



BANFF

NATIONAL PARK OF CANADA

Management Plan

Amended May 2004



Parks Canada
Parcs Canada

Canada

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Introduction to the Amended Management Plan

May 2004

The current management plan for Banff National Park of Canada was approved in 1997. It is a fifteen year plan. In accordance with the *Canada National Parks Act*, it is publicly reviewed and amended, as appropriate, every five years.

The following amendments are incorporated in the management plan:

- Section 5.5 has been replaced, to incorporate Ministerial decisions regarding Frontcountry Visitor Accommodation Outside the Communities
- Section 5.6 has been replaced, to reflect recent grizzly bear research and to provide more detailed direction for managing human use
- Section 7.2 has been replaced, to reflect the approved community plan direction for the Town of Banff (this amendment was approved in 1998)
- Section 7.3 has been replaced, to reflect the approved *Lake Louise Community Plan*
- Section 8.6 is a new section which addresses the intent to introduce a monitoring program
- Section 9.3.3, Key Action 1 has been replaced, to correct and update water quality targets at the Treatment Plants
- Section 11.7 is a new section, providing the environmental assessment of this set of amendments

All other sections of the 1997 management plan remain in force.

Foreword



Canada's national parks, national historic sites and national marine conservation areas represent the soul of Canada. They are a central part of who we are and what we are. They are places of magic and wonder and heritage. Each tells its own story. Together, they connect Canadians to our roots, to our future and to each other.

What we cherish as part of our national identity, we also recognize as part of our national responsibility. All Canadians share the obligation to preserve and protect Canada's unique cultural and natural heritage. Together, we hold our national parks, national historic sites and national marine conservation areas in trust for the benefit of this and future generations. To achieve this, practical action grounded in long-term thinking is needed.

These principles form the foundation of the management plan amendments for Banff National Park of Canada. May I offer my deep appreciation to the vast range of thoughtful Canadians who helped forge this plan. I am especially grateful to our very dedicated team from Parks Canada and to all those local organizations and individuals who have demonstrated such good will, hard work, spirit of co-operation and extraordinary sense of stewardship.

In that same spirit of partnership and responsibility, I am pleased to approve the Banff National Park of Canada Management Plan amendments.

A handwritten signature in blue ink that reads "David Anderson". The signature is fluid and cursive, with a long horizontal stroke at the end.

David Anderson
Minister of the Environment

BANFF NATIONAL PARK OF CANADA MANAGEMENT PLAN AMENDMENTS

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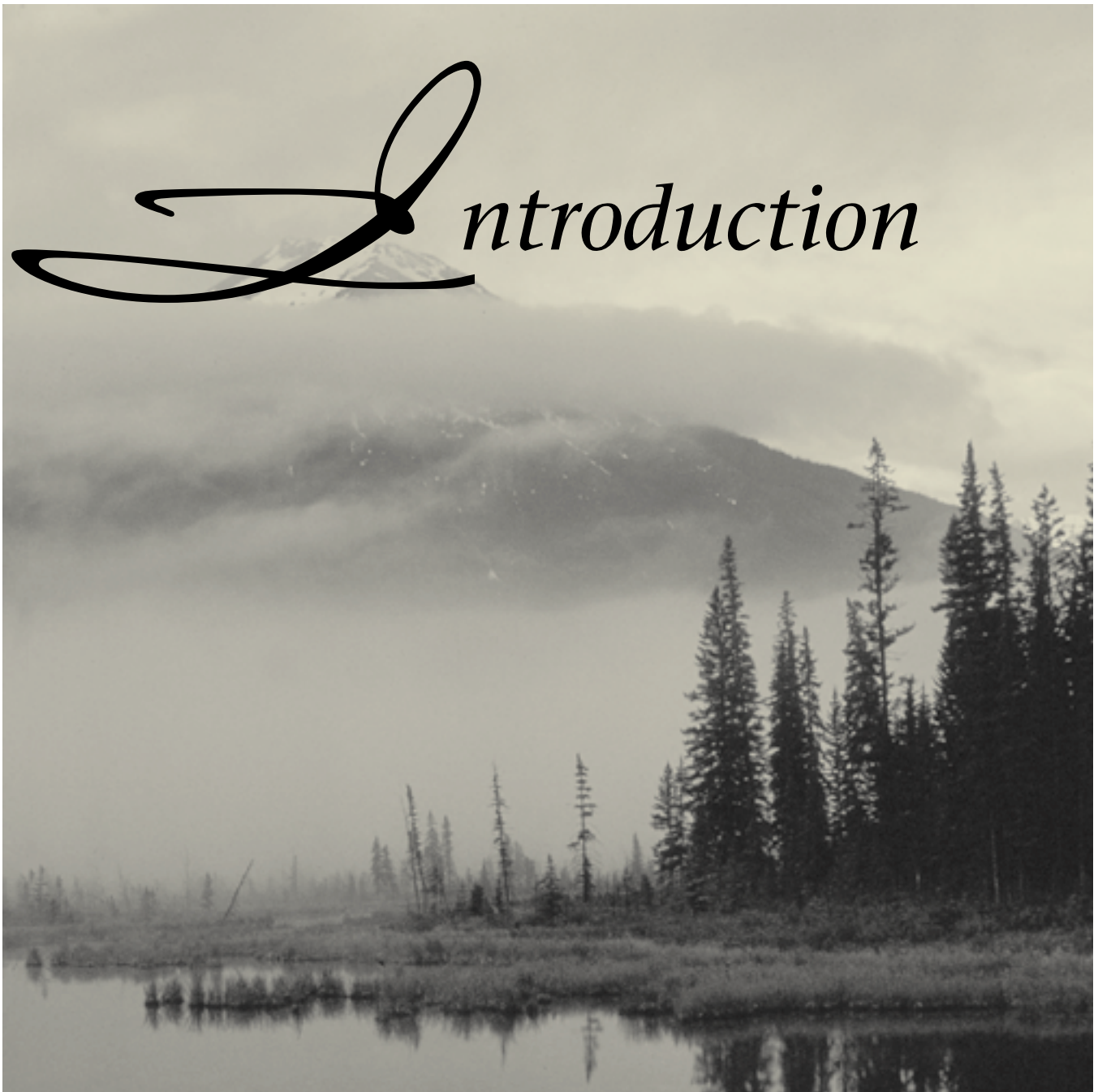
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1.0 INTRODUCTION

1.1 Banff National Park Management Plan

The *National Parks Act* requires each national park to have a management plan. These plans reflect the policies and legislation of the Department and are prepared in consultation with Canadians. They are reviewed every five years. This management plan will guide the overall direction of Banff National Park for the next 10 to 15 years and will serve as a framework for all planning within the park.

In 1988, the federal minister responsible for Parks Canada tabled the first management plans for Banff, Jasper, Kootenay and Yoho National Parks in Parliament. These plans were the result of an eight-year planning exercise involving nation-wide public consultation and in-depth analysis of the social, economic, and environmental conditions facing each park. Since that time,

these four parks have addressed many of the plans' priorities and many significant changes have taken place. A review of the park management plans began in 1993. This review was intended to make sure that the plans continue to provide sound guidance for the managers of this important World Heritage Site.

This revised management plan reflects the many initiatives and changes that have taken place since 1988. One of the most significant of these was the creation of the Banff-Bow Valley Task Force in March of 1994. The Task Force was asked to prepare recommendations concerning the long-term management of the area that would maintain ecological integrity while allowing appropriate levels of development and continued access for visitors.

The independent Task Force was made up of five people from the academic and private sectors with expertise in ecological sciences, tourism, public policy and management. Public involvement was a critical component of the Task Force's work. A Round Table, with representatives from fourteen sectors with an interest in the valley, met and crafted a vision, principles and values to guide the management of the Bow Valley and Banff National Park. This management plan has incorporated many of the Round Table's recommendations.

In October 1996, the Banff-Bow Valley Task Force submitted more than 500 recommendations to the Minister responsible for Parks Canada. An Advisory Group, appointed by the Minister and chaired by Parks Canada's Assistant Deputy Minister, assessed how the department would address these recommendations and how they would be incorporated into the park management plan.

Other developments that have contributed to this management plan include:

- amendments to the *National Parks Act* (1988);
- *Canada's Green Plan* (1990);
- the *Town of Banff Incorporation Agreement* between the governments of Canada and Alberta (1990);
- the *Strategic Framework to Sustain the Integrity of Ecosystems* (Parks Canada 1992);
- *Biodiversity Convention* (1992);
- *Parks Canada: Guiding Principles and Operational Policies* (1994);
- the *Banff-Bow Valley Study Round Table Summary Report* (1996);
- *Banff-Bow Valley: At the Crossroads* (1996) - the Banff-Bow Valley Study's Summary and Technical Reports; and
- the Banff-Bow Valley Study Implementation Advisory Group.

These initiatives, legislated changes and studies, have strengthened Parks Canada's commitment to preserving park resources in a way that integrates ecological, social and economic values.

1.2 The Town of Banff

The Town of Banff, administered by the federal government for more than a century, was incorporated as an Alberta municipality in 1990. Although the Town is administered much like comparable communities elsewhere in Alberta, it remains subject to the *National Parks Act* and regulations. The federal government is the ultimate authority on questions of planning, land use, development, and environmental issues. One restriction is that the Town cannot expand beyond legislated boundaries.

In keeping with the Incorporation Agreement, the Assistant Deputy Minister worked with the Mayor of the Town of Banff to address the recommendations in the Banff-Bow Valley Study that relate to the town.

1.3 Jasper, Kootenay and Yoho National Parks

Banff National Park shares its boundaries with Jasper National Park in Alberta, and Kootenay and Yoho National Parks in British Columbia. These four parks are an important core protected area of the greater Central Rockies Ecosystem and, along with three adjacent provincial parks in British Columbia, make up the UNESCO Rocky Mountain World Heritage Site. Plans will be completed for these parks utilizing appropriate key directions arising out of the *Banff National Park Management Plan*.

Context & a Vision

For the Future



2.0 CONTEXT AND A VISION FOR THE FUTURE

2.1 Regional Context

Banff National Park lies at the heart of the Central Rockies Ecosystem (CRE). Straddling the continental divide, this ecosystem extends west to the Columbia River Trench and just beyond the foothills of Alberta to the east. A combination of factors including hydrology, vegetation, wildlife, transportation and jurisdictions have determined the boundaries of this area of approximately 40,000 km².

A variety of federal, provincial, and municipal agencies, often with very different mandates, oversee preservation, tourism, forestry, mining, oil and gas extraction, energy development and stock grazing in the CRE (White et al, 1995). Lands zoned for multiple use make up about 60% of the area. Almost 30% of the ecosystem is set aside as protected areas. The central portion,

including Banff, Jasper, Kootenay and Yoho National Parks and Assiniboine, Hamber and Mt. Robson Provincial Parks in British Columbia, is recognized internationally as a World Heritage Site.

Although there are sizable areas of wilderness in the CRE, considerable development in the valley bottoms and montane areas support tourism, residential accommodation and transportation. The Canmore Corridor, the montane area just east of the park, is growing faster than any other area in the province. The Town of Canmore grew by 10% in 1995 and its population is expected to reach 20,000 by the year 2010.

Intensive land use in both Alberta and British Columbia put pressure on the park. Logging in British Columbia and ranching and tourism in Alberta fragment habitat and provide increasingly easy access to previously inaccessible areas of the park.

The park is a vital link in the national transportation system. Between 25 and 30 trains follow the CPR main line through the park every day. Traffic on the Trans-Canada Highway increases by approximately five per cent annually and as a result the highway is now twinned for half its length in the park.

2.2 The Town of Banff and the Hamlet of Lake Louise

In 1887 there were a total of 180 lots leased in the townsite. Six hotels, nine stores, two churches, a school and a post office provided services for visitors and residents (Lothian, 1977). From these early beginnings, the Town of Banff has grown to its present population of about 7,600 residents. In 1990, the Town was granted municipal status and now has a Mayor and an elected council. The Hamlet of Lake Louise, on the other hand, remains a visitor service centre with a population of about 1,500 people.

2.3 Park Policy and Land Use

The evolution of Parks Canada's policy has manifested itself in many ways. In the formative years of the park, the focus was on tourism opportunities around the hot springs and on encouraging private enterprise to invest in the park. More recently, there has been a growing emphasis on conservation and the protection of the park's natural systems.

Many activities sanctioned by former policies would not be considered today. In fact, many of the park's current efforts are aimed at restoring systems that were radically altered as a result of former policies. Although hunting was prohibited in 1890, it was not until 1959 that predator control programs ended. Fire is a critical link in the natural evolution of the environment. However, fire suppression in Banff National Park has interfered with this natural process, favouring the growth of spruce forests to the detriment of other habitats such as grassland and trembling aspen stands. The last major fire in the Bow Valley occurred in 1908.

The extensive infrastructure required to meet the needs of a growing number of visitors has fragmented the landscape and disrupted habitat connectivity for critical species such as grizzly bear and wolves. Activities such as the construction of reservoirs, the damming of rivers and lakes for water and recreation, the controlled release of water from dams, and alterations due to highway and railway construction have affected aquatic resources and caused the loss of many naturally flowing streams in the park.

2.4 Human Use

The number of visitors to Banff National Park has tripled since 1970. Between April 1995 and March 1996, approximately four million people visited the park. At the same time, an estimated four million people passed through the park on their way to another destination. Surveys indicate that almost 80% of the people who visit Banff National Park come into the Town of Banff at least once during their stay. Surveys also show that the majority of park visitors are from Alberta, of which more than half are from the Calgary area. These statistics highlight the recreational importance of the park for the people in the surrounding region.

The significance of Banff National Park to the provincial and national tourism industry is undisputed. In the years ahead, many factors will enhance this significance - improved marketing, development in adjacent areas, economic and government policy, concern for the environment, more demand for day use, improvements in science and technology, changes in visitor demographics, tourism planning and development, and the open skies policy.

Most park visitors remain in frontcountry areas, primarily on the highways, in the Town of Banff, and in the Hamlet of Lake Louise. Backcountry use has declined from a peak of 20,300 user nights in 1975 to 18,000 user nights annually.

2.5 Vision for the Future

2.5.1 Cornerstones of Success

- Banff National Park is an important cornerstone of Canadian identity and an international obligation to World Heritage
- If we are to pass the legacy of Banff National Park on to future generations, there must be limits to development.
- There is a need to reduce stress on park ecosystems and to restore natural processes.
- Partnerships are essential if we are to be as effective as possible.
- The public will only support decisions that are fair and arrived at through a process they understand.

2.5.2 A Vision for Banff National Park

The Banff-Bow Valley Study Round Table crafted a Vision for the Banff-Bow Valley. Parks Canada has adapted this Vision to guide the future of the park as a whole.

Core Vision

Banff National Park reveals the majesty and wildness of the Rocky Mountains. It is a symbol of Canada, a place of great beauty, where nature is able to flourish and evolve. People from around the world participate in the life of the park, finding inspiration, enjoyment, livelihoods and understanding. Through their wisdom and foresight in protecting this small part of the planet, Canadians demonstrate leadership in forging healthy relationships between people and nature. Banff National Park is, above all else, a place of wonder, where the richness of life is respected and celebrated.

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.
- 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 is fundamental to the visitor experience, which is enriched by the quality of services provided.
- Understanding the value of our national parks is a part of being Canadian. Education and awareness about national park values, ethics, natural and cultural heritage and services are provided both within and beyond the boundaries of the park. Introduction to this knowledge is a fundamental part of each visitor's experiences.
- 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 are emphasized when providing services, including education, transportation, waste management, and other infrastructure.
- Federal, provincial and municipal authorities cooperate in protecting and managing the national park and regional ecosystem. To achieve this, they nurture cooperation with businesses, organizations, and open, accountable, and responsible decision-making. Principles of precaution are exercised when the effects on the ecosystem are uncertain.
- Laws and regulations affecting the economy and the environment are consistent and predictable. Enforcement of regulations is consistent.
- Park communities are healthy and are leaders in environmental and cultural resource stewardship. Residents are hospitable and pride themselves in accepting their responsibility for protecting and sharing this natural and cultural heritage for the benefit of present and future generations.

2.5.3 Key Components of the Park's Vision

To realize this Vision, Banff National Park will implement the following key initiatives during the next 10 years. These initiatives are described in more detail in the following chapters.

- The park will adopt an integrated approach to decision-making. This approach will take into account the ecological, cultural, social and economic situation in the entire Central Rockies Ecosystem.
- The park's Heritage Tourism Strategy will serve as a model of integrated management. It will help visitors appreciate the park while keeping their impact on the park's resources to a minimum.
- Restoring habitat, mitigating the impact of human activities and facilities, and reducing human-caused mortality will contribute to the on-going viability of sensitive species such as grizzly bear, wolf, wolverine and cougar.
- People who live and work in the park will be a "community of communicators", welcoming visitors and enhancing their understanding of the nature, culture and history of the park.
- There will be limits on the Town of Banff, the Hamlet of Lake Louise, overnight accommodation, ski areas, and day use of certain areas.
- Overnight and day use on key trails will be managed in a way that enhances the visitor experience and minimizes the impact of this use on the park.
- Parks Canada will complete and implement conservation and maintenance plans to enhance the integrity of the park's seven national historic sites.
- The park will adopt environmental stewardship practices that support sustainable heritage tourism and serve as models of excellence.
- Aquatic programs will enhance the natural biodiversity of aquatic ecosystems, and restore natural flow regimes and native fish.
- Controlled burns will be used to increase the diversity of the park's natural vegetation.
- The park will pursue strategies for managing elk that have become accustomed to humans. These strategies will be based on studies of elk movement in and around the Town.
- The airstrip, and the bison paddock will be closed. The horse corrals and cadet camp will be relocated. This will allow wildlife to pass through the Cascade Wildlife Corridor.
- The Fairholme Benchland will be protected as the largest intact block of secure wildlife habitat in the park's montane ecoregion.
- Steps will be taken to keep the impact of human use of the Vermilion Wetlands, Sulphur Mountain, and the golf course to a minimum.
- Programs will be put in place to eliminate the habituation of bears in the Lake Louise area.
- The capacity and development of the park's three ski areas will remain consistent with approved long-range plans.
- Environmental assessment practices will be of the highest standard.
- The public will be engaged in an open, participatory and informative manner in achieving the objectives of this plan.

A Place for Nature



3.0 A PLACE FOR NATURE

3.1 Overview

The *National Parks Act* states that “the National Parks of Canada are hereby dedicated to the people of Canada for their benefit, education and enjoyment and shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.” It also states that “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.”

Parks Canada’s *Guiding Principles and Operational Policies* 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.”

To fulfill its mandate as described in the above documents, Parks Canada has adopted a system known as “ecosystem-based management.” This is a comprehensive approach that involves working with others toward common goals, including sustainability of the ecosystem. Ecosystem management requires the integration of ecological considerations with economic and social factors. It also requires an understanding of the human and naturally induced stresses that affect the ecosystem, and a recognition that the ecosystem is constantly changing. Ecosystem management demands actions based on appropriate information and plans to reduce and manage human induced stresses.

Important aspects of ecosystem-based management include:

- respect for the park’s natural and cultural resources;
- management of cumulative impacts;
- recognizing the importance of the park environment to the visitor experience;
- consideration of local and regional economic and social factors;
- a strong and reliable scientific base;
- public education and enjoyment;
- environmentally responsible practices;
- inter-jurisdictional cooperation; and
- application of the principles of precaution and adaptive management.

Humans are an integral part of the ecosystem. Maintaining ecological integrity is important not only for the natural systems it protects but also as the foundation of the park’s appeal as a tourist destination. Sustaining this ecological integrity will offer unparalleled opportunities for visitors to observe and experience nature in a mountain setting.

Ecological integrity is not a static end-point, but rather a continuum of characteristics that a landscape or area should possess. These include:

- ecosystem health, including the ability to continue evolving and developing;
- biodiversity, including the ecological and evolutionary processes that keep species functioning;
- stability, or resistance to stresses; and
- sustainability, through maintenance of structural and functional components of the system, in perpetuity. (Noss, 1995)

3.2 A Vision for Ecological Integrity

Banff National Park is a living example of the way in which ecological values are protected in a place where appropriate kinds and levels of human activity are welcome. The park’s natural systems and all 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 history of Banff National Park and its contribution to tourism and the economy of Western Canada brings with it a variety of stressors on the ecosystem. To maintain the park’s ecological integrity in face of this situation, Parks Canada will focus on:

- improved science, building upon foundations established to date;
- managing and reducing the stressors on the ecosystem;
- applying ecosystem-based management principles in decision making;
- restoring ecological processes and structures, with priority given to those actions which have the potential for significant ecological benefit;
- collaborating with other land managers in the Central Rockies Ecosystem; and
- increasing visitor understanding and appreciation of ecosystem-based management, the impact of humans on the ecosystem, issues, and opportunities for stewardship.

3.3 Major Stressors Affecting the Park

Ecosystems in Banff National Park have been influenced by a variety of natural disturbances, or stressors, that maintain a diversity of vegetation types and wildlife habitat. Natural fires, as well as fires set by aboriginal people, were perhaps the most important influence on the montane and subalpine areas of the park. Flooding along the Bow River and its tributaries is essential for maintaining healthy riparian communities. On the outwash or alluvial fans of creeks entering the valley bottoms, turbulent water flows and shifting rocky debris create new habitat for trembling aspens and the diverse communities they support. Avalanches clear areas of trees and shrubs, opening them up for new growth that is essential food for wildlife. Insect infestations and disease may affect some forest stands and wildlife, but over the long term, contribute to the ongoing renewal of the park ecosystems.

With the occupation of the Bow Valley by white settlers in the 1880s and development throughout the 20th century, ecosystems have been exposed to a very different range of disturbances. Towns, lodges, highways, railways, trails and other facilities have eliminated or altered natural communities. Increasing numbers of residents and park visitors contribute to air pollution, sewage, solid waste, and the demand for potable water. Sensitive wildlife avoid areas where there are many people, a practice that limits the amount of habitat available to them. Transportation corridors through the park, including the Trans-Canada, other highways, and the CP Rail line, fragment the landscape and block the movement of wildlife. Fire suppression has led to a gradual aging of forests and a loss of important wildlife habitat. Conflicts between wildlife and humans, and the associated management actions, cause animals to die or to be moved outside the park.

Parks Canada has documented consistent signs that past and current management practices, along with development inside and outside the park, have had a negative effect on ecosystems in the park and surrounding region. *The Ecological Outlooks Project* for the Banff-Bow Valley Study (Banff-Bow Valley Task Force, 1996a) identified the following important environmental concerns:

- landscape fragmentation due to human activity and facilities;
- loss of habitat connectivity between major areas of protected habitat as a result of human development and use;
- loss of aquatic and riparian habitat associated with dams, stream channelization, and water regulation;
- blockage of fish movements associated with dams and water regulation;
- human-caused mortality of fish and wildlife;
- altered vegetation successional patterns due to fire control and human modification of the landscape;
- loss of montane habitats due to human development and fire control;
- blockage of wildlife movement along and across the Bow Valley;
- altered predator-prey relationships;
- wildlife-human conflicts;
- effects of human activities on water quality; and
- introduction of non-native plants and fish.

Although there is substantial concern, there is reason for optimism. Remedial measures, mitigation and management can restore and sustain ecological integrity in and adjacent to Banff National Park. It is possible to restore and maintain the viability of most of the park's ecosystems, while also offering opportunities for world-class tourism experiences.

Many initiatives are already under way. During the past 15 years, Parks Canada has implemented measures to reduce detrimental effects on ecological integrity. These include: improved garbage management, an end to fish stocking, fencing of the Trans-Canada Highway (TCH) to reduce wildlife mortality, construction of underpasses and overpasses to allow wildlife to cross the TCH, reclamation of disturbed sites such as gravel pits and dumps, closures of backcountry roads, temporary area closures to protect sensitive wildlife, restoration of several creeks, improved sewage treatment, introduction of prescribed fires, and inter-jurisdictional cooperation in environmental management. These undertakings will provide a strong base for future restoration, maintenance and management.

3.4 Research and Information Management

Many of the key actions in this plan require the collection and analysis of information. This information must also be clearly integrated into the decision-making process. Decisions occur at various levels - at an ecoregion level, a park level, and a local level. When making decisions, it is important to use all available information, to recognize when there is insufficient information to make a decision, and to ensure the public understands the information on which decisions are based. While it is true that a great deal of information exists on Banff National Park and the surrounding region, this information is not always easy to find nor is it always in a form that is useful for decision makers.

It is important that information about the park - ecological, social and economic - is seen in the regional or ecosystem context. It is, however, impossible to study all aspects of an ecosystem. Studies need to focus on significant issues and assess the area's environmental, economic and social well-being over time. A common way to do this is to select a species or value, called an indicator, and track its health or changes in its status. Grizzly bears are a good example of an indicator. Because a grizzly bear's range can cover thousands of kilometres, the state of the grizzly bear population is an excellent indicator of habitat fragmentation and connectivity in the environment. Other indicators can be selected and monitored to provide a broad, long-term understanding of changes that occur.

3.4.1 Strategic Goals

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

To identify and research key indicators.

To fill critical information gaps.

3.4.2 Objectives

- to demonstrate to the public the role of research and science in decision-making;
- to ensure the information used in making decisions is credible and understood;
- to establish a regional system for storing and retrieving data;
- to coordinate research with others in the ecoregion; and
- to recognize that humans are part of the ecosystem when gathering information and making decisions.

3.4.3 Key Actions

1. Provide opportunities for the public to identify information needs, develop strategies to fill information gaps and understand results.
 - invite the scientific community, non-governmental organizations and the public to help develop and implement research strategies.
2. Implement a peer review process for research.
 - provide information about the reviews and discussions that have taken place and the publications that are available.
3. Choose environmental, social and economic indicators in consultation with others.
 - base the choice of indicators on the work already completed by the Banff-Bow Valley Study Round Table.
4. Work with others to improve the use of science to support decision-making.
 - work with institutions that collect and analyze information; and
 - work with agencies that use information for various purposes, including education and environmental assessments.

5. Establish, in partnership with others, a program to fund social, economic and ecological research.
 - encourage contributions from various sectors, including the business community, universities, and government organizations; and
 - focus on financial support for long-term research related to indicators and issues.
6. Set clear goals for research, resource management and ecosystem management.
 - demonstrate how research and information will contribute to management decisions.
7. Demonstrate, through the collection and use of data, that issues - ecological, social and economic - transcend jurisdictional boundaries.
8. Identify key information gaps, particularly scientific, social and economic information, and set up processes for obtaining the necessary information.
9. Define interim socio-economic goals.
 - refine goals once significant information gaps are filled.
10. Ensure Parks Canada's structure and priorities focus on clients and on achieving ecological integrity objectives.

3.5 Communicating the Need for Ecological Integrity

3.5.1 Strategic Goals

To use communication, orientation and education programs as a means for achieving ecological integrity.

To work with others, outside Parks Canada, on the delivery of key ecosystem management messages.

To focus on key 'multiplier' audiences including local businesses, private interpretive operators and the media.

3.5.2 Objectives

- to use communications, orientation and education to improve the understanding that park visitors and local residents have of the park's ecological and cultural heritage and the issues surrounding its long-term protection;
- to use education and communications to help resolve issues associated with the ecosystem; and
- to provide the information local residents and visitors need to make informed decisions. This will encourage public support for Parks Canada's management programs.

3.5.3 Key Actions

1. Coordinate a communications program about the ecosystem.
 - target key audiences;
 - involve park staff, researchers, residents and park businesses in the program;
 - offer an annual ecosystem lecture series, and a series of publications; and
 - include information about the ecosystem in training programs for the staff of businesses and for private guides.
2. Emphasize opportunities to see and learn about park ecosystems in areas adjacent to the Town of Banff, the Hamlet of Lake Louise and the Bow Valley Parkway.

3.6 Air Quality

3.6.1 Strategic Goal

To maintain the highest possible standards of air quality and 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.

3.6.2 Key Actions

1. Implement a system to monitor air quality that will detect problems with air quality and allow them to be remedied quickly.
2. Acquire a better understanding of the effects of long range pollutants and climate change on the health of ecosystems and humans.

3.7 Geology and Landforms

3.7.1 Strategic Goal

To protect and value the Canadian Rockies' geological and physiographical features, including the fluvial and glacial processes of erosion and deposition.

3.7.2 Key Actions

1. Pursue the experimental restoration of alluvial fan building processes in selected areas that have been altered by roads or railways.
2. Provide special protection measures for internationally and nationally significant features and landforms such as the Castleguard Caves, the Middle Springs hot springs, and important fossil sites.
3. Implement rehabilitation plans for disturbed sites.

3.8 Species and Genetic Diversity

3.8.1 Strategic Goal

To protect unique, rare, threatened and endangered plant and animal species, including those that are of scientific importance, and those that are locally, regionally, and nationally and internationally significant.

3.8.2 Key Actions

1. Evaluate and monitor the status of unique, rare, threatened and endangered species in the park.
2. Participate with other government agencies and groups in the development and implementation of recovery and management programs for unique, rare, threatened and endangered species.

3.9 Aquatic Ecosystems

In the past, the aquatic resources of Banff National Park have not received the same attention as terrestrial ecosystems. Human activities during the past 100 years have resulted in noticeable degradation of the ecological integrity of aquatic resources in the park. Many factors have contributed to this situation. These include dams, controlled water levels, the introduction of non-native fish species, the release of nutrients and other chemicals into the water, instream disturbances as a result of construction, and the channelization of water bodies to reduce flooding.

The following major concerns must be addressed:

- the amount of phosphorus in the Bow River, particularly from wastewater treatment plants in the Hamlet of Lake Louise and Town of Banff;
- the effects of fish stocking - native fish have not been able to compete with exotic species introduced to park waters. Of the twenty fish species in the Bow Valley, ten are non-native. Of the native fish species, one is extinct and two - bull trout and cutthroat trout - are threatened;
- water regulation - more than 40% of the flowing waters in the Bow River watershed are regulated by dams;
- Lake Minnewanka - bull trout have almost disappeared from the lake as a result of extreme fluctuations in the water level, fish stocking, and fishing. Water level fluctuations have also destroyed typical shoreline vegetation and aquatic habitats. The diversity of fish and invertebrates in the lake has also decreased; and
- decreases in the amount of water released from the Lake Minnewanka and Spray Lakes reservoirs - this has altered the physical structure and biota of floodplains, the riparian system, and the aquatic systems of the Cascade and Spray Rivers.

See Section 9.3 for a discussion of water quality and the actions required to improve water quality. Actions with respect to the Vermilion Lakes Wetlands are in Section 3.14.

3.9.1 Strategic Goals

To maintain and, where feasible, restore natural flow regimes, water levels, and the biodiversity of aquatic ecosystems.

To use selected aquatic systems within the park as ecological benchmarks.

3.9.2 Objectives

- to designate selected aquatic ecosystems as ecological benchmarks;
- to implement a system to monitor important aquatic resources in the park including native fish species, non-native species, invertebrates, algae, reptiles and waterfowl;
- to restore native fish and invertebrate populations on an experimental basis by reducing or eliminating non-native fish species and introducing native species;
- to eliminate fishing where human use threatens native species or genetic diversity;
- to restore physical processes and biotic communities in the Vermilion Wetlands, other floodplain wetlands, riparian wetlands and outwash fans;
- to minimize the impact of transportation corridors (culverts, stream channelization, bridge abutments) and other structures on the volume and seasonal changes in water flows and levels;
- to promote water conservation; and
- to ensure park residents and visitors are aware of the value and status of aquatic systems, and of ways they can minimize their own impact on aquatic resources.

3.9.3 Key Actions

Fishing

1. Continue to allow sport fishing.
2. Establish benchmark aquatic systems which may be closed to fishing.
3. Promote catch and release fishing.
 - teach anglers the proper methods of catch and release to prevent the death of these fish.
4. Implement a public information and education program in conjunction with changes in regulations.

Restoration of Native Fish Species

1. Introduce measures to restore the natural biodiversity of aquatic ecosystems.
 - restore natural flows in specific locations; and
 - reintroduce native fish species.
2. Identify future restoration objectives.

Human Use Management

1. Document recreational use of major rivers and lakes.
2. Identify environmentally sensitive areas in riparian zones, assess the direct and cumulative impacts on riparian systems, and implement measures to reduce these impacts.

Restoration of Aquatic Systems (Flow Regimes)

1. Maintain the dams at Lake Minnewanka and Johnson Lake.
 - look at ways to restore more natural water flow in these areas.
2. Pursue the removal of Forty Mile Creek dam to restore more natural water flow in the creek and in downstream wetlands.
 - use the results of this initiative to evaluate possible approaches to Lake Minnewanka.
3. Work with TransAlta concerning changes to water flow in the Cascade and Spray systems to restore more natural flow regimes.
4. Minimize the effects of transportation corridors and other structures on the volume and seasonal changes in water flows and water levels.

Research

1. Continue research on benchmark aquatic systems and prepare inventories of the distribution of native fish.

3.10 Vegetation

There are several areas of concern about vegetation in Banff National Park. These include:

- a decline in biodiversity in some areas, specifically aspen, open conifer and young pine stands;
- the disappearance of certain grasslands at an unnatural rate;
- the existence of more older vegetation than would naturally be expected;
- overgrowth of some forested areas, with a significant degree of canopy cover;
- more continuous vegetation and a decline in the amount of open space; and
- an unnatural buildup of vegetation to fuel wildfires.

If current trends continue, we will likely see a decline in the health of the forest, a reduction in the amount of wildlife habitat, and infestations by insects and diseases, particularly in the montane ecoregion. In addition, the accumulation of fuel means future wildfires will be hotter, more extensive and more difficult to control.

Since 1984, Banff National Park has had a fire management plan that calls for the suppression of all fires caused by lightning and humans and outlines a program of prescribed burns. The prescribed burn program has been on hold since 1994, pending the completion of the Banff-Bow Valley Study.

3.10.1 Strategic Goals

To maintain and, where feasible, restore native vegetation communities to reflect the long-term ecosystem states and processes.

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

3.10.2 Objectives

- to restore the role of fire in modifying vegetation communities, except where limited by public safety, public health, major park facilities and neighbouring lands;
- to maintain and restore key structural components of the park's vegetation including aspen, willow and grassland communities;
- to determine suitable vegetation patterns, including age-class structures and distributions that will ensure viable populations and natural biodiversity;
- to improve public awareness of natural disturbances, such as fire, and the management implications of these disturbances;
- to reduce opportunities for introducing non-native plant species;
- to utilize native species in reclamation and landscaping;
- to monitor, control or eliminate non-native species that threaten native plant communities or species; and
- through prescribed burns and not suppressing fires caused by lightning, achieve a target of 50% of the long-term fire cycle or approximately 14 sq. km burned annually.

3.10.3 Key Actions

1. Consult with stakeholders, municipal and provincial governments, and interested parties in the development of a *Vegetation Management Plan*.
2. Conduct prescribed burns after consultation with affected parties.
 - work with a variety of stakeholders to encourage understanding of and support for the prescribed burn program.
3. Complete a *Bow Corridor Fire Protection Plan* with the Town of Banff, Hamlet of Lake Louise, Harvie Heights, Canmore and operators of other facilities. The plan will include:
 - the use of prescribed burns to reduce fuel in forested areas;
 - controlling the supply of fuel for a fire around facilities; and
 - interagency planning, including joint emergency response, communications, training, use of volunteers, and building standards.
4. In partnership with other agencies, continue to collect and cultivate native seeds and to transplant native vegetation from construction sites.
5. Increase efforts to reduce non-native plant populations, particularly noxious species that have the potential to invade recently burned areas, native wetlands, and grasslands.
 - monitor, control or eliminate non-native species that threaten native plant communities or species (e.g., Canada thistle, tall buttercup, ox-eye daisy, and toad flax).
6. Use communication and education programs about fire management and specific burns to promote a greater public understanding of the ecological role of fire.

3.11 Wildlife

3.11.1 Strategic Goals

To maintain and restore native bird communities through the protection and management of vegetation.

To maintain viable populations of wary species such as grizzly bear, wolf, wolverine and cougar by reducing human-caused mortality, reducing the impact of human use, and working with surrounding jurisdictions.

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

To maintain and, where feasible, restore habitat connectivity for large carnivores, ungulates and other wildlife in the park and on surrounding lands.

To reduce sources of human-caused wildlife mortality that threaten the viability of wildlife population in the park and on adjacent lands.

To provide leadership in developing the information, science and technology that will enhance the long-term viability of aquatic and terrestrial ecosystems in the park and adjacent regions.

3.11.2 Objectives

- to monitor bird communities in habitats that human use has altered substantially;
- to restore avifauna habitat;
- to maintain and restore secure habitat in the park and on surrounding lands for carnivores that are not habituated to humans;
- to reduce the number of grizzly bears killed as a result of human activity to less than 1% of the population annually;
- to use prescribed burns to improve the habitat for species on which carnivores rely (e.g., ungulates for wolves, plants for grizzly bears);
- to begin a program to reintroduce bison;
- to restore predator-prey relationships;
- to reduce the number of conflicts between elk and humans;
- to restore and maintain secure, essential movement corridors in the park, particularly in relation to the Town of Banff, Hamlet of Lake Louise, the Trans-Canada Highway and the railway;
- to reduce wildlife mortality along the TCH, other park roads and the railway;
- to prevent wildlife from becoming used to humans and their facilities, thereby minimizing the need to destroy or move animals; and
- to work with other jurisdictions to reduce human-caused mortality that threatens regional populations of large carnivores, ungulates and other wildlife.

3.11.3 Key Actions

1. Adopt a human use management program that will restore secure habitat for carnivores and ensure the maintenance of viable populations of wary species such as grizzly bear, wolf, wolverine and cougar (see Section 5.6).
2. Restore predator-prey relationships in the park.
 - restore habitat security for predators in areas where elk are numerous - i.e., near the Town, on the golf course and in the Vermilion Wetlands; and
 - implement the program in stages as more research and a more complete understanding of carnivore and elk movements is available.
3. Encourage surrounding provincial jurisdictions to restore secure habitat for viable populations of wary carnivore species.
 - maintain important links between the park and adjacent regions.
4. Continue to monitor elk movement around the Town of Banff and the golf course. (see Section 5.9).
5. Continue research on how the size of the elk population and their movement patterns affect aspen and willow.
6. Continue research to determine the effectiveness of wolf predation in controlling ungulate populations in and around the Town of Banff and other developed areas.
7. Fence selected areas (see Section 5.10).
8. Continue measures to reduce wildlife mortality on the Trans-Canada Highway to the west of the Town of Banff. Reduce wildlife mortality along other roads in the park. Continue interagency discussions to reduce wildlife mortality on the TCH east of the park.
9. Implement measures to restore essential movement corridors across the TCH and the railway (see Section 6).
10. Identify and implement measures to restore and maintain secure, essential wildlife movement corridors within the park, particularly in relation to the Town of Banff, the Hamlet of Lake Louise, Outlying Commercial Accommodations and other park facilities.
11. To improve habitat effectiveness, close the Bryant Creek trail and area, and the Fairholme Environmentally Sensitive Site to mountain bikes.
12. Study the effect of habitat fragmentation on species such as small mammals, reptiles and insects.
13. Begin a program to reintroduce bison, on a trial basis, in an area outside the Banff Bow Valley.
 - study habitat use in mountain environments and the effect of bison on other species, natural communities, and visitors; and
 - assess implications for public safety.
14. Discuss with the CPR ways to reduce the impact of the railway.
15. Study the historical presence of mountain goats in the park and restore populations to historical levels, if appropriate.
16. Reduce the impact of aircraft on wildlife through restrictions on flights over the park (see Section 6.2).
17. Monitor avifauna in habitats that have been substantially altered by human development or activities (e.g., grasslands, wetlands, aspen forests).
18. Modify Parks Canada's procedures for preventing and dealing with conflicts between wildlife and humans. This will help to reduce the need to destroy or remove animals.
19. Work with others to design an ongoing program to monitor indicators of ecological integrity and the effectiveness of existing mitigation and environmental protection measures.

3.12 The Cascade Wildlife Corridor

A priority of this management plan is the maintenance and re-establishment of key wildlife corridors. An area of particular concern with respect to wildlife movement is the Cascade Wildlife Corridor between Cascade Mountain and the Trans-Canada Highway. The Timberline Lodge, the Mount Norquay interchange and access road, the Forty Mile Creek Water Reservoir, the private horse corrals, Parks Canada's horse corral, the bison paddock, the airstrip, the access road to Lake Minnewanka and the Army Cadet Camp are all located in this narrow strip of the montane region. These facilities limit the movement of large carnivores and other sensitive wildlife between the Vermilion Lakes and the Cascade Valley.

With restoration of more secure habitat in the Fairholme Environmentally Sensitive Site (see Section 3.13) and the lower Cascade Valley, it is important to maintain and improve wildlife movement between the Bow and Cascade Valleys, as well as along the Bow Valley. Removing the facilities in the Cascade Corridor will reduce habitat fragmentation and restore montane grasslands and shrub habitats.

3.12.1 Strategic Goal

To maintain and restore the wildlife movement corridor between Cascade Mountain and the Trans-Canada Highway, from the Vermilion Lakes to the Fairholme Bench.

3.12.2 Objectives

- to remove, wherever feasible, the facilities along the lower slopes and valley floor near Cascade Mountain by fall 1997; and
- to restore the area's natural vegetation.

3.12.3 Key Actions

1. Close the bison paddock at the end of the 1997 summer season. Parks Canada has already begun to notify the tour industry of this decision.
2. Relocate the Cadet Camp.
3. In response to environmental and archaeological concerns, restrict future development of the Timberline Lodge to its existing footprint. Parks Canada will not close or relocate the Lodge.
4. Begin relocation of the horse corrals in the fall of 1997.
5. Close the airstrip as soon as legally possible (see section 6.2).
6. Develop, with the Norquay Ski Area, a program to monitor wildlife movement across the access road and through the ski area. Once an adequate data base has been developed and the facilities removed from the Cascade Wildlife Corridor, determine what future action, if any, is required to manage summer use of the Norquay access road (see Section 5.8).

3.13 Establishment of the Fairholme - Carrot Creek Benchlands Environmentally Sensitive Site

The Fairholme Range, from the East Gate to Johnson Lake, is the largest remaining intact block of secure wildlife habitat in the montane region. As residential growth increases in the Bow Valley outside the park, more visitors enter this area on foot or by bicycle. Parks Canada plans several measures to protect this important montane habitat.

The most intensively used area on the Fairholme bench is Johnson Lake. During the summer, the lake is a popular swimming spot for local residents. The trails around the lake and to the south-east are popular for hiking, bicycling and cross-country skiing. However, damming the lake for recreational use has destroyed the area's naturally occurring wetland and human use has affected wildlife. Two Jack Canal poses a particular problem for wildlife movement.

3.13.1 Strategic Goal

To reduce landscape fragmentation and maintain habitat security in the Fairholme Bench area through its designation as an Environmentally Sensitive Site (ESS).

3.13.2 Objectives

- to establish an Environmentally Sensitive Site (ESS) in the Fairholme Range (see Section 10.7);
- to reduce and consolidate trail use; and
- to limit the impact of the recreational use of Johnson Lake and in particular human-wildlife interaction.

3.13.3 Key Actions

1. Establish a special preservation area in the Fairholme Range and designate it as an Environmentally Sensitive Site (ESS) (see Section 10).
 - end trail maintenance and prohibit mountain bikes in the ESS;
 - close the Carrot Creek campsite; and
 - remove the facilities at the head of the Carrot Creek Trail.
2. Build a wildlife crossing over Two Jack Canal.
3. Work with local residents to minimize the impact of random use in the area immediately adjacent to the park boundary.
4. Do not remove the dam at Johnson Lake.
5. Keep the trails immediately around Johnson Lake open for hiking.
 - end maintenance of all other trails in the area; and
 - prohibit off-road bicycle use in the area.

3.14 Vermilion Lakes Wetlands

In recognition of its unique natural resources, the 1988 park management plan designated much of the Vermilion Lakes Wetland Area (VLWA) as an environmentally sensitive site. In addition the Cave and Basin Marsh is a Zone I area.

The Vermilion Lakes Wetlands provide critical habitat and it is essential that it be preserved in a natural state. Human use has affected the resources of the VLWA since the late 1800s. Current activities include:

- railway maintenance;
- altered hydrological processes;
- recreational use (e.g., driving, sightseeing, cycling, hiking, jogging, canoeing, nature study, photography, boating, fishing);
- development; and
- highways and roads (e.g., the Trans-Canada Highway, Vermilion Lakes Drive).

Two field studies are under way in the VLWA. A three-year study documents the dynamic flow relationships among Forty-Mile Creek, Echo Creek, Willow Creek and the Bow River. It reports on water levels in pre- and post-flood periods for a number of sites in the VLWA. The second study, which began in 1996, will assess the changes to willow communities, vegetation attractive to elk, beaver populations, and habitat. This study will also evaluate interactions with elk, changes caused by both beavers and humans, alterations to stream flows, the effect of fire suppression, and the impact on beaver and elk of the displacement or death of large predators. Additional research is required to assess the risk of exposing the lakes to invasions of non-native plants, and flooding of existing tall-willow communities.

Some evidence suggests that the CPR rail bed through the Vermilion Wetlands has impeded water flow and altered riparian vegetation. Although the area affected may seem small, activities such as road construction have had the same impact on many other riparian areas in the park. The cumulative effect of this type of activity has virtually eliminated young successional riparian stands in the Bow Valley. These have been replaced by over-mature vegetation which has meant lost habitat for plants and wildlife.

3.14.1 Strategic Goals

To restore natural water levels and flows in the Vermilion Lakes.

To restore and maintain the natural biodiversity, age and distribution of vegetation in the Vermilion Wetlands in a way that reflects the influence of natural processes while still allowing public use and enjoyment.

3.14.2 Objectives

- to restore more natural water levels and flows; and
- to restore wildlife movement in the area.

3.14.3 Key Actions

1. Adopt an integrated approach to the Vermilion Lakes Wetland Area.
 - prepare an area plan that addresses the management of human use, restoration of wildlife movement and natural water flows, and other land use issues, including the closure of Vermilion Lakes Drive to motorized vehicles past First Lake.
2. Work with CP Rail and other stakeholders to set goals for baseline research and restoration for the VLWA.
3. Identify and evaluate options for improving and restoring the ability of wildlife to move from the VLWA through the Fenland area, and along Forty Mile Creek to the newly restored Cascade Wildlife Corridor.
 - implement the preferred approach over the long term.

a

Place of Historical & Cultural

Significance



4.0 A PLACE OF HISTORICAL AND CULTURAL SIGNIFICANCE

4.1 Overview

Banff National Park is a place where known human history began about 11,000 years ago. The park's rich and distinctive cultural heritage includes seven national historic sites, hundreds of known archaeological sites, heritage buildings and structures, thousands of historic objects, and numerous cultural landscapes and features. The section of the North Saskatchewan River in Banff National Park joined the Canadian Heritage Rivers System in 1989. All these cultural resources are part of an irreplaceable heritage.

National Historic Sites in Banff National Park

Cave & Basin

Banff Park Museum

Banff Springs Hotel

Abbott Pass Refuge Cabin

Howse Pass

Skoki Ski Lodge

Sulphur Mountain Cosmic Ray Station

Parks Canada is not the only agency responsible for cultural resources in Banff National Park. The Town of Banff, organizations and individuals play an important role in maintaining the park's unique cultural environment.

Parks Canada defines a cultural resource as a human work or place with evidence of human activity or spiritual or cultural meaning, that is of historic value. It applies this definition to a wide range of resources, sites, structures, engineering works, artifacts and associated records. Cultural resources are valued both as discrete elements and for their combined contribution to the significance of a site.

Parks Canada is committed to protecting and presenting the cultural resources of Canada's national parks. This commitment is legislated under the *National Parks Act* (1988), the *Historic Sites and Monuments Act* (1953), *National Parks Regulations*, and *Parks Canada's Guiding Principles and Operational Policies* (1994). The *Parks Canada Cultural Resource Management Policy* (1994) governs the administration of cultural resources in national parks. The following summarizes the status of key cultural resource management initiatives:

1. A *Cultural Resource Management Plan* is in preparation. This plan will identify the requirements and priorities for managing the park's cultural resources.
2. The *Built Heritage Resource Description and Analysis* (BHRDA) describes the status of built structures outside the Town of Banff. This analysis is incomplete.
3. Several buildings must be evaluated by the *Federal Heritage Buildings Review Office* (FHBRO), the organization responsible for assessing the heritage value of buildings owned by the federal government. Some federally-owned buildings also require a statement describing their heritage character.
4. The park has an extensive *Archaeological Resource Description and Analysis* (ARDA). Archaeological resources should be monitored and the ARDA updated regularly.
5. A completed *Scope of Collections Statement* (SCS) describes the historic objects, artifacts and other materials in the Banff Park Museum and in other park collections.
6. The park's historic objects require *Condition Assessment Reviews*. These documents should be updated regularly, based on a five-year cycle. Environmental monitoring of these objects is required on an ongoing basis.
7. *Commemorative Integrity Statements* (CIS) will soon be completed for all national historic sites. These statements will identify each site's resources and messages of national significance and will set out the objectives for their protection and presentation.

4.2 Strategic Goal

To identify, protect and interpret heritage sites, including the park's built heritage.

4.3 Objectives

- to design programs to protect the park's heritage and cultural resources effectively;
- to protect locally, regionally and nationally significant examples of built heritage; and
- to combine ecological, cultural and commemorative messages in public education programs.

4.4 Key Actions

4.4.1 Culture

1. Recognize the national and regional artistic role of the Banff Centre and encourage the Centre to offer programs that reflect the resources and values of the national park.
2. Support programs to enhance awareness of the mountain culture and landscape.

4.4.2 Cultural Resource Management

1. Adopt the following themes as the basis for evaluating, preserving and presenting the cultural resources of the park:
 - Precontact and Early Native People;
 - Native Peoples - First Contact to the Present;
 - European Frontier Exploration;
 - Banff - Birthplace of Canada's National Parks;
 - Origin and Evolution of the National Park System;
 - Early History of Banff National Park; and
 - Managing a National Park.
2. Complete Commemorative Integrity Statements for each of the seven national historic sites.
3. By 2001, complete a conservation and maintenance plan for all national historic sites.
 - include a requirement for a conservation and maintenance plan in leases and licenses of occupation granted with respect to a national historic site; and
 - use covenants to these agreement to address long-term integrity issues.
4. For the national historic sites:

Cave and Basin

- refocus communication strategies and presentation to reflect the *Commemorative Integrity Statement*; and
- negotiate private sector agreements to provide complementary visitor facilities that enhance a visitor's experience.

Banff Park Museum

- complete structural work and collection conservation measures to ensure the long-term integrity of the site; and
- improve public media and the presentation of key messages.

Banff Springs Hotel

- in cooperation with Canadian Pacific Hotels, prepare a *Commemorative Integrity Statement* for the hotel; and
- support heritage communication initiatives that feature key messages and the hotel's commemoration as a national historic site.

Abbot Pass Hut Refuge Cabin

- to ensure the site's long-term integrity, include requirements for site conservation and maintenance in operating agreements.

Howse Pass

- improve public media in the Saskatchewan Crossing area.

Skoki Ski Lodge

- include requirements of the *Commemorative Integrity Statement* in the licence of occupation agreement;
- prepare a conservation maintenance plan; and
- prohibit any expansion or increase in the Lodge's capacity.

Sulphur Mountain Cosmic Ray Station

- enhance public communication.
5. Integrate cultural resource inventories with the park's other comprehensive data bases (e.g., Geographical Information System).
 6. Prepare strategies and agreements concerning the housing, care and presentation of historic objects that Banff National Park loans to others.
 7. Make cultural resource management an integral component of the environmental assessment process in order to evaluate and address the impact of development on cultural resources.
 8. Involve Canada's First Nations in identifying, interpreting and protecting the cultural and natural resources associated with their historic involvement with the land.

4.4.3 Built Heritage

1. Complete a *Built Heritage Resource Description and Analysis* for heritage buildings outside the Town of Banff.
2. Address deficiencies in regulations in order to maintain a leadership role in the protection of heritage structures.
 - offer incentives to complement regulatory changes; and
 - work with the Town of Banff and other stakeholders to preserve heritage buildings.
3. Submit to the Federal Heritage Buildings Review Office (FHBRO), priority structures 40 years old or older, that need to be assessed.
4. Monitor and maintain buildings recognized or classified by FHBRO.
5. Prepare maintenance manuals for structures designated by the FHBRO.
 - ensure that use of these manuals is a standard requirement in contracts for the operation and maintenance of these buildings; and
 - use manuals as a resource during staff training.
6. Investigate and institute a systematic approach to managing leases and licenses of occupation for heritage buildings.
7. Strengthen built heritage protection by offering private owners/lessees technical support and information on good conservation maintenance practices.
 - promote wise cultural resource management practices as an investment in heritage tourism.

8. In keeping with the *Heritage Railway Stations Policy* (Parks Canada Guiding Principles and Operational Policies, 1994), draft cooperative management agreements for the maintenance and protection of heritage railway stations in Banff and Lake Louise.
9. Work with the Town of Banff to improve the protection of built heritage under the town's jurisdiction.

4.4.4 Archaeological Resources

1. Implement the Banff National Park component of the *Five-Year Plan for Archaeological Resource Management in the Mountain District* (1995) and the associated work plans.
2. Periodically update and revise the *Archaeological Resource Description and Analysis* in order to maintain a useful summary of the archaeological resources in Banff National Park.
3. Develop a long-term, inter-disciplinary research strategy to address the historical role of people in the mountain ecosystem.
4. Prepare a long-term strategy on palaeontology.
 - address needs such as basic inventory and assessment, protection, presentation and historic object management.
5. Evaluate the Vermilion Lakes archaeological site for its potential as a national historic site.

4.4.5 Heritage Rivers

1. Use this document as the management plan for the North Saskatchewan Heritage River.
2. Ensure that the heritage values that led to the nomination of the North Saskatchewan River as a Canadian Heritage River are preserved.

4.4.6 Public Awareness and Involvement

1. Include historical, cultural and natural heritage messages in the park's overall communication strategy.
2. Encourage public awareness of and involvement in the protection and preservation of Banff National Park's heritage resources.
3. Nurture partnerships with the Friends of Banff, the Whyte Museum of the Canadian Rockies, the Banff Centre, and other community organizations.
 - work toward mutual goals for the protection and presentation of cultural resources and events.

A Place for People



5.0 A PLACE FOR PEOPLE

5.1 Overview

From the beginning, Banff National Park has been a place for people. The park provides inspiration for artists, day use enjoyment and short vacations for Albertans, once in a lifetime vacation opportunities for families from further away, a window on Canada for visitors from foreign countries, a source of pride to Canadians as the flagship of the national park system, and a home for individuals and families who serve visitors to the park.

People are a part of the ecosystem. To fulfill the mandate of national parks it is important that people experience Banff National Park in ways that respect its natural and cultural history. The park will continue to offer visitors the opportunity to participate in a wide range of activities that enhance their experience and improve their understanding of natural ecosystems and cultural

heritage. Parks Canada will rely on the private sector to offer many of the services and products that support these park experiences.

Banff National Park will be a place where residents and visitors can enjoy and appreciate the values for which the area was set aside and protected. The Vision for Banff National Park recognizes this role when it states that *people from around the world participate in the life of the park, finding inspiration, enjoyment, livelihoods and understanding.*

All chapters in this management plan address some aspect of visitor use. This chapter provides direction on specific aspects of visitor use not discussed elsewhere. Other significant aspects of human use are covered in the following sections:

- 6.0 Transportation
- 7.0 Communities
- 8.4 Appropriate Use

5.2 A Place for Heritage Tourism

Canada is as rich in cultural events as it is in its great natural beauty. People travel to see something stimulating - like the mountains, coast, forests, great plains in our National Parks, like our historic sites, or like the wide variety of theatre, dance and musical events in our urban centres.

Prime Minister Jean Chrétien
Tourism Industry Association of Canada Conference, 1994

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.

Heritage Tourism actively fosters an appreciation of nature, history and culture. For the purposes of this management plan, this definition has been expanded to include stewardship considerations that must be addressed in a national park.

This definition of Heritage Tourism embraces recreation and experiences that focus on the natural, cultural and historical resources of the park. The principal thrust of these activities is learning, enjoyment, education, understanding, appreciation and participation in the nature and authentic local culture of the Canadian Rockies. A primary aim of this strategy is to preserve the beauty and ecological integrity of Banff National Park as a sustainable tourism destination and ensure that this goal is supported by tourism activities in surrounding regions.

5.2.1 The Importance of the Park to Canada's Tourism Sector

Banff National Park has evolved along with Canada's tourism industry. Pictures of the park figure prominently in the promotion of the Canadian Rockies as a major travel destination for Canadians and international visitors. In many respects, these images have created Canada's appeal as an international destination. As well, Canadians see their identity in the landscape, history and culture that is protected and commemorated in Canada's outstanding system of national parks and historic sites. As the birthplace of Canada's national park system, Banff is an icon for Canadians and for people around the world.

Banff National Park is a testament to the close links between the conservation and tourism movements in the Rockies. This relationship has a range of social and economic benefits. Not only can it stimulate growth in Canada's tourism industry, it is a powerful force for conservation and protection. In 1991, expenditures by visitors to Banff National Park contributed an estimated \$614 million to the provincial economy. Tax revenues generated by visitor expenditures are estimated at \$170 million dollars (AEDT 1994).

5.2.2 A Heritage Tourism Strategy

To ignore the tourism sector in managing Banff National Park is to forfeit the ability to influence visitor use or provide services that meet the needs of visitors. For example, visitors who arrive with unrealistic expectations about what the park is able to offer can damage the park's resources and leave dissatisfied. On the other hand, a tourism industry that sacrifices the integrity of the natural environment for short-term economic gains will quickly lose its competitive advantage in a marketplace that is increasingly demanding quality and authenticity. While visitors are fundamental to the

long-term success and sustainability of the region, the ecological integrity of the park is the basis of the tourism industry and offers that industry a competitive advantage.

A Heritage Tourism Working Group has been established to prepare a Heritage Tourism Strategy for Banff and the Bow Valley that is based on the principles set out in the Banff-Bow Valley Study. The working group includes representatives of the tourism industry in Banff National Park and in the Bow Valley immediately outside the park. This is a positive opportunity for a successful joint tourism planning process, one that will make a significant contribution to the enduring environmental integrity of the park. Parks Canada is committed to the development and implementation of this Strategy.

The objectives of the Banff and Bow Valley Heritage Tourism Strategy are:

1. To make all visitors aware that they are in a national park by fostering visitor appreciation and understanding of the nature, history and culture of the area.
2. To encourage and develop opportunities, products and services consistent with heritage values.
3. To encourage environmental stewardship initiatives upon which sustainable tourism depends.
4. To strengthen employee orientation, training, and accreditation programming as it relates to sharing heritage understanding with visitors.

The following seven steps are crucial to successful heritage tourism in Banff National Park and the Bow Valley area:

1. Identification of heritage tourism opportunities through the development of a heritage inventory.
2. The measurement of the market potential for heritage tourism activities, services and products and the development of tourism marketing and advertising that focuses more specifically on the heritage values of the area.
3. The development of specific action plans that facilitate and enhance learning, understanding and appreciation of Rocky Mountain nature and culture by providing visitors with high quality, authentic experiences, warm hospitality and fair value.
4. The packaging of new heritage activities, products and services that highlight the area's special story and combine heritage activities, attractions and services with transportation and accommodation.
5. Strengthened employee orientation and training as it relates to heritage understanding, including the evolution of interpretive knowledge and presentation standards and accreditation for tour operators, tour guides and escorts and others in the business of sharing the nature, history and culture of Banff and the Bow Valley with visitors.
6. Wide communication of the contents of the draft Heritage Tourism Strategy and encouragement of input into its evolution.
7. Monitoring and evaluation of the on-going success of the program.

5.2.3 Code of Ethics

To ensure that everyone involved in tourism in the park and the Bow Valley area places the same high value on sustainable tourism practices, the Heritage Tourism Strategy proposes that the local tourism industry adopt a Code of Ethics based on the code adopted by the Travel Industry Association of Canada (TIAC).

The strategy recognizes that without the appropriate environmental practices to ensure the integrity of the natural environment, heritage tourism cannot survive. It encourages the tourism industry and its partners to commit to the constant improvement of environmental programming, including the management of waste, water and energy.

5.2.4 Banff National Park's Market Position

Authenticity and quality are two of the most important considerations when people choose a holiday destination. As global markets change, sophisticated travellers are becoming more interested in ecotourism, cultural tourism, soft adventure and educationally-oriented travel. These alternatives to mass tourism are the travel products of the future.

These trends express themselves in the growth of the Culture/Nature, and Touring/Outdoors segments of Canada's international and long haul markets. Banff National Park should focus its marketing efforts on these segments. The park should promote opportunities for exploration and adventure; discovery and learning; appreciation, enjoyment and celebration. This will require target marketing, especially for the shoulder season, and should make use of a variety of messages appropriate for the markets and venues.

5.2.5 Strategic Goal

To provide the opportunity for Canadians and their international guests to enjoy high quality, authentic leisure and travel experiences that are based on national park values.

5.2.6 Objectives

- to prepare a Heritage Tourism Strategy in partnership with stakeholders from the tourism industry in Banff and the Bow Valley;
- to make the tourism strategy an integral part of the operation of the park;
- to prepare a Banff-Bow Valley Code of Ethics, based on the TIAC Code of Ethics;
- to adopt the Code of Ethics as part of the park's daily operations and to encourage all businesses in Banff National Park to do the same; and
- to work with all businesses in the park to promote the understanding and implementation of the Heritage Tourism Strategy.

5.2.7 Key Actions

1. Develop and market opportunities for high quality heritage experiences.
 - collaborate with industry to develop the content required to enhance experiences;
 - work with industry to develop new packages, programs and services based on the natural, historical and cultural heritage of the park; and
 - support training and accreditation programs for staff and managers.
2. Pursue partnerships with the tourism industry and travel trade.
 - build awareness through participation in trade shows and seminars, and the preparation and distribution of trade information;
 - participate in industry familiarization tours;
 - participate in international trade activities;
 - support tour and trade education through accreditation and certification; and
 - recognize industry members who demonstrate a commitment to environmental practices in their operations.
3. Work with the Rocky Mountain Tourism Destination Region (TDR), the Banff/Lake Louise Tourism Bureau, and individual tourism businesses to:
 - ensure "consumer campaigns" include park messages and highlight heritage experiences;
 - encourage the development and promotion of tourism products and activities that enhance environmental and cultural awareness;
 - promote tour operators who have met certification and accreditation criteria for park messages and heritage experiences; and
 - provide the tourism industry with timely information about fees, safety, wildlife and other issues related to protecting and presenting the park.

4. Ensure that marketing efforts are properly targeted and that the needs of the target markets are met. Monitor the effectiveness of the program.
 - use scientific evidence and professional judgement to determine the types of experiences that are consistent with ecological integrity, appropriate use and level of use by visitors and residents;
 - encourage baseline research on natural, cultural, historic and aesthetic tourism resources, including wildlife and fisheries;
 - ensure that prices for the use of park facilities are fair, given the current market conditions, and that visitors receive value for their money; and
 - monitor visitor satisfaction.

5.3 Visitor Services

Banff National Park offers a variety of modern conveniences including first class accommodation, theatres, ski resorts, museums, entertainment, and restaurants. Visitors can enjoy sightseeing, alpine and cross-country skiing, hiking, horseback riding, watching wildlife, cycling, canoeing, kayaking, golfing, fishing, hot springs and spas, shopping, dining, educational programs, and a myriad of other activities. Forty-seven hotels, six hostels, twenty-seven bed and breakfasts and four backcountry lodges offer accommodation to suit any taste.

International airlines fly into the nearby Calgary International Airport. The Canada-US Open Skies Agreement has improved direct access from American communities. The Trans-Canada Highway provides easy access for people travelling by car and regularly scheduled buses offer year-round public transportation between the park and major centres. From May through October, visitors can also travel to Banff by train.

Many people now stay overnight in the surrounding area and visit the park during the day. The number of visitors arriving by bus is also increasing.

The park will continue to offer a wide variety of opportunities for day-use. These will range from roadside facilities such as picnic sites and viewpoints to an extensive network of day-use trails and attractions. It will be through the use of these facilities and services that most visitors experience the park.

Because restraint on government expenditures will continue, the park cannot rely on taxpayers for all the funds it requires. Parks Canada will charge user fees to recover the cost of services that benefit park visitors directly.

In a mountainous national park such as Banff, public safety is of primary 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's involvement in controlling the risks visitors might face will depend mainly on the location and the people involved in an activity. Generally, more effort will be made to protect visitors in high use areas. Visitors to wilderness areas will be expected to accept more responsibility for their safety.

5.3.1 Strategic Goal

To continue to have available a wide range of recreational and tourism opportunities, facilities and services that enable visitors with varying interests to enjoy the park.

5.3.2 Objectives

- to improve opportunities for day users to have an enjoyable experience; and
- to manage outdoor recreation in a way that promotes enjoyment, appreciation and understanding; minimizes environmental impacts; and reduces conflicts between user groups.

5.3.3 Key Actions

1. Continue to provide the existing day-use facilities and services.
 - prohibit the development of new day-use areas; and
 - make changes to existing infrastructure as required.
2. Modify some existing day-use areas to meet the needs of group travellers.
3. Use the appropriate use criteria described in Section 8.4 to evaluate any requests for an increase to existing services.
4. Increase the emphasis on accident prevention (e.g., warning signs, timely and accurate information on park conditions, advice on selecting and planning recreational activities, and applying public safety criteria to the design of facilities and activities).
5. Continue to allow private motor boats, sail boats and commercial boat tours on Lake Minnewanka. Prohibit the use of personal watercraft.
6. Keep commercial use of rivers and lakes, including rafting, at current levels.
7. Prohibit hang-gliding.
8. Allow existing horseback riding concessions at Bow Lake, Lake Louise and the Town of Banff to continue to operate. Refuse any applications for new licenses.
9. Set fees and collect revenue in accordance with Treasury Board policy.
 - recover the entire cost of services that benefit individual visitors;
 - recover a percentage of the cost of services that benefit both visitors and society in general;
 - use tax dollars to pay the costs associated with enhancing ecological integrity; and
 - when setting fees, consider the ability of users to pay, market conditions and the effect of fees on the local economy.

5.4 Awareness and Education

Pre-trip information, information to help orient visitors, and interpretive information can all contribute to a satisfying park visit. Providing this type of information is crucial to the success of the Heritage Tourism Strategy and to the park's ability to maintain ecological integrity.

Communication programs are required for both visitors and residents. The private sector will be a particularly important link in this process. Parks Canada will work with the tourism industry to ensure all communications reflect park values and messages.

Parks Canada uses a variety of means to communicate with visitors and residents. These include mass media, the Internet, and park brochures. There are information centres in the Town of Banff and the Hamlet of Lake Louise. Information is also available at warden offices, campgrounds, trailheads, and from park staff. Private businesses, the Friends of Banff, the Banff/Lake Louise Tourism Bureau and others involved in marketing the park also distribute information to visitors.

The size of the Information Centre in the Town of Banff limits the ability of staff to offer orientation and educational programs. The 1988 *Banff National Park Management Plan* identified the need for a new centre near the park's east gate to welcome and orient visitors and to educate them about the park and the World Heritage Site. The considerable private sector interest in this proposal could make this a viable project.

5.4.1 Strategic Goals

To provide opportunities for visitors to learn about the park's natural and cultural resources.

To manage human use in way that protects the park's ecological integrity.

To offer visitors the opportunity to have a safe, enjoyable and rewarding experience in the national park.

5.4.2 Objectives

- to provide opportunities for park visitors to learn about the park's values, its natural and cultural features, and the ecological issues facing the park; and
- to foster realistic expectations on the part of visitors by providing information that helps them understand what a national park can offer and what types of use are appropriate. This information should be provided before they leave home and on arrival in the park.

5.4.3 Key Actions

1. Continue to provide leadership in offering visitors opportunities to learn about the park.
2. Work with partners and park communities to create a 'community of communicators'; this will ensure park messages are widely available.
3. Coordinate communications to ensure visitors have realistic expectations about what the park is able to offer.
 - use communication tools such as the Internet, mass media, park publications and existing tourism ventures.
4. Retain a Parks Canada interpretive program.
 - focus on key locations, audiences and issues; and
 - work with the private sector to encourage their participation in educational programs for visitors and residents.
5. Work closely with the tourism industry to ensure park visitors receive appropriate messages before they arrive in the park.
6. Study the feasibility of building a high quality interpretive centre.
 - identify potential partners;
 - evaluate potential locations (e.g., in the highway median near the east gate, other locations near the east gate, in or near the Town of Banff); and
 - complete the feasibility study within two years.

5.5 Frontcountry Visitor Accommodation Outside the Communities

Most of the park's overnight accommodation is in the Town of Banff and the Hamlet of Lake Louise. Each community has a plan to control and manage any expansion of these facilities (see section 7.0). Outside the two communities, visitors can stay in outlying commercial accommodation (OCAs), hostels and campgrounds.

The park's 13 campgrounds have a total of approximately 2,500 sites; three overflow camping areas are open in the summer. There is a group campground at Castle Meadows. Tunnel Mountain Village II, Lake Louise trailer campground and Mosquito Creek are open year-round. While frontcountry camping remains a popular activity, the number of campers has declined since 1979.

The Canadian Hostelling Association operates six hostels, including one in the Town of Banff and another in the Hamlet of Lake Louise. These hostels offer visitors rustic accommodation at a lower price.

Nine OCAs offer visitors the chance to stay overnight outside the communities.

5.5.1 Strategic Goals

To keep the existing mix and distribution of visitor accommodation.

To manage redevelopment of visitor accommodation through the use of specific guidelines.

5.5.2 Objectives

- to place a measurable cap on the capacity of all accommodation outside the communities;
- to keep the impact of facilities outside the communities to a minimum;
- to enhance the quality of service; and
- to effectively mitigate impacts of existing resorts.

5.5.3 Key Actions

1. Prohibit the release of new land for commercial or other development in the park.
2. Limits to development have been established for each outlying commercial accommodation (OCA) and hostel. Redevelopment will be consistent with the established limit and the OCA and hostel guidelines that are being prepared. Development proposals will be reviewed according to requirements of the Canadian Environmental Assessment Act, the Canada National Parks Act and the development review process. The Lake Louise Community Plan and supporting Implementation Guidelines will apply to Paradise Bungalows, Chateau Lake Louise and Deer Lodge.
3. Do not pursue the removal or relocation of the Rimrock Hotel, Banff Rocky Mountain Resorts and the Timberline Hotel.
4. Apply the restriction described in section 3.12 to any redevelopment of the Timberline Lodge.
5. Prohibit any expansion of the Rimrock Hotel (see section 5.7).
6. Prohibit the construction of any new hostels.
7. Maintain the current capacity of frontcountry campgrounds and modify existing campgrounds to reflect the needs of campers, travel trends and the marketplace.

5.6 Effective Human Use Management

5.6.1 Introduction

Banff National Park has a long history as a place for people. For countless generations Canada's First Nations used this area. In 1885 it became the country's first national park and people began to arrive from around the world to experience the spectacular mountain environment. Today the park continues to welcome visitors and to offer them opportunities to enjoy and appreciate this outstanding World Heritage Site. As a high profile icon of Canada, Banff National Park is a showcase for demonstrating ecological integrity in action - visitors enjoying the best of nature in ways which allow future generations the same enjoyment.

More than 95% of visitors remain in frontcountry areas near the park's roads. They visit the famous viewpoints and enjoy day hikes and the day use areas. A wide variety of overnight accommodation is available in the communities of Banff and Lake Louise, in the Bow Valley and along the Icefields Parkway.

Most of Banff National Park is managed as wilderness in which natural processes can proceed with minimal human interference. Visitor numbers are low and people can experience freedom, solitude and challenge. Facilities such as trails and campgrounds vary in nature, from well maintained in popular accessible areas to rustic in more distant areas. Random use is permitted in the remotest parts of the park.

Human use management is the direction and guidance of people, their numbers, their behaviour, permissible activities and the necessary infrastructure. The objective of human use management is to allow people to enjoy a national park without damaging its ecological integrity.

Currently, there is little direct management of human use in the park. Given the park's realities - a fixed land base, the ecological sensitivity of many areas and long term growth in the number of visitors - more active management of use is unavoidable. The type of management will vary depending on concerns. Existing low levels of use will be maintained in distant backcountry areas while popular attractions will continue to be managed for large numbers of people. Banff National Park must also work more closely with partners in the surrounding region to provide a wide range of appropriate visitor opportunities in the shared ecosystem.

Human use of the park has affected wildlife in many ways. These include:

1. Animals are killed (eg. as the result of collisions with vehicles or trains).
2. Wildlife are reluctant to use their natural and best habitat because of the presence of humans; or wildlife become accustomed to being near humans. Both situations can lead to the death of animals.
3. Development or the presence of large numbers of people disrupt or destroy wildlife movement corridors.
4. The quality of the habitat changes as a result of human-caused disruptions to natural processes (eg. fire, flooding).

Principles for Human Use Management

- A variety of techniques for managing human use will be applied - indirect methods such as education and facility design and capacity when possible, direct methods such as reservations and quotas when necessary;
- Human use management techniques will apply to commercial and non-commercial users and to park operations;
- A range of appropriate opportunities will be provided for users to enjoy the park, from remote wildland areas to intensively developed day use facilities;
- Collaboration on a regional basis is part of human use management;
- Public advice and input are integral to human use management;
- Human use decisions will be based on science and when possible, supplemented with other information such as legislation, policy, financial implications, cumulative effects, traditional and local knowledge;
- Scientific data will not always be available or complete and rarely is sufficient by itself; informed decision making will be the norm, using as much information and knowledgeable advice as possible;
- Integrity and common sense will underlie all decision making;
- The precautionary principle will apply when the potential consequences are uncertain, coupled with monitoring and adaptive management; management responses will evolve with scientific research;
- Tangible targets will be established, when feasible, for measuring success in achieving human use goals and objectives; targets will rely on a suite of ecological and social indicators for measuring success in providing a quality opportunity (e.g. to reduce congestion) and for limiting ecological impacts; and
- The implementation of the human use management strategy will be phased in.

This Human Use Management Strategy refers to the broad categories of frontcountry and backcountry. Frontcountry refers to those areas of the park which are along or adjacent to roads and which are readily accessible to all visitors. The majority of developed facilities are found in these areas - roads, communities, campgrounds, outlying commercial accommodation, viewpoints, picnic sites etc. A wide range of appropriate activities occurs - day hiking, boat tours, angling, wildlife viewing, camping, horse riding etc. Most visitors spend time in these areas or pass through them and most enjoy some of the available activities.

Backcountry areas are characterized by an absence of motorized access. Summer visitors enjoy these areas on foot or on horseback and a limited number of trails are also available for mountain biking. Facilities are comparatively few and rustic - several backcountry lodges and alpine huts, numerous campsites and many kilometres of trail. Appropriate summer activities are hiking, climbing, horseback riding, backcountry camping and some mountain biking. The remotest areas provide solitude with minimal evidence of human presence.

The park has been divided into 27 Landscape Management Units (LMU), each of which has some common characteristics. (These were identified as Carnivore Management Units in the 1997 Management Plan). For management purposes, the LMUs have been grouped into 5 Ecological Management Areas (EMA). The management direction for each LMU reflects ecological and social objectives. One paramount objective for all LMUs in the park is to retain and, where possible, improve habitat conditions for wary grizzly bears. This will, in turn, provide suitable conditions for many other species and for ecological processes.

Proposals for the LMU surrounding the Town of Banff are being developed through a separate public process with the assistance of an advisory group. Amendments for this LMU will be incorporated into the management plan at a future date.

The proposals contained in this amendment provide direction only for summer use of the park. Future amendments will address human use during the winter and shoulder seasons.

The following sections provide a Strategic Framework for the Conservation of Grizzly bears and human use strategies that apply throughout the park, followed by specific strategies for individual LMUs.

5.6.2 A Framework for the Conservation of Grizzly Bears

Those responsible for grizzly bear management in the Alberta, British Columbia and national park portions of the Central Rockies Ecosystem (CRE) agree with the goal of maintaining a non-declining grizzly bear population. This will become increasingly more challenging because grizzly bears in the Alberta portion of the CRE, including Banff National Park, live in one of the most developed landscapes in North America where the species still survives. Adding to the challenge is the fact that grizzly bear habitat in the CRE is naturally fragmented by rock and ice. Extensive linear developments such as highways, and railways follow valley bottoms and further fragment and stress bear habitat and populations.

Since 1994, Parks Canada has been very involved with other land managers and organizations in the University of Calgary led East Slopes Grizzly Bear Project (ESGBP). Demographic analysis of data from that study shows reproduction characterized by late age of first reproduction, small litter size, long inter-litter intervals and one of the lowest reproductive rates found for a grizzly bear population in North America. Survival rates for adult females were high, between 95-96%. This is attributed to focused and extensive effort by managers to keep individual females alive despite conflict with human use.

Parks Canada is seeking to be proactive in developing a strategy and actions to avoid a decline in the population. Parks Canada will work collaboratively with adjacent land managers to meet common objectives.

Predictability of human activity helps bears to avoid people. Fewer bear conflicts, human caused mortalities and human injuries occur when human activity is more predictable in terms of location and time. The Human Use Management Strategy is important for managing human activity to enhance the conservation of grizzly bears.

There has been significant research in North America on grizzly bears. This research has led to a number of concepts and analytical tools on how to effectively manage for grizzly bears. These include habitat effectiveness, security areas, core reproductive areas, greenness areas, and resource selection function. This research and understanding of these tools continues to evolve as they are applied. Parks Canada's approach will be to apply the principles from these tools where appropriate to the Banff National Park context in working towards ensuring a sustainable or viable grizzly bear population.

Secure habitat is where grizzly bears have a low probability of encountering people. In secure habitat, grizzly bears can feed with little human-caused disturbance and maintain their wary behaviour. The CRE has had extensive loss of secure habitat for many decades, including inside Banff National Park. This has primarily been due to fragmentation caused by increased access encouraging widespread human use.

Table 1 on page 44 of the 1997 management plan identifies targets for habitat effectiveness. Parks Canada's objective is to prevent further decline in habitat effectiveness in all areas of BNP and to increase habitat effectiveness, especially in core reproductive areas.

Three concentrations of female grizzly bears (core reproductive areas) have been identified in BNP - the Pipestone/Baker/Skoki Valley area, the Flints Park area and the Middle Spray Valley area. Human use will be managed more directly in these areas than in other areas of the park. Many of the actions identified in the Human Use Management Strategy (see following sections) are focused on improving habitat security and effectiveness.

Strategic Goal

To maintain a non-declining and viable population of grizzly bears within the regional landscape through collaborative management of human-caused grizzly bear mortality, human land use and landscape conditions. Parks Canada's actions will contribute to the long-term persistence of a healthy population of grizzly bears.

Objectives

- To minimize bear/human interactions that may lead to habituation of bears
- To prevent human-caused displacement of bears from prime food sources
- To minimize the risk of human-caused mortality and human injury inflicted by bears
- To demonstrate leadership and work collaboratively with managers of lands within the CRE, for the ongoing protection of grizzly bears and a functional ecosystem.

Key Actions

1. Emphasize decreasing human caused mortality of adult and sub-adult females, as well as providing for their security, in order to improve cub survival and recruitment, reproductive capacity and ensure wary offspring.
2. Continue to strive to meet the objective (see Section 3.11) of reducing the number of grizzly bears killed as a result of human activity to less than 1% of the population annually. Other indicators are provided in section 5.6.3, Key Action #26.
3. Reduce the frequency of human-grizzly bear interaction, thus reducing the potential of habituation and the probability of human-caused grizzly bear death or human injury.
4. Management strategies will be applied to the three concentrations of female bears with the overall goal being a net contribution of wary bears. Actions will lead to: improved habitat quality, maximizing access to habitat, improved security, minimizing human disturbance events, and enhancing the ability of wildlife to move through the area.
5. Prevent further decline in habitat effectiveness and strive to improve effectiveness, concentrating on the core areas for females. This includes habitat restoration and managing impacts of human use.
6. Improve the security of home ranges, allowing bears to feed in the relative absence of humans to promote the wary behaviour considered desirable.
7. Continue to work with adjacent land managers to maintain, and if possible improve, the connectivity of the grizzly bear population to adjacent populations by maintaining a secure, accessible landscape with high quality dispersal linkages.
8. As part of highway upgrading, introduce mitigations to enhance wildlife movement and reduce mortality.
9. Support public education and interpretive programs to increase the understanding of park visitors with respect to the impact of their behaviour on grizzly bears.
10. Continue to work with other agencies to monitor the grizzly bear population. Develop a long-term monitoring strategy to ensure that actions are taken to maintain the long-term viability of this species.
11. Implement changes outlined in the Human Use Management Strategy to improve security, habitat effectiveness and the survival rate for grizzly bears.

5.6.3 Common Goals and Objectives for All Ecological Management Areas

Strategic Goal 1

To provide the opportunity for Canadians and their international guests to enjoy high quality, authentic leisure and travel experiences that are based on national park values and that offer the opportunity for a safe, enjoyable, and rewarding experience.

Objective 1

- Provide park users and potential park users with appropriate information about the opportunities that are available in the park.

Key Actions

1. Continue to work with partners to offer a wide range of reliable information for park users, both before and during their visits, to ensure they receive appropriate messages about opportunities and have realistic expectations; collaborate with the Mountain Parks Heritage Interpretation Association, the Banff-Lake Louise Tourism Bureau and the many partners in the tourism industry and amongst non-government organizations; provide as much information as possible via the internet, with appropriate links; continue to enhance interpretive programs and on-site messages.
2. Continue to promote appreciation of the park's natural and cultural heritage and with partners, continue to implement the Banff National Park Heritage Tourism Strategy.
3. Identify and focus on key messages and key audiences and use a range of techniques, from static displays to personal interpretation; regional residents are a key audience.
4. Pursue the implementation of an environmental education and interpretive centre in the Town of Banff
5. Improve and update the provision of information at the Lake Louise information centre, in association with partners.

Objective 2

- Maintain frontcountry opportunities at popular locations and provide ecologically appropriate facilities and services, which reflect the park's World Heritage Site status

Key Actions

6. Maintain the existing variety of visitor facilities along the park's roads and adjacent areas (campgrounds, day use areas, viewpoints, interpretive displays, trails, associated parking); reduce environmental impacts and introduce environmentally friendly technologies; improve services to park users by modifying facilities when appropriate (e.g. for improved accessibility) and by consolidating some facilities at locations such as Bow Lake and Saskatchewan Crossing; do not replace low use facilities at the end of their life cycle
7. Identify opportunities and pursue partnerships for improving day use facilities at popular locations. Improvements will be site specific and will include improved traffic flows and parking, modern toilet facilities of adequate capacity, aesthetic facility design, renewed interpretive information and short trails for a wide variety of visitors. Key locations are Johnston Canyon, Moraine Lake, Upper Lake Louise, Bow Lake, Bow Summit (Peyto Lake viewpoint), Lake Minnewanka and Vermilion Lakes.
8. Maintain and improve the parkways and secondary roads as outstanding visitor facilities
9. Pursue the implementation of a transportation system at Lake Louise and Moraine Lake, including intercept parking; participate in the regional transportation study, which will develop strategies for managing traffic throughout the Bow Valley west of Calgary.
10. Continue to concentrate visitor services at the communities of Banff and Lake Louise within established growth limits.
11. Work closely with tour operators to minimize the impact of human use.

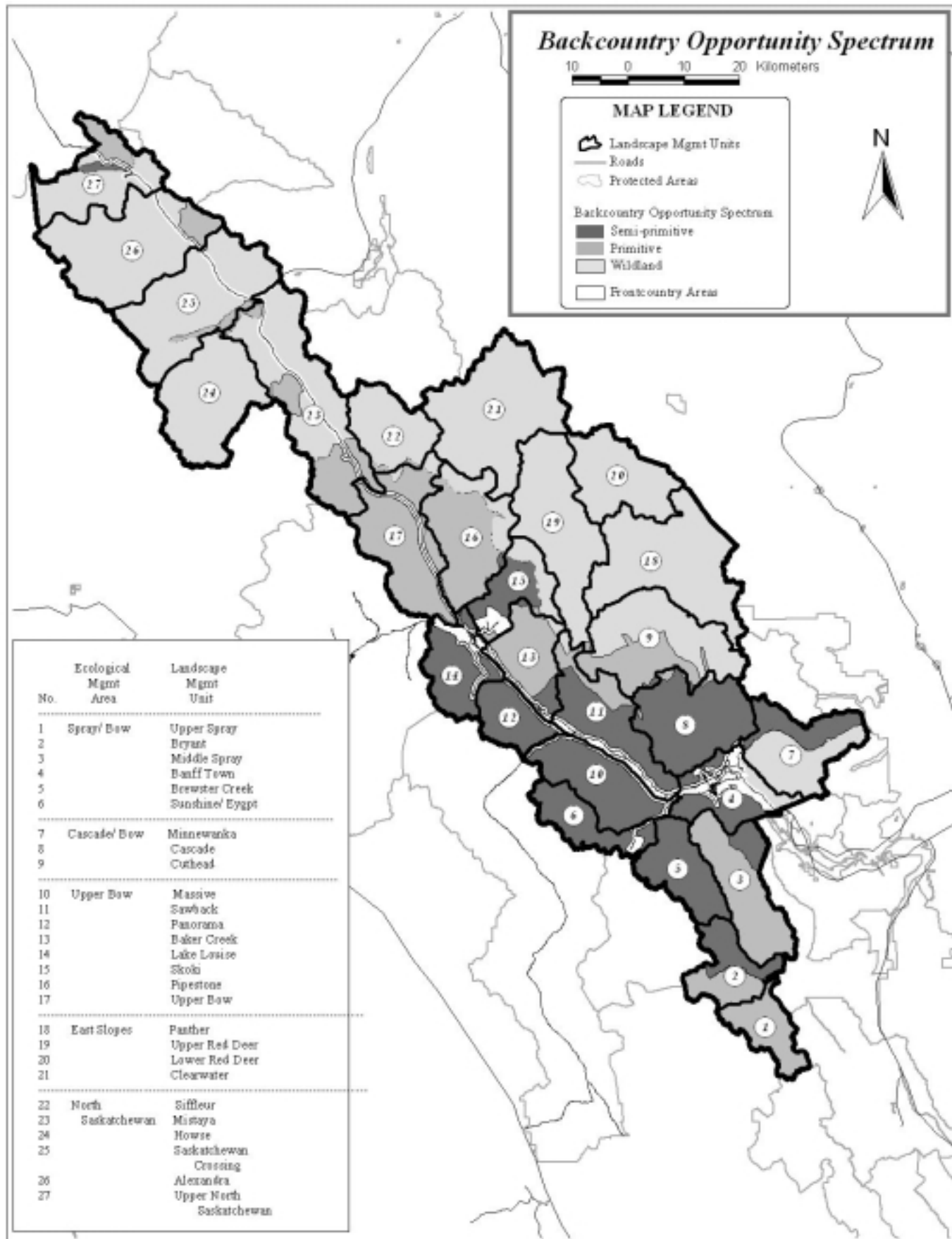
Objective 3

- Use a variety of tools, including the Backcountry Opportunity Spectrum, for managing human use in backcountry areas.

(Approximately 95% of the park is designated as Zone II- Wilderness; the Backcountry Opportunity Spectrum is an operational management tool that recognizes the varying combinations of physical, biological, sociological, access and administrative conditions found within this large area).

Key Actions

12. The current variety of facilities in the backcountry (commercial, non-profit and public) will be continue to be available and will not be expanded. There will be no increase in the total capacity of public overnight facilities but modifications of individual facilities may occur e.g. to improve visitor opportunities or to reduce ecological impacts. There will be no increase in the capacity of individual commercial and non-profit facilities (lodges and huts) but modifications may occur e.g. to improve visitor opportunities or to reduce ecological impacts.
13. Continue to use the three categories of backcountry management for guiding the provision and maintenance of facilities (see Backcountry Opportunity Spectrum map):
 - Semi-Primitive - well maintained facilities and moderate levels of use (most day hiking and almost all mountain biking occurs in this category)
 - Primitive - designated facilities as needed for ecological integrity and park user safety; lower levels of use, no mechanized use
 - Wildland - few or no maintained facilities, very low levels of use, no mechanized use
 - Large blocks of Semi-Primitive backcountry will continue to accommodate visitors on the many popular trails in the southern part of the park, on both sides of the Trans Canada Highway; large blocks of Wildland will retain wilderness conditions in the northeast and northwest parts of the park
14. Manage the Wildland areas for maximum wildlife habitat security, limited human use and opportunities to enjoy remote wilderness e.g.:
 - Discourage increases in use levels
 - Do not permit any expansion of commercial or institutional (non-profit) guiding in these areas except where there is a demonstrable environmental benefit
 - Provide designated facilities only where essential for reducing impacts
 - Infrastructure will not be provided in the Zone 1 (Special Preservation) areas designated in the Management Plan and managed as Wildland - Castleguard and Siffleur/Clearwater.
15. Commercial guiding activities will be consistent with the management objectives for an area e.g. the number, size and frequency of guided groups will be higher in Semi-Primitive areas and lowest in Wildland areas. The approval of new commercial guiding will be carefully managed and in some locations will not be approved if there are conflicts with ecological or social values.
16. Mountain biking will continue to be permitted on appropriate trails in Semi-Primitive areas; mountain biking will continue to be excluded from Wildland areas because of the emphasis on low use in remote areas; mountain biking will continue on the Alexandra fire road as a non-conforming use
17. The Skyline Hikers' and Trail Riders' organizations will continue to be welcome in the park on an extended campsite rotation basis to allow sufficient recovery time from environmental impacts; alternating use of common campsites in less sensitive locations will be required, as well as the use of campsites and associated trails and access facilities outside the park; to reduce impacts, the maximum group size will be reduced to 50 for the Skyline Hikers and to 25 for the Trail Riders and all users will be required to stay on designated trails.
18. Parks Canada will collaborate with the authors and publishers of guidebooks and with licensed guides in an effort to discourage the promotion of off-trail and non-designated trail use in sensitive areas; Parks Canada will work with the mountain bike community to eliminate the proliferation of informal trails and associated ecological impacts; mountain bikes will continue to be allowed only on designated trails.



19. The Goat Creek trail will be designated as part of the TransCanada Trail for non-motorized use. Because of concerns about ecological integrity and existing levels of use on popular trails, other trail designations through the park will not be considered except for the existing designated section of the National Trail alongside the Bow River from the east boundary to the Town of Banff.
20. New mechanized means of travelling in the backcountry will be prohibited.

Strategic Goal 2

To manage human use in ways which protect the park's ecological integrity and which ensure the ecosystem continues to support viable populations of carnivores.

Objective 4

- Manage the park as part of a larger regional ecosystem for both ecological integrity and human use purposes.

Key Actions

21. Parks Canada will continue to collaborate with the managers of adjacent lands (provincial parks, provincial resource lands, local governments) and with other interested parties to foster a shared responsibility for providing appropriate visitor opportunities, especially as regional demand for a wide range of recreational activities continues to increase.
22. As much of the recreational demand, especially for day use, originates in the surrounding region, Parks Canada will collaborate with other land managers in the region to provide improved up-to-date pre-trip information to assist potential visitors in choosing a destination that meets their expectations.
23. Changes to the patterns of human use will be necessary from time to time, to protect ecological integrity, increase visitor safety or improve visitor opportunities. When such changes become necessary and cause displacement, efforts will be made to identify opportunities elsewhere in the park or in the surrounding region. It is recognized that similar needs will occur throughout the regional ecosystem.
24. Parks Canada will improve its knowledge of visitor use in the winter and shoulder seasons, in order to prepare management strategies for visitor use that also recognize the vulnerability of some wildlife species
25. Parks Canada will improve its knowledge of visitor use in the park's aquatic environments, particularly of the Bow River, in order to prepare appropriate management strategies

Objective 5

- Protect the three core female grizzly bear areas and important wildlife movement corridors.

Key Actions

26. The three core grizzly bear areas will be managed to provide suitable habitat for sustaining a healthy population of bears. In the Flint's Park and Middle Spray Valley areas the emphasis is to keep bears wary; in the Lake Louise area, it is to reduce the potential for human encounters and human caused mortality and to minimize habituation. Specific objectives are:
 - Improving habitat quality
 - Maximizing access to habitat
 - Minimizing disturbance events
 - Enhancing the ability of wildlife to move through an area
 - Reducing the potential for conflicts with people

The tools used to achieve these objectives will vary according to the situation in each area. They include:

- Increased predictability of human use
 - Varied management approach by season
 - Management by type of use (horse, hiker, bike, group)
 - Habitat and facility modification (e.g. prescribed fire, trail and campground relocations)
 - Monitoring/evaluating/reporting
 - Adaptive management
 - Continuing and new research
27. Manage human use as necessary in important wildlife habitat and in movement corridors, such as the connections between the three core grizzly bear areas (see individual EMAs for details); continue to implement seasonal restrictions as necessary to avoid sensitive wildlife areas (e.g. wolf and wolverine denning sites, caribou movement areas)
 28. As natural and social science information increases and knowledge improves, modify the management of wildlife habitats to protect and restore ecological integrity and to maintain a range of visitor opportunities.
 29. Develop a monitoring strategy and indicators for measuring the effectiveness of management actions on a priority basis

5.6.4 Ecological Management Areas

(Management direction for Highways and Frontcountry Areas is consolidated in Section 5.6.4.6)

5.6.4.1 North Saskatchewan Ecological Management Area

The North Saskatchewan Ecological Management Unit (EMA), bounded by Jasper National Park to the north, the Continental Divide to the west, Bow Pass to the south, and the Siffleur and White Goat Wilderness to the east, encompasses portions of the Mistaya, Howse and North Saskatchewan watersheds. The EMA includes 120 kilometres of shared boundary with British Columbia and 120 kilometres of shared boundary with Alberta. Access from crown lands in British Columbia is primarily through the Blaeberry River valley and Howse Pass.

The area offers visitors a choice of facilities including the Icefields Parkway, campgrounds, trails, and commercial accommodation. Day hikes, horseback riding, ski mountaineering on the popular Wapta Traverse, canoeing, cycling, and wilderness backpacking are all popular activities. For many visitors, a primary destination is the Columbia Icefield. Glacier Lake is one of the more popular backcountry destinations for day users. Day hiking is popular on the Sunset Pass, Parker Ridge and Nigel Pass Trails. In some areas, it is possible to hike for two or three days and see few groups – an opportunity that is becoming increasingly rare in the park

Strategic Goals

To offer a range of frontcountry opportunities from viewing world-class scenery to facilities including viewpoints, trailheads, day use areas, pull-offs, picnic sites, campgrounds, and outlying commercial accommodations.

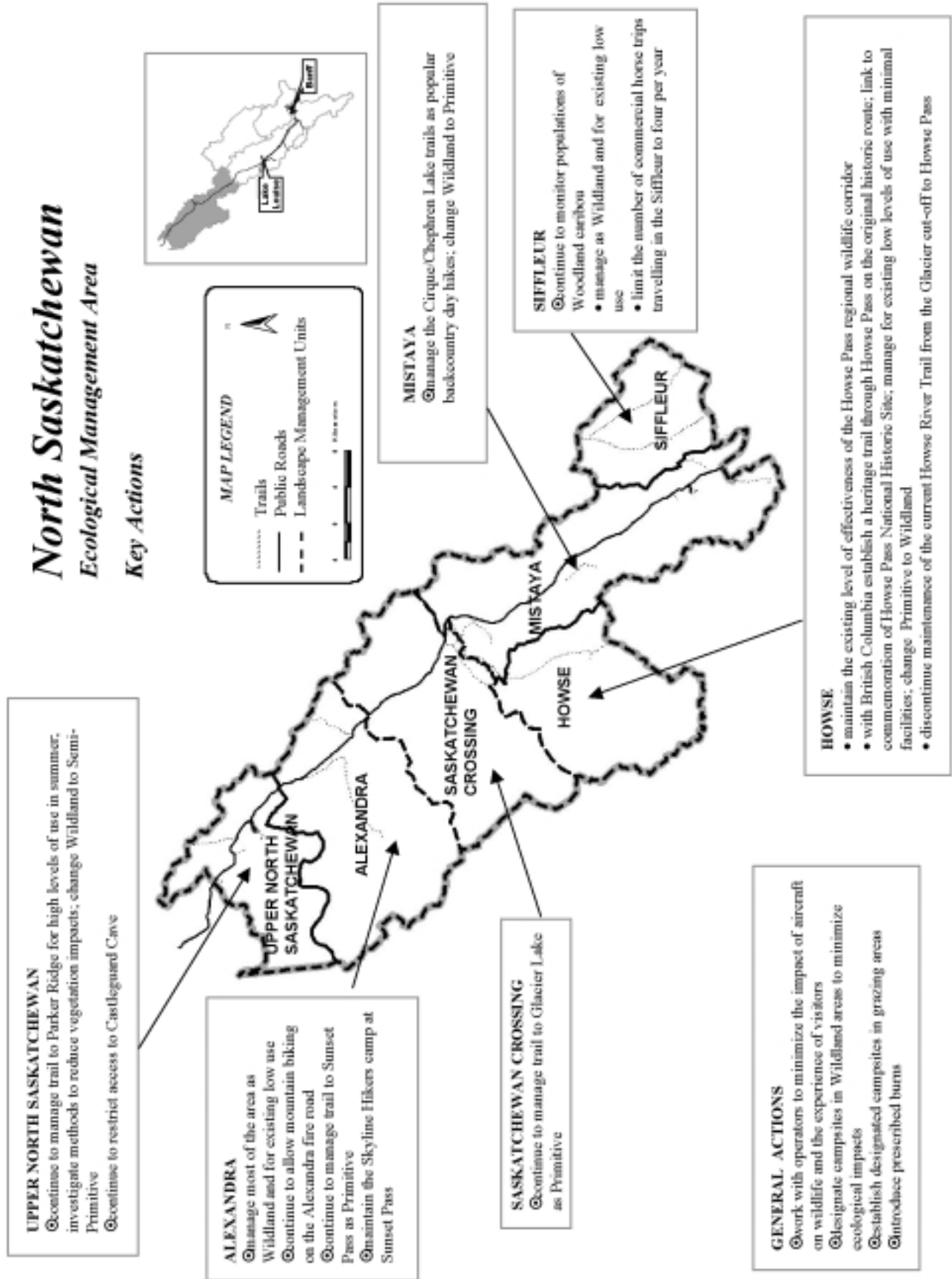
To offer a range of backcountry opportunities from day use trips to special multi-day remote wilderness opportunities where few people are encountered.

To reduce impacts on the montane ecoregion at North Saskatchewan Crossing.

To maintain effective wildlife corridors both within the park and to adjacent lands.

North Saskatchewan Ecological Management Area

Key Actions



Objectives

- To work with provincial agencies on human use initiatives that help improve wildlife connectivity, interpret cultural resources, and maintain remote wilderness values.
- To manage the Siffleur and Howse LMUs as remote wilderness with low use, uncrowded trails and minimal infrastructure.
- To manage most of the Mistaya, Saskatchewan Crossing, Alexandra and Upper North Saskatchewan LMUs for low use with minimal facilities; concentrate high use within the Icefields Parkway corridor and low to moderate use on designated trails within the primitive area.
- To restore ecological processes with an emphasis on prescribed fire in remote locations.

5.6.4.2 Upper Bow Ecological Management Area

The Upper Bow Ecological Management Area is bounded by the Bow and Pipestone Passes to the north, Kootenay and Yoho National Parks to the south and west, and the Sawback Range and Sunshine Road to the east. Much of the park's development is centred in this area - CPR mainline, the Trans-Canada Highway, the community of Lake Louise, campgrounds, day use areas, trailheads, commercial accommodation, and a network of backcountry trails and campgrounds. Some of the most popular and frequently used trails in the park are located in this EMA.

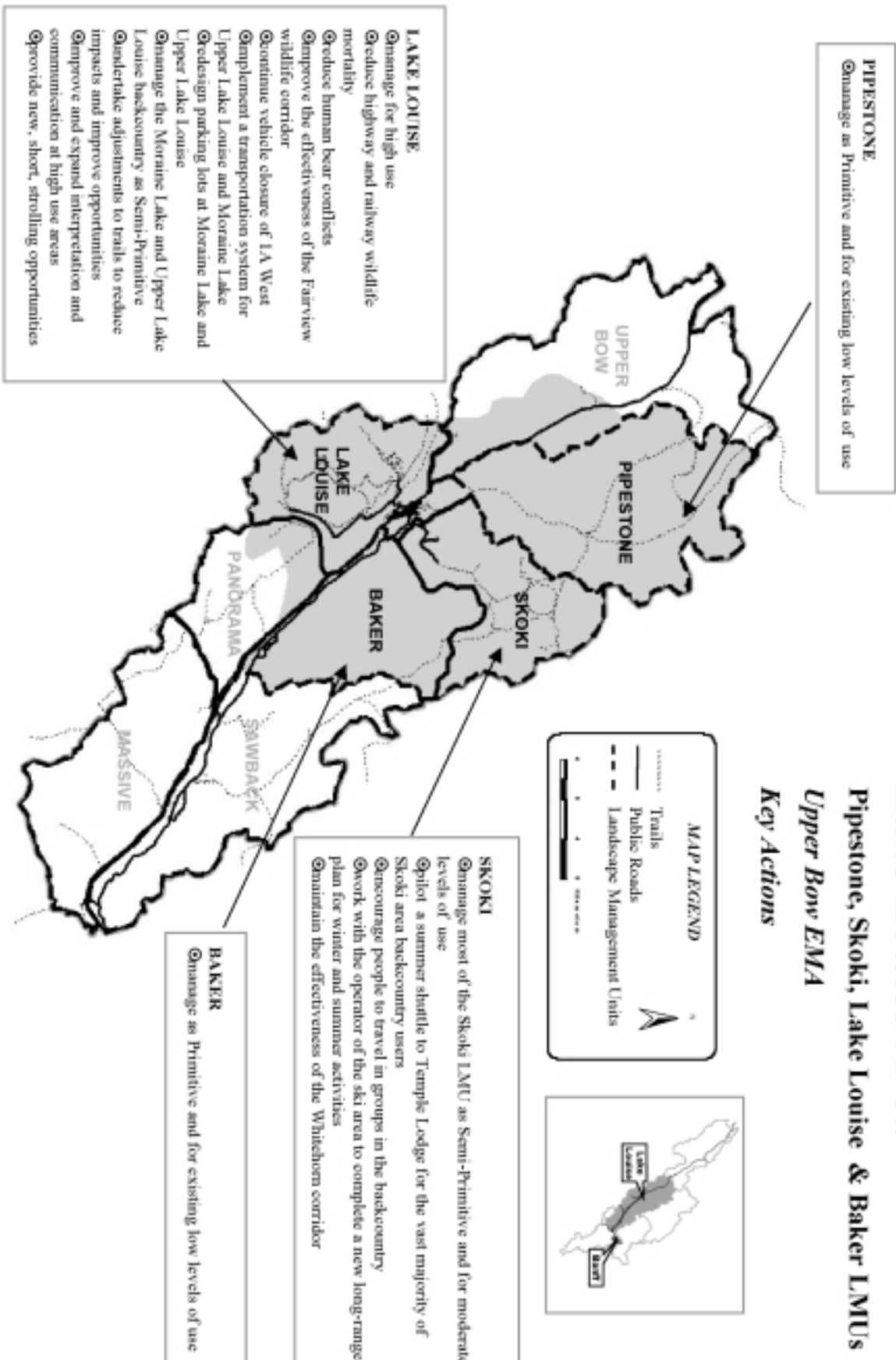
Lake Louise Area Strategy (Pipestone, Skoki, Baker and Lake Louise LMUs)

Parks Canada has undertaken an area planning exercise for Lake Louise, including the hamlet, Upper Lake Louise, Moraine Lake, and the Skoki, Pipestone, and Baker LMUs. The following section provides guidance to respond to the unique challenges in the Lake Louise area.

In the heart of Banff National Park, the Lake Louise area is an important international symbol of Canada and the national park system. Because of its remarkable combination of natural features, mountain scenery, important railway and mountaineering history, as well as its outstanding trail system and skiing opportunities, Lake Louise is a primary destination for many visitors to BNP. The area is also important to a range of wildlife species, particularly grizzly bears. Nowhere else do so many bears and people occupy the same space.

Strategic Goals

- To sustain the population of grizzly bears and other sensitive species.*
- To improve wildlife connectivity and wildlife access to important habitat areas.*
- To offer a variety of appropriate four season activities.*
- To protect and present cultural resources.*
- To enhance the quality of experience for visitors and residents and reduce impacts within the Lake Louise area.*
- To make visitors feel welcome and valued.*
- To provide facilities and services that enable visitors to enjoy the area.*
- To ensure visitor information and marketing activities foster appropriate expectations.*
- To recognize the interests of Canadians, visitors, businesses, residents and the community in providing appropriate high quality national park opportunities.*
- To use education and interpretive programs to promote a better understanding of a sustainable environment, local environmental issues, and the vital role of visitors, residents and staff in protecting the area.*
- To consider the needs of businesses, residents and the community in planning and implementation.*
- To foster the social and economic well being of the community and the tourism industry in the context of the area's ecological health.*
- To implement the approved Lake Louise Community Plan.*



Objective 1

- To reduce wildlife mortality on the TCH and CPR, grizzly bear habituation and risks to public safety.

Key Actions

1. Install a fence around the tenting area in the Lake Louise Campground to reduce bear habituation and bear/human conflicts and to maintain opportunities for tenting.
2. As part of planning for TCH upgrading, prepare a feasibility study for TCH fencing at Lake Louise as a priority; consider including the Hamlet and the campground in the fenced area and necessary wildlife crossing structures; take action as recommended.
3. Continue the seasonal reduced speed zone at Lake Louise until other measures to reduce wildlife mortality are in place.
4. Continue to work with the CPR to reduce wildlife mortality.

Objective 2

- To improve the effectiveness of the Fairview Wildlife corridor.

Key Actions

5. Reduce the volume of traffic through the Fairview corridor through use of a managed public transportation system.
6. Maintain the Tramline Trail; examine possible realignment in some locations to reduce the impact of the trail on the Fairview corridor.
7. Continue vehicle closure of 1A West; allow emergency access; maintain current low to moderate use; ensure activities minimize impacts on wildlife.

Objective 3

- To protect and present locally, regionally, and nationally significant cultural resources, including archaeological resources and built heritage.

Key Actions

8. Implement cultural resource initiatives in the Lake Louise Community Plan.
9. Encourage the protection and presentation of Skoki Ski Lodge and Abbott Pass Refuge Hut National Historic Sites.
10. Encourage the protection and presentation of the Lake Agnes and Plain of Six Glaciers Tea Houses.
11. Provide information at trailheads about national historic sites in the backcountry.
12. Work with operators to protect and present the cultural heritage values of their properties.

Objective 4

- To put in place a transportation system that is a positive, central aspect of the visitor experience, that considers the needs of users and businesses, and results in improved wildlife movement.

Key Actions

13. Pursue transit systems for the Lake Louise area, including regional winter and ski area transportation in consultation with the community, affected stakeholders, and the motor coach industry.
14. Consider a variety of transportation approaches including parking lot management, alternative parking for oversize vehicles, intercept parking, and an aerial and/or ground access system for most day users; focus primary efforts on improvements for July and August.

Objective 5

- To reduce the impacts of informal and designated trails.

Key actions

15. Review informal and designated summer and winter trails; consolidate, realign, or relocate to maintain access and reduce environmental impact.
16. Identify important habitats that support grizzly bears and other sensitive species, link to trail review.
17. Encourage use of designated trails in sensitive areas.
18. Work with mountain bikers to reduce their ecological impact and the proliferation of informal trails.

Objective 6

- To continue to manage for high levels of summer use in the frontcountry of Upper Lake Louise and Moraine Lake with emphasis on improving visitor services and reducing ecological impacts.

Objective 7

- To manage the Moraine Lake and Upper Lake Louise trail system as one of the major day-hiking areas in Banff National Park.

Objective 8

- Undertake adjustments to trails in the Moraine Lake and Upper Lake Louise backcountry to reduce impacts and improve opportunities while providing access to popular locations.

Key Actions

19. Reduce congestion at peak summer use periods at Moraine Lake and Upper Lake Louise.
20. Redesign parking lots at Moraine Lake and Upper Lake Louise to improve the sense of arrival, aesthetic appeal, and vehicle/pedestrian circulation.
21. Prohibit overflow parking and increases in parking lot capacity at Upper Lake Louise and Moraine Lake; provide overflow parking in Lower Lake Louise.
22. Reduce size of parking lots if full public transportation system is put in place; rehabilitate the riparian environment along Louise Creek adjacent to the upper Lake Louise parking lot.
23. Provide new, short, strolling opportunities to better meet visitor interests and reduce impact on the backcountry.
24. Upgrade the Moraine Lake Road to standards appropriate for future transportation system; formalize viewpoints along the Moraine Lake Road.
25. Work with moraine Lake Lodge to integrate day use washrooms at the lodge.
26. Manage the Moraine Lake and Upper Lake Louise backcountry as a semi-primitive area with well-maintained facilities and moderate to high levels of day use on designated trails.
27. Relocate trail to Eiffel Lake and the upper section of Larch trail to improve habitat security and reduce public safety risks.
28. Close the lower Paradise Valley trail between the Lake Annett junction and the Giant Steps in the summer; maintain access to Sentinel Pass and the Giant Steps via the Lake Annett Trail.
29. Continue to close the upper section of the Moraine Lake Highline trail in berry season.
30. Prepare landscape plans for the Lake Agnes and Plain of Six Glaciers teahouses areas to reduce impact on vegetation.
31. Move the Paradise Valley campground to another location in the valley that is less significant as bear habitat.
32. Allow mountain bikes on the Ross Lake connector; consider new trails that encourage bikers to remain on designated trails.

33. Continue the program requiring hikers to travel in groups in the Moraine Lake area to reduce public safety risks and bear/human interaction when grizzly bear activity indicates the need; improve communications to ensure that backcountry users understand the reasons for the program.
34. Separate horses and hikers on some trails (e.g., the Plain of Six Glaciers).

Objective 9

- To manage the Skoki, Pipestone and Baker LMUs for low to moderate use in recognition of their importance as a reproductive area for female grizzly bears.

Objective 10

- To improve grizzly bear habitat security, reduce habituation and risks to public safety.

Objective 11

- To continue to manage the Skoki area as one of the premier overnight camping and backcountry lodge destinations in the park.

Objective 12

- To monitor, maintain and improve, if necessary, the effectiveness of the Whitehorn wildlife corridor.

Key Actions

35. Manage use in the Baker and Pipestone LMUs at existing low levels and in the Skoki LMU at existing moderate levels
36. Manage most of the Skoki LMU as Semi- Primitive with well-maintained facilities and moderate levels of day and overnight use on designated trails.
37. Manage the Baker and Pipestone LMUs as Primitive.
38. Improve important grizzly bear habitats in the Fish Creek/Temple area and the Whitehorn wildlife corridor. Pilot a summer period shuttle to Temple Lodge for the vast majority of Skoki area backcountry users (i.e., allow horse users to continue to access area on Temple Road); as part of the pilot set the number of trips and scheduled departures from a centrally located staging area in the valley bottom; relocate the public portion of the Fish Creek parking lot in consultation with the ski area and other users; assess the impact of the introduction of a shuttle on the Hidden Lake Campground, patterns of visitor use and ecological benefits prior to a long term decision.
39. Encourage visitors to travel in groups and to stay on designated trails in sensitive areas in the summer to reduce disturbance events throughout the Skoki area.
40. Address the future of summer use at the ski area as part of the long-range ski area plan and the associated comprehensive study, including management strategies for the Whitehorn wildlife corridor.
41. Pending the completion of the long range ski area plan, manage summer use of the ski area on a year-to-year basis with specific conditions. During this period, there will be no major change to the nature and scope of summer use.
42. Close Temple Road to mountain bikes; identify a substitute trail in an acceptable location.
43. Consolidate redundant trails in the Red Deer Lakes and Merlin Meadows areas and at Deception Pass to improve habitat effectiveness.
44. Maintain the current capacity of Skoki Lodge.
45. Encourage the use of trails that have the least amount of impact on important bear habitat during certain times of the year.
46. End maintenance of the Baker Creek trail from the Bow Valley Parkway to Wildflower Junction.
47. Use prescribed fire to improve habitat along the Pipestone Trail and in Baker Creek.
48. Apply a variety of techniques (e.g., timing, location, number/size of trips) to limit trail damage by horses in sensitive areas.
49. Continue to work with commercial horse outfitters to reduce impacts on grizzly bear habitat effectiveness in the Skoki, Pipestone and Baker LMUs.

50. Establish designated campsites within horse grazing areas.
51. Work with the Trail Riders of the Canadian Rockies to relocate their camp from the Pipestone valley to an area less sensitive to large groups.
52. Explore options to increase habitat effectiveness and to improve wildlife movement in the Baker Lake Campground area (e.g., closure of the Baker Lake Campground during berry season, relocation of the campground in the area).
53. Prepare a comprehensive vegetation management strategy for the Lake Louise area that addresses protection of facilities and the enhancement of grizzly bear habitat away from areas of high human use.

Objective 13

- To make communications and education a central aspect of all initiatives.

Key Actions

54. Update and expand interpretation at Moraine Lake, Upper Lake Louise and the Hamlet and popular viewpoints.
55. Support the tourism industry in developing visitor education programs.
56. Work with businesses and the community to develop educational and training programs that encourage staff to become responsible stewards and ambassadors who actively help safeguard the ecological values of the area.
57. Celebrate the mountaineering history of the area by incorporating this important theme in interpretation programs and other services.
58. Install new orientation facilities at Moraine Lake and Upper Lake Louise trailheads to help visitors find trails that match their interests.
59. Improve the Skoki trailhead facilities to identify the importance of the area to bears and how people can help protect the area.
60. Educate hikers about the importance of using designated trails in sensitive areas to reduce their impacts on wildlife.
61. Improve directional signs so that visitors can find their way more easily.

Massive, Sawback, Panorama and Upper Bow LMUs

Objectives

- To manage the Massive LMU as a day-use area.
- To protect the Johnston Canyon, Hillsdale, and Sawback Range natural areas of significance.
- To protect the fragile alpine environment near Bourgeau Lake and Lost Horse Creek.
- To update and expand interpretation at high profile areas and popular viewpoints.
- To reduce the impact of human use on water quality at Bow Lake.

Upper Bow

Upper Bow, Panorama, Massive, Sawback LMU Ecological Management Area

Key Actions

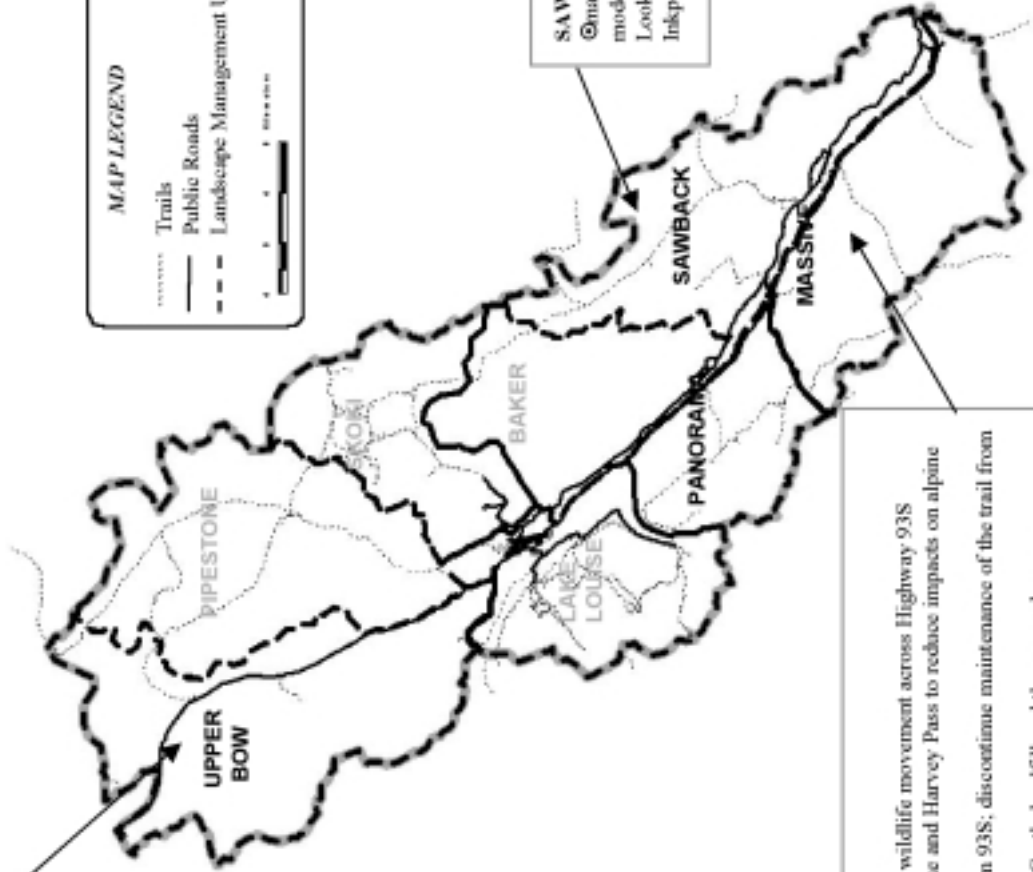
UPPER BOW
 @manage the Helen Lake Trail as a popular backcountry day hike;
 @monitor increasing day use and bear-human conflicts
 @maintain the Skyline Hikers camp at Mosquito Creek
 @work with Alpine Club of Canada and other operators on a human use strategy for the Wapta Traverse

MAP LEGEND

- Trails
- Public Roads
- Landscape Management Units



SAWBACK
 @maintain high levels of summer day use and moderate winter day use on the Castle Lookout, Tower Lake, Johnston Canyon and Inkpots trails



MASSIVE
 @continue to gather data on options to improve wildlife movement across Highway 93S
 @define trails and install signs at Bourgeau Lake and Harvey Pass to reduce impacts on alpine environments
 @continue to provide access to Twin Lakes from 93S; discontinue maintenance of the trail from Castle Camp to Twin Lakes
 @ensure completion of the rehabilitation of the Castle landfill and the research camp

5.6.4.3 Spray/Bow Ecological Management Area

The Spray/Bow EMA comprises the southern part of the park, south of the Trans Canada Highway and the Town of Banff. There are heavily used backcountry areas and the Sunshine Ski Area. The EMA is bordered on the east and west by provincial parks, including Spray Lakes and Mt. Assiniboine, and some BC forest land. Popular destinations are Sunshine Meadows, the Egypt Lake area and trails in the Bryant area en route to Mt. Assiniboine. Goat Creek trail is popular for mountain biking. The Middle Spray valley is one of the three core female grizzly bear areas.

Strategic Goals

To sustain the grizzly bear population in the south end of Banff National Park

To provide a range of backcountry recreational opportunities.

To manage human use more closely in the Bryant unit because of its importance to female grizzly bears.

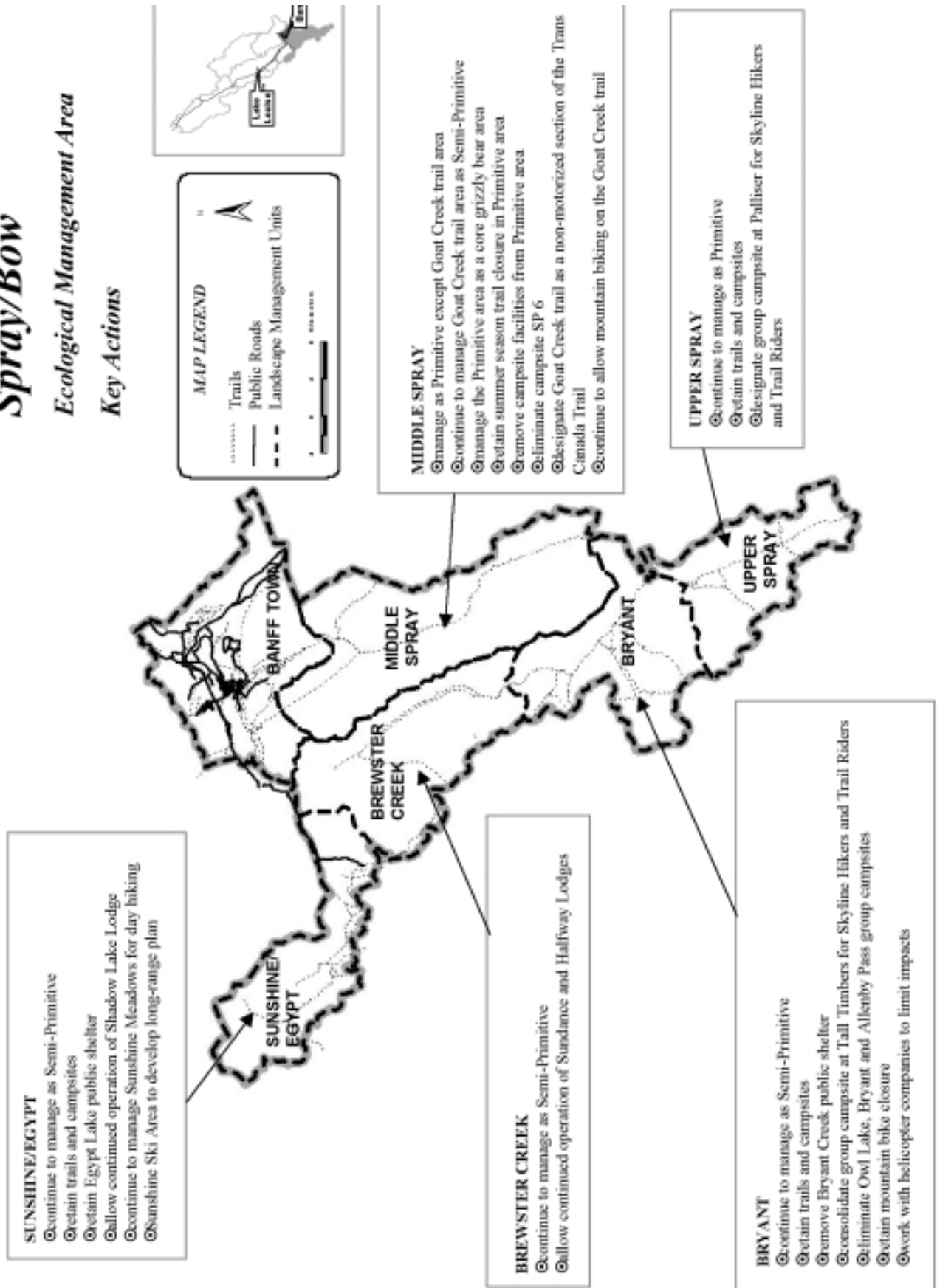
Objectives

- To place a priority on the protection of the core female grizzly bear area.
- To ensure backcountry management reflects social and ecological goals.
- To provide opportunities for moderate levels of summer use at the accessible north and south ends of the EMA.
- To continue the high levels of winter use at Sunshine.

Spray/Bow

Ecological Management Area

Key Actions



5.6.4.4 Cascade/Bow Ecological Management Area

The Cascade/Bow EMA is northeast of the Town of Banff and bordered on the east by Alberta provincial land, including Don Getty Wildland Park and the Ghost Wilderness Area. Lake Minnewanka is the most prominent feature. The area south of the lake has been designated as the Fairholme Environmentally Sensitive Site to protect an important area of montane habitat. Commercial boat cruises and private boating are popular at Lake Minnewanka. Day use and hiking are heaviest at the northwest end of the lake and north of the Town of Banff. Areas further north in the EMA are popular for horse riding, especially commercial trips to three semi-permanent camps. Flint's Park is a core female grizzly bear area and has the highest concentration of bears of the three such areas in the park.

Strategic Goals

To provide diverse recreational opportunities.

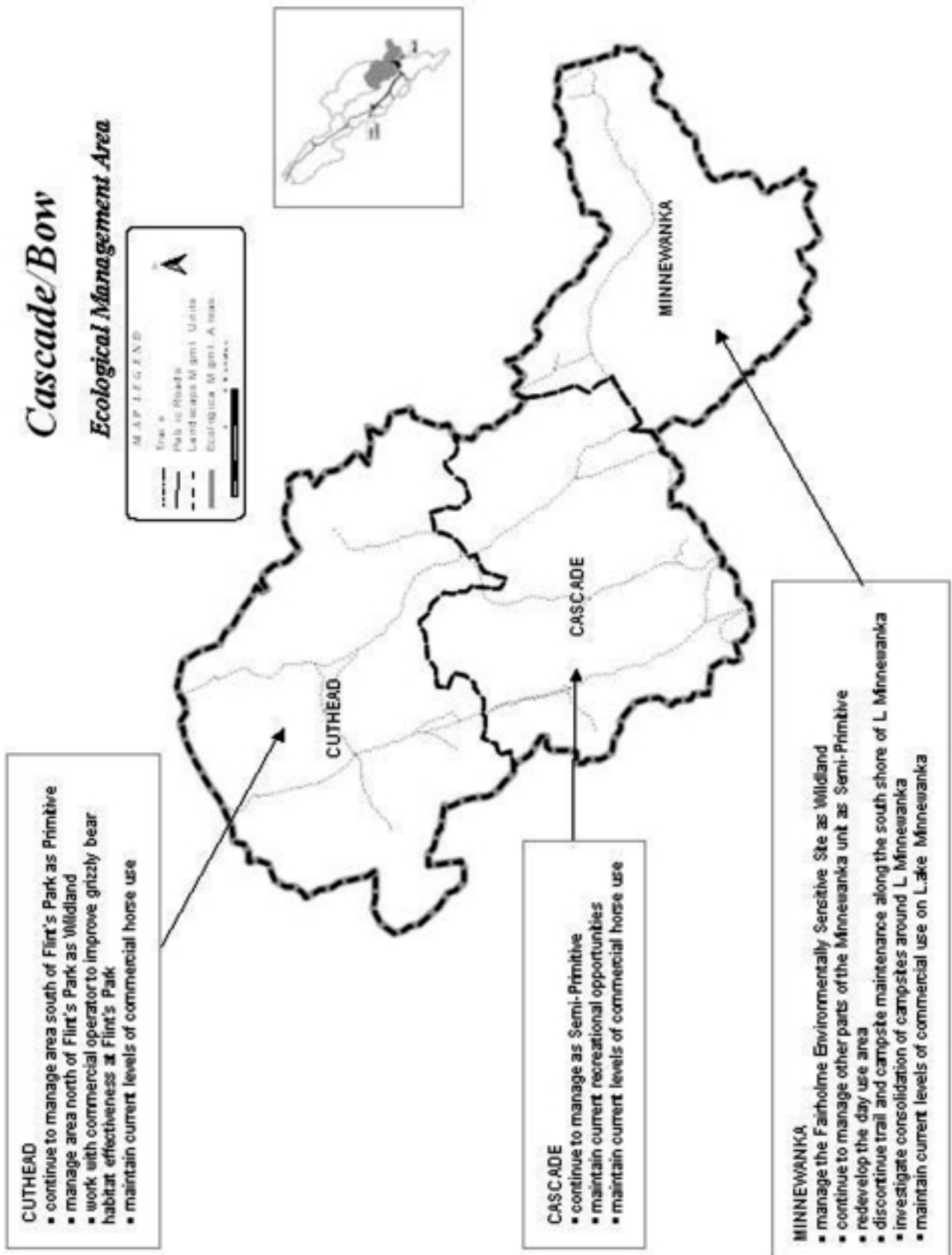
To protect, and where necessary, restore ecological integrity.

Objectives

- To continue to accommodate moderate numbers of visitors and a variety of activities in the Lake Minnewanka area and lower numbers elsewhere.
- To protect the core grizzly bear area at Flint's Park and improve habitat security.

Cascade/Bow

Ecological Management Area



5.6.4.5 East Slopes Ecological Management Area

The East Slopes EMA is in the northeast part of the park, adjacent to Alberta provincial land. It is the largest area of roadless wilderness in the park. Use is low compared to other parts of the park. It is a destination for wilderness travel, especially for horse parties.

Strategic Goals

To preserve the EMA as a remote area with a naturally functioning ecosystem.

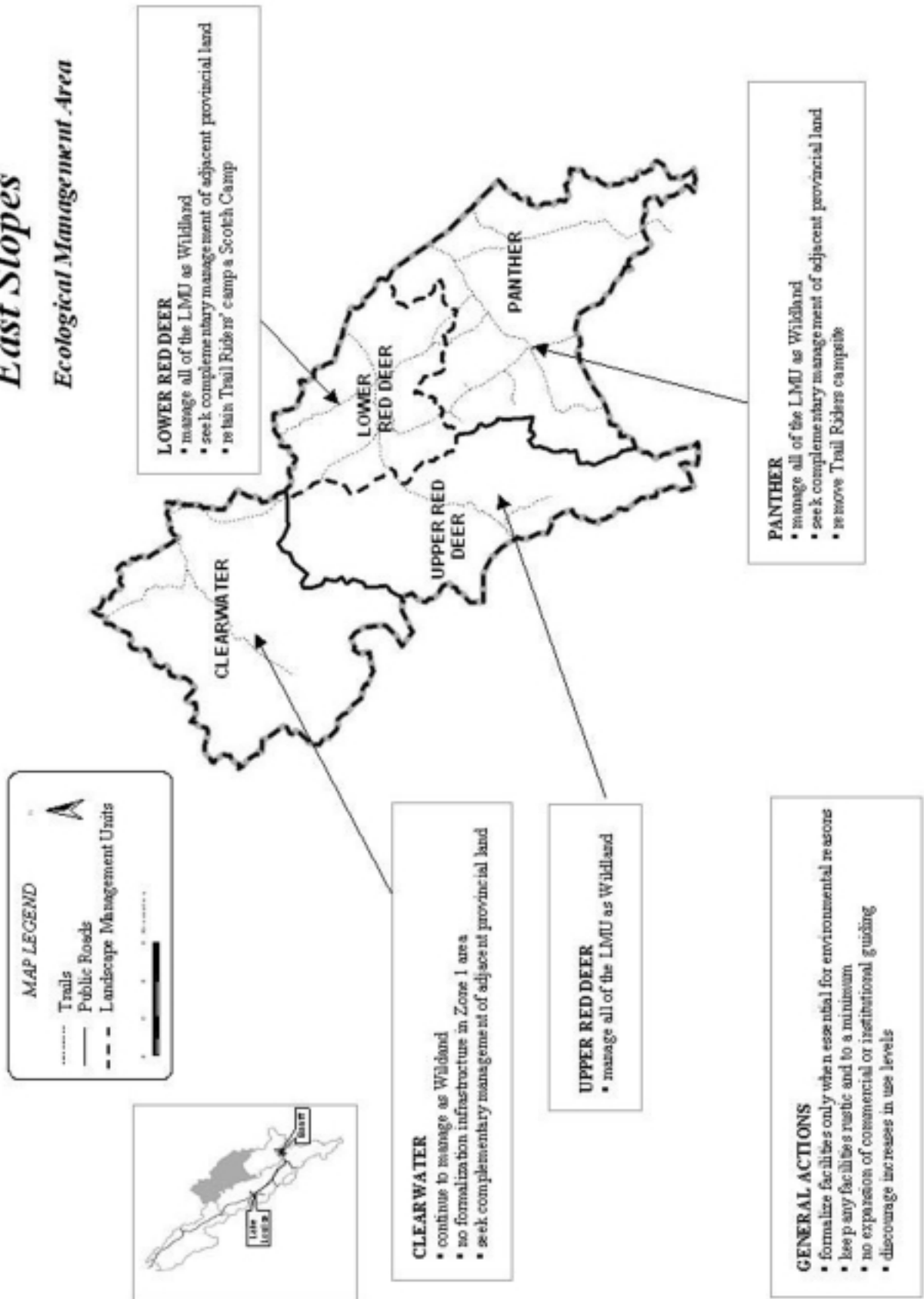
To offer visitors a wilderness recreation opportunity not found in other parts of the park.

Objectives

- To ensure that the backcountry management designation reflects management intent.
- To keep use, facilities and management presence to a minimum.
- To seek complementary management of adjacent provincial lands.
- To retain very high levels of habitat security and species diversity.

East Slopes

Ecological Management Area



5.6.4.6 Highways and Frontcountry Areas

Several roads pass through Banff National Park, including the Trans-Canada Highway. Secondary roads provide access to popular destinations such as Lake Minnewanka, Upper Lake Louise and Moraine Lake. Individual EMA strategies above include recommendations concerning the secondary roads. This section combines information for the through roads, which affect more than one EMA.

Strategic Goals

To encourage appreciation, understanding and enjoyment of the uniqueness of Banff National Park along park roads and at frontcountry facilities.

To offer a range of frontcountry opportunities for independent and group travellers.

To concentrate human use on park roads and at select hardened frontcountry facilities as a means of directing service improvements, focusing interpretation and managing ecological impacts.

To encourage frontcountry visitors to leave their vehicles and experience the park environment first hand.

To continue to examine transportation systems to improve visitor opportunities and reduce ecological impacts.

Objectives

Highway 93 South

- To manage Highway 93 South as a main through road with the range of existing opportunities to enjoy the park.

Trans-Canada Highway

- To provide visitors with welcoming, attractive roadside facilities that give visitors the opportunity to experience the park's spectacular scenery.
- To keep delays to through traffic to a minimum.
- To provide access to major services.
- To pursue Trans Canada Highway upgrading between Castle Junction and Lake Louise subject to available funding.

Icefields Parkway

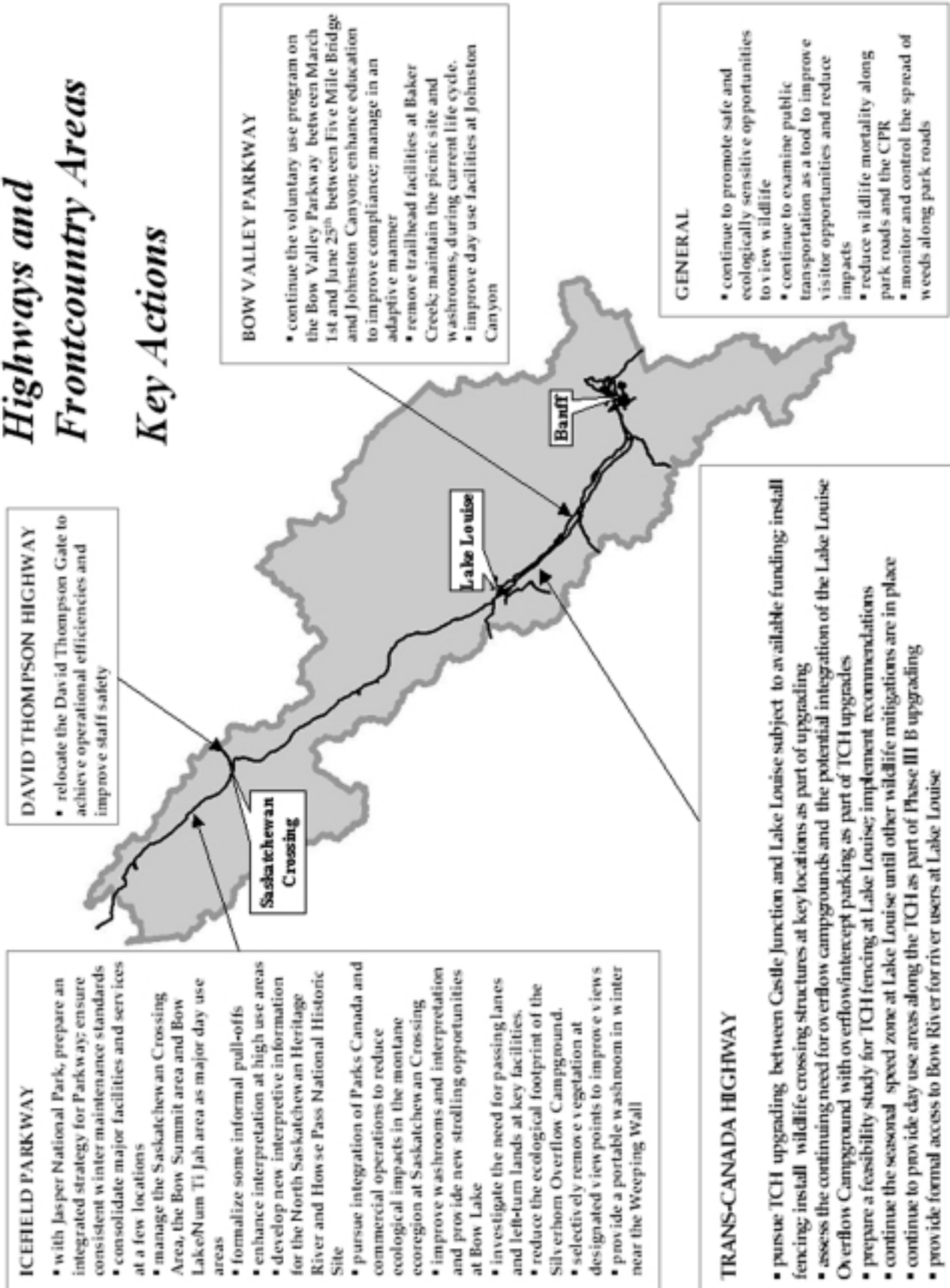
- To allow park visitors, including independent travellers and the motor coach industry, to enjoy the parkway's world-class scenery.
- To provide opportunities along the parkway to learn about the park's natural and cultural resources and to stay overnight at a range of accommodations.

Bow Valley Parkway

- To offer visitors a slower-paced scenic drive with several opportunities to enjoy the scenery, to learn about the Bow Valley and the park, and to stay overnight at a range of accommodations.

Highways and Frontcountry Areas

Key Actions



5.6.5 Backcountry Use

The following Key Actions remain unchanged from the 1997 Management Plan

1. Backcountry Lodges
 - Maintain the current capacity of Skoki Lodge
 - Prohibit the use of helicopters or oversnow vehicles to transport guests and their supplies to the lodges
 - Prohibit the use of horses to transport guests and their supplies to Shadow Lake Lodge
 - Allow helicopters and oversnow vehicles to service the lodges
2. Allow the Alpine Club of Canada to maintain huts in specific locations, at or above treeline, as support or emergency facilities for mountaineering activities.
 - Prohibit the construction of new alpine huts
 - Prohibit the use of helicopters to transport visitors and their supplies to the huts
 - Allow helicopters and oversnow vehicles to service the huts
3. Prohibit horse-drawn conveyances in backcountry areas
4. Allow Nordic ski tracks to be set in Zone II areas where required for the operation and management of the park

5.7 Sulphur Mountain

Sulphur Mountain is on the western boundary of the Town of Banff. The mountain's popularity with tourists began with the establishment of the national park and the use of the Cave and Basin area. In 1904 the government built its first facility on Sulphur Mountain where the Rimrock Hotel stands today. In 1915, the Upper Hot Springs Road opened to motorists. A weather station was built on the mountain's summit in the 1920s. The gondola opened in 1959.

Parks Canada recognizes that human use and development have long had an impact on wildlife and on the mountain's natural and cultural resources. To reduce this impact, the park has access to a variety of techniques:

- closing specific trails permanently or during a particular season;
- fencing and closing certain areas (e.g., the closure associated with the Middle Springs II residential development);
- reducing lighting around facilities; and
- reducing the use of private vehicles by offering visitors other means of transportation.

The area also has the potential to become a centre for education and information where visitors can learn about the park and ways to reduce the impact of human use.

5.7.1 Strategic Goal

To reduce the impact of human use and development on the resources and wildlife movement on Sulphur Mountain, while allowing human use of the area.

5.7.2 Key Actions

1. Prepare an area plan for Sulphur Mountain, including the adjacent sections of the Spray and Sundance Valleys.
2. Continue to allow private vehicles on Mountain Avenue, the road to Sulphur Mountain (see Section 6.1.3).
3. Honour approvals for housing in Middle Springs II. Parks Canada will never consider development of Middle Springs III and IV.
4. Allow the Rimrock Hotel to remain in its current location.

5.8 Ski Areas

The three ski areas in Banff National Park - Norquay, Skiing Louise and Sunshine - are the cornerstone of winter tourism for the park. Most of the park's winter visitors come to ski at these world-class facilities. This raises environmental issues associated with development and operation of the areas, particularly during the summer. All three ski areas have approved long-range development plans.

The new *Development Review and Approval Process* (see Section 8.3) will ensure that development that is consistent with the long-range plans is evaluated publicly. With the input of the ski areas, Ski Area Development Guidelines will be prepared to guide the development and operation of ski areas. These guidelines will define how CEAA applies to proposals for development of ski areas, the information required at various stages of the project, and the role of public participation. They will also include appropriate operational guidelines.

5.8.1 Strategic Goal

To implement a strategy for summer and winter use of the three ski areas. The strategy will support the long-term viability of the ski hills, while keeping the impact on ecological integrity to a minimum.

5.8.2 Objectives

- to provide skiers with the opportunity for a satisfying experience that is consistent with the national park setting and the Heritage Tourism Strategy;
- to ensure the management of ski areas respects approved long-range plans;
- to ensure summer use of ski areas considers questions of habitat security, wildlife movement and human-wildlife conflicts; and
- to provide a reasonable degree of certainty regarding future planning, project review and approvals.

5.8.3 Key Actions

WINTER USE - THREE SKI AREAS

1. Ensure the overall direction of the three ski areas respects long-range plans, including the specified capacity for each area.
 - ensure new development is consistent with the approved plans.
2. Legislate the boundary of the Sunshine Ski Area following the approval of a revised long-range plan and required environmental assessment.
3. Allow lifts and runs, including glading, only where permitted by the long-range plans.
4. With the input of ski area operators and the public, prepare guidelines for the operation and maintenance of ski areas.
5. Work with ski hill operators to incorporate environmental stewardship principles as part of their operation and to ensure that existing problem areas are addressed.

SUMMER USE

Skiing Louise

1. Complete a review of the existing summer activities at Skiing Louise within one year. Recommend whether these activities should continue and, if so, the mitigation measures required.

Sunshine

Sunshine Ski Area has an approved summer use plan which allows for the operation of the gondola.

1. Allow the current summer operation, which consists of scheduled buses/vans that provide access for hikers and hotel guests, to continue, subject to appropriate environmental standards, until a revised plan is approved.
2. Examine the number and frequency of bus or vehicle trips between the parking area and the village; implement any required management actions.

Norquay

1. Prohibit summer use of the lifts; this use is inconsistent with the long-range plan.
2. In cooperation with Mount Norquay, monitor the impact of the ski hill and its operation on wildlife.

5.9 Banff Springs Golf Course Area

The Spray Valley is an important wildlife corridor between Kananaskis Country and the Bow Valley. Because of its location between the Lower Spray and the Bow River, the golf course interferes with wildlife movement through this area.

Built in 1911, the Banff Springs golf course attracts golfers from around the world. The federal government turned over the operation of the 18-hole course to Canadian Pacific Hotels in 1927. CP expanded the golf course to 27 holes in 1988.

Between 100 and 400 elk use the golf course area on a year-round basis. The area attracts elk because there are few carnivores and a plentiful supply of attractive vegetation. As the area is also popular with visitors, these elk are used to being near people. This has raised concern about public safety, particularly as many of these elk also roam through the Town of Banff. The presence of so many elk is also causing extensive damage to natural vegetation around the golf course.

Other factors affect wildlife movement between Sulphur Mountain and the Spray Valley. These include vehicles on the golf course loop road, operation of the sewage treatment plant, and hiking and skiing along the Spray River.

5.9.1 Strategic Goal

To manage use in the golf course area between Sulphur Mountain and the Spray Valley, so that the impact on wildlife is minimized and the area is attractive to large carnivores.

5.9.2 Objectives

- to encourage carnivores to use the area by reducing human use in the winter and at night;
- to minimize the impact of the golf course; and
- to address the issue of habituated elk.

5.9.3 Key Actions

1. Prohibit expansion of the golf course.
 - allow only those modifications that benefit the environment.
2. Explore, with CP Hotels, options to restore wildlife movement and improve habitat security.
3. Continue to close the loop portion of the golf course road in winter. On an experimental basis, close the road past the Club House to public vehicles during the summer and monitor the effects.
4. Close the area from dusk to dawn year-round.
5. In cooperation with CP Hotels, introduce the following techniques to address the problems associated with elk in the area:
 - encourage carnivores by reducing use of the golf course at night and in the winter;
 - track the movement of elk through the golf course area and the town beginning in 1997; and
 - in the fall of 1998, in consultation with the Town Elk Advisory Group, study options for managing habituated elk in and around the Town (e.g., relocating elk that do not migrate).
6. Keep the golf course unfenced. Fencing the area would exclude elk and carnivores from high quality montane habitat and would affect wildlife movement between Tunnel Mountain and Mt. Rundle.
7. Work with CP Hotels to modify outdoor lighting in the area.

5.10 Fencing Communities and Facilities

The Banff-Bow Valley Study made various recommendations to reduce human-wildlife conflicts and increase the effectiveness of wildlife habitat and movement. A principal recommendation of that study was the construction of fencing around the Town of Banff and around facilities such as campgrounds, and outlying commercial accommodation (OCAs).

Fencing is only one way to reduce conflicts between wildlife and humans. Facility design (e.g., garbage management), trail location, quotas, and re-establishment of predator-prey relationships, are equally, if not more important. The scientific evidence supporting widespread use of fencing to protect the public or the park's ecological integrity is inconclusive. There is also concern that the widespread use of fencing will affect the ability of visitors to enjoy the park.

5.10.1 Strategic Goal

To reduce human/wildlife conflicts and improve habitat effectiveness associated with communities and facilities, through the limited experimental use of fencing and other techniques.

5.10.2 Objectives

- to apply an adaptive management approach to human/wildlife conflicts through the experimental use of fencing; and
- to continue to use fencing in conjunction with wildlife crossings as a key mitigation for highway twinning (see Section 6.1).

5.10.3 Key Actions

Parks Canada will not implement the recommendations of the Banff-Bow Valley Study to fence all campgrounds, OCAs and the entire Town of Banff, however, the following actions will be taken:

1. Study the movement of elk in the Town of Banff and surrounding area.
 - based on the results of the study, relocate elk that are habituated to humans; and
 - encourage public involvement and understanding of the study through a public communication program.
2. Use human use management techniques to increase the attraction of certain habitat for predators.
3. As an experiment, fence specific locations around the Town of Banff.
 - as a first step, build a fence along the railway tracks and between the Indian Grounds and the town.
4. On an experimental basis, adopt the following and other measures to reduce the habituation of bears in the Lake Louise area:
 - frequent highway patrols to clear bear jams;
 - rapid clean-up of grain spills on the railway;
 - campground patrols to ensure sites are kept clean; and
 - communication programs.
5. Address the issue of problem wildlife in campgrounds using techniques other than fencing.
 - close certain areas seasonally;
 - change bear management strategies;
 - implement public education programs; and
 - in selected locations, on an experimental basis, test fencing that carnivores cannot get through.
6. Pursue the building of the perimeter fence already agreed to in association with the Middle Springs II housing development. Monitor results.

*T*ransportation



6.0 TRANSPORTATION

6.1 Ground Transportation

In a national park, transportation is more than just moving people between destinations. It is a key component of tourism, providing travellers with the opportunity to sightsee and explore the mountain environment. This is particularly true in Banff, where roads like the Icefields Parkway offer visitors unforgettable views of the park's mountain wilderness. Unfortunately these same roads and railways have a considerable impact on the park environment. In Banff National Park, the transportation question is particularly complex due to the existence of two major, national transportation corridors - the Trans-Canada Highway and the Canadian Pacific Railway main line.

Given the economic and social significance of the CPR and the TCH, and the lack of viable alternatives, these routes will remain in the park. The park must, however, look at ways to reduce their environmental impact. Both the railway and the TCH cut through prime wildlife habitat in the montane and lower subalpine ecoregions, and affect wildlife movement through these areas.

Every year millions of people travel along the TCH; some visit the park, some simply pass through en route to other destinations. An estimated 54% of all vehicles entering the park pass through without stopping. The number of vehicles on this road has been increasing at between five and eight per cent annually. This growth is expected to continue, thanks to the area's popularity as a tourism destination, the rapidly expanding population of Canmore, and the westward expansion of Calgary. By the winter of 1997, the TCH will be twinned from the Banff East Gate to Castle Junction.

The highway has a more significant environmental impact than the railway. Collisions with vehicles on the unfenced section of the highway are a major cause of mortality for species such as elk, deer, moose, wolf and coyote. While fencing along the twinned section of the highway has reduced wildlife mortality, it has caused problems for wildlife movement. Large carnivores, particularly bears and wolves, have been hesitant to use the existing wildlife structures that pass under the highway. Researchers believe that wildlife will prefer the overpasses currently under construction as part of the Phase IIIA twinning project.

The CPR main line passes through some of the park's most critical habitat, including the Vermilion Wetlands. Collisions with trains are an important cause of wildlife mortality; elk are especially vulnerable. Another issue associated with the railway is grain spills, particularly along the siding east of Lake Louise. Wildlife attracted by the grain come to depend on this food source and are no longer concerned about being close to people.

The highways and the railway have affected natural water flows and the health of riparian areas. Causeways through wetlands, and culverts under roads and the railway have altered the natural evolution of the park's aquatic systems.

The Bow Valley Parkway (Hwy 1A) is an east-west secondary road along the Bow Valley, north of the Bow River. This road runs parallel to the TCH and offers visitors a more leisurely and scenic drive, as well as access to facilities such as trails, viewpoints, and picnic areas. Traffic on the parkway and the number of people in the valley are the key factors associated with habitat impairment in this section of the important montane ecoregion, especially in late winter and early spring.

6.1.1 Strategic Goal

To provide a safe and efficient vehicle and rail corridor through the park that supports the national transportation system and is compatible with Parks Canada's commitment to ecological integrity.

6.1.2 Objectives

- to reduce the environmental impact of the road, rail and utility corridors;
- to provide a secondary road system that is consistent with ecological integrity goals and the quality of the visitor experience;
- to apply state-of-the-art mitigation measures that have been demonstrated to be effective;
- to minimize the risk to the environment of spills along the railway and roads; and
- to identify areas where roads and the railway have caused direct or indirect loss of riparian and aquatic habitat, and implement measures to restore these habitats.

6.1.3 Key Actions

1. To study ground transportation issues to the year 2010. This study will begin within two years and will focus on the following:
 - minimizing the impact of vehicles on the ecological integrity of the park, while providing adequate access to facilities;
 - using transportation as a tool for managing human use by:
 - assessing the ecological carrying capacity of an area;
 - limiting the type and number of vehicles allowed in certain areas; and
 - limiting the infrastructure (e.g., parking spaces, road conditions, speed limits);
 - minimizing the impact of private vehicles by promoting public transit where practical;
 - introducing transit systems that help people enjoy their visit, providing benefits to visitors such as better access, more opportunities to learn about the park, and access for more people;
 - addressing existing and anticipated problems with parking and access. Areas of particular concern include Lake Louise Lakeside, Moraine Lake, and Lake Minnewanka;
 - ensuring transit systems are financially self-supporting;
 - deferring or substantially reducing the capital cost associated with upgrading major transportation infrastructure; and
 - studying regional transportation needs and issues.
2. Close Highway 1A from Lake Louise to the Great Divide picnic area; maintain access for emergency vehicles if required.
3. Eliminate vehicle use of the Bow Valley Parkway between March 1st and June 25th, from 6 p.m. to 9 a.m., between Five Mile Bridge and Johnston Canyon;
 - promote this closure using signs and public education programs;
 - close the two picnic sites along the Parkway until June 25th; and
 - increase our knowledge and improve our science understanding of the area.

This will be the first step in an adaptable management strategy to increase habitat effectiveness in the area. Other measures such as installing gates may be considered.
4. Allow motorized vehicles on the Vermilion Lakes Road only as far as First Lake (see Section 3.14).
5. Beginning in the winter of 1997/98, on an experimental basis close a portion of the Lake Minnewanka loop road in the winter:
 - initially, close the western section of the Minnewanka Loop Road in the winter, from the intersection to the road to Johnson Lake to the Lake Minnewanka concession; and
 - promote the closed section of road as a cross-country ski trail and monitor the effects on wildlife.

6. Improve the road surface, viewpoints and signs along the Icefields Parkway, with particular attention to the special needs of the motor coach industry.
7. In partnership with CP Rail, identify ways to reduce the impact of the railway. Priority areas for study include wildlife mortality, grain spills, and water flow.
8. Implement the recommendations concerning roads in the golf course area as described in Section 5.9.
9. Assess the potential use of public transit to reduce the number of private vehicles on Mountain Avenue and to alleviate the demand for parking on Sulphur Mountain. Parks Canada will not close Mountain Avenue to private vehicles. This road provides access to the Upper Hot Springs, the Rimrock Hotel, and the Sulphur Mountain Gondola (see Section 5.7).
10. In partnership with managers of adjacent lands, study ways to reduce wildlife mortality on highways.
11. Study ways to make existing wildlife overpasses along the Trans-Canada Highway more effective:
 - as a first priority, complete a study of wildlife movement in the highway corridor. This study will:
 - provide more information on the effectiveness of underpasses in Phases I and II;
 - monitor the effectiveness of the new overpasses in Phase IIIA; and
 - identify major crossing points for Phase IIIB;
 - look at opportunities to improve the existing wildlife underpasses in Phases I and II. Parks Canada will not build any new wildlife overpasses in Phases I and II until an assessment of the overpasses along Phase IIIA is complete;
 - reroute trails near the wildlife overpasses and prohibit use of overpasses by visitors; and
 - monitor wildlife movement east of the Town of Banff to determine what actions are necessary.

6.2 Air Transportation

Transport Canada is the federal agency responsible for regulating aviation in Canada. There is currently no regulation of flights below 10,000 feet other than the requirement to remain more than 500 feet above ground level, and 1,000 feet away from structures and built-up areas. Parks Canada controls where aircraft can land in the park and generally restricts landings to the Banff airstrip and the helicopter pad in the industrial compound.

The scientists who advised the Banff-Bow Valley Study clearly demonstrated that there is a significant wildlife corridor at the base of Cascade Mountain, and that the airstrip, along with adjacent facilities, interferes with wildlife movement through the area.

While there are no detailed records of overflights by fixed-wing aircraft or helicopters, evidence suggests that the number of flights over the park and adjacent areas is increasing. This has an impact on wildlife and on the experience of visitors, especially in backcountry areas.

6.2.1 Strategic Goal

To minimize the impact of aircraft, and their associated facilities, on the ecological integrity and aesthetics of the park.

6.2.2 Key Actions

1. The airstrip will be closed and returned to its natural state.
2. With Transport Canada, pursue restrictions on and reductions to overflights. If this is not possible for the entire park, the departments should look at specific areas where environmental or aesthetic problems are the most acute.

a
Place for
Community



7.0 A PLACE FOR COMMUNITY

7.1 Overview

The Town of Banff and the Hamlet of Lake Louise have a long history in Banff National Park. Both communities were established shortly after the completion of the Canadian Pacific Railway and later became centres for visitor services, the location of Parks Canada's administrative offices and places where people who work in the park could live.

The Town of Banff and the Hamlet of Lake Louise will face similar issues during the coming years. The central challenge will be to manage growth and at the same time offer visitors the products and services they need to enjoy the park. This means that residents and visitors must understand the impact of the communities and tourism on the park's resources.

While playing host to millions of visitors creates opportunities, it also threatens the character of the communities. Growth management will be critical if the unique character and sense of place of the communities are to be preserved.

The Town of Canmore, a community of almost 8,000 people just outside the park's east gate, has a strong influence on park operations. It is a community that is growing very rapidly. By the year 2010, researchers anticipate that Canmore will have a population of 20,000. This growth on the park's boundary will create more traffic and more demand for recreational activities. It will also affect the health of the ecosystems that surround the park; maintaining wildlife corridors and effective habitat for wary species is of particular concern.

Canmore has begun to take on more responsibility for providing services for park visitors and employees. More and more travellers stay in the Canmore area and visit the park during the day. As well, many people employed in the park now live in Canmore.

Parks Canada will work with the Town of Canmore to manage the impact of park use on the Town and the effects of community growth on the park and Central Rockies Ecosystem.

7.2 Town of Banff

The Town of Banff and the local economy have evolved with the tourism industry. In the early years, park services reflected the fact that visitors arrived by train. Later, as more visitors began to arrive by car, auto courts, motels and campgrounds were built in and around the community to meet their needs. Today the Town of Banff continues to play a dominant role in Banff National Park. Approximately 80% of visitors to the park also visit the community.

On January 1, 1990, *The Town of Banff Incorporation Agreement* granted local government to the Town of Banff. This federal-provincial agreement sets out the terms of incorporation of the town, and transfers specific, limited municipal government powers from federal hands to the Town Council through the Municipal Government Act of Alberta. The Town is administered by an elected Council and the federal government retains final authority on planning, land use, development, and environmental issues.

The Town of Banff Incorporation Agreement sets out the following purposes and objectives for the Town:

- a) to maintain the townsite as part of a World Heritage Site;
- b) to serve, as its primary function, as a centre for visitors to the Park and to provide such visitors with accommodation and other goods and services;
- c) to provide the widest range of interpretative and orientation services to Park visitors;
- d) to maintain a community character which is consistent with and reflects the surrounding environment; and
- e) to provide a comfortable living community for those who need to reside in the townsite in order to achieve its primary function.

The Town of Banff's Municipal Development Plan and related bylaws govern administration, management and land use within the town boundaries. The Minister responsible for Parks Canada has the authority to approve the plan and all amendments. The *Incorporation Agreement* also specifies (Section 5.15) that all plans and bylaws must conform with the *Banff National Park Management Plan* approved by the Minister responsible for Parks Canada.

In addition to any other provisions of the park management plan pertaining to the Town of Banff, the community plan, bylaws and actions of the Town of Banff will be subject to and limited by the following requirements;

The following issues are to be addressed in the Community Plan:

- commercial and residential growth;
- managing growth;
- built heritage;
- appearance and atmosphere of the community;
- noise, water, and air quality;
- lighting;
- transportation;
- architectural standards and themes; and
- landscaping standards.

The community plan and related bylaws shall incorporate the following key principles:

1. No net negative environmental impact;
2. Leadership in environmental stewardship and heritage conservation;
3. The management of appropriate use; and
4. A growth management strategy that reflects a maximum annual growth of 1.5% for commercial development.

Policy Direction for the Town of Banff

1. As of the day of the announcement of the federal government response to the proposed community plan, the Town shall be limited to an increase of 350,000 sq. ft. of commercial development from the existing commercial development base.
2. The Minister of Canadian Heritage intends to introduce legislation that will redefine the boundary of the Town of Banff in the *National Parks Act*. This change is intended to reduce development in the montane ecoregion and to protect world famous scenic landscapes, such as the view of Mount Rundle from the Trans-Canada Highway.
3. It is anticipated that the population of the town shall not exceed 8,000 permanent residents. Full development of Middle Springs II will therefore not be required. Surplus lands on the boundaries of the town will be added to the protected zones of Banff National Park. In addition to the 55 units in place or in construction, approximately 100 additional units in Middle Springs may be developed
4. The Pinewoods commercial zone will be added to the protected zones of Banff National Park and the associated leases will not be renewed.
5. Six environmental protected areas contiguous with the previous town boundary will be added to the protected zones of Banff National Park, including the area previously known as Middle Springs III and IV.
6. Parks Canada will establish an environmental education centre within the Town, focussing on sustainable communities and the management and protection of ecological integrity within national parks. This facility will be located on commercial leases on the east side of the 200 block of Banff Avenue. The area shall be rezoned to public service at the appropriate time.
7. A Canada Place will be established within the current Park Administration Building.
8. Parks Canada and the Town of Banff are committed to the principle of Need-to-Reside.
9. The *Canadian Environmental Assessment Act* (CEAA) as amended, revised, consolidated or substituted from time to time, applies within the Town.
10. Parks Canada will work with the Town and the Banff/Lake Louise Tourism Bureau to develop and implement the *Heritage Tourism Strategy* (see Section 5.2).
11. The Town of Banff will work toward defining and becoming a model environmental community and will address issues such as noise, lighting, air quality, non-native plant species, phosphates, etc.
12. The Town of Banff will continue to show leadership in the conservation and use of water.
13. The Town of Banff will participate with Parks Canada and other jurisdictions in regional planning and other regional initiatives.
14. The height restriction in the commercial downtown or CD district shall be a maximum of 2.5 stories or 9 m.
15. The height restriction in the Commercial Accommodation - Banff Avenue or CA district shall be a maximum of 3 stories of 11.5 meters.
16. In the commercial accommodation districts, meeting rooms or ancillary guest services, including basements, shall be considered as part of the commercial square footage allocated to that development.

Section 5.7.2.3 - this section of the 1997 Banff National Park Management Plan is deleted.

All land use designations, descriptions and locations are as defined in the revised April 1998 A Land Use District Map@, completed by the Environmental Services Department of the Town of Banff.

7.3 Community of Lake Louise

Development at Lake Louise began in the early 1880's with the construction of a siding to serve the needs of the Canadian Pacific Railway. Visitors began arriving in 1885. Tourism continued to grow, and by the early 1920's Lake Louise had become a North American mountaineering centre. Hostels and lodges were built in the valley as well as at the lake. By 1925, the area was accessible to private vehicles and pressure for additional development grew.

Today Lake Louise has three distinct areas - the lake and its surrounding area, the valley floor and the ski area. The primary role of Lake Louise is to provide basic and essential services, while maintaining ecological integrity and park values. Lake Louise is also a residential community for the people who are directly involved in providing basic and essential services.

One of the biggest questions for national parks is how to clearly state the direction national parks are taking in managing development, growth and use. In Lake Louise, growth has been carefully controlled. However because of its remarkable combination of natural features, stunning scenery, important railway history, outstanding summer and winter recreational opportunities, Lake Louise is a primary destination for many visitors to Banff National Park. This is creating demands for expanded services, facilities and residential accommodation.

Parks Canada, with the involvement of the Lake Louise Advisory Board, and in consultation with the public, completed the *Lake Louise Community Plan* in June 2001. The plan, approved by the Minister of Canadian Heritage, will govern development and guide change in the community during the next 10 to 15 years. The strategies and limits to growth outlined in the plan are the basis for decisions in the community and will ensure Lake Louise and the Park remain healthy – environmentally, socially and economically. The plan also recognizes the importance of our cultural heritage and identifies measures to protect Lake Louise's character.

The community plan responds to the *1997 Banff Management Plan*, the Minister's principles for national park communities and decisions on the Chateau Lake Louise Meeting Facility and was reviewed in light of the Ecological Integrity Panel's report.

The community plan provides direction for commercial development in Upper Lake Louise (the Chateau, Deer Lodge and Paradise Bungalows) and the Hamlet of Lake Louise.

7.3.1 Role Statement

- be a model national park service centre that reflects the surrounding natural environment and national park values;
- serve primarily as a major day-use destination and visitor service centre;
- have activities and fixed limits to growth that ensure Lake Louise and the park remain healthy and that visitors enjoy a quality national park experience;
- offer a limited range of overnight visitor accommodation;
- offer basic and essential services and facilities that support heritage tourism; heritage appreciation and the protection of ecological and cultural resources are the foundation of this type of tourism;
- serve as a centre for Parks Canada's operations and administrative activities;
- provide limited residential accommodation for people who are directly involved in providing basic and essential services;
- share services with Field, Yoho National Park and the Town of Banff; these will include accommodation, schooling, medical services and operational services; and
- maintain the integrity of the regional landscape.

7.3.2 Strategic Goals

To maintain a healthy community – environmentally, socially and economically

To ensure there is no net negative environmental impact on adjacent park land.

To provide appropriate basic and essential visitor and residential services that reinforce national park values.

To limit growth.

To show leadership in environmental stewardship and heritage conservation.

To recover the cost of municipal services.

7.3.3 Key Actions

1. Maintain the area as a visitor centre that provides only basic and essential services.
 - reject proposals for social services such as a school and hospital
2. Prohibit new commercial accommodation operations.
3. Prohibit privately owned residences; head lessees, groups of sublessees, non profit groups and institutions will provide appropriate residential accommodation.
4. Prohibit the development of new land outside the Hamlet for commercial purposes.
5. Specific guidelines governing development and operation of the community will follow the directions outlined in the approved community plan and will be considered part of the *Banff National Park Management Plan*. Key actions from the *Lake Louise Community Plan* include:
 - reduce the Hamlet boundary to better protect adjacent park land
 - protect the Fairview and Whitehorn wildlife corridors
 - undertake environmental stewardship initiatives such as wastewater treatment plant upgrades, expanded recycling, energy and water conservation and reducing the use of phosphates
 - establish a framework to monitor the impact of the community on the park
 - adopt a heritage tourism strategy
 - offer programs to make visitors and staff more aware of their role in protecting the park
 - limit basic and essential services to defined guidelines
 - respect existing commitments for the development of the Chateau Lake Louise Meeting Facility, expansion of the Hostel and Train Station restaurant, for a total of 15,606 square metres, 67 guest rooms and 154 overnight guests
 - allow an additional increase of existing commercial accommodation operations for a total of 3,660 square metres, 58 guest rooms and 148 overnight guests
 - phase commercial growth over a minimum of ten years
 - limit commercial accommodation to a maximum of 2,700 visitors/night; allow each existing operator to expand to assigned limits subject to meeting the requirements of the development review process and rigorous application of the *Canadian Environmental Assessment Process*
 - ensure infrastructure can support growth
 - allow improved recreational and social services
 - limit retail expansion to existing commitments

- require development proposals to include strategies for protecting important built heritage; use the *Built Heritage Resource Description and Analysis* for Lake Louise when making decisions about heritage buildings
 - enforce architectural, landscape, transportation, parking, sign and lighting guidelines
 - limit residential accommodation to those who need-to-reside and eliminate the existing accommodation shortfalls by 2005. Shortfall housing must be addressed before any permits will be granted for commercial expansion. Housing required as a result of commercial expansion must be completed before or at the same time as the expansion.
6. Prepare *Implementation Guidelines* to provide detailed design and site parameters to support the implementation of the *Community Plan*.
 7. Allow for and encourage the introduction of public transportation to Upper Lake Louise and Moraine Lake.
 8. Recover the costs of the majority of municipal services.
 - maintain the participation of community representatives in decisions about municipal services
 9. Lake Louise will not become an independent, self-governing community.
 10. Close the Trailer Court by 2005 when the current licence of occupation expires.

Harry's Hill and the Horse Corral

1. Retain the Harry's Hill residential area and allow minor infilling; prohibit boundary expansion
2. Retain the government horse corral subject to operational needs.

A Place for Open Management



8.0 A PLACE FOR OPEN MANAGEMENT

8.1 Introduction

Banff National Park belongs to the people of Canada. All citizens should feel confident they have an opportunity to participate in key decisions that affect their park. The areas that appear to be of the greatest concern to the public are ecological integrity and land use issues, appropriate use and activity questions, research and managing information. This section highlights the key strategic changes Banff National Park will use to enhance the sense of open and participatory decision-making.

The Vision for Banff National Park emphasizes several important aspects of governance and decision-making. Important values and principles that underlie the Vision include:

Values

- The value of exercising restraint and self-discipline today, for the sake of future generations.
- The value of open, participatory decision making.
- The value of equal opportunity for a sense of wilderness and a range of quality park experiences.
- The value of predictable, consistent and fair regulation.
- The value of competent, accountable management.
- The value of 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 *Town of Banff Incorporation Agreement* and the *Banff National Park 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.

8.2 Public Involvement

Parks Canada is committed to ongoing public involvement. This involvement can take many forms. Various groups and individuals will be asked for their input concerning the implementation of recommendations in this management plan. This participation may consist of advisory groups, open houses, or working groups. 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 will best meet their needs.

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

8.2.1 Strategic Goal

To ensure that key policy, land-use and planning decisions are made in a timely and fair manner, are consistent in their approach, and are arrived at in an open and participatory manner.

8.2.2 Key Actions

1. Establish a permanent dialogue by building on the success of the Bow Valley Round Table. Complete the format for this dialogue through consultation during the first year of this plan.
2. Link the above mechanism to an annual Round Table which could include in its agenda such items as: progress toward implementation of the management plan, round tables on specific items such as science, appropriate use.
3. Report on the implementation of the management plan in a consistent manner that is linked to the Parks Canada State-of-the-Park Report.
4. Involve the public in planning initiatives such as area planning and operational plans (e.g., the backcountry management plan).

8.3 Development Review Process

8.3.1 Strategic Goal

To improve the development review process so that it:

- *reflects the mandate as described in the National Parks Act and Parks Canada's policy;*
- *sets high standards for environmental assessment;*
- *improves consistency; and*
- *involves the public.*

The review process described below applies to development outside the Town of Banff. Municipal by-laws and processes apply in the town.

Buildings, roads, bridges, etc. - all are 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 must respect the park environment. They must also take into account the legislative and liability questions that are associated with development in a national park.

Banff National Park will adopt a revised *Development Review Process* for all proposals outside the Town of Banff. This revised process:

1. Uses the municipal development review process as a model.
2. Includes two stages - the development permit review and the building permit review.
3. Introduces opportunities for public involvement through the Advisory Development Board (ADB). This 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.
4. Establishes a District Review Board to review matters of process and procedure arising from the ADB recommendations and associated decisions by the Superintendent.
5. Uses "sunset clauses" to limit the period during which an approval is valid.
6. Incorporates the requirements of the *Canadian Environmental Assessment Act* (CEAA) and sets high standards for environmental assessment. Assessments that do not meet the standards will be returned to the proponent and will not be posted publicly.

8.4 Appropriate Use

Parks Canada and the Town of Banff are both responsible for making decisions about what type of use is appropriate in a national park. In cases where the *National Parks Act*, *Parks Canada's Guiding Principles and Operational Policies*, the *Park Management Plan* or the *Town of Banff's Municipal Development Plan* are not clear on appropriate use, these authorities must rely on more subjective criteria in coming to a decision. Compromise 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

To introduce processes for evaluating types and level of use so that it:

- *better reflects the mandate as described in the National Parks Act and Parks Canada's policy framework;*
- *addresses increases in use; and*
- *incorporates public involvement.*

8.4.2 Key Actions

Town of Banff

1. Work with the Town of Banff to develop criteria and a working model to define types and levels of visitor services.

Hamlet of Lake Louise

1. Define appropriate uses, activities and services, as well as levels of use, in the *Lake Louise Development and Use Framework* (see Section 7.3).

General

1. Set up an annual process to examine proposed new activities and use, and changes in levels of use.
 - invite the public to review the proposed changes (see Section 8.2.2); and
 - assess proposals against the ten criteria for appropriate use decision-making (see Table 2) that were developed by the Banff- Bow Valley Study Round Table.
2. Apply the criteria and working model developed with the Town of Banff to decisions about business licenses for areas under Parks Canada's jurisdiction.
3. Draft specific plans and land-use guidelines for key areas.
 - define appropriate use/activities, and levels of use (e.g., ski areas, Vermilion Lakes Wetlands area plan).

TABLE 2 - APPROPRIATE USE CRITERIA**CRITERIA**

The ten criteria are to be applied when evaluating the merits of a new use, a change in an existing use or a change in the level or intensity of use or activity. The criteria are all relevant but are not meant to be exhaustive or absolute. The criteria are intended to guide the evaluation process. In applying the criteria, the overarching consideration is how the proposed change contributes to or detracts from the spirit and intent of the Vision for the park, the *National Parks Act*, and Parks Canada's policy.

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 the evolving cultural identity.

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 Banff National Park. 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, Banff National Park, its role within the Canadian National Park System, and its role 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 Banff National Park. The second considers to what extent the proposed change is dependent upon a national park setting.

(Banff-Bow Valley Study Round Table Summary Report, 1996)

8.5 Regional Coordination

Banff National Park is an integral part of the larger Central Rockies Ecosystem. This ecosystem spans a variety of jurisdictions and includes many different types of land use. Parks Canada believes that, for this ecosystem to be sustainable, everyone concerned must be involved in coordinating research, finding solutions to issues, and working towards common goals. This coordination will operate at many levels. Some initiatives will be local, while others will involve the entire ecosystem.

Banff National Park has always worked with adjacent jurisdictions on questions of common concern. These cooperative activities have, however, usually involved staff at the operational level, not managers. They have also focussed on the land immediately surrounding the park, not on the entire ecosystem. In the past few years, several groups have begun to coordinate land use, planning and ecosystem initiatives on a broader scale. These include:

1. The Bow Corridor Ecosystem Advisory Group (BCEAG) chaired by Alberta Environmental Protection. This is a partnership among Alberta Environmental Protection, the Town of Canmore, and the Municipal District of Bighorn. The Town of Banff and Banff National Park also participate. The BCEAG has established various working groups responsible for planning coordination, wildlife corridors, fire management, and monitoring.
2. A 'Biosphere Institute' to monitor the long-term health of the Bow Valley's ecosystem' and to coordinate research.
3. The Central Rockies Ecosystem Interagency Liaison Group (CREILG) was established in 1991 to share information concerning the ecosystem. Membership includes Parks Canada, provincial government departments (British Columbia and Alberta), several universities, the Whyte Museum, the World Wildlife Fund, and private industry. In 1995, CREILG published an *Atlas of the Central Rockies Ecosystem* (White, 1995) that pulled together data bases and identified ecosystem issues. CREILG is currently involved in joint fire planning, a wolf study, the East and West Slopes Grizzly Bear Studies, and managing access.
4. The Centre for Mountain Culture, part of the Banff Centre, provides opportunities to cooperate with other agencies in support of cultural activities in a mountain setting.

Parks Canada feels that it can participate most effectively in joint planning and coordinated land use through committees established by others. Parks Canada would support the establishment of, and participate in, any executive level group which could help to encourage and guide integrated approaches to areas of mutual interest and concern.

8.5.1 Strategic Goals

To encourage an integrated approach to managing ecological, social and economic systems in the park and greater ecosystem.

To coordinate the management of land use, human activities, and ecological initiatives effectively.

8.5.2 Objectives

- to maximize the ecological integrity of the Central Rockies Ecosystem;
- to manage the type and extent of access to the park;
- to pursue regional limits to growth and numbers of visitors;
- to pursue the heritage tourism model as the basis for a broader concept of tourism in the Bow Valley;
- to ensure the protection of wildlife corridors and habitat;
- to pursue cooperative research and information management; and
- to reduce wildlife mortality through the joint management of specific wildlife species, particularly bears and wolves.

8.5.3 Key Actions

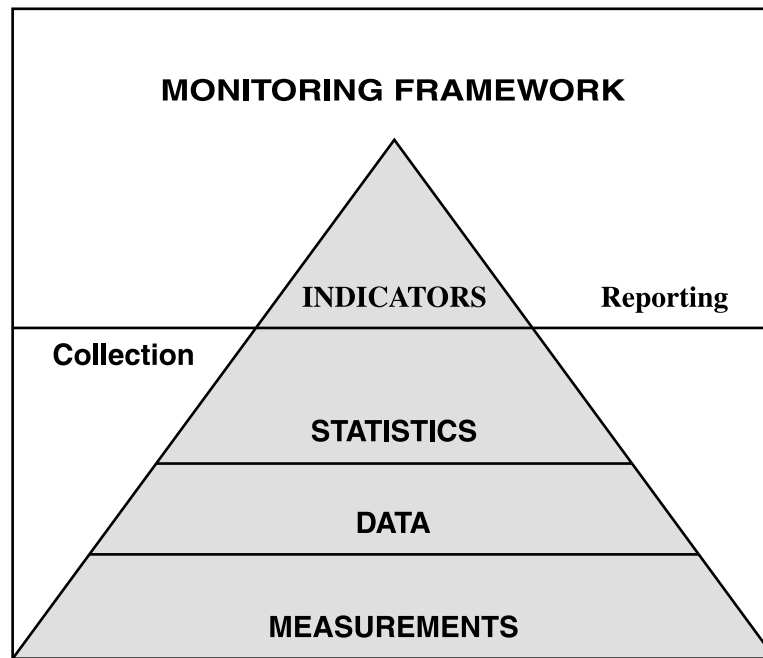
1. Continue to be active on the key coordinating committees established by other agencies within the ecosystem.
 - emphasize participation in the Bow Corridor Ecosystem Advisory Group (BCEAG) and the Central Rockies Ecosystem Interagency Liaison Group (CREILG);
 - pursue common goals; and
 - in addition to short-term concerns, consider long-term strategic issues such as ecological integrity and tourism.
2. Support initiatives in the Central Rockies Ecosystem that enhance overall ecological integrity.
3. Participate in environmental assessments or take part in provincial or regional environmental reviews of projects outside the park that are likely to have adverse effects on the park's environment.
4. Work with appropriate authorities in the Central Rockies Ecosystem to put in place a strategic research program and a data/information management system.
5. As current studies are completed, such as the East and West Slopes Grizzly Bear research projects, play a leadership role in encouraging a coordinated approach to addressing the recommendations.
6. Work with the Town of Canmore to manage the impact of park use on the community and the effects of community growth on the services and resources of the park and the greater ecosystem. Priority issues include growth management, the Heritage Tourism Strategy, wildlife corridors, research, transportation and information management.
7. Pursue the management of access to the park's backcountry with managers of adjacent land.
8. Encourage the establishment of common regional visitor information systems.
9. Continue to encourage environmental management and stewardship programs in the region.

8.6 Monitoring

Since approval of the management plan Parks Canada has published the 1999 national State of Protected Heritage Areas report and the 2003 State of the Park report for Banff National Park and is developing a national monitoring program. The monitoring program for Banff National Park will be consistent with the national program and with similar programs in other parks.

The 1997 Management Plan contains four indicators with quantified targets: restoration of fire, human-caused grizzly bear mortality, carnivore habitat effectiveness and wastewater treatment. These indicators will be incorporated into the monitoring program.

The intent of the monitoring program is to track and report on all aspects of the Parks Canada mandate. Indicators provide a summary of conditions in the park related to ecological integrity, visitor experiences and public education and understanding. Indicators are based on measures which are gathered, analyzed and summarized in a rigorous and consistent manner.



Not all management actions lend themselves to quantifiable measurement and, given the complexity of ecological, social and economic interactions, it is not always possible to identify cause and effect relationships. To be useful, monitoring must be appropriate, meaningful, cost effective, practical and as quantifiable as possible. Consistent measurement, analysis and reporting are required. The emphasis will be on a small number of indicators which summarize a wide array of information, including information routinely collected by other agencies.

When implementing the monitoring program Parks Canada will work with internal and external advisors to refine the set of indicators and to develop appropriate measures and protocols for data collection and analysis.

Every five years, updated information about trends in environmental, cultural, social, economic and administrative conditions in the park will be provided in a State of the Park report. This will provide the basis for the next review of the management plan.

8.6.1 Strategic Goal

To monitor and report on the state of Banff National Park in a periodic and consistent manner

8.6.2 Objective

To develop and implement a monitoring program using appropriate measures and indicators

8.6.3 Key Actions

- Develop a monitoring program based on the following indicators:

Ecological

- o Native biodiversity
- o Atmosphere/climate
- o Geology and landforms
- o Water quality/aquatic ecosystems
- o Vegetation
- o Wildlife
- o Outside influences/shared ecosystems
- o Stewardship

Cultural

- o Commemorative integrity (National Historic Sites)
- o Archaeological resources
- o Collections
- o Built heritage

Economic

- o Operating costs
- o Revenue
- o Visitor spending

Social

- o Visitor use
- o Visitor opportunities
- o Visitor satisfaction
- o Visitor awareness and understanding
- o Participation by Canadians
- o Involvement of aboriginal people

Administrative

- o Assets
- o Environmental leadership

Communities and ski areas

- o Environmental stewardship
- o No net negative environmental impact
- Through consultation, refine performance indicators (reporting) and measures (collection)
- Implement a monitoring program based on the selected measures and indicators
- Report on the results of the monitoring program every five years via the State of the Park report

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. Actions range from individual actions to large scale programs requiring complex approaches (e.g., waste management, contaminated sites management, energy audits). This field, often referred to as environmental management, has expanded rapidly in the past ten years as a result of changing public expectations, new knowledge, physical constraints and changing social values. Environmental stewardship encompasses a broad range of issues and actions, from reducing resource consumption to restoring disturbed landscapes. The concept of environmental stewardship is closely linked to the TIAC *Code of Ethics and Guidelines for Sustainable Tourism* (see Section 5.2).

Banff National Park, as a World Heritage Site, must meet the highest standards of environmental stewardship. It must do this consistently, over the long term. Although Parks Canada must take responsibility for direct leadership in this area, responsibility for delivery extends to communities, residents, visitors, businesses and institutions.

9.2 Environmental Management

Parks Canada has worked on reducing the impact of visitors' activities and parks operations on the ecosystem. The park has also worked with various partners on stewardship initiatives (e.g., TransAlta's Enviropartners program, waste conservation programs, recycling programs). There have also been many volunteer initiatives in the park.

In recent years, the federal government has moved towards a more formalized and standardized 'environmental management system' (EMS) that applies to all departments. In April 1995, it approved the policy on the *Greening of Government Operations* (Environment Canada, 1995). This policy commits federal organizations, including Parks Canada, to actions which:

- meet or exceed environmental statutes and regulations;
- emulate the best practices from the public and private sectors; and
- develop and implement environmental management systems.

The stewardship initiative has been carried a step further with the publication of *A Guide to Green Government* (Environment Canada, 1995) and amendments to the *Auditor General's Act* that came into force in December 1995.

Parks Canada will prepare a sustainable development strategy. This strategy will outline Parks Canada's goals and action plans for integrating sustainable development into its policies, programs and operations and will be implemented at all levels.

The protection of Canada's natural and cultural heritage is a priority for the Department of Canadian Heritage. It is essential to comply with the *Canadian Environmental Assessment Act* and in some circumstances to exceed the requirements of the legislation (Department of Canadian Heritage, January 1996). Parks Canada managers must ensure that they respect the commitment to apply "federal environmental legislation meticulously . . . in heritage places administered by Parks Canada" (Parks Canada, 1994).

Parks Canada's management plans will be assessed according to the *Environmental Assessment Process for Policy and Program Proposals*. These assessments will consider existing development and facilities as well as new strategic directions and their cumulative effects. The implementation of specific projects will be conditional upon subsequent assessment under CEAA when enough detail is available.

Some proposals that are not subject to CEAA or the *Environmental Assessment Process for Policy and Program Proposals* could have an adverse effect on the park's natural and cultural resources. This includes introduction of, or increases in, activities such as dog-sledding, which are not considered a project under CEAA, and are not a policy decision, but require an assessment of environmental impacts. If Parks Canada is the agency responsible for making decisions about these proposals, managers must ensure that an environmental assessment is completed and considered before the proposal proceeds (Department of Canadian Heritage, January 1996).

9.2.1 Strategic Goals

To demonstrate exemplary awareness and practice of environmental stewardship.

To show leadership in demonstrating sound environmental practices.

To ensure that all aspects of Parks Canada's activities, services, and products as well as those of residents, businesses and visitors, contribute to the principles of environmental stewardship and sustainability.

To ensure that all environmental assessment legislation and policy applying to the Department of Canadian Heritage is applied appropriately.

9.2.2 Objectives

- to be seen as a leader in environmental stewardship in the park;
- to work with local communities and businesses in the shared responsibility of preserving ecological integrity;
- to ensure all park staff have the necessary knowledge and tools to make environmentally responsible choices;
- to use education and communication to encourage local residents, businesses and park visitors to be more involved in natural area conservation and to act in an environmentally responsible manner; and
- to ensure that all environmental assessments are of superior quality and are comprehensive in terms of social, economic, cultural and environmental content.

9.2.3 Key Actions

1. Play a lead role in developing an environmental stewardship plan for the park.
 - support the continuous review and improvement of environmental performance.
2. Work with others in the park, particularly communities and businesses, to establish environmental management systems for businesses and institutions.
 - work with leaders in each sector;
 - assign priority to areas where actions have the greatest benefit and results can be most readily shown; and
 - promote the shared responsibility for preserving ecological integrity.
3. Enlist the support of volunteer organizations, municipalities, commercial enterprises, educators, and residents in developing and implementing a comprehensive stewardship program.
 - provide a range of volunteer opportunities that encourage a sense of ownership of the park.
4. Take advantage of every opportunity to include the environmental stewardship concept in leases, partnership agreements, educational programs and visitor activities.
5. Work with regional organizations to coordinate environmental management standards and processes.
6. Ensure environmental assessments of proposals in the park are of a superior quality. Clearly outline and enforce standards and expectations.
7. Incorporate messages regarding environmental stewardship into park communications and training programs.
8. Work with the Town of Banff, the Hamlet of Lake Louise and others to encourage residents and visitors to behave in an environmentally friendly manner.
9. Work with partners in the region to pursue the concept of a Regional Waste Management Authority.

9.3 Tertiary Sewage Treatment and Phosphate Removal

There are two wastewater treatment plants in Banff National Park - one for the Town of Banff and one for the Hamlet of Lake Louise.

The Peyto Lagoon was designed to treat sewage from Tunnel Mountain Campground (Village I and the east half of Village II). The process used at the time this facility was built does not provide tertiary treatment and is no longer acceptable.

9.3.1 Strategic Goals

To maintain and, where necessary and feasible, to restore water quality to the highest possible standards, where human use of surface and groundwater does not impair the ability of aquatic and riparian systems to support a full range of naturally occurring species, or the safety of water for human consumption or use.

To demonstrate leadership in maintaining good water quality.

To strive, over the long term, to achieve water quality standards which equate as closely as possible to the naturally occurring waters of the park.

9.3.2 Objectives

- to reduce the amount of phosphorus in the Bow River;
- to reduce the use of phosphate in the park; and
- to ensure that the impact of sewage treatment plants, septic tanks and human effluent on aquatic resources is kept to a minimum.

9.3.3 Key Actions

1. Work towards the following leadership targets for water quality at the Treatment Plants:

Phosphorus	< 0.15 mg/L
Fecal coliform	< 20/100 ml (end of pipe) < 2/100 ml (end of mixing zone)
pH	meet background levels of receiving waters
BOD ₅ (Total)	Summer < 10 mg/L, Winter < 20 mg/L
Total suspended solids	< 10.0 mg/L
NH ₃ N	Summer < 1 mg/L, Winter < 5 mg/L

 - Note: The target for phosphorus is achievable with existing Best Available Technology Economically Achievable (BATEA). In the long term the goal will be to strive towards 0.005 mg/L.
2. Improve the Lake Louise Wastewater Treatment Facility (LLWTF) so it can meet these standards.
3. Immediately examine the need for a standby generator for the LLWTF.
4. Work with the Town of Banff to meet the standards described in action 1.
5. Work with partners on a communication program to encourage people to reduce their use of phosphorus.
6. Improve the treatment of sewage from the Tunnel Mountain Campground.
 - meet targets by the spring of 1998.
7. Design and implement a program to inform the public and commercial users about nutrient loadings and methods to reduce loadings.
8. Test the performance of wastewater treatment facilities at selected outlying commercial accommodation, campgrounds, day use areas, hostels, etc.
 - take corrective action as required.
9. Implement a water conservation program for Lake Louise immediately.

Park

ZONING



10.0 PARK ZONING

10.1 National Park Zoning System

The zoning system is an integrated approach to the classification of land and water areas in a national park. Areas are classified according to the need to protect the ecosystem and the park's cultural resources. The capability and suitability of these areas in providing opportunities for visitors is also a consideration in making decisions about zoning. The zoning system has five categories, which are described in *Parks Canada: Guiding Principles and Operational Policies* (Parks Canada, 1994).

The 1988 management plan for Banff National Park included a zoning plan. Although the zoning remains primarily the same, some modifications have been made as a result of changes to recommendations and of the 1988 amendments to the *National Parks Act*. These amendments provide for the designation, by regulation, of wilderness areas in a park.

The process for designating wilderness areas has begun. The size of wilderness areas is based on the zoning plan for the park, natural boundaries such as rivers, lakes, mountains, valleys, and the park boundary.

Large tracts of protected wilderness are becoming a scarce and valuable resource. The intent of the wilderness designation is to maintain the integrity of areas that are large enough to preserve their wilderness values. Only development required for essential services and the protection of park resources is allowed in these designated wilderness areas.

From an ecological perspective, large, relatively undisturbed areas support natural processes, and provide benchmarks of natural structure and processes. These large areas are critical to animal species with large home ranges or to migrating wildlife.

This plan also designates three Environmentally Sensitive Sites (ESS).

10.2 Zone 1 - Special Preservation

Zone 1 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. This plan identifies four - zone 1 areas that were also included in the 1988 park management plan. This zone covers approximately four per cent of the park.

Clearwater-Siffleur Zone I Area

The Clearwater-Siffleur Area contains the range of the southernmost Woodland caribou herd in Alberta and a number of physiographic and biotic resources that are rare in the park. These resources include hoodoos, permafrost, rare plant and animal species, prehistoric cultural sites, elk and bighorn sheep range, and wolf and grizzly bear habitat.

Castleguard Cave System and Meadows Zone I Area

The Castleguard Cave System is a karst system that is internationally recognized for its physical development, diversity of features, and rare and unique fauna. At more than 16 km, it is the longest cave in Canada and the second deepest cave in the country. The entire Castleguard Cave System contains a notable variety of special features including stalagmites and stalactites, precipitates of gypsum, hydromagnesite and rare cave minerals. The Castleguard area not only contains significant surficial karst features but is also an outstanding example of pristine alpine vegetation.

Cave and Basin Marsh Zone I Area

The discovery of the Cave and Basin springs on Sulphur Mountain led to the establishment of the Canadian national park system. The Cave and Basin Complex has been designated as a National Historic Site in recognition of its historic significance. The warm water of the Cave and Basin marsh supports a number of invertebrates and provides a unique habitat for reptiles and amphibians. The Cave and Basin area is the most important habitat for snakes in the park. The Vermilion Wetlands and the Cave and Basin marsh constitute the most productive bird habitat in the lower Bow Valley.

Christensen Archaeological Site Zone I Area

This deeply stratified site, located along the Bow Valley Parkway, contains archaeological evidence of at least nine separate periods of occupation dating back some 8,000 years. Protection of not only the artifacts but the entire area is important.

10.3 Zone II - Wilderness

Zone II contains extensive areas that are good representations of a natural region and that 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, first hand, the park's ecosystems 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.

Most of the park will be managed as Zone II. Much of this land consists of steep mountain slopes, glaciers and lakes. Zone II areas cannot support high levels of visitor use and facility development. Facilities are restricted to trails, backcountry campgrounds, alpine huts, trail shelters and warden patrol facilities. Sections of the park will continue to have no facilities.

10.4 Zone III - Natural Environment

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 covers approximately one per cent of the park; it applies to areas where visitor use requires facilities that exceed the acceptable standards for Zone II. No motorized access is permitted, except for snowmobiles used to set tracks and service backcountry facilities and off-season servicing by helicopters. Access routes and land associated with backcountry commercial lodges are in Zone III.

10.5 Zone IV - Outdoor Recreation

Zone IV covers approximately one per cent of the park and accommodates a broad range of opportunities for understanding, appreciation and enjoyment of the park's heritage. Direct access by motorized vehicles is permitted. In Banff, Zone IV includes frontcountry facilities and the rights-of-way along park roads. Zone IV nodes occur at Lake Minnewanka, and the three ski areas.

10.6 Zone V - Park Services

The Town of Banff and Hamlet of Lake Louise are the Zone V areas; they cover less than one per cent of the park.

10.7 Environmentally Sensitive Sites

This designation applies to areas with significant and sensitive features that require special protection. The 1988 *Banff National Park Management Plan* identified two Environmentally Sensitive Sites - the Vermilion Lakes Wetlands and the Middle Springs. The Fairholme Area has been added as a third ESS (see Section 3.13).

Vermilion Lakes Wetlands ESS

The Vermilion Lakes Wetlands support a diversity of vegetation and many rare and significant plant species. These communities are important habitat for a variety of birds and mammals. The area is also important for wildlife movement and contains many special features: lakes, ponds, springs, rare birds, moose winter range, elk calving areas and ungulate mineral licks. The alluvial landforms on the north and east shores of the lakes and adjacent wetlands are also rich in significant archaeological resources from at least 10,700 years ago. An area plan will be prepared for the Vermilion Lakes Wetlands (see Section 3.14).

The Middle Springs ESS

The upper and lower Middle Springs remain the only relatively undisturbed hot springs on Sulphur Mountain. The warm mineral waters create a unique habitat for rare plants and invertebrates. This area is located in the wildlife corridor established in conjunction with the residential housing development on the shoulder of Sulphur Mountain.

The Fairholme-Carrot Creek Benchlands ESS

The Fairholme range area from the East Gate to Johnson Lake is the largest remaining intact block of secure montane wildlife habitat in the park. Human use of this area, particularly during the summer, can restrict wildlife movement (see Section 3.13). Off-road bicycling will not be permitted and trails will not be maintained in this area.

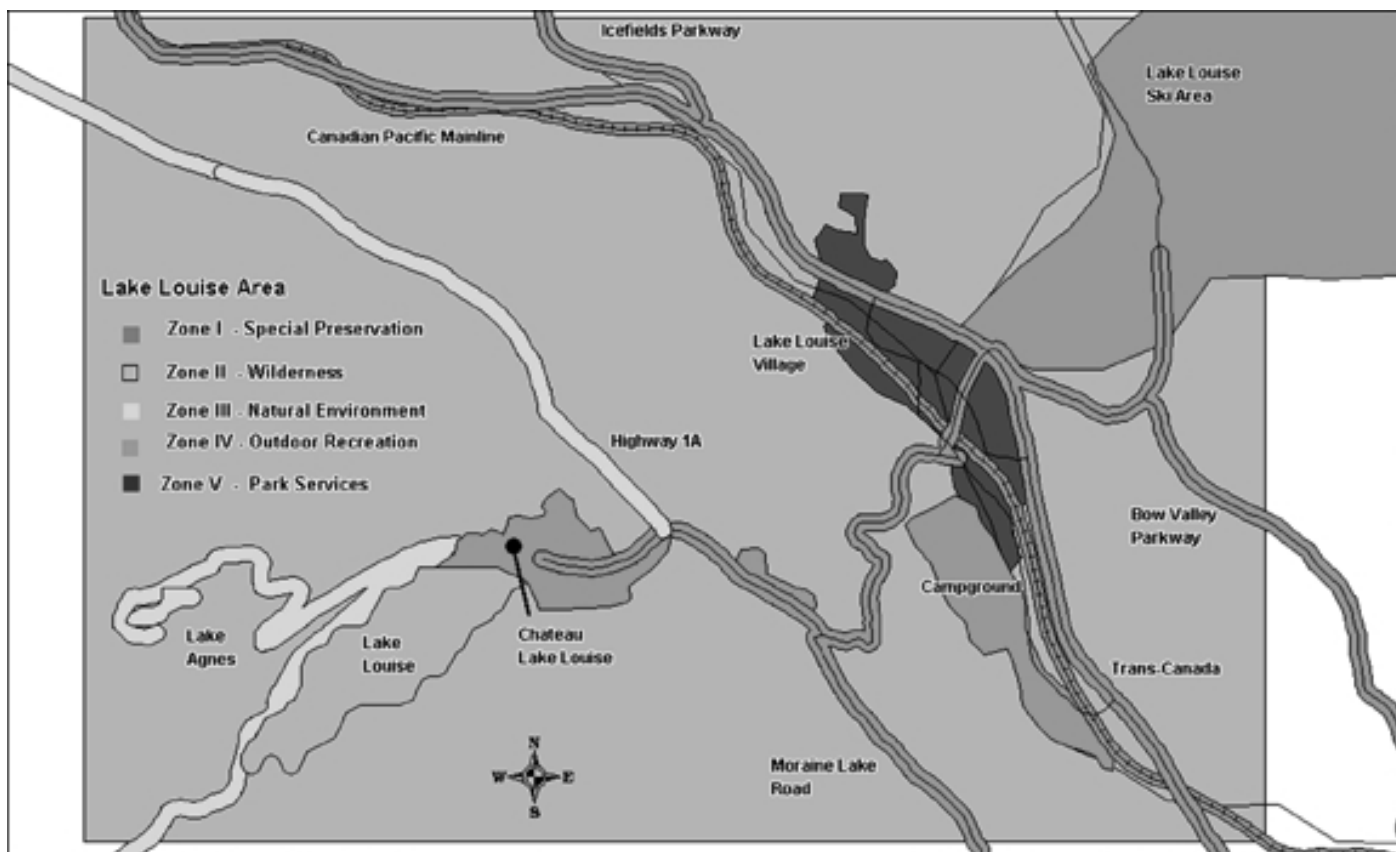
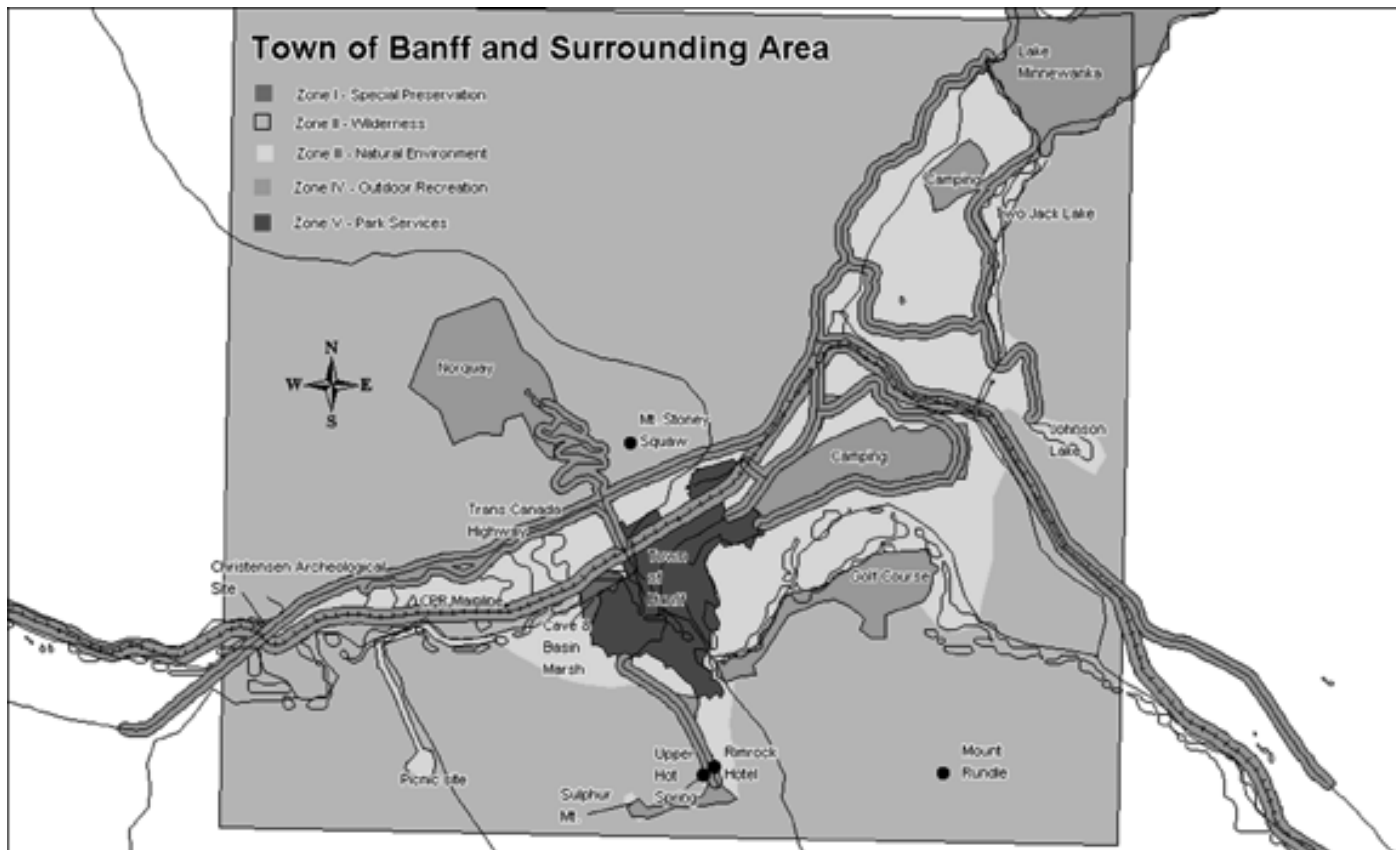
10.8 The Montane Ecoregion

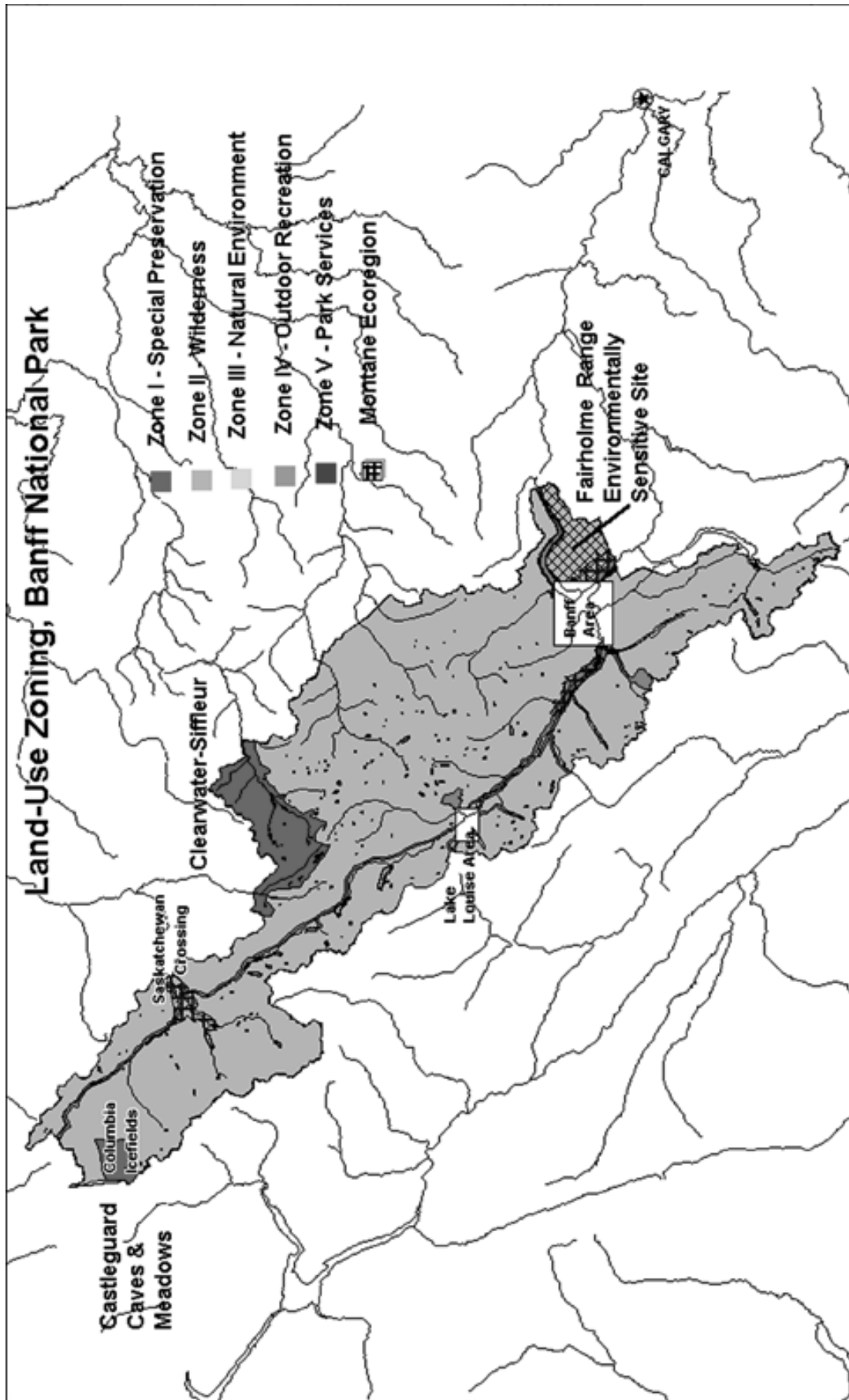
The park is comprised of four ecoregions: montane, lower subalpine, upper subalpine and alpine. The montane ecoregion occurs below the lower subalpine zone on the lower slopes and bottoms of large valleys. Less than 4% of the park area is within the montane zone.

The montane ecoregion has a moderate temperature and precipitation compared with other ecoregions in the Central Rockies Ecosystem. Winters are warmer and drier than other zones and the snowpack is relatively light.

The montane ecoregion is critical to wildlife. These lower elevation areas are important wildlife corridors especially during the fall, winter and spring. Many animals move to this area in winter due to the shallower snowpack.

This zone however is extensively impacted by human development and use. The Town of Banff, TransCanada Highway and the CP railway are all within the montane ecoregion. Due to the historical extent of development within the montane, it is not possible to put the montane ecoregion within a single zone for protection purposes. The extent of the montane area however has been shown on the Zoning Map to draw attention to the limited amount of montane land that remains undeveloped, and to ensure decisions take into account the limited nature of this important ecoregion.





Summary of Environmental Assessment



11.0 SUMMARY OF THE ENVIRONMENTAL ASSESSMENT

The following summarizes the highlights of a separate report "*Environmental Assessment - Banff National Park Management Plan 1997.*"

11.1 Background

The existing management plan for Banff National Park was approved by the Minister responsible for Parks Canada in 1988. This plan, and closely integrated plans for Kootenay, Yoho and Jasper National Parks were subject to review in 1993, pursuant to the *National Parks Act* obligation to update park plans every five years. During the review it was determined a detailed examination of the Banff-Bow Valley was required.

The Banff-Bow Valley Task Force was established in 1994 to prepare recommendations concerning the long-term management of the area that would maintain ecological integrity while allowing appropriate levels of development and continued access for visitors. The Task Force reported in October 1996 that the situation was threatening for some components of Banff National Park, e.g. - the Montane ecoregion of the Bow River Valley. The Minister of Canadian Heritage responsible for Parks Canada responded immediately with actions and further commitments to rectify the problems. The resulting management plan which outlines proposed courses of action is an important public statement of Parks Canada's intention to restore and safeguard the ecological integrity of Banff National Park and the commemorative integrity of cultural resources within its boundary. This plan will be tabled in Parliament, and when approved by the Minister of Canadian Heritage, becomes the guiding document for decision making in Banff National Park. Parks Canada prepared an environmental assessment of this plan to ensure the cumulative effects of policies, programs and proposed actions are understood, and are not contradictory to the mandate of the *National Parks Act* or ecological integrity.

11.2 The Problem

The first reservation of lands which lead to the creation of Canada's first national park - Banff, occurred in 1885. Since that time Banff has become a world renowned tourist destination, famous for its spectacular natural wonders. Banff, and adjacent parklands were plaqued at Lake Louise by Prince Philip as a World Heritage site on the 100th anniversary of the park in 1985. Development to accommodate more than a 100 years of tourism and more than four million visitors a year has stressed the ecosystem. At the same time wildlands which surround Banff are diminishing as population growth and development increases. Consequently, elements of Banff's ecosystem are changing in response to these stresses. The main issues are:

- wildlife is under duress due to habitat fragmentation, and conflict with human activity and facilities;
- aquatic and riparian systems are impacted by non-native species, development and flow intervention;
- vegetation succession has been altered by wildfire control and heavy herbivory; and
- development on surrounding lands shrinks wildlands and imperils wide ranging species.

11.3 The Proposal and Its Impact

On October 7, 1996 the Minister of Canadian Heritage announced several decisions to initiate the process of reclaiming Banff's ecological integrity. These decisive moves established the tone for a comprehensive suite of actions which now are outlined in the *Banff National Park Management Plan*.

Aquatic environments have been substantially altered by introduction of non-native fish species in stocking programs, flow regulation, and stream manipulation to protect transportation systems. The plan proposes actions to reduce the presence of non-native species of fish, and to favour the resurgence of native species, such as bull trout. This would be accomplished by modern methods of fisheries management and angler control programs. Agencies which control flow on the Cascade, Spray, Forty Mile Creek and Vermilion Lakes watersheds will be elicited to cooperate in the restoration of flow regimes beneficial to reclamation of aquatic ecosystems. Stringent sewage discharge limits and tertiary treatment are key actions proposed for the Banff and Lake Louise Wastewater Treatment Plants.

Fragmentation of wildlife habitat will be reduced by removing corridor obstacles such as the buffalo paddock and airstrip, and by relocating the horse corrals and cadet camp at the base of Cascade Mountain. Also, the Banff Springs golf course will not be enlarged or fenced. A program to deal with human-elk conflicts in the Town of Banff will be implemented following current research. A Fairholme-Carrot Creek Protected Area will provide a secure Montane area where predator-prey relationships can be normalized in the absence of frequent human activity. Measures successfully employed to avoid wildlife mortality on the TransCanada Highway will be continued and expanded. Cooperation of Canadian Pacific Railway will be enlisted to deal with wildlife mortality from train collisions. Limitations in timing and numbers of visitors entering carnivore management units will be instituted to reduce disturbance events and increase habitat effectiveness. Restoration of fire as a force in vegetation succession will serve to bring vegetation resources in better balance with currently high ungulate browsing pressures and the loss of grasslands and shrubby areas to mature forest. A special focus on securing effective habitat for grizzly bears, wolves and lynx - key indicator species - will serve to benefit about 98% of the other terrestrial wildlife in the park as well.

Effective fire suppression for nearly a century has greatly skewed the normal vegetation patterns of the park. Grasslands and shrubby areas have been replaced with closed canopy forests. Buildup of dead and downed forest materials has created a high flammable fuel load which could lead to larger than normal wildfires. A program of prescribed burning to reduce fuels, open up continuous forest and reduce wildfire conflagration potential is to be reinstated. This will serve to enhance wildlife habitat and reverse the loss of Montane grasslands to continuous forest. Active control of non-native plant invaders, such as Canada thistle, will be pursued.

Banff is part of a large regional Central Rockies Ecosystem (CRE). Many jurisdictions are involved in managing these lands. Far ranging species such as wolves and bears regularly travel outside of the park where they are vulnerable to mortality. Parks Canada already works with numerous agencies to co-manage shared species. These arrangements will be continued, and expanded to ensure the best possible approach to regional management of transient natural resources which require more space than Banff National Park. Improved access to previously remote areas both inside and adjacent to the park as a result of development outside the park is a point of particular attention.

Parks Canada has made commitments about management of visitor service developments, appropriate use, and visitor numbers in Banff National Park. The Town of Banff will be capped at an upper limit of less than 10,000 permanent residents, the Hamlet of Lake Louise will be limited to a maximum overnight visitor capacity of 3,500 guests. The existing boundaries of the communities will not be expanded. Ski areas will be permitted to develop within the limits specified in the existing approved plans. Use limits will be employed on both frontcountry and backcountry trails and campsites where conflicts with environmental protection, particularly carnivores arises. Mountain bike access to sensitive areas will be controlled. Trails will not be maintained in the Fairholme-Carrot Creek Protected Area, Baker Creek and Hillsdale Meadow areas. Temporal restrictions for use of the Bow Valley Parkway will be instituted to safeguard seasonal wildlife sensitivities. Vehicular access beyond the First Vermilion Lake will be disallowed, and part of the Minnewanka loop road will be closed in the winter season. The golf course loop road will be subject to travel restrictions.

The plan addresses a strategy for Heritage Tourism. The objective is to make all visitors aware they are in a national park by fostering visitor appreciation and understanding of nature, history and culture of the area. Banff National Park has embarked on a collaborative partnership with the tourism industry to develop a program to achieve that goal.

Open management will be achieved by a new *Development Review Process* which facilitates a public role in project review.

The plan commits Parks Canada to be a leader in stewardship and environmentally friendly practices. Environmental assessments will be of a superior quality, and protective mitigations will be enforced.

The foregoing are groups of key actions proposed to confront the main concerns of deteriorating ecological integrity. This environmental assessment is not expected to address each of the individual actions proposed to achieve the larger goals. Rather, the approach is to consider the additive impact of groups of actions to determine if the cumulative effects are moving towards or away from improved ecological integrity.

Cumulative environmental effects are the combined impact of past, current and future projects and activities. Although an environment may be resilient to the influences of a small number of projects spread over time and space, the incremental effects of a large number of stresses arising from many projects and activities may act to reduce the ecological integrity of landscapes, and even large regions. In some cases the impacts may be so significant that permanent changes are wrought. The environmental assessment of the *Banff National Park Management Plan* focuses on the cumulative effects of the key actions proposed therein.

The plan addresses diminished ecological and commemorative integrity, and enhances heritage tourism. In most cases key actions address some aspect of identified stress on a component of the park, and are fashioned to reduce that stress or enhance visitors' experiences. Some actions, such as the Cascade wildlife corridor will have an immediate beneficial effect. Other situations, 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.

Performance targets and thresholds are proposed, and others will be established following more study. For example, it is a goal to reduce the human-caused grizzly bear mortality to less than 1% per year; phosphate levels from sewage treatment plants will be reduced to tertiary levels, (e.g. 0.5 mg/l). Monitoring programs will be put in place to evaluate the effectiveness of the strategies and actions in meeting the set objectives and the targets and thresholds established. A monitoring program is key to the success of the actions and identifying any instances where change or redirection is required.

It is clear the cumulative effect of the proposals will move towards enhanced ecological integrity. Fewer animals will die from conflicts with people and vehicles. Habitat effectiveness will be improved and habitat fragmentation will be decreased. A more normal balance of predator-prey interaction will be possible. The incidence of non-native species of fish and plants will reduce. 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 spatial and temporal management of people's activities. Development limits are better defined than before; all stakeholders know what the future holds for services and facilities in Banff, Lake Louise and the ski areas.

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 recognition of the importance of ecological integrity is prominent in the identification of concerns and the proposed courses of action described in the 1997 *Banff National Park Management Plan*. The vision for Banff National Park is consistent with the *National Parks Act* and Parks Canada’s stated policies.

11.5 Public Input

The opportunity for public input and expert review has been extensive in the preparation of the 1997 *Banff National Park Management Plan*. The existing plan, approved in 1988, had a nation-wide public consultation program. The 1994 five-year update of the management plan had a nation-wide consultation program. Since that time, numerous public surveys pertaining to future management of the parks have been conducted. The Banff-Bow Valley Task Force conducted their work between 1994 and 1996. They established a round table which represented thousands of people in 14 sectors of topical interest. The Task Force elicited the help of a multi-disciplinary team of environmental, social and economic specialists. Parks Canada established an advisory group, chaired by the Assistant Deputy Minister, to examine the Task Force’s 500 recommendations and advise Parks Canada about their implementation. That advice and Parks Canada’s January 24, 1997 proposed response to the Task Force recommendations represents a large part of the basis of the 1997 *Banff National Park Management Plan*.

Parks Canada has analyzed public comments, considered the recommendations of both the Task Force and the advisory group, 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 on a project specific basis as they are brought forward for implementation in the future.

11.6 Conclusion

The *Banff National Park Management Plan* responds to a situation of real urgency. The plan is consistent with National Parks legislation and policies. Satisfactory peer review and public input have been achieved and considered. The proposed courses of action are feasible with existing technology. Further research will be conducted before actions are initiated on some elements of the plan (e.g. wildlife overpasses).

The environmental assessment finds the proposals not to cause significant negative environmental impact. The cumulative effect of the plan will be to move towards improved ecological integrity.

11.7 Amendment to the Summary of Environmental Assessment

A five year review of the management plan was conducted in 2003. Most of the management plan remains current. The following amendments resulted from the review.

- Section 5.5 is replaced. The amendment reflects previous decisions to limit the size of Outlying Commercial Accommodation facilities and to minimize and mitigate the environmental impacts of existing resorts.
- Section 5.6 is replaced. The amendment incorporates new scientific knowledge into a framework for managing grizzly bears. It also provides detailed direction for human use management in the park’s landscape management units.
- Section 7.3 is replaced. The amendment summarizes the principles of the approved community plan for Lake Louise, which establishes a limit on commercial space and reduces the community’s boundaries.
- Section 8.6 is a new section. It provides a framework for monitoring ecological, cultural, social and economic conditions.
- Section 9.3 is replaced. The amendment corrects an error in a target for sewage treatment.

The amendments all conform with legislation and policy and are consistent with the vision and principles of the management plan. They continue and strengthen the direction towards improved ecological integrity, while still welcoming appropriate visitor use.

All the actions are appropriate and achievable. No negative ecological consequences are anticipated.

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