

SECTION G: INVESTING IN ECOLOGICAL INTEGRITY



The Wickaninnish Centre in Pacific Rim National Park Reserve needs to be upgraded. P Wilkinson

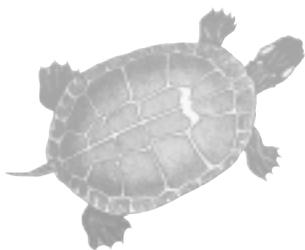
CHAPTER 13: THE NEED FOR COMMITTED INVESTMENT

National parks are a public good. It is the duty of the federal government to provide adequate financing to maintain this public good 'unimpaired for future generations'.

non-governmental organization, submission to the Panel

To pursue its objective of protecting ecological integrity in Canada's national parks, Parks Canada will need a supportive financial framework alongside a supportive management framework. The strengthening of natural and social science capacity, and the interpretation and partnership programs recommended previously in this report will require substantial additional financial resources. This new money is a necessary condition for giving a more rigorous focus to ecological integrity, but money alone will not suffice. This chapter also examines the levels of investment now spent on ecological integrity,

and recommends some reforms to the Agency's financial management and accounting procedures to improve transparency and accountability. The Panel also identifies several "first steps" needed to improve the broader management framework for ecological integrity in Parks Canada that, we recommend, should be implemented before the allocation of any new funds.



Actual Spending Levels are Difficult to Determine

The structure of Parks Canada makes it difficult to isolate financial information for national parks themselves. This is due both to an administrative structure in which national parks are managed through Field Units that frequently also include national historic sites, and the financial coding structure that only breaks down activities to this Field Unit level. Tracking and analyzing historic information on expenditures in national parks is further complicated by the fact that between June 1993 and March 1999, Parks Canada was part of the Department of Canadian Heritage and used their integrated departmental financial systems.

The Panel worked diligently with our own researchers and with Parks Canada staff to seek financial data on expenditures for the Parks Canada Agency as a whole, for the national parks component alone, and for our focus parks in particular. We were seeking

information on current and historic expenditures for all park activities and for ecological integrity initiatives in particular. Despite a strong collaborative effort, in the end this information could not be obtained in any rigorous, comparable, or reliable format. There are reasons for these difficulties, and Parks Canada appears to be making progress in establishing new structures to enable the collection of such data. Nonetheless, the Panel was deeply troubled by our inability to collect consistent information on issues as basic as total spending in national parks, as well as rigorous and consistent data on how much funding has been going to support the primary objective of national parks, ecological integrity. This confusion is indicative of the general lack of clarity, management focus, and accountability systems for the ecological integrity objective that we have discussed throughout this report.

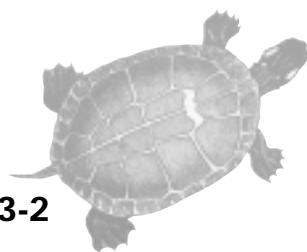
Reduced Budgets

Note: Unless otherwise indicated, the discussion of Parks Canada budgets in this chapter refers to the operations of the Parks Canada Agency as a whole, not the national parks component.

Parks Canada has absorbed substantial budgetary reductions since 1994. These reductions have included the end of funding of the five-year Green Plan that supported the creation of new parks and sites, as well as many ecological integrity initiatives related to inventory, monitoring and research. Annual funding to Parks Canada under the Green Plan, which ended in 1996/97, was \$33.5 million. Parks Canada's share of the government wide reductions under Program Reviews I and II amounted to \$56 million annually. In addition to the above, the phasing in of previously announced budget reductions amounted to a further \$14.8 million

annually. In total, by 1998/99, Parks Canada saw an annual amount of \$104 million or 25 per cent reduction from 1994/95. One result of this funding decrease was a major re-organization of Parks Canada into a flatter organization as all overhead functions were reduced by 30 per cent.

To partially offset these reductions, Parks Canada enforced the government's cost recovery policy and reduced subsidies to users who received specific services. In the past five years, three hot springs, one golf course and six park communities have been placed in "revolving funds" to ensure cost recovery and self-sufficiency. Entrance fees to numerous parks and sites were introduced, and increases to entrance fees, camping and other recreational services were made. The revenues collected by these initiatives increased



by \$32.3 million, or 75 per cent (from \$42.9 million in 1994/95 to \$75.2 million in 1998/99) which the new Agency now has the authority to retain. These revenues are now rechanneled, partially, to fund the development and operation of new parks and sites created since the Green Plan terminated.

Over the past five years, Parks Canada continued to receive one-time funding allocations such as strategic capital investments for the Trans-Canada Highway, cashout costs to reduce the workforce, emergency monies for forest fire suppression and severe storm damage, Agency transition costs, "Y2K" and Agency downsizing bridge financing. In addition, the Parks Canada budgets now reflect items which were previously recorded elsewhere, such as payments the Agency now makes in lieu of taxes (from Public Works Canada), and corporate services such as financial and human resource management (from the Department of Canadian Heritage). As these funded items are for specific projects or services, they cannot be used for other activities such as implementing the mandate for ecological integrity.

The influence of these one-time increases on the organization's total budget is the explanation for the appar-

ent increase in the budget, although base appropriations have declined as described above. Figure 13-1 identifies the change in Parks Canada's expenditures and revenues between 1994/95 and 1998/99.

Over the past decade, Parks Canada's financial stress has been exacerbated by the introduction of major new responsibilities without associated additional resources, such as:

- the introduction of a legislated ecological integrity mandate in 1988;
- requirements under the 1994 Canadian Environmental Assessment Act and the 1995 amendments to the Auditor General Act, requiring departments to implement sustainable development strategies;
- the responsibility to complete the national terrestrial park system by the year 2000. This commitment was first established in the 1990 Green Plan, reconfirmed by consensus of the House of Commons in 1991, more broadly endorsed by the Tri-Council of federal, provincial, and territorial ministers of the environment, wildlife, parks, and forests in 1992, and again by every subsequent Minister responsible for national parks;

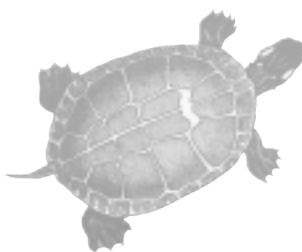
Figure 13-1. Budgets for Parks Canada Agency, 1994 – 1999, All Operations

(\$ millions)	1994/95	1998/99
Total expenditures*	\$385.5	\$396.7**
National parks portion of total	\$181.3	\$224.3
National parks percentage of total	47.0%	56.5%
Number of national parks & park reserves	36	39
Number of national marine parks	1	2
Total revenues	\$42.9	\$75.2

Source: Best available information provided by Parks Canada to the Panel, December 1999
Expenditures from 1997–98 onwards have been adjusted for permanent transfers for payments in lieu of taxes and corporate services.

* Total expenditures are funded from resources from revenue generation, as listed in this table, and other resources from government appropriations.

** Fiscal 1998/99 includes a \$35 million one-time supplementary funding for project advancement.





Pangnirtung Fjord, Auyuittuq National Park in Nunavut — among Canada's newest national parks. G. Klassen/Parks Canada

- the responsibility to establish a system of marine conservation areas was first given in 1986, and legislation to this effect is now before the House of Commons;
- since 1994/95, three new parks and one new marine park have been established.

In the recent past, Parliament has not appropriated new funds for agreements related to the establishment of new parks, nor for the subsequent operations of these parks. For the last three years, operating funds for new parks and marine conservation areas have come from the appropriations freed up under the revenue policy. The pace and cost of expansion cannot be supported by future revenue increases.

In addition to this reduction in the Parks Canada budget, allied agencies such as the Canadian Wildlife Service, the Canadian Forestry Service, and the Canadian Museum of Nature have also lost substantial funding. This widespread decline had a ripple effect on Parks Canada — professional and technical services that allied agencies had provided to Parks Canada (which had once formed the core of the senior science capabilities dedicated to Parks Canada) have been largely lost.

Agency-wide Spending on Ecosystem Research, Monitoring, and Management

A system to track expenditures with sub-categories that enable better identification of expenditures specifically related to ecological integrity activities was implemented by Parks Canada in the 1998/99 fiscal year (the Program Reporting and Accountability System, or PRAS).

Previously, such information could not be isolated. This was confirmed by the Panel's experience when we tried to collect this information from our individual focus parks, and found that there was no common understanding of what should constitute an ecological integrity expenditure, and no ready way to assemble comparable data.

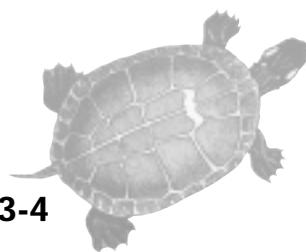
The new PRAS will increase the transparency and accountability for the implementation of the ecological integrity mandate as a whole, and is a constructive and vital step forward. It is at an early implementation stage, and ongoing work is needed to establish a consistent application of the system across the entire Agency and better business and service lines to reflect that ecological integrity is the primary objective. The coding continues to be refined and interpreted, and as such, the information in this section reflects what was available to the Panel from the Agency effective mid-November, 1999.

Ecosystem Research, Monitoring and Management

Under the new PRAS, current expenditure system, ecological integrity activities fall under two categories of expenditures, defined by Parks Canada as follows:

Ecosystem Research and Monitoring:

- all work related to research on ecosystems or components thereof to advance understanding of their status, functioning and desired state for management purposes;



Budgeting for Ecological Integrity

Ecological integrity is everyone's responsibility. In that sense, all activities must contribute in some way to ecological integrity. Such activities must continue to be charged to respective budget lines and not to the ecological integrity budget, which must be reserved for ecosystem-based management, research, monitoring and ecological restoration.

- all work related to monitoring of ecosystems or components thereof to ascertain changes;
- all work related to establishment of a baseline ecosystem condition and a desired condition for each protected heritage area including indicators to be used to assess and monitor those ecosystems;
- allow monitoring of trends and condition changes over time to direct research, monitoring, and facilitate reporting such as the State of the Parks Report.

Ecosystem Management and Protection:

- all work related to interventions with ecosystems or their components, including the preparation of appropriate plans, to achieve a desired state;
- all work related to emergency protection such as fire prevention/suppression, management of insect infestations, flood/avalanche protection or control;
- all work related to undertaking the studies and implementation of the environmental assessment process;
- all work related to establishment and maintenance of compliance activities to support ecosystem protection;
- all work related to liaison, negotiation and influencing of actions on adjacent lands that may affect the ecosystems of the protected areas;
- all work related to management of harvesting activities such as sport fishing and traditional activities.

Information under these categories is collected for the Agency as a whole. In 1998/99, total expenditures on ecosystem research, monitoring, and management was \$49.38 million, approximately 12.5 per cent of the Agency's total budget and 22 per cent of the budget of the national parks component.

The Panel considers the 22 per cent figure a maximum estimate. We suspect that the amount that Parks Canada

spends directly on managing for ecological integrity is substantially less. For example, improving the boardwalks and other facilities on a major trail, which in turn will reduce impacts on the ecosystem, has sometimes been accounted to ecological integrity when in fact the ultimate purpose was to provide an enhanced visitor service. Similarly, a community plan must consider ecological integrity, but the ultimate purpose of such a plan is to manage a community responsibly.

It may be justifiable in some cases to account the mitigation of human activities and visitor services to ecological integrity budgets, but it is more accurate to account these funds towards the cost of providing the development or activity. If any project or activity which incorporates any element of ecological integrity is for accounting purposes identified as an ecological integrity project, the point is missed that ecological integrity is everyone's responsibility, and resources available for ecosystem-based management, ecological inventory, monitoring and research will be diminished. In fact, the scale of impact related to communities and large-scale development is such that mitigating those effects alone requires a very large percentage of the ecological integrity budget of most parks.

Further, there is a need for goods and services that support ecological integrity activities; for example vehicles, gasoline and infrastructure. These are high cost expenditures, which further reduce the budget available for direct action to maintain ecosystem integrity. When these costs go to support activities that only indirectly support ecological integrity, for example in support of many patrols related to public safety (such as highway traffic), law enforcement, and search and rescue, the effect is magnified.



Interpretation

Interpretation is another line of activities in which some components are related to ecological integrity. Interpretation is listed under the title "Presentation of Heritage Resources," and includes activities at national historic sites and historic canals as well as national parks. It has been defined by the Agency as follows:

Awareness and Understanding:

- all on-site work done to make visitors to national protected heritage areas aware of the area's importance and role in the Parks Canada system, including displays, publications, and media releases related to creating awareness and understanding but not recreation oriented;
- all off-site work done to enhance appreciation of the national protected heritage system including displays, publications, and media releases, and other electronic media

related to creating awareness and understanding but not recreation oriented;

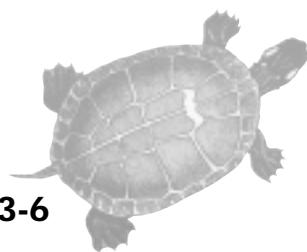
- all work related to provision of visitor centres such as media, exhibits, and presentations that results in making visitors aware of and understand the national significance of the protected heritage area;
- all work related to the management of volunteer and co-operating association programs.

Expenditures on presentation of heritage resources total \$34.26 million, approximately 8.5 per cent of the Agency's total budget. (Figure 13-2). This latter category includes many activities related to the national historic sites and historic canals side of the Agency. Information is not directly available on how much of this is spent on presentation of natural heritage resources related to ecological integrity. The best estimate the Panel could make

Figure 13-2. Parks Canada Agency Expenditures by Category 1998–1999

(\$ thousands)	Operations	Capital	TOTAL
Stewardship of National Places			
• Establishment of New Heritage Places	5,480.1	3,292.9	8,773.0
• Protection of Heritage Resources	57,398.2	21,931.6	79,329.8
- Ecosystem research & monitoring	5,878.1	4,657.5	10,535.6
- Ecosystem management	32,709.9	6,135.8	38,845.7
- Cultural resource research	3,949.4	4,208.9	8,158.3
- Cultural resource management	14,860.8	6,929.4	21,790.2
• Presentation of Heritage Resources	21,281.7	12,982.6	34,263.9
<i>Total, Stewardship</i>	84,260.0	38,206.7	122,366.7
Use and Enjoyment by Canadians			
• Visitor Services	57,422.3	19,926.8	77,349.1
• Townsites	3,700.3	858.9	4,559.2
• Through Highways	9,031.8	8,044.5	17,076.3
<i>Total, Use and Enjoyment</i>	70,154.5	28,830.2	98,984.7
Corporate Services			
• Management of Parks Canada	91,068.9	39,011.6	130,080.5
• People Management	13,371.5	180.2	13,551.7
<i>Total, Corporate</i>	104,440.4	39,191.8	143,632.2
TOTAL, PARKS CANADA	258,754.9	106,228.7	364,983.6

Source: Best available information provided to the Panel by Parks Canada as of November 15, 1999

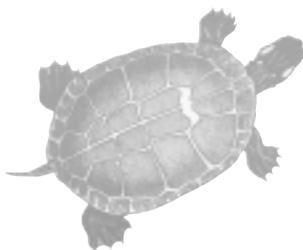


was by using relative staffing levels as a proxy for relative interpretation budgets. For example, we were told that of the 1150 interpretation and outreach staff in the Agency, 394 (one third) are working in the national parks. If overall interpretation expenditures mirror this division, then the national parks interpretation budget is in the area of \$11 to \$12 million, approximately 5 per cent of the total national parks budget.

Given the lack of information on interpretation resources prior to the budget cuts, it is impossible to evaluate whether or not the resources available at that time were adequate to properly meet interpretation objectives, but interpretation resources have been drastically reduced. We suggest, therefore, new investment in national park interpretation of \$10 million. This would nearly double current spending on interpretation in national parks.

Operations and Capital Budgets

These figures represent spending from both the operations and the capital (or special project) budgets. The Panel heard that many staff positions related to ecological integrity, and ongoing ecological integrity initiatives (such as ecological monitoring and database maintenance) are currently funded from project budgets and under the previous departmental status were insecure and competing with other projects on an annual basis. This is confirmed in Figure 13-2, which shows that 44 per cent of expenditures under the Ecosystem Research and Monitoring line are from capital funds. Long term resourcing is essential for the development of research and monitoring programs, whose integrity can be impaired by even temporary loss of funding. The new Parks Agency structure will provide some relief from these vagaries of annual funding.



Spending On Protection Of Heritage Resources in Focus Parks

The Panel also looked for information on spending patterns in the individual focus parks we visited. As mentioned above, the accounting system in Parks Canada made this information surprisingly difficult to obtain for specific parks and for spending explicitly on ecological integrity activities. We decided to use the public business plans of the Field Units for our analysis, as these documents are official, public documents. However, this information is available only at the business line level of Protection of Heritage Resources, and cannot be broken down to separate out the subcategories of ecosystem activities from cultural resource activities.

Figure 13-3 presents the results of our analysis for eight of the parks that the Panel visited. The budget for Gros Morne National Park is missing from the table — the information could not be separated out from that of the Newfoundland West/Labrador Field Unit which includes several large national historic sites.

The proportion of the park budget allocated to Protection of Heritage Resources averages approximately 25 per cent with a low of 13.5 per cent. This is in line with the percentage for the national parks component of the Agency (see above). This average decreases to 19 per cent if Wood Buffalo National Park is excluded.

Table 13-3. Focus Park Budget Plans for Protection of Heritage Resources: 1999-2000

(From 1999–2000 Business Plans)

Focus Park	Total Park Budget	Park Budget Devoted to Heritage Resource Protection *								
		(\$ thousands)								
		Salaries		goods & services		capital		emergency & other	TOTAL	
\$\$	\$\$	% Total	\$\$	% Total	\$\$	% Total	\$\$	\$\$	% Total	
St. Lawrence Islands	1465.7	113.8	15.2	57.7	14.8	114.0	34.8	—	285.5	19.5
Fundy	3759.3	276.85	15.1	67.9	8.6	475.35	47.6	—	820.1	21.8
Georgian Bay Islands	2209.6	130.1	18.2	20.0	7.3	150.0	12.3	—	300.1	13.6
Riding Mountain **	5090.3	883.6	30.0	179.1	19.7	513.0	42.4	30.0	1605.7	31.5
La Mauricie ***	2705.3	274.8	18.5	52.2	7.8	150.0	27.3	—	477.0	17.6
Gros Morne ****	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Waterton Lakes	3314.7	276.6	17.8	139.9	13.9	165.6	32.2	38.3	620.4	18.7
Wood Buffalo	5299.6	1243.9	55.2	314.9	32.6	726	93.0	1300.0	3584.8	67.6
Pacific Rim	3391.4	378.9	19.9	9.0	1.5	201.4	32.4	8.3	597.6	17.6

Source: Analysis for Panel by Luce Charron, based on Business Plan of the relevant field unit for the period 1999–2002

* The figures are based on the budget indicated as the operating base in the financial framework for the park for the year 1999–2000 and included in the Business Plan for the relevant Field Unit for the period 1999–2000.

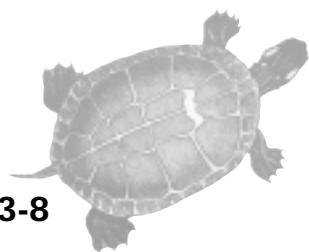
** These percentages are the same as those for the field unit as it includes only one national historic site, which is part of the park. The ecosystem secretariat located at Riding Mountain National Park is shared between Manitoba Field Unit (including Wapusk National Park) and Riding Mountain Field Unit.

*** The percentages are calculated based on the budget allocated to both natural and cultural heritage resource protection rather than the budget of the Natural Resource Conservation Unit, which is much higher as it includes several other programs in addition to ecosystem management. The total budget for La Mauricie excludes the District Office.

**** The budget specific to Gros Morne National Parks was not included in the Business Plan of the Newfoundland West/Labrador Field Unit made available for Panel review.

The conspicuous anomaly of Wood Buffalo National Park's high spending on Protection of Heritage Resources (68 per cent of total park budget) illustrates some difficulties with interpreting these numbers. The high level can be explained in some part by the fact that due to its remote location and relatively undeveloped nature, Wood Buffalo has few visitors (approximately 6,000 in 1996) and therefore comparatively little activity for visitor services. The ecosystem management issues in the park are large and chronic (rehabilitation of clearcuts that are as large as Mount Revelstoke National Park, bison disease, hydrology of the Peace-

Athabasca Delta). Furthermore, the huge size of the park (about the same size as Switzerland, Wood Buffalo is the world's second-largest national park) contributes to high costs of basic operations and management of the ecosystem. Almost 25 per cent of the park's 1999/2000 budget is funding for fire management.



Prerequisites to Additional Resources for Ecological Integrity

Maintenance of public roads in Wood Buffalo National Park may become a major expense for the park.

L. Foisy/Parks Canada

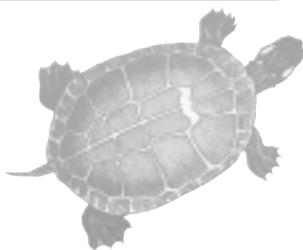


There are many reasons for the low proportion of funding allocated to ecosystem activities relative to other park responsibilities.

Foremost is the fact that many other budget categories are non-discretionary because they have been predetermined by other decisions or by commitments elsewhere in government. These include agreements reached in park establishment (such as the building of a new visitor centre for Gros Morne National Park) or at a federal-provincial level (such as highway maintenance within national parks). For instance, in Wood Buffalo National Park, a decision by the government of the Northwest Territories to privatize highway maintenance will likely “off load” this expense from the territorial government to the park, causing a \$200,000 annual increase in the park’s goods and services requirements — 20 per cent of the park’s current budget in this category.

“Budgets for resource management, including research and monitoring, which were never adequate, have declined in recent years. The decline has been most precipitous in the current fiscal year 1999–2000 in which the overall Capital budget for Heritage Protection (in Jasper National Park) shrank by 45% and the Science and Resource Management portion of that declined by 76%.”

Parks Canada employee, submission to the Panel



Spending on visitor services such as roads, campgrounds, and stores, is seen as necessary for visitor satisfaction, and this category is currently a large category of spending (27 per cent). This is in part a legacy of the historical perspective on the function of national parks.

Expenditures on public safety must be undertaken because of liability, and hence accountability. In contrast, accountability for ecological integrity targets is very soft, and expenditures can be delayed or minimized. This can lead to a situation such as in Pacific Rim National Park Reserve, where money is available to maintain physical safety features of the West Coast Trail (such as bridges and ladders), but wardens have difficulty preventing poaching of threatened yew trees within the park’s Broken Group Islands unit because there is no money for wardens to purchase gasoline for their boats.

Whatever the reasons, (to use the words of one senior park manager), *“funding for ecological integrity is the most discretionary portion of our budget,”* although ecological integrity is meant to be the priority for managing national parks. When money gets tight, spending on ecological integrity is an early candidate for curtailment.

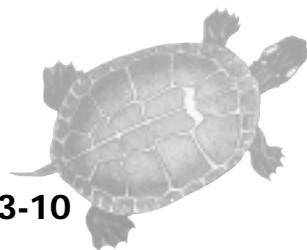
The pressures for spending in other Parks Canada program areas are intense, particularly in an organization where every dollar is already stretched. The Panel came to the view that without the initial changes in organizational structure, planning, and accountability mechanisms recommended elsewhere in this report, any new money given to the Agency for maintaining and restoring ecological integrity would be very vulnerable to redirection to other program areas.

RECOMMENDATION

13-1. We recommend that Parks Canada take the following first steps to implement improved management and accountability for ecological integrity in national parks before the allocation of additional resources to maintain and restore ecological integrity.

The first steps proposed by the Panel have been chosen to be seminal in setting a new direction for Parks Canada at both symbolic and operational levels. These first steps are measures that have been recommended previously in this report:

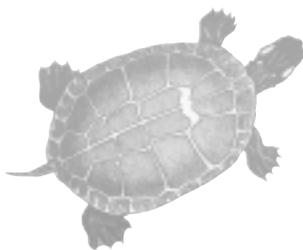
- reforms to bring science advice and information to the Chief Executive Officer and into the Executive Board through the appointment of a national Director General of Ecological Integrity (Chapters 2 and 4);
- initiation of a participatory process to develop an Agency Charter, which would lay out the core values of the organization as they relate to its primary objective of ecological integrity (Chapter 2);
- development and early implementation of a detailed and ongoing training and orientation program focused on ecological integrity (Chapter 2);
- revisions to planning guidelines to make ecological integrity the core and overarching theme of future Park Management Plans (Chapter 3);
- gazetting the wilderness zones in at least two national parks in order to give them legal designation, and announcing the intention to gazette wilderness zones in all parks within five years (Chapter 3);
- establishing written guidelines for the re-orientation of the external relations (marketing) department from a focus on mass tourism product marketing to a focus on social marketing, policy marketing, and de-marketing with messages focusing on ecological integrity (Chapter 10);
- strengthening systems to enable public transparency on spending of all additional resources in business plans and public estimates, to make readily identifiable the budgets for: ecosystem research, monitoring and management; the Partnerships Fund and expanded partnerships with Aboriginal peoples; and national parks interpretation;
- development of a strategic plan for moving beyond these first steps to address the longer-term issues essential for the re-orientation of the Parks Canada Agency's national parks components toward the ecological integrity objective, including:
 - a detailed budget plan for expenditure of all additional resources given for ecological integrity purposes;
 - specific accountability goals for the ecological integrity mandate, including regional integration at national, Field Unit and individual park levels;
 - initiation of communications with Aboriginal peoples on how to undertake a healing process;
 - a plan to refocus the interpretation and outreach programs on ecological integrity as the primary message, and to widen the audiences for these programs.



A Matching Funds Offer for Private Land Stewardship

The Nature Conservancy of Canada is prepared to propose matching as much as \$20 million per year of federal investment in habitat conservation to conserve Canada's ecological integrity and natural heritage both within and outside of Park ecosystems over the next several years. For each dollar invested by the Government of Canada, NCC, or its partners, would raise one or more dollars from non-federal sources to invest in conservation projects to secure land essential to maintaining integrity in Canada's national parks and conserving the broad range of Canada's biodiversity.

letter from the Nature Conservancy of Canada to the Panel.



Internal Re-allocations and Savings

A number of the Panel's recommendations are proposals to shift and streamline existing activities, and some activities should be considered core activities for Parks Canada. These recommendations should be funded from within the current budget framework, through internal re-allocations and savings. These include:

- establish and staff the position of Director General of Ecological Integrity in the national office (Recommendation 2-6);

Additional Resources

The Panel heard consistently that the financial resources currently devoted to Parks Canada are insufficient for Parks Canada to meet its objective for protecting ecological integrity, and that the existing pressures on those resources exacerbate the situation even further. Other chapters in this report make recommendations for new programs and expanded capacity. Given what we heard about stretched resources, the Panel came to the view that it would not be reasonable to expect all of these new or expanded programs to be financed from within existing budgets.

Our recommendations are for major new thrusts and initiatives, for operational expenditures only. Not every recommendation in this report has been costed, and funding for new infrastructure expenditures, which will arise from many of the recommendations on ecological design in Chapter 12, are not included. Our recommendations also assume that current funding for ecological integrity activities is kept intact: that new monies proposed are additional to those already being invested.

- detailed orientation, training and development program on ecological integrity for all employees (including contract employees, partners and co-operators) (Recommendation 2-4);
- implementation of the substantially revised, streamlined planning process (Recommendation 3-2);
- re-orientation of the external relations (marketing) department (Recommendation 10-7);
- establishing a highly qualified core design/planning group to be responsible for managing capital investments (Recommendation 12-1).

As noted above, there is also a need to shift certain fundamental activities from insecure project funding to more secure base funding. This applies to ongoing monitoring, research, and data management programs, where an interruption or disruption to the project can negatively affect years of work. It also applies to partnerships, where financial certainty is an essential ingredient for trust and good relations, and to interpretation, which is key to building understanding of the unique role of parks in the country's conservation and sustainability efforts.

Experience has shown that guaranteed, long-term funding envelopes for ecological integrity research can leverage substantial outside matching funds. For example, in Banff National Park a guaranteed funding envelope of \$300,000 a year was leveraged by judicious choice of research projects and researchers into nearly \$1 million a year. Further, innovative approaches seeded by Banff National Park funds, such as the East Slopes Grizzly Project, obtained substantial contributing funds from private industry. The result is a level of ecological knowledge of the Banff region that is unsurpassed in any other park.

The absence of such funding envelopes can also lead to missed opportunities. In Wood Buffalo National Park, we heard that the Little Red River Cree Nation had offered \$250,000 to the Bison Research and Containment Program on a matching basis, but this opportunity for research and partnership will be missed because Parks Canada cannot match the funds.

The Panel also heard that a properly designed fund in support of habitat conservation initiatives that would help to maintain the ecological integrity of national parks, undertaken in partnership with private organizations, could leverage significant private contributions.

We also observed and heard that while allocating funding for the maintenance of ecological integrity was exceptionally difficult, allocating funding for active management and restoration activities was even more so. Park staff reported that funding to support restoration such as prescribed burns, species re-introduction, site rehabilitation and

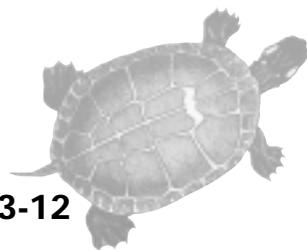
other activities was exceedingly difficult to obtain. We noted that there was limited recognition that, in the long run, an investment in restoration would be needed to achieve the ecological integrity objectives, and that in some instances, the longer such restoration was left un-addressed, the higher the costs of restoration

Other new activities should also be funded through initiatives underway elsewhere in government, not from existing Parks Canada resources nor from the additional resources recommended in this report. Funding for managing species at risk, for which Parks Canada can play a key role but does not have the current capacity to take on, should come from the funding that will be allocated to Species at Risk management. Funding for healing conferences and initiatives with Aboriginal peoples should be funded through the Healing Fund established under the government's Gathering Strength initiative.

RECOMMENDATIONS

13-2. We recommend that the Minister seek additional resources to implement the recommendations of the Panel as follows (see Figure 13-4 for specific dollar amounts):

- to upgrade the internal knowledge capacity of Parks Canada, and enable co-operation with external science programs (Chapter 4) as follows:
 - increase internal capacity in the natural and social sciences and in planning.
 - fund education leaves to upgrade the knowledge of existing staff.
- to supplement and expand active management programs (Chapter 5) as follows:
 - funding support for external researchers through 10 co-operative study units and student internship programs in each park.
 - a Conservation Data Centre Partnership.
 - an emerging issues research envelope.
- to supplement and expand active management programs (Chapter 5) as follows:
 - a dedicated site restoration envelope to ensure there are funds available and that restoration is not directly competing with other immediate priority issues.



- to supplement the existing fire restoration program so that fire can be restored to 50 per cent of its long term average.
- to supplement and stabilize ongoing funding for ecological monitoring activities (Chapter 6) as follows:
 - an ecological integrity monitoring envelope.
 - atmospheric monitoring in cooperation with the Atmospheric Environment Branch of Environment Canada.
- to improve relations between Aboriginal peoples and Parks Canada (Chapter 7):
 - for liaison officers and activities in aboriginal communities and in Parks Canada.
- to contribute to partnerships that will support the ability to maintain the ecological of national parks:
 - for a Partnership Fund to be applied to a broad range of co-operative agreements with respect to maintaining the ecological integrity of national parks and other national conservation areas (Chapter 9).
- to approximately double Parks Canada's budget for presentation of heritage resources (interpretation and outreach) by the national parks in order to expand national park interpretation programs to strategic new audiences, new media, and educational institutions, and with a greater focus on ecological integrity (Chapter 10):
 - work in collaboration with tourism operators and other groups to make ecological integrity messages available to people planning trips to national parks.
 - develop interpretation programs aimed at specific strategic audiences such as park community residents, national park staff, politicians and decision-makers in various levels of government, regional communities, youth and educators, and the private sector.
 - develop outreach programs to bring parks to people, especially in urban areas.
 - develop means to involve Aboriginal people in interpretation and outreach programs.

13-3. We recommend that the Minister of Canadian Heritage support proposals currently being made to the Minister of Finance by environmental non-governmental organizations to change the Income Tax Act to exempt ecological gifts from capital gains tax and allow for the part sale/part donation of land (Chapter 9).

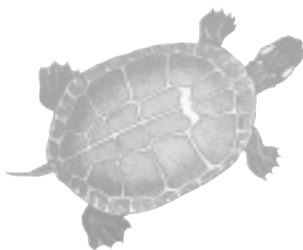
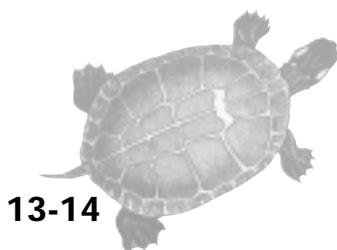


Figure 13-4. New investments needed by priority area 2001-2005

(Millions)	Phase in period (years)	2001	2002	2003	2004	2005	Total
Science & Planning							
Internal capacity - natural & social sciences, planning, EA specialists, data/GIS managers	4	10.0	18.0	24.0	28.0	28.05	108.0
Staff education leave program	3	0.7	1.3	2.0	2.0	2.0	8.0
Support external research	3	1.3	2.7	3.5	3.5	3.5	14.5
Conservation Data Centre Partnership	1	0.54	0.54	0.54	0.54	0.54	2.5
Emerging issues research fund	4	0.4	0.6	0.8	1.0	1.0	3.8
<i>Subtotal</i>		12.9	23.1	30.8	35.0	35.0	136.8
Active Management							
Site restoration fund	3	1.0	3.0	5.0	5.0	5.0	19.0
Expand fire restoration	5	1.2	2.4	3.6	4.8	6.0	18.0
Fund management of Species at Risk from SARA resources							
<i>Subtotal</i>		2.24	5.4	8.6	9.8	11.0	37.0
Monitoring							
Ecological integrity monitoring	5	0.8	1.6	2.4	3.2	3.9	11.7
Atmospheric monitoring (50% PCA, 50% AES)	1	1.2	0.6	0.6	0.6	0.6	3.6
<i>Subtotal</i>		2.0	2.2	3.0	3.8	4.5	15.5
Aboriginal Peoples							
Liaison between Aboriginal peoples and Agency	3	1.0	3.0	5.0	5.0	5.0	19.0
Fund healing conferences & initiatives through Gathering Strength Healing Fund resources							
<i>Subtotal</i>		1.0	3.0	5.0	5.0	5.0	19.0
Regional Integration Partnerships							
Stewardship initiatives in greater park ecosystems	3	10.0	15.0	20.0	20.0	20.0	85.0
Interpretation							
Double national park interpretation budget	4	2.5	5.0	7.5	10.0	10.0	35.0
TOTAL		30.6	53.7	74.9	83.6	85.5	328.3



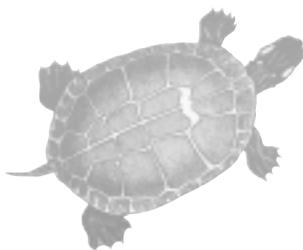


Wildlife should be considered
as park “assets.”
W. Lynch/Parks Canada

Additional Resources for New Parks

Funding for new parks currently includes funding for establishment agreements, but does not include funding for the subsequent operations of these parks. For the last three years, operating funds for new parks and marine conservation areas have come from the appropriations freed up under the revenue policy. This has led to a situation in which the creation of new parks risks affecting the ability to meet commitments to protect the ecological condition of existing parks.

There are 14 terrestrial natural regions throughout Canada still requiring national park representation, and an entire system of marine conservation areas yet to be established. These cannot all be funded from current operational funds. Clearly, it will not be sustainable to continue to fund new parks from within Parks Canada’s current budget, and new resources will be required to develop and operate these new parks and conservation areas.



RECOMMENDATION

13-4. We recommend that funding for new park establishment should include:

- an associated increase in base appropriations for subsequent park operations;
- the costs of developing an adequate ecological inventory. As a general rule, the cost of a basic inventory are estimated to be \$250,000 per

park on average. This is over and above any other inventories such as the Mineral and Energy Resources Assessment process in the northern territories. There are currently 14 un-represented regions and five northern parks with inadequate basic inventories. The total cost to complete a basic inventory of a completed national park system would be approximately \$5 million.

Allocation of Project Funds

"In the US, the Henry P. Kendall Foundation, the National Parks and Conservation Association and the US Parks Service are engaged in a voluntary and innovative Business Plan partnership. Over the past several years, 8 national parks (eg. Yellowstone) have opened up their books to an intensive review of how they might better spend their dollars to meet the EI [ecological integrity] goals. This is being supported by some top Ivy League colleges that are engaging Ph.D. economic students in this exercise. A similar approach could be taken here in Canada."

conservation organization, submission to the Panel

The recommendations above are intended to transfer much of the funding for essential activities relating to ecological integrity to Parks Canada's base funding, in order to provide a security of long-term funding that is consistent with the mandate of national parks. There will, nonetheless, continue to be a need for special project funding. This section addresses issues related to creating a level playing field for this funding.

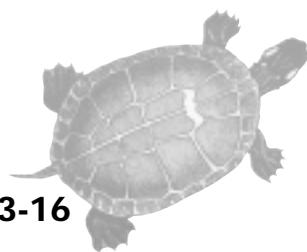
Determining the financial resources needed to replace or upgrade existing infrastructure for park communities and park arrival areas is beyond the Panel's capability. These capital assets include

sewage treatment, water, energy systems and related infrastructure, and have both direct and indirect effects on ecological integrity.

When project funding is sought for ecological integrity projects such as research, active management, and restoration, it "competes" in the same category of funding as physical infrastructure projects (campgrounds, roads, visitor centers and so on). We heard repeatedly that proposals for maintaining declining natural features (species, ecosystems, ecosystem functions) cannot compete against proposals for physical infrastructure, which are often driven by engineering or safety standards. We also heard that the benefits of investments in science and active management are not always well understood by managers.

"Unlike other areas within the Agency's programs, the implications of under funding of ecologically based programs do not readily manifest themselves, making them an easy target for reduction or deferral."

Service Centre, submission to the Panel



We saw this imbalance in practice in several instances where infrastructure for visitors has been built in the name of protecting ecological integrity, although neither basic ecological inventories nor ecological monitoring existed. In such situations, facilities such as trails and trail infrastructure have been prioritized as ecological

projects although the status of the specific site and its capability to handle visitor use or sensitivity to visitor use was unknown. Although such issues should be picked up through the environmental assessment process, this process is not always as thorough as it could be, as discussed in Chapter 12.

RECOMMENDATIONS

13-5. We recommend that Parks Canada divide project funds using an “envelope” system of fiscal management with one of these envelopes being for activities related to ecosystem research, monitoring, and management at both national and regional levels, and one envelope for projects under other program areas.

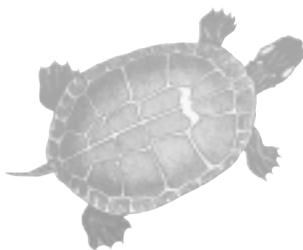
13-6. We recommend that Parks Canada initiate, within two years, an investigation of the infrastructure of each national park, to determine the capital funding required with respect to:

- current conditions of infrastructure facilities in relation to their impacts on ecological integrity and the need for replacement and/or upgrading;
- determination of appropriate design for environmentally sustainable technologies to meet ecological integrity objectives;
- a phased implementation program and identification of priority sites.

The Need to Account for all Assets

The natural features of national parks (species, ecosystems, and ecosystem functions) are what the people of Canada have entrusted to Parks Canada to maintain unimpaired for the enjoyment of future generations. However, these features were entirely omitted from a recent review of Parks Canada’s assets, initiated and defined by the federal Treasury Board. This would be similar to making an asset list for the National Gallery that omitted its painting collection. Another form of asset left out from the recent review was the value of knowledge assets that are embodied in resources such as databases, libraries, photo collections, specimen collections and long-established monitoring programs.

The Panel is of the view that the current definition of “asset” is incomplete, given the nature of Parks Canada’s obligations. While the methodologies for accounting for natural assets are still being developed, parks, with their distinctive mandate for the maintenance of ecological integrity, provide a perfect match between need and opportunity for piloting the application of these methods. Some work has already been done in Gros Morne National Park (Locke, 1997):



RECOMMENDATION

13-7. In keeping with the public trust to protect, conserve and interpret Canada's natural heritage, and to contribute towards the protection of global biodiversity as established in the Parks Canada Agency Act, we recommend that Parks Canada undertake pilot projects to adopt a revised definition of assets that would include the following elements:

- the condition of the natural assets (natural resources) as indicated from park-level monitoring reports (State of Park Reports) and the costs associated with restoration and maintenance of these assets;
- knowledge assets such as data (inventory, monitoring, research), metadata, libraries, photo collections, specimen collections (including the value added from having a multi-year data base).

The Revenue Policy

The fundamental principle guiding Parks Canada's revenue policy is that tax dollars pay for the cost of establishing and protecting national parks and national historic sites; those who use them, will pay for the additional personal or commercial benefits that they receive. Services providing both a public good and personal benefit, such as heritage presentation programs in parks and sites, will be financed through a combination of tax-based appropriations and fees.

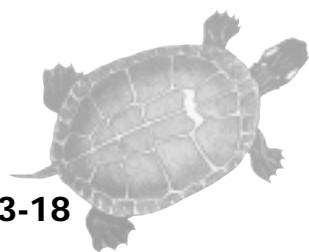
Parks Canada Revenue Policy (1998)

The Parks Canada revenue policy means that most national parks are involved in revenue generation — that is, in charging fees for various products and services of both personal and commercial benefit.

Revenue generation plans and targets are developed on an annual basis by each Field Unit and approved by the Executive Board as part of the annual Business Plan approval process. The proportion of individual park budgets that these targets represent varies considerably, related to the types of services of a personal or commercial benefit existing in the park, and the visitor volume. For instance, in Jasper and Banff national parks, the revenue generated is equivalent to almost 100 per cent of the park's total (operating and project) budget. By contrast, in Gwaii Haanas the revenue generated is approximately 2 per cent of the park's total budget.

Field Units retain all revenue they generate, up to the level of their total expenditure authority. If a Field Unit's revenue target exceeds this authority (in a few parks, there are also significant lease and concession revenue in addition to park use fees), the excess amount is re-allocated by the Executive Board.

Where a revenue target is not met, Field Units are required to reduce their expenditures by an equivalent amount. Field Units may apply to the Executive



Board for relief from this requirement due to extraordinary circumstances (such as the closure of a campground due to flooding).

Parks Canada's Revenue Policy states that:

...initiatives will respect Parks Canada's mandate and its three key accountabilities by:

a. ensuring the long-term sustainability and the commemorative and ecological integrity of natural and cultural resources

b. being consistent with the market demand for client services; and

c. delivering services in a cost efficient manner.

Parks Canada Revenue Policy (1998)

The Parks Canada Agency as a whole plans to raise approximately \$73 million a year in revenue in the forthcoming years (1999-2000 Estimates, Parks Canada Agency). This estimate is for revenue generated from activities of personal benefit (for example through entrance fees and recreational fees) and commercial benefit (such as concessions).

The Revenue Policy and Ecological Integrity

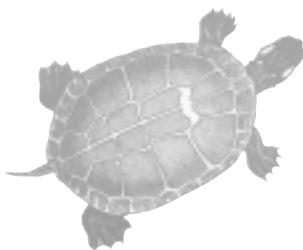
Since its introduction, the revenue policy has been subject to much debate. The Panel's review of the application of the policy focused on specific ways that it might affect ecological integrity, not on the rationale for the policy itself. Our observations fall into two categories: concern about whether pressure to meet revenue generation targets in some parks is driving activities or levels of activities that could be

detrimental to ecological integrity; and some failures in application of the full-cost recovery policy for certain services of a private or commercial benefit.

Most managers reported that meeting revenue targets was realistic and reasonable. They set this target themselves on an annual basis at the Field Unit level. Based on federal Treasury Board guidelines, revenue must be re-invested in the related activities and services. Making such activities that are of a personal or commercial benefit fully or partially self-financing then frees up core appropriations for projects and programs that might otherwise be cut or not be funded. In recent years for instance, this has included funding for expansion of the national parks system.

However, the Panel also heard repeatedly from park staff who are concerned that revenue generation activities in some parks are driving activities or levels of activities that are in conflict with the maintenance of ecological integrity. Whether or not this pressure is real or is merely a perception based on misunderstanding of the revenue policy, the concern is nonetheless whether it is causing ecological integrity to be eroded. An example is the renewal of the lease on a golf course despite evidence in the State of the Parks 1997 Report that golf courses can have negative ecological impacts (Chapter 11).

Scientists expressed concern that the need to fund activities which generate revenue (such as keeping campgrounds in operation or expanding them) may run counter to what protection might



Some golf courses inside national parks are actually subsidized by the park.
Blackbird Design



dictate, and that such funds (campgrounds are not fully cost recovered) could more appropriately be used for protection purposes.

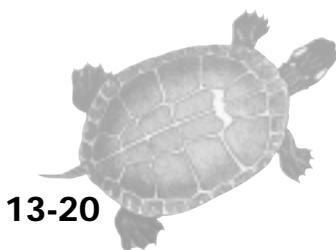
Because revenue has become a substantial portion of the funds for the cash-strapped Parks Canada Agency, managers feel a moral obligation to achieve targets or otherwise deprive themselves and their colleagues of needed revenue. It seems difficult for some senior managers to make decisions that would benefit the maintenance or restoration of ecological integrity but could negatively affect revenue targets. These types of concerns would be allayed by a better appreciation of modern techniques for full resource valuation (Stanley, 1997) and the use of economic incentives for conservation.

This experience is by no means universal, however. A number of recent decisions have been taken, particularly in the mountain parks, that will result in loss of revenue — sometimes a substantial loss. Banff National Park's decisions to implement the Banff Bow Valley Task Force's recommendations to prohibit expansions of the Rimrock

Hotel, to prohibit construction of new hostels, and to prohibit the development of new day-use areas are high profile examples. Elsewhere, Waterton Lakes National Park has closed the camping sites on the Crypt Lake Trail to reduce bear/human conflicts, and Pacific Rim National Park Reserve has introduced a quota system on the West Coast Trail.

We presume that this tension is more significant in parks that have a harder time meeting revenue targets, even though these targets are self-established. This challenge is also undoubtedly compounded because where revenue targets are not met, Field Units are required to reduce their expenditures; whereas there is no such direct repercussion or accountability for missing ecological integrity targets.

The Treasury Board requirement to reinvest user fees into the activities or services that generated them may also have negative impacts on ecological integrity. This requirement arises from a court decision that to do otherwise would be a form of indirect taxation.



The Panel heard that the re-investment of these revenue dollars in the activity or service from which they were generated may have compounding impacts on ecological integrity. For services such as campgrounds or the West Coast Trail, this policy means that visitor infrastructure is incrementally improved and possibly expanded with the potential for undesirable cumulative impacts:

However, we also saw examples of recreation services and facilities where, due to the absence of full-cost accounting or standard business approaches, the official policy of full cost recovery for such services was not yet being met. The absence of full cost accounting gives the impression that some activities are being run as major sources of revenue, whereas they are in fact being subsidized from core operating funds. This subsidy diverts funds from potential use for ecological integrity programs.

One such example is a golf course in a national park with green fees below the fees charged for golf courses outside the park, reflecting the hidden subsidies of grass cutting and other services done by the park. Other examples include spending on new recreation infrastructure for which the annual return on investment is less than standard business practice. A third example is warden time spent in checking compliance with self-registration at campgrounds and parking lots, and in search and rescue services for individuals involved in activities of a personal benefit (such as backcountry travel). While some of these activities are linked to park establishment agreements and therefore need to be maintained, they should nonetheless be operated on a full cost recovery basis, as per the policy.

RECOMMENDATIONS

13-8. We recommend that Parks Canada require Field Units to include a specific examination of the implications of revenue forecasting and targets on maintenance and restoration of ecological integrity in their Implementation (Business) Plans.

13-9. We recommend that Parks Canada enable management decisions in support of ecological integrity to be separated from revenue implications and

to accomplish this through clarifying and publicizing that the need to protect ecological integrity is included in the revenue policy interpretation of “extraordinary circumstances” under which relief from revenue targets can be obtained.

13-10. We recommend that Parks Canada establish a consistent set of rules to be used in full cost accounting for all projects or activities with full cost recovery objectives.

