

# **National Parks And Sustainable Development: The Opportunities And Constraints Of Doing Business In A Protected Environment**

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## **INTRODUCTION**

National parks are created as pristine wilderness reserves, and yet at the same time are designed for the use and enjoyment of visitors. The first involves isolating parks from adverse human impacts, the second, making parks accessible to the public (Lowry 1994, Kopas 2000). Within Canada, policymakers have tried to resolve this conflict between ecological protection and supporting the enjoyment of present and future generations of park visitors through the adoption of sustainable development principles. The purpose of this research is to explore the role of business within Banff National Park, and to determine how the commercial environment created by the business community affects the goal of sustainable development within the parks.

## **SUSTAINABLE DEVELOPMENT**

The World Commission on Environment and Development (also known as the Brundtland Commission) defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987). Sustainable development must both satisfy human needs and at the same time include responsible use of society's scarce resources. In Canada, this idea has been integrated into federal legislation through the Auditor General Act (1995). While extensive research has been done on the theories and practice of sustainable development in general, research has not yet been done on the meaning and practice of sustainable development for protected spaces such as national parks.

## **BANFF NATIONAL PARK**

In 1885, with the support of the Canadian Pacific Railway (CPR) which had reached the site two years earlier, the Canadian government declared the 10 square miles around the Banff hot springs in Banff, Alberta as reserved land. The townsite of Banff was demarcated in 1886, and two years later the CPR opened the Banff Springs Hotel, its first hotel in the Canadian Rocky Mountains. Tourism for the wealthy and elite were seen as the primary means for funding the construction of a transcontinental railway which was vital for the expansion of the nation into the west. In the 1930s, an east-west highway paralleled the CPR rail line, and the park expanded to its present size of 2,650 square miles. In 1984 the United Nations declared Banff National Park (together with neighbouring Jasper, Kootenay and Yoho National Parks) a World Heritage Site.

Today, Banff is one of the most popular tourist destinations in Canada, renowned for its beauty, hot springs, hiking, camping and skiing. The town itself is now a self-governed municipality with legislated boundaries within the park, and a population of 7,600 permanent residents. With a fairly mild climate, abundant vegetation and great wildlife diversity, the area is both ecologically priceless and attractive to humans. Although development is restricted to approximately 1% of the park, its effects resound throughout the entire ecosystem. It has been argued that the emphasis on the economic potential of the scenery for tourism has entrenched an organization and philosophy of ‘parks for profit.’ This philosophy has resulted in increasing threats to the environment.

## **REGULATORY ENVIRONMENT**

The preamble of the 1930 *National Park Act* states that the national parks are 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. The 1998 amendment to the *National Parks Act* however, revokes that commitment and identifies ecological integrity as the first priority for national parks in Canada. Ecological integrity is defined as the condition where the structure and function of an ecosystem, unimpaired by stresses induced by human activity are likely to persist (Zinkan and Syme, 1997). This change in priority has great significance for the development of tourism as it requires businesses to restrict their activities in accordance with the needs of the environment. This will be discussed in greater detail later in this paper.

The following sections of the *National Parks Act* provide the foundation to evaluating tourism as an economic development strategy in Banff National Park:

5. (1.1) The Minister shall, within five years after the proclamation of a park, under any Act of Parliament, cause to be laid before each House of Parliament a management plan for that park in respect of resource protection, zoning visitor use, and any other matter that the Minister considers appropriate.

5. (1.2) Maintenance of ecological integrity through the protection of natural resources shall be the first priority when considering park zoning and visitor use in management plan.

5. (1.4) the Minister shall, as appropriate, provide opportunities for public participation at the national, regional and local levels in the development of parks policy, management plans and such other matters as the Minister deems relevant.

5. (8) The Governor in Council may, by regulation, declare any region of a park that exists in an natural state or is capable of returning to a natural state to be a wilderness area.

5. (9) The Minister may not authorize any activity to be carried on in a wilderness area that is likely to impair the wilderness character of the area.

5. (10) Notwithstanding subsection (9), the Minister may authorize activities to be carried on in a wilderness area, subject to such conditions as the Minister considers necessary, for the purposes of: park administration, public safety, provision of basic user facilities including trails and rudimentary campsites, the carrying on of traditional renewable resource harvesting activities pursuant to an Act of Parliament or access by air to remote parts of such areas.

7. (1) (edited) The Governor in Council may create regulations for: the preservation, control and management of the parks; the protection of the flora, soil, waters, fossils, natural features, air quality and cultural, historical and archaeological resources, management and regulation of fishing and the protection of fish, including the prevention and remedying of any obstruction or pollution of waterways; the granting, amending and surrender of leases and licenses of occupation of public lands in towns and visitor centres for the purposes of residence, trade, tourism, schools, churches, hospitals and places of recreation or entertainment, and of public lands in resort subdivisions for the purpose of residence, the granting of permits and licenses for activities carried on in parks.

8.1 The Governor in Council may, following a public hearing in the town of Banff in relation to the town boundaries, fix those boundaries.

On January 1, 1990 through an agreement between the federal government and Alberta, the right to elect a local government was granted to the town of Banff. Under this agreement an elected Council now administers the town, although the federal government is still the authority on planning, land use, development and environmental issues. The relevant policies and legislation state that:

The town community plan will provide for a balanced community whose permanent population will not exceed 10,000 people. By-laws will address the protection of heritage buildings, streetscapes and architectural designs:

the purpose and objectives of the town will be stated in the *Incorporation Agreement*, and these will be integrated into the park=s management plan

the municipal government will be responsible for the day-to-day operation of the town. Parks Canada will work closely with the town on planning, visitor services, regional initiatives, land use and environmental issues

the town boundaries will not expand

the town will continue to show leadership in practicing environmental stewardship

Parks Canada will work with the Town to develop a working model for managing types and levels of visitor services within the community

These sections of the *National Parks Act*, and the federal legislation relating to the town of Banff demonstrate the significant control on the part of the federal government over local tourism development in the town of Banff. Furthermore, it also indicates the degree to which the Canadian government is serious about protecting the environment at the expense of economic development. This would have significant repercussion not only the town which is at risk of losing revenue, but also the province of Alberta, and Canada as a whole.

According to Article 5 (1.2) of the *National Parks Act* “Maintenance of ecological integrity through the protection of natural resources shall be the first priority when considering park zoning and visitor use in management plan.”

Managing for the integrity of the park ecosystem has been legislated as the primary management focus {Parks Canada, 2004 #1}. The *National Parks Act* in Canada defines ecological integrity as “a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.”

The objective of Parks Canada is to permit visitor enjoyment while maintaining ecological integrity through ecosystem management.

Ecosystem management takes into account the following:

- 1) Ecological integrity should be assessed taking into account the evolutionary and historic context that has shaped the national parks system. An example would be historic use of the land by Aboriginal Peoples
- 2) Conservation strategies should “maintain or restore key ecological processes that reflect their natural condition” such as the use of prescribed burns as a way to reintroduce fire into national parks
- 3) Recognition that national parks are a part of a broader ecosystem and must be managed within that context and must be integrated into the surrounding landscape
- 4) Wildlife populations should be managed at levels that have the most likelihood of being self-sustaining
- 5) Understand rates and direction of change and the effects on ecosystem. I.e. impact of climate change on ecological integrity
- 6) Parks can only tolerate limited use – visitor use must be compatible with park

## ecosystem protection

These sections of the *National Parks Act*, and the federal legislation relating to the town of Banff demonstrate the significant control on the part of the federal government over local tourism development in the town of Banff. Furthermore, it also indicates the degree to which the Canadian government is concerned about protecting the environment at the expense of economic development. This would have significant repercussion not only the town which is at risk of losing revenue, but also the province of Alberta, and Canada as a whole.

In Canada there have been a few recent trends regarding parks management. First, the recognition that parks are about ecosystems, not just individual species. A movement towards a pro-active approach rather than a hands-on approach. And seeing parks not as stand-alone conservation areas, but as part of a larger ecosystem that extends beyond the park boundaries and where human activities are an integral part.

While the mandates outlined above are vital for the long term health of Canada's national parks, government budget constraints have created pressure for parks to generate revenue to pay for basic operations, visitor services and conservation initiatives. Given the constraints on national parks, the primary options for generating revenue include increasing entrance fees and expanding commercial ventures in the park such as retail stores and adventure sports, which may be at odds with the commitment to sustainable development ideals, disrupt the ecosystem and detract from the wilderness setting. Scientific research has demonstrated significant negative effects resulting from tourist activities such as hiking, skiing, and golf. These negative repercussions include threats to wildlife and habitat, soil erosion,

water and soil contamination resulting from increased waste, pollution and traffic congestion (Tobias and Mendelsohn, 1991; Dearden and Chettamart, 1997; Lowry, 1997).

While extensive legislation exists in Canada to protect national parks, and in particular Banff National Park as the most frequently visited park in the system, the park itself is affected by numerous stressors that lead to threats to biodiversity and degradation of the parks ecosystem including:

Changes to adjacent land use such as mining, agriculture, transportation,  
logging and urban development

Downstream effects of air and water pollution

Invasion by exotic species

Climate change

Insect control

Dams

Wildfire control

Presence of alien species

High levels of visitor use

Transportation corridors

Non-conforming activities

Inappropriate infrastructure

## **National Parks and Tourism**

According to the United Nations Conference on International Travel and Tourism (1963), tourists are temporary visitors who spend more than 24 hours in destinations other than their normal place of residence, and whose journey is for the purpose of holiday-making, recreation, health, study, religion, sport, visiting family or friends, business or meetings. Tourism is a composite product, involving transport, accommodation, catering, entertainment, natural resources and other facilities and services such as shops and currency exchange. It differs from other products in that it cannot be examined prior to purchase, cannot be stored and involves an element of travel (Sinclair, 1998).

Tourism revenues obtained by host countries include direct and indirect foreign currency payments made by tourists for goods and services. By 1996, receipts from international tourism totaled \$404 billion, and having increased at a mean rate of 7% since 1992. Tourism was thus, the third largest economic activity in the world, surpassed only by oil and motor vehicles (Euromonitor, 1997). In 1999, tourism provided employment for 8% of the workers in the world economy, and produced 11% of gross domestic product (World Travel and Tourism Council, 1999). Canada alone accounted for 10.5% of arrivals, and 17% of foreign currency receipts (Sinclair, 1998).

Tourism is significant in its ability to generate employment in both formal and informal sector activities (Elkan, 1975; de Kadt, 1979). This employment includes both skilled, semi-skilled and unskilled labour, depending upon the nature of the activities and the type of attraction (Delos Santos et al., 1983), although employment is also often seasonal in the tourist industry (Sinclair, 1998).

There are two schools of thought regarding the role of tourism in the community and the economy. The first is the political economy view which regards tourism as an exploitive force originating from the affluent middle classes in industrialized countries. This view is most often used with respect to tourism in developing countries, however it also has significance for the study of the environmental consequences of tourism in Banff. The second is the functional view in which tourism is a proactive force which can, if developed appropriately, maximize positive returns to the overall growth of a community while minimizing the costs to the environment and culture (Sautter and Leisen, 1999). The latter perspective is the one held by most economic development professionals who see tourism as a means to bring new capital into the community.

The use of tourism as an economic development strategy can have significant benefits for a community. It provides an economic alternative to manufacturing, which is particularly important with the increasing transfer of manufacturing jobs to developing countries. Tourism is also relatively simple to initiate, even for communities with minimal public resources. Community investment may require improved roads, downtown improvement, marketing, and private sector investment in tourist facilities, efforts which may benefit the community as a whole and may not have to be cost intensive (Frederick, 1993, Nathan et al., 1996). Politically, it is also simple to generate public support for tourism as a development strategy because it is a strategy that is easily understood by the public, and usually build upon existing characteristics and amenities (Frederick, 1993; Tooman, 1997). Tourism may also stimulate community pride, and foster entrepreneurial efforts by citizens. An initial expenditure in a tourist community creates direct income for the industry. A significant portion of this income will go to pay wages, replenish stocks, and purchase services necessary for continued service. The income that is generated results in greater consumption

and a higher local level of economic activity which also benefits the community (Tooman, 1997).

Other potential advantages of tourism for economic development include: provision of hard currency (in developing countries) to alleviate a foreign exchange gap and to finance imports of capital goods; increasing employment; increasing gross national product and personal incomes; the creation of providing tax revenue (Sinclair, 1998).

Significant disadvantages to tourism are discussed in the literature. Most significantly, the benefits and costs of tourism are not likely to evenly distributed throughout the community. Local populations will have to bear the burden of providing services to support the industry such as waste disposal and policy protection. Nonquantifiable costs include crowding, noise, traffic, degradation of natural resources and cultural threats (Jakus and Segal, 1993; Slocombe, 1993; Tooman, 1997). Another perspective emphasizes the effect of tourism on the locality itself, in particular employees and labourers, and how their situation changes, not necessarily for the better, as the tourism industry changes (Smith, 1989; Western, 1993).

Another approach that looks at destructive effects of tourism is based on the acknowledgment that economic growth is not automatically beneficial, and may in fact be harmful, to large segments of the socio-environmental system (Tooman, 1997; Dearden and Chettamart 1997; Slocombe, 1997). As the tourism industry expands, major industry chains such as hotels and restaurants may become the greatest beneficiaries, while local business suffers from the competition.

Other disadvantages include: diversion of public funds to infrastructure for tourism not general use, investment in human capital, altering of domestic consumption (particularly in developing countries through demonstration effect), depletion of natural resource base, and social and cultural effects (Sinclair, 1998).

The Butler model (1980) that is discussed in Tooman (1997) is a life-cycle approach to understanding the tourist industry that highlights the turbulence experienced by a community that chooses to pursue a tourism strategy:

*exploration* - limited and sporadic visitation. There is a high degree of contact with the locals, however minimal social or economic impact

*involvement* - increasing visitation leads to some locals to offer facilities or services primarily for visitors. Contact with locals is still high. Marketing is begun

*development* - outside investment in the area leads to well developed tourist market. Man-made attractions supplant original ones, imported labour may be necessary, local facilities are displaced by more elaborate ones

*consolidation* - the major portion of the local economy is tied to tourism, and dominated by major chains and franchises. Marketing is aimed at extending the tourist season and attracting distant visitors. Visitor numbers rise more slowly. Older facilities are now second-rate and largely undesirable.

*stagnation* - capacity levels are reached or exceeded and economic, social and/or environmental problems result. Destination no longer fashionable, increased reliance on repeat visitations and conventions.

*decline/rejuvenation* - tourists attracted to newer destinations and the area begins to disengage from the tourist industry. This is followed by the rejuvenation stage in which new artificial attractions are created or a previously unexploited natural resource is utilized.

This model does not apply in all circumstances, or it may be seen to occur simultaneously in the community as the tourist industry responds to fluctuations in the economy and consumer preferences (Getz, 1992). Clearly dependence on tourism for economic development creates vulnerability and the potential for future economic instability or decline.

Research has been done on the environmental effects of tourism expansion (Tobias and Mendelsohn, 1991; Dearden and Chettamart, 1997; Lowry; 1997). These effects include: threats to wildlife and their habitat, soil erosion, poaching, soil and water contamination, pollution and traffic congestion. As a result of growing concern with the environmental effects of tourism, ecotourism has been heralded as a possible solution. Ecotourism . . . has become an increasingly popular economic development tool because of its ability to satisfy environmentalists seeking to protect natural areas while soothing politicians eager to find economic development solutions for economically depressed areas. (Whiteman, 1996) Western (1993) defines ecotourism as responsible travel to natural areas which conserve the environment and improve the welfare of local people. Ecotourism can have a number of social, environmental, education and economic impacts, and can affect the sustainability of natural resource use in many ways:

may generate higher economic returns than other resource activities (Tobias and Mendelsohn, 1991)

economic benefits may serve as stimulus for establishment of protected areas (Ceballos-Lascurain, 1996; Sewell, Dearden and Dumbrell, 1989)

ecotourists may contribute to the conservation and management of ecotourism sites through mechanisms such as entry fees and donations (Wallace and Pierce, 1996).

involves experiencing nature on nature=s, not the visitor=s terms (Canadian Environmental Advisory Council, 1992)

accepts that access to and use of natural and cultural resources must be limited (Canadian Environmental Advisory Council, 1992)

directs a portion of the venues to the maintenance and enhancement of the resource base (Canadian Environmental Advisory Council, 1992)

Ecotourism requires the management and marketing of sensitive resources that often cross jurisdictional boundaries. As a result, many ecotourism projects face difficult land-use and regulatory challenges that arise from the conflicting goals of diverse agencies and private property owners.@ (Whiteman, 1996).

**Advantages and disadvantages of tourism as economic development tool in Banff**

Figure 1 details the breakdown of expenditures by visitors to Banff National Park and the townsite spent in 1996:

Figure 1: VISITOR EXPENDITURES IN BANFF NATIONAL PARK (1996)

\$26 million on car rentals
\$87 million in retail purchases
\$35 million on groceries
\$70 million on recreation and entertainment
\$8.7 million on camping fees
\$8 million on registration fees
<b>Total: \$445 million</b>

(source: Banff/Lake Louise Tourism Bureau)

Clearly tourism represents a significant source of revenue for the town, the province and the country. As Figure 2 indicates, visitors to Banff come from around the globe. Together these two figures suggest a fairly successful tourism strategy from an economic perspective.

Figure 2: VISITOR DEMOGRAPHICS FOR BANFF NATIONAL PARK (1998)

<b>TOTAL VISITORS: 4 million (approximately)</b>
Alberta 2,720,000
Rest of Canada 286,900
British Columbia 125,000 (44%)
Saskatchewan 54,100 (19%)

Manitoba 23,600 (8%)
Ontario 63,900 (22%)
Quebec 12,900 (4%)
Atlantic and Territories 7,600 (3%)

United States 366,500
United Kingdom 70,100
Japan 66,500
West Germany 29,100
Australia 27,200
Other European 37,590
Other International 37,590

(source: Banff/Lake Louise Tourism Bureau)

Tourism is essential not only for the benefit of the community, but also as a source of money for parks to fund their own operations and conservation needs. There are other significant advantages to tourism within the park. Tourism is more socially acceptable than logging and mining, although this is also a matter of scale and intensity (Eyre and Jamal, 1998). Logging and mining is far more controversial in national parks, and as such tourism is used far more extensively as a means of economic development. Furthermore, the promotion of tourism also helps to educate people about our natural resources, and the relationship between humans and the environment. Supporting tourism can help to foster appreciation for nature and these resources, and encourage people to devote their time and efforts to ensuring their protection for future generations.

The Banff-Bow Valley Task Force (1994) was convened by the Ministry of Canadian Heritage to assess the cumulative environmental effects of development and use in the entire Bow River watershed within the park. One of the most important issues that was identified is that the montane region where the townsite is located is also grizzly bear habitat, and there is increasing competition between humans and bears. The mortality rate for bears in this region is 3-5% which is exceptionally high for a national park which forbids hunting. Grizzly

populations, which require a large expanse of land to survive, are considered to be an indicator species for ecological integrity (Curry, 1998).

According to the Panel on Ecological Integrity in Canada's National Parks, struck by the federal government in November 1998, only one of the 39 National Parks in Canada is free from ecological stress, and that park is Vuntut in the northern Yukon (Ellis, 1999). In Banff a fish called the Banff longnose dace has been listed as extinct since the mid-1980s, and the lemon seed sized Banff Springs Snail is also threatened. There are only 50-80 grizzlies in the entire Park, and scientists doubt that there will be any wolf packs in the Bow Valley after the year 2010. Clearly there is an inherent conflict within national parks regarding short term economic gain versus sustaining parks= resources and beauty (Lowry, 1997).

Similarly, increasing visitors means building costly facilities in areas that would otherwise be left natural. (Shaw and Stroup, 1997). Increasing facilities such as retail stores contribute to an increasing commercial climate, detracting from the wilderness experience (Lowry, 1997).

If tourist activity is allowed to increase unchecked, a park's carrying capacity or ability to accommodate more people without resource loss will eventually be exceeded. Once resources begin to decline, tourists value them less and may decide to go elsewhere (Lowry, 1997). If tourist numbers decrease however, conservation efforts will be underfunded and the townsite itself will suffer economically.

It is difficult to use cost-benefit analysis for the environmental impact of tourism because it is difficult to value environmental resources, and to quantify inter-generational effects. Evaluations must be based on more than just economic and demographic numbers, they must also include information on environmental aspects such as wildlife populations and

degree of environmental degradation in order to ensure that tourism will be a viable economic development strategy in the future.

### **BUSINESS INTERESTS IN BANFF NATIONAL PARK**

There has been significant research done on tourism and national parks (Gantenbein 2004, Singh and Singh 2004, Llewelyn 2002), but substantially less on the attitudes and activities of business owners in national parks. Despite concerns about effects of retail stores and other business on both the environment and the wilderness aspects of national parks, businesses serve an important role in Banff and other Canadian national parks. Businesses provide vital services for visitors, offer alternative activities for those with mobility issues, educate and generate revenue through taxes.

One of the most complicated stressors for national park is tourism. From one perspective tourism can have significant benefits for a national park. As an economic development strategy, tourism is relatively simple to initiate with minimal public resource investment. The promotion of tourism may also serve to educate people about natural resources, and the relationship between humans and the environment. Supporting tourism can help to foster appreciation for nature and these resources, and encourage people to devote their time and efforts to ensuring their protection for future generations.

Conversely, economic development and tourism in particular can pose a serious threat to ecosystem integrity. Visitors place pressure on parks through overuse, increased waste and pollution. Similarly, increasing visitors means building costly facilities in areas that would otherwise be left natural (Shaw and Stroup, 1997). Increasing facilitates such as retail stores contribute to an increasing commercial climate, detracting from the wilderness experience

(Lowry, 1997). If tourist activity is allowed to increase unchecked, a park's carrying capacity or ability to accommodate more people without resource loss will eventually be exceeded. Once resources begin to decline, tourists value them less and may decide to go elsewhere (Lowry, 1997). Other disadvantages include: diversion of public funds to infrastructure for tourism instead of general use, investment in human capital, depletion of natural resource base, and social and cultural effects

Promoting and encouraging tourism in national parks also means that administrators may have to make difficult choices about ecosystem management which may entail decisions that are not in the best interests of the park from a preservation perspective.

As suggested by Kay "By describing how officials prioritize among competing public issues, determine policy ownership, or select the set of experts from whom they will receive advice, the problem definition perspective has shown itself to be a valuable tool for understanding how policymakers deal with public problems" (p. 53) ((Kay 2003) .

While Canadian national parks have managed to insulate themselves from economic pressures to a greater degree than in the United States, this is not to say they have necessarily managed the conflict well. Both countries have much to do to ensure the preservation of these natural sites for future generations. National parks play an important role in national and international conservation efforts. Many parks are situated within ecosystems which contain species threatened with imminent decline and loss of habitat. The pressure for parks to pay for themselves and for conservation initiatives tends to encourage further tourism expansion and economic development. The environmental impact is related to the scale and intensity of the activity. "... in a democratic and pluralistic society, where established orders are increasingly called into question, the pressing issue may not be what to do, but rather how to make decisions

and set standards and policies to ensure the stewardship and sustainable “enjoyment” of our national parks by present and future generations”(Jamal, 1998).

Given the several million tourists who visit national parks, policies must begin to address the unique social and environmental concerns. What is the destination image that is projected? What segments of the population are targeted in the marketing and how do these groups impact the environment? How well does policy take into account the interdependent relationship between visitors and the natural park environment? How can tourists be educated about the environmental impact of their activities without sacrificing revenue?

Concerns about economic development in Banff is not new. The Alpine Club and the National Parks Association actively campaigned against hydroelectric development in the parks from 1910-1930. In the 1960s and 1970s environmental groups opposed urbanization in the parks, new ski development, new hotels, a twinned highways and proposals for larger town sites (Bella 1987).

The Banff-Bow Valley Task Force (1994) was convened by the Ministry of Canadian Heritage to assess the cumulative environmental effects of development and use in the entire Bow River watershed within the park. One of the most important issues that was identified is that the montane region where the townsite is located is also grizzly bear habitat, and there is increasing competition between humans and bears. The mortality rate for bears in this region is 3-5% which is exceptionally high for a national park that prohibits hunting. Grizzly populations, which require a large expanse of land to survive, are considered to be an indicator species for ecological integrity (Curry, 1998).

The Banff Bow Valley Study (2 years, \$2 million) extensively examined environmental, economic and social issues within most developed portions of Banff. The purpose of the study

was to integrate environmental, social and economic considerations in order to develop management and land-use strategies that are sustainable and meet the objectives of the *National Parks Act*. Based on some of the 500 strategies that were proposed in this study, the tourism industry has decided to develop a sustainable heritage strategy that seeks to promote tourism within the park and the adjacent areas without placing the ecosystem at risk (Zinkan and Syme, 1997).

Based on the findings of the Banff Bow Valley Study, Federal Heritage Minister Sheila Copps has vetoed the commercial development plans of the town of Banff, a decision permitted by the *National Park Act* because it would affect the ecological habitat of bears. After an environmental assessment the town council had approved 850,000 square feet of additional commercial space in a new Community Plan. The Plan was also endorsed by the residents in a plebiscite, with less than one-third opposed to future development in Banff. In June 1998, Copps limited new development to 350,000 square feet, reduced the town's boundaries by 17%, and announced plans to develop an environmental education centre on commercial land in downtown Banff which would require more than a dozen businesses to close. She has also ordered the closure of the Banff grass airstrip, and army cadet camp, horse corrals and bison paddock. The population is also capped at 10,000, and under a live to work rule, residents must be employed, or own a business, within the park. She has also placed a one-year moratorium on development in all national parks. (Eisler, 1997).

According to Curry (1998), Copps' decision is consistent with the commitment that was articulated in October 1996 in response to the findings of the Banff-Bow Valley Task Force which suggested prohibiting further expansion of commercial development in the park.

The Federal Government has also become involved in the development of ski resorts in Banff. On April 26, 1999 the Honourable Andy Mitchell Secretary of State (Parks) released the Outlying Commercial Accommodation (OCA) Panels= recommendations on the draft ski area guidelines for national parks. The following decisions were announced:

no new ski areas will be permitted, however existing ski areas as the cornerstone of winter tourism will be allowed to continue

ski areas must be capable of assessing the cumulative impacts of ski area development

development must have a net negative environmental impact of zero

replacement and upgrade of existing facilities will be permitted only if it does not result in an increase in the ski area capacity established in existing Long Range Plans

new development will only be considered if it is covered in an existing Long Range Plan

ski area parking lots will not be allowed to expand except onto non-vegetated, previously disturbed land (News Release April 26, 1999, Calgary - Parks Canada)

Land use zoning is used to establish the desired level of protection, use and facility development on specific park lands. Five land use zones have been created in Banff by Parks Canada in order to limit the environmental effects of human activities. Zone I lands require 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. This plan identifies four zone I areas. Zone II lands contain extensive areas that are good representations of a natural region, and that are conserved in a wilderness state; most of the park will be managed as zone II. Outdoor recreational activities that require minimal services and facilities of a rustic nature are contained in zone III areas. Approximately one percent of the park is within zone IV where a broad range of facilities are accommodated, including park roads and ski areas. The town of Banff and the Hamlet of Lake Louise are the zone V areas; they cover less than one percent of the park (Banff M

According to the Panel on Ecological Integrity in Canada=s National Parks, struck by the federal government in November 1998, only Vuntut in the northern Yukon, of the 39 National Parks in Canada, is free from ecological stress, and that park (Ellis, 1999). In Banff a fish called the Banff longnose dace has been listed as extinct since the mid-1980s, and the lemon seed sized Banff Springs Snail is also threatened. There are only 50-80 grizzlies in the entire Park, and scientists doubt that there will be any wolf packs in the Bow Valley after the year 2010.

In order to address some of these concerns, the Federal Government has supported corporate responsibility as a means to promote ecological integrity. The Canadian Pacific hotels have developed a Green Plan that fosters more environmentally responsible company behaviour by encouraging recycling. In Banff in particular they are offering special programs

such as guided park tours and public lectures to teach visitors about ecology (Zinkan and Syme, 1997). In 1992 Brewsters Tours signed a formal partnership agreement with Parks Canada recognizing Brewsters Drivers/Guides as official interpreters of National Park Values (Brewsters Tours 2005).

The Federal Government has also supported corporate responsibility as a means to promote ecological integrity. The Canadian Pacific hotels have developed a Green Plan that fosters more environmentally responsible company behaviour by encouraging recycling. In Banff in particular they are offering special programs such as guided park tours and public lectures to teach visitors about ecology (Zinkan and Syme, 1997).

Similarly, through a partnership with Parks Canada and Brewster Transportation and Tours, tour bus passengers receive authentic ecologically based information along with their guided tour. This expands the means by which the park can communicate with visitors about environmental issues (Zinkan and Syme, 1997).

## **ANALYSIS**

While there is clear legislation that requires Parks Canada to place ecological integrity above all else, it has not been happening consistently. Part of the problem is the changing understanding of the country's idea of the purpose of national parks. Originally they were seen as economic engines for the provinces, or attractions to cater to the tourist market. Today they are seen as the few remaining spots to be protected from degradation. The parks system itself however, has not adapted to this change. For example, the research support in the Parks system is still insufficient to meet the needs of environmental assessment and management (Mitchell, 1999). In order to balance economic development needs and the environment, the

Parks system must commit to a vision and management plan that is in line with the priorities of the *National Parks Act*. The key to operationalizing this is in two strategies: 1) changing the institutional culture so that it becomes capable of balancing quick reaction and flexibility with careful, long-term strategies; and 2) working with stakeholders and decision-makers to ensure that they are integrated into the broader concept of regional or ecosystem sustainability (Zinkan and Syme, 1997).

These stakeholder interests must be co-ordinated so that no one interest is given priority. From a managerial perspective, various groups can and should have direct influence on managerial decision making (Sautter and Leisen, 1999). It is also important to appreciate the full range of interests, and that each stakeholder may also have multiple. Conflict is also likely to occur between quality of life issues (i.e. residents) and balance of power (i.e. business and government (Sautter and Leisen, 1999). Stakeholder collaboration must build on knowledge, insight and capabilities. The process may promote a shared ownership of the resulting policies, thereby encouraging the possibility of joint implementation (Bramuelli and Sharman, 1999). Public forums and mediation sessions are essential to develop a comprehensive understanding of the multiplicity of interests and concerns involved.

Given the several million tourists who visit Banff National Park, tourism marketing must begin to address unique social and environmental concerns. What is the destination image that is projected? What segments of the population are targeted in the marketing and how do these groups impact the environment? How well does tourism marketing take into account the interdependent relationship between Banff residents, visitors and the natural park environment? How can tourists be educated about the environmental impact of their activities without sacrificing revenue?

In order to survive, the park must develop a balance between accessibility and ecological protection (Eisler, 1997). Some argue that there is no need to implement additional controls; the town's current boundaries are fixed by an act of Parliament, no new land can be zoned for development, and the town's land-use bylaw, which is being revised as part of the new community plan already restricts buildings to a height of no more than three storeys (Eisler, 1997). However, environmental damage occurs not just by the development of tourist infrastructure, human activities result in significant problems such as soil erosion at lookout points and alteration in wildlife behaviour (Slocombe, 1997).

While some species adapt well to the presence of humans, others such as grizzly bears and wolves are more sensitive and avoid areas where there are even small numbers of people. In particular bears that become habituated to humans are usually killed because they are a threat to human safety. One solution, which is used in Whistler, British Columbia is to use air horns, pepper spray and rubber bullets to in effect desensitize bears to humans.

Another recommendation is to improve habitat security. This means ensuring that facilities or activities do not interfere with the ability of wildlife to use an area for food or refuge. Reducing the number of wildlife that die from unnatural causes and ensuring the protection of wildlife movement corridors should also be a priority. This will require cooperation from visitors, residents, businesses, and the people who own or manage land outside the park's boundaries. Key actions could include: restore the security of

predator habitat, particularly in areas where elk are abundant; continue research on the predator-prey relationship between wolves and elk; continue measures to reduce wildlife mortality on the Trans-Canada Highway; restore and maintain secure, wildlife movement corridors; adopt measures that allow wildlife to move safely across the Highway and railway.

Human use management could include: limiting the number of commercial activities offered in the backcountry; quotas on popular trails, relocating trails and campgrounds when necessary, expanding public transportation to reduce traffic and the number of wildlife killed on the road, removing trail signs and trail head facilities to reduce traffic on sensitive, and applying restrictions such as temporary closures when necessary for public safety or to protect sensitive natural or cultural resources.

Public information campaigns are also important. All trails should include information on the proper disposal of human waste, how to avoid bears, the location of environmentally sensitive areas, and the basic rules of trail etiquette to protect the land and wildlife. Park newsletters and maps could highlight ecologically sensitive areas, and caution people to be aware of their impact.

Ultimately these recommendations require increasing government regulations of the park, which have met with resistance in the past. Unfortunately stakeholder conflict, coupled with the need for tourist revenue, suggests that these recommendations would be met with significant resistance. However, given the increasing awareness of the threats to our national parks, perhaps it is merely a matter of time before the nation realizes that we have left ourselves with little choice than to make such sacrifices.

## **Conclusion**

Threats to ecological integrity could significantly detract from the appeal of national parks as tourist destinations, and this could have a significant impact on the tourism revenue generated for the province (Ellis, 1999). Restricting access and closing trails discourages visitors and as a result reduces revenue, in particular revenue from outside the town and province.

This Banff syndrome is not unique to Banff. The conflict between economic development and environmental sustainability is threatening national parks in the Mediterranean and the Alps (Philips, 1997), Slovakia (Vancura, 1997), Poland (Mazurski, 1997), Russia (Cook, 1997), Thailand (Dearden and Chettamart, 1997), and Asia (Mishra, McNeely and Thorsell, 1997). Recreational pressure on conservation areas is increasing worldwide, which increases both the actual and potential environmental consequences and also the management effort and the investment required to control impacts and maintain the primary conservation function of the areas concerned. Options include either hardening the environment against visitor impacts or influencing visitor numbers and behaviours so that impacts are kept within limits.

On the one hand national parks are created for use and enjoyment of people, on the other they are designed to serve as pristine wilderness reserves. The first involves making parks accessible, the second isolating parks from adverse human impacts (Lowry, 1997). Without protection of park resources, other park values such as education, enjoyment, and recreation cannot be sustained (Vail Agenda, 1993). Natural resources are public goods, and free access leads to the tragedy of the commons, or over-use to the point of depletion (Sinclair, 1998). It is important to remember that national parks exist not only for ecological protection, but also for the enjoyment, recreation and

enlightenment of present and future generations. It is through public exposure to national parks that their existence is valued by the citizenry at large. This enjoyment however, must occur on the park=s terms, not on those of the visitors.

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