air quality monitoring program.
8. Reduce gasoline consumption; promote the use of alternative fuels; select new vehicles based on their ability to use alternative fuels.
9. Develop energy management plans for all buildings; incorporate energy efficiency and cost effective technology when building or upgrading facilities.
10. Meet the goal, set by the Canadian Council of Ministers of the Environment, of reducing solid waste by 50% of the 1988 levels (e.g., through purchasing, reuse, recycling, and composting).
11. Ensure the use of surface and ground water does not impair aquatic and riparian systems.
12. Implement a water conservation program for all park and commercial facilities.
13. Purchase products and services that meet environmental specifications; replace as many products and services as possible with others that are more environmentally friendly.
14. Adopt the following targets for in-stream release of sewage effluent.

Phosphorus		<0.005 mg/L
Faecal Coliform		<20/100 ml (end of pipe)
		<2/100 ml (end of mixing zone)
pH		7.5 - 8.5
BOD_5	summer	<10 mg/L
	winter	<20 mg/L
total suspended solids		<10 mg/L
NH_3N	summer	<1 mg/L
	winter	<5 mg/L

Park Zoning



10.0 Park Zoning

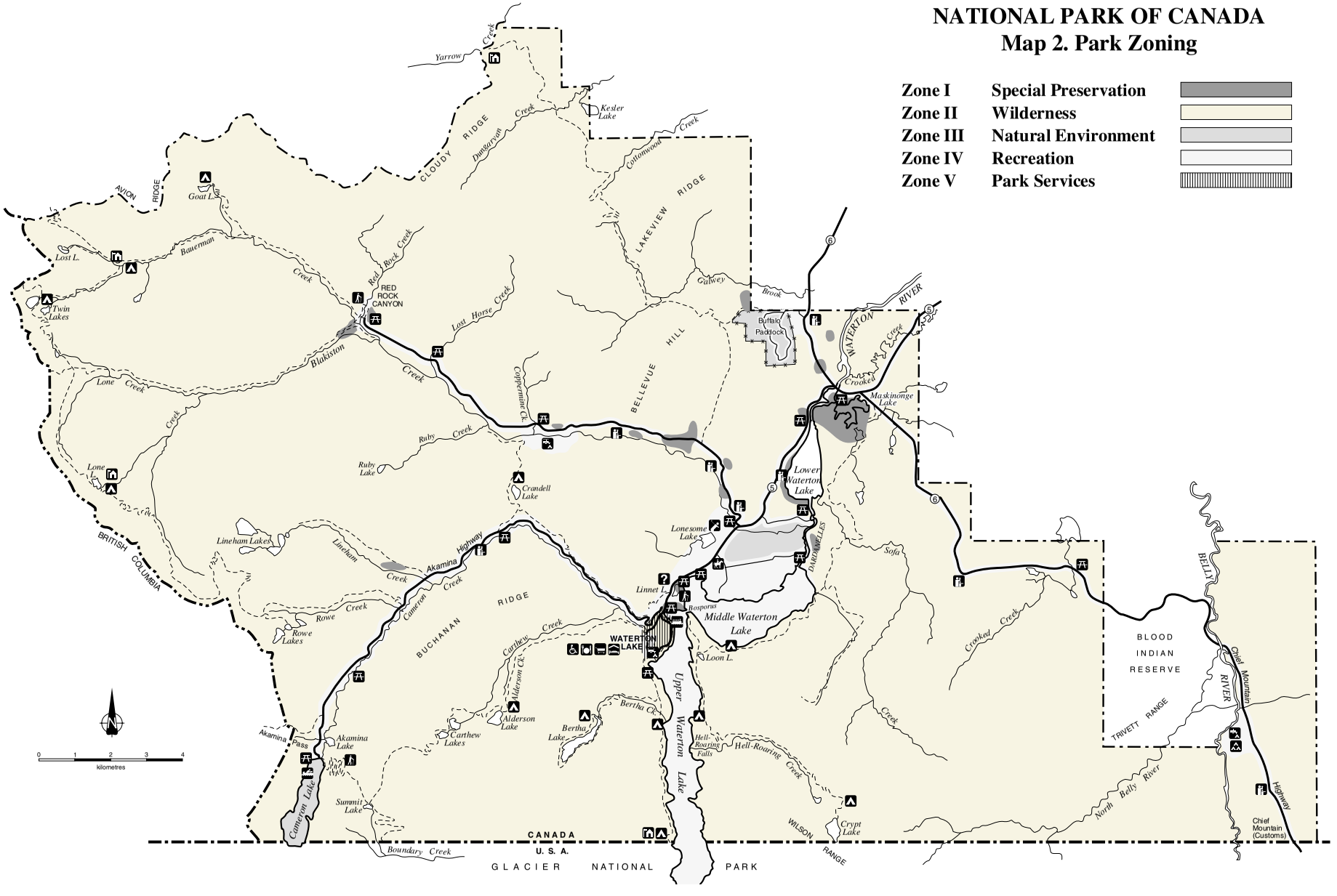
10.1 National Park Zoning System

Large tracts of protected wilderness are becoming a scarce and valuable resource. From an ecological perspective, their importance lies in their ability to support natural processes and to serve as benchmarks. They are critical for animal species with large home ranges and for migrating wildlife.

The *National Parks Act* provides for the designation, by regulation, of wilderness areas of the park. A high level of ecological integrity is synonymous with wilderness. The intent of the wilderness declaration is to assist in ensuring a

WATERTON LAKES NATIONAL PARK OF CANADA
Map 2. Park Zoning

Zone I	Special Preservation
Zone II	Wilderness
Zone III	Natural Environment
Zone IV	Recreation
Zone V	Park Services



high level of ecological integrity by preventing activities likely to impair wilderness character. The perpetuation of ecosystems with minimal human interference is the key consideration in maintaining wilderness character. Only development and activities required for essential services and the protection of the park resources will be permitted in declared wilderness areas. Declared wilderness is one of a range of tools which will be used to ensure the preservation of wilderness value. Human use levels in declared wilderness areas will be managed based on landscape management unit objectives and human use strategies.

Over 80% of the park lands have beeen recommended for wilderness declaration. Wilderness areas are generally consisitent, but do not coincide exactly with the Zone II areas of the park. For example, utility and service corridors that cut through Zone II areas, and a small Zone II areas between transportation corridors, may not be declared. Appropriate Zone II, and Zone I areas identified in this plan will be declared.

In addition to the five zones, the management plan designates Fescue Grasslands as an Environmentally Sensitive Site.

10.2 Zone I - Special Preservation (2% of the park)

Zone I lands deserve special preservation because they contain or support, unique, threatened or endangered natural or cultural features, or are among the best examples of the features that represent a natural region. Preservation is the key consideration. Motorized access and circulation is not permitted.

A number of candidate Zone I areas, protecting significant natural and cultural features, have been identified and are described below. The park contains a multitude of significant, rare or endangered resources. The Zone I designation was applied conservatively in Waterton Lakes National Park of Canada, in the interest of not compromising the importance of the designation. Resource sensitivity and the ability to adequately protect resources under other designations, such as Zone II—Wilderness or Environmentally Sensitive Sites, were important criteria in designating Zone I areas.

Guidelines will be developed to manage resources and visitor use in each of these areas. Section 5 of this Park Management Plan proposes further research and the development of comprehensive, ecologically based management strategies to ensure the protection of park resources. Additional Zone I areas could be designated as a result of these studies.

The Maskinonge Wetlands

One of the few remaining natural wetlands in southwestern Alberta, this area is a key waterfowl staging and nesting area. Several rare, endangered or threatened bird species, such as trumpeter swans, bald eagles and red-necked grebes frequent the area.

Two significant archaeological sites on the shores of Maskinonge Lake have been included in the Zone I designation.

Lineham Discovery Well

The Historic Sites and Monuments Board of Canada recommended the Lineham Discovery Well, the first oil well in Western Canada, as a national historic site in 1965. The site is marked with a plaque which commemorates the "First Oil Well in Western Canada".

Archaeological Sites

There are approximately 250 known archaeological sites in Waterton Lakes National Park of Canada, dating back almost 11,000 years. Zone I designations are applied to the most significant of these sites.

10.3 Zone II - Wilderness (83% of the park)

Zone II contains extensive areas that are good representations of a natural region and are conserved in a wilderness state. The perpetuation of ecosystems with minimal human interference is the key consideration. Zone II areas offer opportunities for visitors to experience the park's ecosystem and require few, if any, rudimentary services and facilities. In much of Zone II, visitors have the opportunity to experience remoteness and solitude. Motorized access is not permitted.

Warden patrol cabins will remain in this zone. Other facilities will be restricted to trails and designated campgrounds. All former roads in this zone will be allowed to revegetate naturally or will be rehabilitated to a suitable trail standard. Certain non-conforming activities and facilities may be permitted when essential for park administration, resource protection, public safety, and the maintenance of basic visitor facilities. These activities and facilities include use of motorized equipment related to search and rescue, fire control, backcountry patrols and facility maintenance.

10.4 Zone III - Natural Environment (6% of the park)

In Zone III areas, visitors experience the park's natural and cultural heritage through outdoor recreational activities that require minimal services and facilities of a rustic nature. Zone III applies to limited areas where visitor use requires facilities that exceed the acceptable standards for Zone II. While motorized access may be allowed, it will be controlled. Rigorous protection is required because of the areas' ecological and aesthetic importance.

Zone III areas in Waterton Lakes National Park of Canada include Cameron Lake, the bison paddock and a portion of the Blakiston Fan.

10.5 Zone IV - Outdoor Recreation (8% of the park)

Zone IV areas in Waterton Lakes National Park of Canada include a 200 metre wide right-of-way along public roads, frontcountry campgrounds, picnic sites, viewpoints, major trailhead parking areas, and other roadside developments. Upper and Middle Waterton Lakes are designated as Zone IV to accommodate some forms of motorized access.

10.6 Zone V - Park Services (less than 1% of the park)

The community of Waterton is the sole Zone V area in the park. The boundary and some general guidelines for the community are defined in Section 7. The *Waterton Community Plan* will guide land use in the community.

10.7 Environmentally Sensitive Sites

The Environmentally Sensitive Sites (ESS) designation applies to areas containing significant and sensitive heritage resources requiring special protection. Unlike Zone I areas, an ESS can accommodate higher levels of controlled visitor activity. The ability to adequately protect resources through other designations (e.g., Zone II) was another important criterion in identifying ESSs.

Area-specific guidelines will determine the appropriate level and type of visitor use, as well as resource management strategies for ESS. The guidelines will reflect the high priority placed on protection of these significant areas.

The 1992 *Waterton Lakes National Park Management Plan* highlighted only one ESS in the park, the Festuca/Danthonia grassland. Commonly known as bunchgrass prairie, the Foothills Parkland Ecoregion is a narrow band of prairie that stretches along the plains and foothills from Southern Alberta into Montana. It is typified by the *Fescue scabrella/Danthopia parryi* grass association. Waterton Lakes National Park of Canada contains the only example of this particular foothills bunchgrass association protected in the Canadian national park system. The grasslands also make a substantial contribution to the park's unique character, and its theme—"Where the mountains meet the prairie." Fescue grasslands provide critical winter range for the park's elk herds and important spring range for mule deer and bighorn sheep. It is also key habitat for several typical prairie species such as badgers, sharp-tailed grouse and Richardson's ground squirrels. Lending additional support to the ESS designation is the important role these protected grasslands play in meeting the objectives of Alberta's Prairie Conservation Action Plan.

Summary of the Environmental Assessment

11.0 SUMMARY OF THE ENVIRONMENTAL ASSESSMENT

The following summarizes the highlights of a separate report "Environmental Assessment of the Waterton Lakes National Park of Canada Management Plan 2000".

11.1 Background

The environmental assessment was prepared to ensure the cumulative effects of policies, programs, and proposed actions are understood, and do not contradict the mandate of the *National Parks Act* or ecological integrity.

Settlement, development, transportation and tourism activities over the past century have stressed the park and the regional ecosystem. The issues of greatest concern are:

- landscape fragmentation and wildlife displacement ;
- the effects of non-native species;
- degradation of aquatic and riparian systems;
- alteration of vegetation succession due to lack of fire and human modification of the landscape;
- conservation of wide-ranging carnivores; and
- wildlife habituation.

11.2 The Proposal and Its Impact

The *Waterton Lakes National Park of Canada Management Plan* proposes many actions to achieve ecological and commemorative integrity while at the same time providing opportunities for the public to understand and enjoy their natural and cultural heritage.

Aquatic Ecosystems

Aquatic ecosystems have been altered by the introduction of non-native fish species through stocking programs, angling, flow regulation, in-stream manipulation to protect transportation systems and effluents from park and visitor facilities. The plan proposes ways to restore aquatic biodiversity. Key actions include:

- protecting native fish from competition or hybridization with non-native species;
- establishing priorities for restoration of aquatic habitat and native species;
- establishing benchmark research sites in representative aquatic ecosystems;
- minimizing the impact of transportation corridors on aquatic ecosystems;
- reducing flow and water level manipulations and improving sewage treatment; and
- removing the Parks Canada materials storage area from the Blakiston fan and restoring the natural fluvial processes to alluvial fan.

Vegetation

Decades of effective forest fire suppression and reduced grazing pressure by bison has substantially changed the park's vegetation. In general, forests are becoming older and less diverse. Important plant communities such as montane grasslands, shrublands, and aspen stands are declining. Non-native plants compete with native species. Proposed actions include:

- restoring the role of fire as a natural disturbance, except where limited by safety concerns
- perpetuating the natural range of vegetation disturbance
- preventing the introduction of non-native species
- controlling or eliminating established non-native species, where practical
- increasing the amount of native vegetation in the Waterton community.

Wildlife

Direct habitat loss, habitat fragmentation and loss of effectiveness, habituation, displacement, and direct mortality, as a result of human activity, are all factors affecting wildlife in the park and regional ecosystem. The following actions address key wildlife issues:

- setting habitat effectiveness targets for key indicator species such as grizzly bears;
- maintaining or restoring wildlife movement along the east side of Waterton Lake and in the Waterton townsite-Prince of Wales Hill area;
- removal of staff accommodation outside the community of Waterton, except where required for park protection purposes;
- maintaining seasonal closures or limiting motorized access on the Chief Mountain Highway, Red Rock Parkway and, if required, roads on the Blakiston fan;
- reducing human-wildlife conflicts and human-caused wildlife mortality.

All these actions stress the need to monitor effectiveness, enlist the cooperation of adjacent provincial agencies, communities and land owners, and increase public understanding of human impacts on wildlife.

Visitor Services and Facilities

Parks Canada has made commitments regarding development, appropriate use, and human use management in Waterton Lakes National Park of Canada. The *Waterton Community Plan* will define specific design parameters and limits to growth to ensure the maintenance of heritage character and environmental sustainability of the community. Human use management will integrate ecological and social objectives. Habitat effectiveness targets will help to maintain secure habitat for large carnivores while providing a range of visitor opportunities. Existing services and facilities will remain much as they are. Some will be adjusted or modified, if necessary, to accommodate ecological integrity goals. Limits will be placed on use of both frontcountry and backcountry trails and campsites where that use conflicts with environmental protection goals, particularly regarding carnivores. Three backcountry campgrounds with chronic wildlife conflicts will be closed.

Outlying Commercial Accommodation

New guidelines for OCAs will result in development at the Prince of Wales Hotel that will be lower than permitted in previous guidelines.

Heritage Tourism

The management plan calls for a heritage tourism strategy to encourage tourism that is sustainable and compatible with national park values. This will be accomplished by promoting appropriate activities and cultivating an appreciation of the park's natural and cultural heritage. Through a collaborative process involving local/regional businesses, First Nations, and other stakeholders, Waterton Lakes National Park of Canada will prepare a heritage tourism strategy within one year.

Open Management

Open management will be achieved by continual public involvement, a new Development Review Process that involves public review, and coordination with regional land managers on research, information management, and decisions that affect the larger region. The plan recognizes the need to improve on existing mechanisms to involve stakeholders.

Environmental Stewardship

Through its Sustainable Development Strategy (1997), Parks Canada is committed to being a leader in environmental stewardship and sustainable development. Waterton Lakes National Park of Canada will develop and implement an Environmental Management System with specific stewardship and sustainable development targets and performance measures. The park will report on its achievement to Parliament.

11.3 Cumulative Effects

Cumulative environmental effects are the combined impacts of human activities over time and space. Although an environment may be resilient to a small number of projects, the incremental effect of a large number of stresses arising from many projects and activities may reduce the ecological integrity of landscapes, and even larger regions. The impact of projects may originate at the local level, but tend to accumulate at the ecosystem or landscape levels. In some cases the impact may be so significant that permanent changes result.

The management plan's actions address the main ecological and cultural resource concerns facing Waterton Lakes National Park of Canada. This environmental assessment does not evaluate individual actions. Instead it considers the combined effect of the actions to determine if the park is moving toward or away from improved ecological integrity.

The plan supports heritage tourism and addresses key issues related to ecological and commemorative integrity. Actions target identified stresses on important components of the park ecosystem and are intended to reduce that stress or enhance visitor experiences. Some actions will have immediate beneficial effect. Others, such as reclamation of the ecological integrity of the aquatic biome will take many years to accomplish. Restoration of some natural processes such as vegetation succession will take decades to achieve.

The plan sets performance targets and thresholds to protect some key ecological components. For example:

- habitat effectiveness targets for each of the park's landscape management units;
- restoring 50% of the long-term fire cycle—equivalent to approximately six square kilometres per year;
- restoring all extirpated fish species to native waters; and
- thresholds and performance measures for environmental components including solid waste, contaminated sites, PCBs, and wastewater treatment.

An integrated monitoring program will assess the success of key actions and identify areas where change is required.

It is clear the cumulative effect of the proposals will enhance ecological integrity. Fewer animals will die from accidents or conflicts with people. Habitat effectiveness will improve and habitat fragmentation will decrease. A more normal predator-prey interaction will be possible. The incidence and influence of non-native species will decrease. Natural vegetation succession will be enhanced, and the threat of uncontrollable wildfire will be reduced. Visitor stress on the park should be reduced by improved management of people's activities. Development limits are better defined than before; all stakeholders know what the future holds for services and facilities in Waterton Lakes National Park of Canada. Overall, these changes will result in a cumulative improvement in visitor experience, as well, by ensuring that the park remains wild, natural and scenic.

11.4 The Policy

As explained elsewhere in this document, ecological integrity "shall be the first priority" in making decisions about the management of national park lands. The importance of ecological integrity figures prominently in the 2000 *Waterton Lakes National Park of Canada Management Plan*. The vision for Waterton Lakes National Park of Canada is consistent with the *National Parks Act* and *Parks Canada Guiding Principles and Operational Policies*.

11.5 Public Input

The preparation of the management plan has offered ample opportunity for public input and expert review. Since the previous plan was approved there have been numerous public surveys pertaining to future management of the parks. The Banff-Bow Valley Task Force (1994-1996) established a round table that represented 14 sectors with an interest in national parks. Parks Canada's response to the Task Force recommendations formed the basis for the 1997 Banff *National Park Management Plan* from which the *Waterton Lakes National Park of Canada Management Plan* has taken key policy direction. In the spring of 2000, Parks Canada introduced the *Waterton Lakes National Park of Canada Management Plan Concept* for review by the public. This document set out specific management plan proposals and options for future direction. The plan concept was sent to 3,800 individuals at their request, and was discussed with members of the public at open houses.

Parks Canada has analyzed public comments and incorporated suggestions as appropriate. Following Ministerial approval of the plan, many components of the plan will be subject to environmental assessment and public review as specific projects are brought forward for implementation.

11.6 Conclusion

The *Waterton Lakes National Park of Canada Management Plan* is consistent with national park legislation and policies. Satisfactory peer review and public input have taken place and the proposals have been amended where appropriate. The proposed courses of action are feasible given existing technology. While uncertainties exist with respect to stressors outside the park, the plan highlights the need for more involvement by neighbouring land management agencies and stakeholders.

The environmental assessment finds the proposals unlikely to cause significant negative environmental impact. The cumulative effect of the plan will be to move towards improved ecological integrity.

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The environmental assessment finds the proposals unlikely to cause significant negative environmental impact. The cumulative effect of the plan will be to move towards improved ecological integrity.