

# **FIRE MANAGEMENT PROGRAM AUDIT**

**FINAL REPORT**  
**July 30, 2002**

**Performance, Audit and Review**  
**Strategy and Plans**

---

**TABLE OF CONTENTS**

EXECUTIVE SUMMARY .....	ii
CONTEXT .....	1
DESCRIPTION.....	2
OBJECTIVES AND SCOPE.....	2
METHODOLOGY .....	3
OBSERVATIONS .....	4
1. Prince Albert National Park .....	4
2. Kootenay National Park .....	4
3. Wood Buffalo National Park .....	5
4. National Office.....	7
MANAGEMENT RESPONSE.....	8

## **EXECUTIVE SUMMARY**

### **CONTEXT**

The management program implemented by Parks Canada covers interventions during natural fires and controlled burns. The persons responsible evaluate the situation and decide on how to respond. They estimate the environmental advantages and effects, the costs, safety concerns, danger to people and facilities and the ease with which control operations can be waged to determine the best fire fighting strategy to take.

This management program implemented by Parks Canada has been designed to adapt to the reality of each of the field units. The National Office coordinates the entire program, but the responsibility for implementation lies with the managers of each field unit.

### **OBJECTIVE AND SCOPE**

The objectives of this audit were:

- < to provide management with assurance that the financial aspect of the fire management program is well managed, i.e., that the amounts received in the initial budget are specifically identified for the regular fire operations and that they are used for this purpose; and
- < to provide assurance that the claims made during the fiscal year covered expenses relating to fire management and that they met Treasury Board criteria to be eligible for reimbursement under vote 120.

The three sites selected for this audit were:

Prince Albert National Park (Prairies North Field Unit)  
Kootenay National Park (Yoho, Kootenay, Lake Louise Field Unit)  
Wood Buffalo National Park (Northwest Territories Field Unit)

The audit covered the 2001-2002 fiscal year and was conducted by Michelle A. Demers and Irene Mceniry of the Performance, Audit and Review Group.

### **METHODOLOGY**

The methodology entailed the following activities:

- < Interviews with managers and key employees
- < Debriefing interview in each field unit at the end of the site visit
- < Review of relevant documentation
- < Items to be audited using data provided by SAP financial system were selected using a sampling method.

---

**STATEMENT OF ASSURANCE**

It is our professional opinion that the work done and evidence collected are sufficient to support the conclusion in this report.

**RECOMMENDATIONS**

The audit work has generated a series of recommendations. They are listed below without any priority order but as they appear in the report.

**In Kootenay National Park**

- < Communication between managers should be improved.
- < The person in charge of the financial group should be advised of all personnel expenditures in order to be able to monitor the journal vouchers.
- < The person in charge of reconciliation should be included in the communication loop.
- < The expenses incurred for each event should be reconciled.
- < A standing offer should exist in the system for each of the companies with there are regular dealings.

**Wood Buffalo National Park**

- < Avoid purchases at the end of the year, the money should be carry over to permit purchases at a better price later.
- < Ensure that the use of the money for the fire management program is used according to the criteria.
- < Evaluate the possibility of establishing long term contract for a lower number of hours based on past years experience.

**National Office**

- < Develop a system that can be useful to every field unit and avoid the use of a parallel system.
- < Ensure that every field unit receive the money they are responsible for.
- < Develop clear criteria for purchases allowed with the Fire Program money.

---

## **FIRE MANAGEMENT PROGRAM AUDIT**

---

### **CONTEXT**

The wooded areas in parks and reserves represent 5.9% of the wooded areas in Canada. Fire has been an integral part of Canadian landscapes for thousands of years. It has shaped the vegetation of our current national parks.

Historically, fire management in national parks has been limited to control and prevention. However, knowledge acquired over time has confirmed that fire is vital to the renewal and preservation of ecosystems and species that depend on fire. Fire management is now guided by the National Parks Policy - 3.0 Protecting and Managing Park Ecosystems (1994) and Parks Canada Management Directive 2.4.4 - Fire Management (1986).

In its policy, Parks Canada recognizes fire as a natural process which, ideally, should run its course in national parks but has also identified conditions where intervention is required, which assumes a fire control capability. In most parks, fires cannot be allowed to burn freely due to the risks it poses to people and property. Controlled burns are one safe solution aimed at restoring ecosystems that depend on fire. This type of intervention is called active management.

The fire management program implemented by Parks Canada covers interventions during natural fires and controlled burns. The persons responsible evaluate the situation and decide on how to respond. They estimate the environmental advantages and effects, the costs, safety concerns, danger to people and facilities and the ease with which control operations can be waged to determine the best fire fighting strategy to take.

The success of fire fighting operations depends on effective resource utilization. Any human intervention required is phased in gradually.

Initial attack: Initial attack crews are the first firefighters sent to the scene of a fire. They have been trained to bring the fire under control while it is still small. They come to the scene in vehicles or in helicopters. They use hand tools such as chainsaws and dousing systems. These teams often have access to aerial assistance. Usually, they manage to contain fires less than 24 hours after detection.

Sustained attack: If the initial attack does not extinguish the fire, sustained attack plans are then developed. More aircrafts and equipment are called in. Teams from other parks or other organizations can be called on to take part in the operations. The practice of loaning an employee to work in another park is called staff exportation. The park can also call on a fire control team.

Fire control team: These teams usually have five fire specialists. Each member of the team - the fire boss, suppression boss, plans chief, air operations boss, service chief - has a specific role.

## DESCRIPTION

The Fire Management Program is adapted to the realities of each of the field units. The National Office coordinates the entire program, but the responsibility for implementation lies with the managers of each field unit. The financial system is two-fold.

### 1. Daily operations vs.the Abase budgets of Parks Canada

Funding for the fire program is divided between field units and National Office (i.e., finance group) at the beginning of the year. Field units support both salary and G&S from their funds while national office funds are reserved for emergencies. The funds are dedicated to the fire program and are not supposed to be used for other purposes. Splitting the funds in this way ensures accountability of local managers for routine fire management expenditures while persevering easy access to a pool of funds for dealing with emergencies.

Expenditures for fire management frequently exceed managers' A-base allotment during the year. In these cases, the manager may move dedicated fire funds between salary and G&S or uses other A-base funds and seek reimbursement from national office.

### 2. Reimbursement of excess expenditures by Treasury Board

All expenses incurred to confront emergencies usually create an operating deficit. A request is then presented to Treasury Board to obtain reimbursement, via vote 120, of expenses incurred during the year. These expenses must meet certain criteria to be eligible for reimbursement. However, there is no guarantee that the reimbursement will be forthcoming the following year.

## OBJECTIVES AND SCOPE

The objectives of this audit were:

- < to provide management with assurance that the financial aspect of the fire management program is well managed, i.e., that the amounts received in the initial budget are specifically identified for the regular fire operations and that they are used for this purpose; and
- < to provide assurance that the claims made during the fiscal year covered expenses relating to fire management and that they met Treasury Board criteria to be eligible for reimbursement under vote 120.

The three sites selected for this audit were:

Prince Albert National Park (Prairies North Field Unit)  
Kootenay National Park (Yoho, Kootenay, Lake Louise Field Unit)  
Wood Buffalo National Park (Northwest Territories Field Unit)

The audit covered the 2001-2002 fiscal year and was conducted by Michelle A. Demers and Irene Mceniry of the Performance, Audit and Review Group.

## METHODOLOGY

The methodology entailed the following activities:

- < Interviews with managers and key employees:
  - at the National Office
  - in the Prince Albert, Yoho-Kootenay-Lake Louise, Wood Buffalo field units
- < Debriefing interview in each field unit at the end of the site visit.
- < Review of relevant documentation:
  - Reading of policies and directives from Treasury Board and the Parks Canada Agency:
  - Financial Administration Act;
  - Contract policy
  - National Parks Fire Protection Regulations 98-01-30
  - Management Directive 2.4.4
  - National Parks Policy 3.0 - Protecting and Managing Park Ecosystems
  - Reading of various documents relating to the subject under review:
  - Fire Preparedness System - Version 1990,
  - Keepers of the Flame - 1989,
  - Fire Management Guidelines - 2000,
  - Parks Canada Fire Management - Vote 120 Operating Rules - June 16/95,
  - An overview of fire management in Canadian national parks.
- < Expenditures to be audited were identified using data provided by the SAP financial system. A sample of items was selected. Each expense was reviewed to see if it had sufficient supporting documentation and respected the definition of eligible expenditures given in the Fire Preparedness System - 1992 update, latest edition available. In that document the following definitions are found:

*Fixed AC120 Presuppression:*

These are annual expenditures to maintain presuppression readiness that is independent of daily fire danger levels or occurrence. These costs are primarily for presuppression and suppression services specified in a contracting agreement where costs are paid prior to the fire season. These fixed presuppression expenditures are required in some parks primarily to ensure and secure services which are not available on short notice.

*Variable AC120 Presuppression:*

These are presuppression expenditures that fluctuate on the basis of forecasted and actual danger levels. They are used to pay for maintaining fire-fighting resources on stand by status.

*Emergency AC120 Suppression:*

These are direct suppression and rehabilitation costs resulting from actions on wildfires. AC120 may also be used for rehabilitation after fires. Since June 2001, replacement of equipment losses caused by fire is also an accepted expense.

## OBSERVATIONS

### 1. Prince Albert National Park

The audit at PANP was focused on gaining an understanding of both the fire program and finance tracking system.

At the beginning of the fiscal year, PANP received \$331 (i.e., \$169 G&S and \$162 salaries). The amount received was \$20,050 short of what the manager had requested for basic operations.

The manager responsible for fire management commits these funds in SAP and makes adjustments to these commitments through the year. This system has allowed for adequate tracking of expenditures during regular operations.

The Field Unit requested the \$20K they did not receive in their original allocation, as part of their first claim against the national office emergency funds. There were three additional requests for emergency funding from the National Office. Each event was the subject of a specific file in which all related expenses were described. An audit was performed to ensure that the expenses claimed were related to the various events that were identified

### Conclusions

- All expenses analyzed were justified.
- The monitoring system in place is adequate.
- The files are clear and well kept.

### 2. Kootenay National Park

At the beginning of the fiscal year, KNP received an amount of \$45 (i.e., \$10K G&S, and \$35K salary). The latter amount did not totally cover the salaries of three employees hired on a seasonal basis. The shortfall was therefore recovered during the fire season through claims presented to the National Office emergency fund.

In KNP, an internal order number is assigned to each fire event, and that number is used to identify all expenses associated with the event.

During the fiscal year, six reimbursement requests were made to the emergency fund. The amounts claimed represented a combination of estimated and actual costs of an event.

#### (1) Communication

- Expenditures incurred by one manager (Canadian Helicopters - \$3,400) were charged to the budget of another manager with out informing the second manager. This was resolved by assigning the budget to one manager.
- The person in charge of the financial group was not always aware when personnel were exported and only found out when an employee submitted a claim for expenses.
- The person in charge of reconciliation was not automatically informed of relevant expenditures (i.e., advances of funds, confirmation funds being transferred) and so could



not do their job.

#### Recommendations

- *Communication between managers should be improved.*
- *The person in charge of the financial group should be advised of all personnel expenditures in order to be able to monitor the journal vouchers.*
- *The person in charge of reconciliation should be included in the communication loop.*

#### (2) Reconciliation

The person in charge is paying invoices as they are received but there was no trace of reconciliation done. Estimated costs are not checked against actual expenditures. They do not have an on-going record showing what portion of the fund is used or whether they are in a surplus or deficit situation. These totals are determined at the end of the year.

#### Recommendation

- *The expenses incurred for each event should be reconciled.*

#### (3) Contracts

Helicopter expenses are the second largest expenditure next to salaries. In KNP, there is no contract with a specific company. Instead, various companies are called on, when necessary, during the season.

The caterer's file (PTI Services) was also reviewed in full. Their services were necessary during the Simpson fire.

- Missing contract for a \$24,000 expenditure with C.K. Piloting Service
- The services of PTI Services were retained without any call for tenders. Since other Parks Canada sites had already used their services, it was assumed that a standing offer existed, which was not the case. The contract was therefore issued contrary to the government's contract awarding policy.

#### Recommendation

- *A standing offer should exist in the system for each of the companies with which there are regular dealings.*

### **3. Wood Buffalo National Park**

No work is done on prescribed burns at WBNP. Because it is isolated and poses little risk to valuable physical assets, the need for interventions is quite different from other sites. Fire controls are performed depending on the circumstances. More often than not, basic fire supervision is sufficient. Intervention only occurs if it has been determined that the fire has gotten too big.

At the start of the fiscal year, WBNP received \$1.7M (i.e., \$745K salaries and \$1M for G&S). For tracking expenditures each fire event is assigned an internal order number. This number identifies all expenses incurred in connection with this event. Expenditures for staff loaned to

other units are also tracked by an internal order.

During the fiscal year, WBNP submitted one claim (for \$232,100) to the National Office emergency fund. Unlikely other parks WBNP has more flexibility concerning when it applies to the national office for funds since its original A-base allocation is higher.

(1) Salaries surplus

At the end of the fiscal year, WBNP showed a surplus of \$66,188 for salaries. This amount was transferred to cover goods and services expenses related to fire, i.e., \$79,342.

(2) End of the year expenses

- < Fuel was purchased for the park reserves (i.e. fuel purchase of \$55,647.42 in March 2002). An additional \$33,000 had been purchased during the same month. These purchases do not always come at the best cost at that time of the year, even though the fuel will be used eventually.
- < Purchase of a sprinkler system for \$10,000.

**Recommendations**

- *Avoid purchases at the end of the year, the money should be carry over to permit purchases at a better price later.*

(3) Expenses

Some purchases that were reviewed did not seem to be directly related to fire management:

- < Purchase of a computer and an upgrade - system was found to be too slow and not functional enough for the new program;
- < shredder - purchase shared 50-50 with the management unit;
- < fax - machine was replaced because broken by an employee of the fire team;
- < propane refrigerators for the surveillance towers;
- < various articles from IKEA for \$5,000

**Recommendations**

- *Ensure that the use of the money for the fire management program is used according to the criteria.*

(4) Helicopters

Managers of the fire program contracted for a specific number of helicopters flying hours. Other managers, usually in the field unit, can use time on the helicopter not used by the fire program. These managers reimburse the fire program for any hours in excess of the contract. In effect, some hours paid for by fire management program funds are not used for that purpose.

The distribution of helicopter in-flight time revealed a total of 415.8 flying hours on two contracts. Other groups used 30% of the time or 128 hours.

**Recommendations**

- *Evaluate the possibility of establishing long term contract for a lower number of hours based on past years experience.*

---

**4. National Office**

Managers need to track ongoing fire related expenditures in order to be able to make requests for emergency funds from national office. The SAP financial system does not serve this purpose. SAP tracks commitments and actual expenditures. If managers do not have the budget allocated they cannot make the appropriate commitments or expenditures in SAP and therefore cannot maintain an on-going record of expenditures. In response, field units have set up a parallel system in order to have up-to-date information on various events that take place during the fire season. Managers need this information to be in a position to request money from the emergency funds to cover purchases as they are made.

A second issue concerns the allocation of funds to WBNP but used by PANP. Under the terms of an agreement between the parks, WBNP is contracting for helicopter flying time (i.e., approximately \$42K) but some of the time is being used by PANP. This arrangement has existed for 10 years. It is not clear why funds for helicopter use are not allocated directly to PANP rather than being, in effect, transferred through WBNP.

A third issue concerns the definition of eligible expenses for the fire program. The last update of the description of the Fire Program occurred in 1992. The list of authorized expenses for the field unit could be clarified in order to avoid purchases made by field unit that are not totally related to fire.

**Recommendations**

- Develop a system that can be useful to every field unit and avoid the use of a parallel system.
- Ensure that every field unit receive the money they are responsible for.
- Develop clear criteria for purchases allowed with the Fire Program money.

---

**MANAGEMENT RESPONSE**

In general the process was informative, fair and will be useful for improving the financial management of the fire management program. Because both, fields units and National Office managers are involved in the program they both comment on the recommendations raised in the report.

**Prince Albert National Park**

**National Office Fire Program** – There were no issues with Prince Albert NP that was cited with a good program that maintained financial integrity of the fire program. PANP is one of the few parks that maintain a separate finance program. Due to the personal initiatives of the park managers this system has been a leader in the fire finance arena. However during recent large fires this system has had difficulties processing the large number of expenditures in a timely manner. The individualized nature of the system does not allow for seamless support from other parks during large fires.

**Kootenay National Parks Canada**

**Kootenay NP Fire Management** - No issues with the audit from an operational point of view. The fire management officer would like to see Standing Offers for camp services set up through a central location like the Western Fire Centre in Calgary. However, discussion with a contract specialist had concerns with the establishment of a Standing Offer for camp services that may only be used once or twice in five years. The decision to not pursue a standing offer was made at the National Fire Finance Meeting and research our current option of activating our rights under the MARS (Mutual Aid Resource Sharing Agreement) to continue using these camp services.

**National Office Fire Program** - The recommendations deal with the mechanics of a financial system that has problems dealing with a large fire event. Kootenay does not have a separate fire finance system and cannot draw from a common protocol nor outside resources in an efficient way.

The casual helicopter contracts are standard way of doing business for fire management in Canada and draws from standing offers set up by Public Works Canada. Long term contracts with helicopter companies would be less expensive but cannot be entered into without dedicated money. The majority of aircraft are hired when needed and paid for with Treasury Board supplementary funds. Casual hire of aircraft can be difficult during high demand periods when multiple fire management agencies are competing for a limited pool of helicopters.

**Wood Buffalo National Park****WBNP Fire Management**

*Salary surplus* - Each year Wood Buffalo's fire program submits variable expenses associated with suppression and resource build-up costs such as Rotor Wing casual contracts, fuel and contract crews to name a few. This variable request is submitted to the National Duty Officer four times per year, June 30, July 30, August 30 and November 30. The amounts vary depending on the fire season demands and the submissions are based on actual figures rather than estimates. This parks' fire program tries to reduce the variable submission by absorbing costs such as food, overtime and other miscellaneous expenses with salary and wage slippage and other Abuse

funds.

*End of season Purchases* - Whenever possible, “end of season purchases” will be avoided. The greatest challenge has been with accurately managing the salary and wage accounts, but with the introduction to the Salary Management System, its anticipated that this issue will be resolved.

*Expenses* - National Office receives a **fixed pre-suppression budget**, which is allocated to each of the parks fire programs. This allocation is verified each year through the National Fire Committee and includes both salary and Wages and Goods and Services expenses. Due to its “**fixed**” nature, these allocations are not subjected to all the conditions identified in the management of the old vote 120 rules. These rules have been established to ensure the financial integrity of the program and its relationship with Treasury Board submissions.

The **variable funds** are managed under strict guidelines set out in the Vote 120 rules. There is a reserved portion that is managed by the National Duty Officer but once that budget is depleted, the Parks Canada Agency must submit a formal request (i.e. TB submission) to Treasury Board for any supplemental funding. Variable expenses include costs incurred with suppression, resource build-up and prescribed burn activities.

The above mentioned expenses are associated with the fixed budgets and are not subjected to the same financial accountabilities as the variable funds. The purchases mentioned are related to the fire program operations and are legitimate expenses.

*Helicopters* - This issue has already been resolved. The two contracts in WBNP have been amalgamated into one. A larger more capable machine was contracted for 574 hrs compared to the previous two contracts for 414.66 hrs. The cost saving have been redistributed to National Office to cover an increased cost associated with Prince Albert contract machine which has been hired for a longer period of time and the increased costs of a larger machine. The concern with running one machine in WBNP has been experienced this summer as rotor wing availability was limited due to increased demands.

The contract Rotor Wing machine for 2002 was based at 275 hrs and the total of last year utilization was 349.6 hrs. Of those hours, 84.2 % was used by the fire program and 15.8% was used by other programs. All costs associated with this overage were covered by the other programs.

### **National Office Fire Program**

*Salary surplus* - Wood Buffalo has the largest workforce directly related to fire management of any park in the network. Due to the variable nature of seasonal staffing it is expected that precise budgeting of salaries will continue to be difficult. With the requirement that surplus salary dollars remain within fire management to offset overtime and other direct fire management costs this does not pose a problem to the National Office.

*End of year expenses* - It has been traditional to use end of year budgets to make purchases that will offset the cost of next year expenses or to make strategic purchases that will offset fire management risk. There is currently no provision for carrying over year-end budgets within the fire program. Such provisions would be helpful for efficiencies in purchasing.

*Expenses* - The items described in the audit are capital expenditures. Field units have moved

away from providing capital budgets for the purchase or replacement of capital items. In order to maintain current levels field units have purchased capital items from fixed, variable and emergency funds. Until field units adequately fund capital this trend will continue.

*Helicopters* - Two factors influence Parks Canada's only long term contract. The first is the variable nature of fire management's demand for helicopters from one year to the next, due to variable annual fire danger. The second is the minimum number of hours required to maintain seasonal coverage balanced against the most favourable hourly rate which goes up with increased daily minimum hours. In order to receive the most favourable helicopter terms, Wood Buffalo and Prince Albert have entered into contracts that will have extra flying hours during slow seasons. This has been offset by allowing extra-fire park use at the favourable rate and compensation back into the fire program. This is an efficient model that should be explored in other parks.

### **National Office**

**National Office Fire Program** - Strongly agrees with the recommendations.

A single integrated financial protocol has long been needed in order to track and report expenses, facilitate detailed timely submissions to the National Office and to allow for the exchange of financial staff during large events. A protocol would also require adequate support through financial staff involvement.

An initial meeting was held in Calgary in the winter 2003 to address the following objectives:

- develop national fire financial tracking system with SAP
- Create viewing options for Western and National Duty Officers
- Provide National roll-up options through SAP
- Reduce the inefficiencies of current systems
- Provide solutions to issues identified in National Audit

A financial system was established during this meeting and a document was produced that outlined procedures. This method is currently being piloted in a few western parks. After the fire season, the protocol will be reevaluated, assessed, and improved so that it can be used across the park system during the 2004 fire season.

We have also been making some progress with the idea of having financial officers join the Incident Command Team on campaign fires. Note that the Incident Command System is used by all fire management agencies in Canada and the system includes a position for a financial specialist. We intend to pursue this initiative after fire season 2003 to solve the various obstacles for its implementation.

A number of outstanding financial arrangements should be normalized to ensure that field units receive the required amount of fixed funding. Besides recent changes to the Prince Albert and Wood Buffalo programs there is currently a shortfall of approximately \$500K in fixed costs that are paid through variable emergency funding. As all costs are static (including Salary paid using O&M dollars) normal inflation erodes all funding yearly.

Our shortfall this year is at \$566K. We are currently working on a strategic program review (Keepers of the Flame II) that will provide details on the direction we want to give to the program for the next 10 years, including an evaluation and proposal for a new resources framework and funding arrangement. The document will stress the importance for a normalizing of fixed allocations from the V120 emergency fund (2003). Subsequently, a business case will be prepared for the Finance Committee (2004).

Funding of fire management has evolved since the 1995 Emergency Funding rule set was developed. With the advent of Ecological Integrity Funding, Mountain Pine Beetle funding and a continued unsecured emergency-funding source from Treasury Board, fire finance continues to face a complex and evolving environment. The normalization of funding sources would aid in the efficient allocation of financial resources.

Priority will be given to our program review and business plan that will address these issues. We have a set of rules that guides our allocation and spending of resources but these need to be revised and updated. Once we know the general financial framework that will be supported by the National Fire Management Committee and accepted by Treasury Board, we will review and update the reference documents for the program finances.