

PARKS CANADA'S PUBLIC SAFETY PROGRAM EVALUATION FRAMEWORK

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Performance, Audit and Review Group
Parks Canada Agency

ACRONYMS USED IN THIS REPORT

FTE:	Full Time Equivalent
FU:	Field Unit
ISCAR:	Inter-departmental Committee on Search and Rescue
LOS:	Level of Service
NGO:	Non-governmental Organization
NIF:	National Initiatives Fund
NSS:	National Search and Rescue Secretariat
PHA:	Protected Heritage Area
PS:	Public Safety
PSA:	Public Service Announcement
SAR:	Search and Rescue
VRM:	Visitor Risk Management

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EXECUTIVE SUMMARY

The Public Safety Program focuses on minimizing the number and severity of incidents at Protected Heritage Areas and, fulfilling Parks Canada federal role in support of the National Search and Rescue Program. Parks Canada employs a risk-based approach to public safety programming and provision of services, managed at the Field Unit level through Public Safety Plans.

This Evaluation Framework uses a performance framework to provide an analytical description of the program, and identifies what it sets out to accomplish. Also included, is information on program resources, outputs and reach. Following the Program description, are recommended areas where the Field Units need to improve performance data collection. These areas in order of priority are: 1) Program intermediate results and activity outputs, 2) Program reach and 3) Program resources. Information on these program results is needed for assessing and improving the efficiency and effectiveness of the program.

The last section of this framework identifies potential evaluation issues, indicators of success and data sources. We recommend that an evaluation of the Program be scheduled for 2003-04 in order to explore and assess the issues identified in this framework, and make recommendations for program improvement.

1.0 INTRODUCTION

Public Safety in the context of Parks Canada's program is defined as "a coordinated effort to ensure that visitors to national parks, national historic sites, national marine conservation areas and canals have a positive experience while minimizing the potential for suffering or loss. Public safety deals with the measures employed to reduce the risk of an incident occurring or to protect visitors from a hazard; and measures to be implemented in the event that an incident develops requiring emergency response capabilities."¹

The objective of the Public Safety Program are:

- 1) To minimize the number and severity of incidents
- 2) To fulfill Parks Canada federal role in support of the National Search and Rescue Program

The mandate for public safety is established in the National Parks Act and the Canada National Marine Conservation Areas Act (Bill C-10 as passed by the House of Commons). These Acts states that the minister provides for the administration, management and control of protected heritage areas. Further, Parks Canada Public Safety Management Directive (Interim Bulletin 4.4.3, August 1998) states that Parks Canada will provide land and marine search and rescue services in the national parks to minimize the number of fatalities and the extent of injuries and human suffering of people who are lost and/or in distress. It also gives the overall roles and responsibilities for public safety in national parks to the Superintendent of each park. Public Safety Directive Bulletin 3.1.3 (December 1991) requires that all historic sites develop and implement risk management programs for the safety of visitors. Directive 2.2.4 - Emergency Services (1991) addresses contingency, or response planning for all types of natural or human caused emergencies at a site.

Further, in the event of legal action against Parks Canada in the context of its public safety services, the Crown Liability Act governs such legal actions against the federal government in Canada. The Crown Liability Act states that a private person may hold federal departments and agencies legally liable for damages resulting from negligence in the provision of program services.

Given public safety staff's needs for training in such skills as wilderness travel, survival skills in all park environments, etc., the Agency is required under Canada Labour code, and under Canada Occupational Safety and Health Regulations to meet certain safety standards for its public safety employees to successfully carry out their responsibilities.

¹ Public Safety Management Interim Bulletin 4.4.3, August 1998, Parks Canada

Parks Canada has used a risk-based approach to public safety programming and provision of services. This approach is consistent with the Treasury Board Secretariat's Integrated Risk Management Framework requiring federal departments and agencies to consider risk in developing policies and programs, and prepare strategies for managing those risks.

2.0 PUBLIC SAFETY PROGRAM PERFORMANCE FRAMEWORK

The performance framework on the next page (Table 1) shows the logic implied in the design of Public Safety program activities and their intended outcomes and impacts. This framework provides an analytical tool for discussing program resources, outputs or operational results, reach, intermediate and long term outcomes. It is important to note that the term search and rescue is generically used to describe the response to any incident which involves one or all of locating (i.e. searching), reaching, stabilizing (i.e. administering first aid) and evacuating the victim to safety or to a medical facility”².

² Public Safety Management Interim Bulletin 4.4.3, August 1998, Parks Canada

TABLE 1
PUBLIC SAFETY PROGRAM PERFORMANCE FRAMEWORK

How			Who	Why	
Resources /Inputs	Activities	Outputs	Reach	Intermediate Outcomes	Long Term outcomes
<p>Operations and Salary Budget, 2001-02 FY:</p> <p>\$4,929K including 67 FTEs (based on 1997-98 estimate); these figures include National Office resources: 1 GT-5, one third of a PM-6</p>	Planning and Risk Management nationally and at sites	Risk to visitors and public reduced	<p>Clients:</p> <p><u>Clients/Beneficiaries</u></p> <ul style="list-style-type: none"> -Visitors and potential visitors at Protected Heritage Areas (PHAs) -Parks residents and businesses -Federal Agencies -Provincial and municipal governments 	Self-reliant visitors undertaking activities consistent with their level of knowledge and skill	Number and severity of incidents in National Parks and National Historic Sites reduced
	Policy development / horizontal coordination	Policies and directives		Visitors aware of and knowledgeable about risks and risk management	Safer visitor experience at national parks and national historic sites and canals
	Prevention programming nationally and at sites	Prevention activities delivered		Client Satisfaction with public safety services	
	Maintain Search and Rescue Readiness	Staff is equipped and trained to provide effective Search and Rescue	Co-Delivery Agents	Effective Search and Rescue Response	
	Provide Search and Rescue Response	Search and rescue carried out	<ul style="list-style-type: none"> - SAR Secretariat; -NGOs, examples: Canadian Avalanche Association, SMARTRISK 	Reduction in Crown's potential for liability	
	Undertake activities to reduce the Crown's potential for liability	Public Safety Program for reducing the Crown's potential for liability	Cable Stations (PSAs)	Satisfaction of Partners	
	Data Collection, analysis, and reporting	Local and national reporting on incidents and expenditure	-Canadian Coast Guard	Agency SAR program working in a coordinated fashion with other federal SAR programs	
	Emergency response planning	Emergency response plans and procedures	-Weather Services		
			-Provincial police forces		
			-Ground SAR organizations		
	Represent Parks Canada at National Search and Rescue Secretariat	Participation in NSS for planning and coordination of Agency SAR Program with the federal SAR plan			

2.1 Public Safety Program Resources and Inputs

The Public Safety program resources are allocated at three levels: the National Office, Service Centres, the Field Units and sites. The National Office resources are dedicated to coordination, planning, and implementation of Public Safety program activities nationally. At Service Centres, staff (with the exception of the West Service Centre) assist sites in the planning, coordination and review of public safety programs. Field Units and sites are charged with the planning and delivery of site public safety services.

Parks Canada resources expended on public safety are estimated through a breakdown of staff's time and the use of capital assets. In some parks (e.g. Mountain Parks) there are employees who are assigned solely to public safety duties, while at other sites, staff in addition to public safety duties, are also responsible for law enforcement and conservation. In terms of assets, for example, a vehicle may be used for a number of operations including search and rescue activities.

An analysis of public safety resources carried out by the program for the fiscal year 1997-98 provided an estimate of resources spent at each national park, national historic site and canal for salary dollars, capital and O&M expenditure, number of FTEs involved in search and rescue, and number of incidents responded to / number of lives saved. Table 2 below shows an estimate of program resource figures for the last six fiscal years. In 1997-98, the National Office requested the PHAs to provide information on their site's resources for public safety programming. The sites used 1996-97 data to arrive at figures for 97-98 and further project resource requirements for 99-00 to 01-02. This data is widely seen to be unreliable. The Table also shows program funding from the New Initiatives Fund, described below.

Public Safety program resources for FY 2001-2002, is estimated at \$4,929K including 67 FTEs of which 1.3 FTEs and \$40K in operating budget are allocated to the National Office with the rest to PHAs and Service Centres. Protected Heritage Areas may also apply to the National office for funding under Vote 120 for unforeseen and extraordinary expenditure related to public safety (e.g. a SAR response lasting several days).

The Program also may receive funding from the National Search and Rescue Secretariat's New Initiatives Fund (NIF) if its funding application is approved. The Fund provides support for successful new and innovative proposals that will enhance search and rescue in Canada. For FY 2001-2002, Parks Canada received \$1.3M in funding from the NIF for eight projects aimed at improving Prevention component of the program. One of these projects for example, involves producing a video to promote the safety of parks visitors in the North. This project will be carried out in partnership with territorial governments.

TABLE 2
Parks Canada's Public Safety Resources for Six Fiscal Years

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Operations and Salaries	\$4,961K	\$4,542K	\$4,929K	\$4,929K	\$4,929K	\$4,929K
NIF Funding	\$381.1	\$382.1	\$948.6	\$538.7	\$1,004	\$1,411
FTEs	67	64	67	67	67	67

Source: NSS, Report on Plans and Priorities, FY 1999-2000, with the addition of NIF figures

2.2 Program Activities and Outputs

2.2.1 Roles and Responsibilities under Parks Canada's Public Safety Program

Parks Canada Interim Bulletin 4.4.3 on Public Safety in National Parks indicates that public safety is a shared responsibility between the visitors and Parks Canada. Under this approach, the two parties have their respective responsibilities.

Park users are expected to :

- exhibit a degree of responsibility for their own safety commensurate with the activities they undertake;
- be properly equipped and have levels of knowledge, skill and physical fitness required for chosen activity;
- Seek information from park staff about preparedness or the nature or risks inherent in their planned activities;
- consider the information and advice provided through various park visitor safety programs, and observe regulations.

Parks Canada is responsible for:

- managing the program nationally (planning, policy, and horizontal coordination)
- placing a high priority on providing comprehensive prevention programs to minimize the potential for occurrences;
- informing and advising park users in selecting and planning recreational activities;
- considering visitor safety in the planning and delivery of programs;
- preparing Risk Assessments;
- developing Public Safety Plans and updating them annually;
- providing search and rescue services to minimise fatalities, injuries and human suffering;
- cooperating with other agencies to provide SAR services in the parks and adjacent areas.

Directive 3.1.3, Public Safety Measures for National Historic Sites and Historic Canals, also regards public safety a shared responsibility. Visitors on site and canal properties managed by Parks Canada are expected to exercise reasonable care in protecting themselves from danger, obey regulations, and instructions from Parks Canada staff.

The site or canal superintendent is responsible for:

- development and implementation of the Public Safety Plan
- conveying safety information at national historic site or canal to the public
- ensuring all employees have the necessary safety training and, coordinating the inspection of all operating sites and canals prior to start of each visitor season.

2.2.2 Public Safety Activities at National Office

The National Office has the responsibility for designing and implementing policies and programs for the assessment, management and monitoring of risks to visitors and liability associated with PHAs and their recreational activities, services and facilities. The Office provides technical advice to PHAs for the development of capabilities to respond to incidents. Management of projects funded by the National Initiative Fund is another major activity at the National Office. Other duties include designing and delivering technical and operational training to various levels of Parks Canada staff involved in the Public Safety program, and visitor risk management at the national level.

National Office staff participate in the Inter-department Committee on Search and Rescue (ISCAR) and its sub-committees.³ ICSAR provides advice on SAR matters to the Minister of Defence who is the lead minister for search and rescue. As a member of the ICSAR, Parks Canada works to promote coordination and joint operations where needed among federal SAR programs. The Agency also plays a role in the review and reporting of Federal SAR Program policies and plans as all ICSAR members share collective responsibilities in this regard.

Public safety staff at the National Office also consult with other federal departments and agencies, provincial, territorial and municipal governments, recreational activities stakeholders and other NGOs to maintain a current understanding of the technical and operational issues affecting these parties, and to recommend solutions to operational concerns in the area of public safety and visitor risk management. National Office staff chair the National Public Safety Committee comprising public safety representatives from Atlantic Canada, Quebec, Ontario, and

³ The inter-departmental Committee on Search and Rescue (ISCAR) is a federal body comprising the federal SAR delivery departments and agencies: Environment Canada (Meteorological Services of Canada, Department of Fisheries and Oceans (Canadian Coast Guard), Department of National Defence (Canadian Forces), Parks Canada Agency, Solicitor General of Canada (Royal Canadian Mounted Police), and Transport Canada, and is chaired by the Executive Director of the National SAR Secretariat).

the West geographical regions. This Committee meets once year , and as needed, to provide advice on policy development and to discuss emerging public safety program issues nationally.

Finally, the National Office is responsible for horizontal coordination of issues and activities, and national level tracking, collection and reporting of data.

2.2.3 Public Safety Activities at Service Centres

Service Centres (with the exception of the West Service Centre⁴) provide sites with assistance in the planning, coordination and review of public safety plans and services. Service Centres work with site staff to ensure consistency in the development of public safety plans, visitor risk management and issues such as levels of service.

2.2.4 Public Safety Activities at Sites

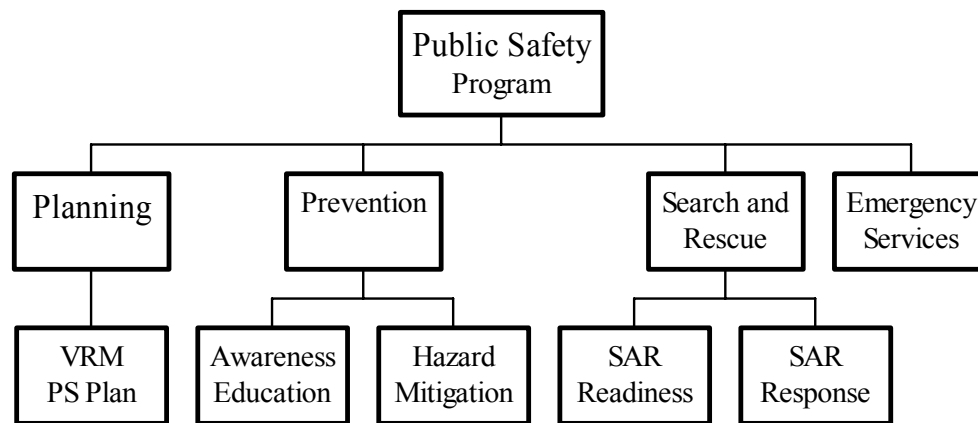
All PHAs provide a basic level of public safety. The scope and the range of services provided may vary significantly from each park and site to the others depending on their geographical location, recreational activities offered, season, etc.. Overall, site public safety activities may be divided into four categories: planning, prevention, search and rescue, and emergency services as shown in the following diagram.

Field Unit Superintendents retain overall responsibility for Public Safety at the field unit. The Superintendent is responsible for providing training and equipment required to provide the appropriate level of public safety services as outlined in the public safety plan, for establishing cooperative arrangements with other regions and agencies where assistance is needed to obtain supplementary search and rescue services.

In national parks, the Chief Park Warden (CPW) is responsible for delivering public safety as part of the larger Heritage Resource Conservation activity. The Chief Warden normally assigns one park warden the role of coordinating the public safety program and the responsibility for delivering the SAR - VRM services. At National Historic Sites and Canals, the Superintendent has the responsibility for public safety. This task is normally delegated to staff reporting to the Superintendent.

⁴ Public safety expertise in the West region is concentrated at the site level.

Figure 1: PUBLIC SAFETY SAFETY ACTIVITIES AT PHAs



2.2.4.1 Planning Activities

Each site is responsible for developing a public safety plan including an assessment of risks to visitors and the public, potential public safety issues, levels of service and implementation timelines and costs. Sites develop their Public Safety Plans using the Visitor Risk Management process (VRM). The Visitor Risk Management Handbook⁵ provides a seven step process for identifying and assessing visitor related risks at national parks, national historic site and canals, and producing a public safety plan. The steps consist of:

1. Define Visitor Risk Management Program
2. Assess risk issues
3. Identify service categories and objectives
4. Evaluate existing levels of service
5. Define service delivery
6. Summarize the “steps” and assemble Public Safety Plan
7. Implement, evaluate and monitor

Public Safety plans also address legal, policy, contractual obligations, and disaster emergency response planning.

⁵ Parks Canada produced the Visitor Risk Management Handbook in September 1996 to provide field staff with guidance on how to conduct a risk assessment process, prepare a public safety plan and produce an ongoing management framework for their public safety plans.

2.2.4.2 Prevention Activities

Prevention is a key element in public safety. Parks Canada Public Safety Directive bulletins 4.4.3 and 3.1.3 place high priority on providing comprehensive prevention programs to minimize the potential for occurrences. These directives state that Parks Canada will provide visitors with the information they need to protect themselves, and offer advice and warnings to PHA users.

Prevention programs and activities consist of 1) education and awareness promotion, 2) hazard mitigation.

Education and Awareness Promotion

Sites undertake a range of activities to educate visitors on and raise their awareness of potential risks that exist within a site. Education and awareness play a crucial role in the success of Parks Canada's "Safety is a Shared Responsibility" approach which urges visitors to be informed about the site they plan to visit and learn about its hazards. Examples of education and awareness activities are: weather advisories, avalanche bulletins, detailed pamphlets on hiking trails and potential hazards, safety information sessions for parks visitors on specific activities and associated risks, safety information sessions for the public (schools, Public Safety Announcements), signage warning visitors about hazard (wildlife, steep cliffs, water danger), safety talks at sessions organized by NGOs, businesses or agencies.

Hazard Mitigation

Prevention activities also include reducing risk to visitors through hazard mitigation measures. These include such measures as closing trails, areas or facilities that are deemed to be unsafe for public use; initiating avalanches under controlled circumstances to reduce the avalanche threat to roadways; relocation of problem animals; installing barriers and fences to mitigate risk of falling; removing dangerous trees, and providing safety registration services.

2.2.4.3 Search and Rescue

As defined earlier, the term search and rescue refers broadly to the response to public safety incidents which vary a great deal in severity and response requirements. SAR activities comprise 1) SAR readiness and capability to respond and, 2) SAR response.

Search and Rescue Readiness

For effective provision of search and rescue services, the program ensures that SAR staff have the necessary training and equipment to respond to incidents. Sites carry out search and rescue response capability assessments to identify what training and equipment they need to provide levels of service identified in their public safety plans. For example, the Gwaii Haanas Reserve

SAR Response Assessment , conducted in 2001, identified a number of training and equipment issues which require particular attention. The Reserve also developed an action plan for addressing these concerns in its SAR operational planning.

Public safety staff need to undergo a range of training programs in order to be able to respond safely and effectively to incidents. First, for occupational health and safety purposes, staff involved in public safety need training in first aid at all levels, wilderness travel and survival skills up to intermediate level in all park environments, and training in toxic material management, initial response and containment. Next, PS staff receive training specific to the SAR response and levels of service requirements of their sites. For example, in a marine environment, SAR staff need water rescue skills while in a mountain park training would involve technical rope rescue and other climbing skills. Training and equipment standards are generally set by the site and field unit according to their needs. However, this means that generally, there are no national standards for public safety training and equipment.

The program also conducts readiness exercises relating to different aspects of SAR, for example, helicopter sling rescue services program (pilot testing, research and development, etc.).

Search and Rescue Response

Search and rescue staff respond to calls for assistance for injured, sick, stranded or lost visitors. Request for SAR could be for overdue persons (e.g. lost in mountain, wooded or marine environment, or simply forgot to sign the safety registration on the way out) , avalanche or crevasse fall victims, assistance to other agencies, etc.. SAR response is offered in road accessible as well as all other park environments where technical rescue such as heli sling and search dog operations may be required. The program also provides water rescue operations at sites such as Fathom Five Park and Gwaii Haanas Reserve.

The program uses two database systems for tracking public safety performance information at the field level. In the French areas of operation, staff use a database called BRAL, while MILE Plus is used in the English areas. These systems which also track law enforcement data, collect fairly basic data on the occurrence and will not permit in depth response time line analysis. Currently, the program is unable to track public safety information nationally. However, Parks Canada is in the process of merging the two database systems into one which would provide program some performance data at the national level. The new system is scheduled for completion in 2002-2003.

Table 3 presents data on total number of SAR incidents at field units by former Parks Canada regions. The National Office collected the data for 1994/95 and 1995/96 from the sites' occurrence tracking systems, and the data for 1996/97 was extrapolated from previous years data. Program Management views this information not to be reliable.

TABLE 3
Total Incidents, 1994-97
(Excluding motor vehicle incidents)

Region	1994/95	1995/96	1996/97
Alberta	722	747	704
Atlantic	170	298	324
Pacific & Yukon	136	246	226
Prairie & NWT	54	100	151
Ontario	51	139	90
Quebec	39	33	24
Total	1172	1563	1519

Source: "State of the Parks Report", 1999

Parks Canada SAR services are provided from time to time to other federal organizations such as the Canadian Coast Guard, and in adjacent areas at the request of Rescue Coordination Centres or other jurisdictions. Conversely, the Agency may procure services from suppliers, e.g. helicopter companies.

2.2.4.4 Emergency Services

Site public safety activities also include contingency, or response planning to emergencies at the site. The events or emergencies could be natural in origin (weather phenomena such as tornadoes and fires) and/or human caused (such as chemical spills, highway accidents, or release of radioactive materials). Emergency response planning includes identifying potential emergencies, organizations to be contacted, and describing the type of plans, procedures and agreements that should be in place to address the cross section of potential emergencies. Finally, at PHAs where there is a townsite, emergency services also include municipal disaster planning.

2.3 PUBLIC SAFETY PROGRAM REACH

The beneficiaries and service users of the Public Safety Program are primarily PHAs visitors and those who might visit a PHA in the future. Park residents and park businesses and their staff are also primary beneficiaries public safety services. The Visitor Risk Management Handbook, based on public safety incidents analysis, provides the following broad Visitor Activity Groups for assessing public safety risk issues: touring recreationalist (e.g. bus tours), passive recreationalist (e.g. scenic nature walks), recreationalist (e.g. camping), active recreational

adventurist (e.g. canoeing), and extreme recreational adventurer (e.g. mountain climbing).⁶

The program tracks information in a number of areas including age, gender and origin of search and rescue victims, recreational activities and participation rates within the park, number of incidents in relation to month/season, location of incidents etc. This information is used in the visitor risk management process to better design and target safety programs to the appropriate visitor groups. For example, an analysis of visitor activities in mountain parks reveals that participants in low risk activities such as hiking or scrambling could generate a higher number of incidents compared to visitors in high risk activities such as mountaineering. Incident data analyses indicate that mountain climbers are generally well informed and equipped for their activities, while hikers can easily exceed their abilities and get into technical climbing terrain where they are exposed to severe risks.

Other service users include guide service companies, other federal departments and agencies (e.g. RCMP, Canadian Coast Guard), provincial and municipal governments (e.g. provincial parks, provincial emergency programs, municipalities police forces).

There are a number of government departments and agencies and non-government organizations that co-deliver public safety services and work toward the achievement of the program objectives. Examples of NGO co-delivery agents include: Canadian Avalanche Association, Canadian Ski Patrol System, Canadian Recreational Canoeing Association, and Cable Stations (PSAs).

2.4 PROGRAM RESULTS

As outlined in the performance framework, the program aims to achieve two overall long term outcomes: 1) it aims to reduce the number and severity of incidents in PHAs; and 2) to provide visitors with safer experience at national parks and national historic sites. These program outcomes are reflected in some of Parks Canada's corporate documents. For instance, the Agency's "Engaging Canadians: Parks Canada's Strategy for External Communication" document provides the following as two of its desired outcomes: a) decreased number and severity of emergency incidents; and b) industry marketing activity contributes to a reduction in the frequency and severity of safety incidents.⁷

In working towards these long term objectives, the program has identified a number of intended intermediate outcomes and impacts. The prevention component of the program seeks to reduce the number of incidents by promoting self-reliance and risk management in visitors and their

⁶ Visitor Management Handbook, Parks Canada, September 1996

⁷ Engaging Canadians, Parks Canada's Strategy for External Communication, Sept. 2001

activities. This result is achieved by increasing visitors' awareness that safety is a shared responsibility when visiting heritage areas, and to undertake activities that are consistent with their level of skill and ability.

Another key program result is effective search and rescue response. Effective response would ideally result in prevention of death and reduction in victims' injuries, nonetheless, this is not always the case and in some circumstances, effective SAR response may result in body recovery. Given all the variables (e.g. weather conditions, darkness, natural hazards such as risk of avalanche) that could negatively affect SAR response, it is unrealistic in the context of Parks Canada to define SAR effectiveness only in terms of number of lives saved and/or reduced severity of injuries.

Client satisfaction with public safety services is also a key program result. A study analyzing a number of surveys of client satisfaction with the program conducted from 1995 to 1998 concluded that satisfaction levels were high (over 80%) with many aspects of the program. The study report recommended improvements in the following public safety services areas: public awareness of public safety services, including first aid services; the level of safety information delivered across areas within a site; the provision of pre-trip information to visitors, both directly from the site, and in cooperation with others.⁸

The Public Safety Program works to reduce Crown's potential for liability through each site's public safety activities for managing visitor risks and protection of the organization from possible legal claims.

Finally, the Agency's participation in National Search and Rescue Secretariat's activities aims to achieve a level of coordination and planning where it can provide SAR response effectively, when needed.

3.0 IMPROVING PROGRAM PERFORMANCE INFORMATION

For effective management of the program and for performance reporting, the Public Safety program should improve data collection in a number of areas. These would include better information on program costs, program outputs, program impact on visitors, and intermediate outcomes.

⁸ Visitor Satisfaction Survey Analysis of Questions relating to Public Safety (1995-1998), Parks Canada, January 2000

3.1 Ongoing Data Collection

Resources (Inputs)

The program currently lacks reliable information regarding the cost of public safety services both at the Field Unit/site level and nationally. With collaboration between the National Office and PHAs, this information is not difficult to generate and would be useful for planning purposes. It will be also required for assessing efficiency of the program and whether the site has adequate resources for meeting its public safety mandate.

Given that at most sites staff perform a multitude of tasks one of which is public safety, the cost of the program is determined by a break down of staff's time and use of assets. This is particularly the case at smaller sites.

Succession planning for the PS program is a strategic issue that should be monitored and addressed. Given the length of time for training and certification requirements for PS staff at some PHAs, succession planning should be addressed several years before the turn over in staff takes place. For example, at mountain parks, staff dedicated to SAR duties must have Mountain Guide certification. On average, it takes five years for an individual with some climbing and outdoor skills and experience to successfully completed the Mountain Guide certification requirements. Information collection on program resources is a medium priority area.

Outputs

The National Public Safety Office does not collect data from the sites on their program outputs and as result, there is no Agency national picture of public safety. To assess the effectiveness of the program, the National Office would need to know how many sites have a Public Safety Plan and a Visitor Risk Management process in place; how often they update their plans; what approach is taken to defining objectives and outcomes; what levels of service are identified in the plans, and what information is tracked on these plans. An analysis of sites PS Plans would enable the National Office to work towards creating a national performance picture. The program should also collect information on the effectiveness of national PS policies, directives and guidelines for programming at the site level.

An important area where the program would benefit from better data is standards for training, certification and course content. This information is important for assessing the adequacy and effectiveness of training provided to public safety staff. For example, the program currently lacks information on certification standards for driving a boat at marine sites or, standards for first aid course contents. Monitoring of program outputs should be a high priority.

Effective search and rescue readiness and response capability is a key program output which has direct impact on response rates and search and rescue outcomes. Given all the variables that

affect response rates, SAR capability and readiness is a valid proxy for effectiveness measure for the Program.

There is a lack of information on Levels of Service (LOS) identified in sites public safety plans and the level of consistency in approach among different FUs. For example, should LOS be mostly externally focussed on service to clients or, should LOS include those which are internally focussed on activities and outputs. The Agency is currently working on defining categories of PHAs according to their size, number of visitors, public safety incidents, hazards, and deployability (access). Given that the need for public safety services varies considerably from site to site, the actual LOS would differ accordingly.

Reach

The sites we spoke with in preparing this evaluation framework conduct periodic surveys to learn about their site visitors' characteristic (e.g. age, gender, origin, language) and the activities they participate in⁹. This information is key for assessing and managing visitor risks, and for effectively targeting public safety efforts.

An area where the program needs to improve monitoring is the reach of prevention activities. The program would benefit to know to what extent the awareness and education material is reaching PHA visitors and the public in general.

The visitor information also is crucial for partnering with other agencies and groups for delivering prevention services in the form of awareness sessions, specialized accident prevention, etc. The Field Units would benefit from monitoring and updating their visitor data for assessing the effectiveness of public safety programming and service delivery.

Public Safety managers would benefit from information on partners and co-delivery agents's satisfaction regarding their relationship with the program. This information would allow the program to optimize these partnerships.

Data collection on program's reach should be a medium priority.

Intermediate Outcomes

The effectiveness of the Public Safety program is best measured in terms of its intermediate outcomes. Program's performance against intermediate results would also help assess appropriateness of program activities and outputs for achieving the mandate of public safety.

⁹ The site staff interviewed for this evaluation framework were at: Gwaii Haanas Reserve, Pacific Rim Reserve, Jasper National Park, Banff National Park, Bruce Peninsula National Park/Fathom Five National Marine Park, Western Quebec Field Unit, and Quebec Service Centre.

Currently, field units collect data on incident occurrences and victims: location, date and time, type and cause of the incident, nature and severity of injuries, age and gender of the victim, etc. This information is used to assess the effectiveness of specific prevention activities in reducing risks to a targeted group of clients; the nature of incidents in a given activity, “hot spots” at the site, and so on.

There are a number of areas where the program would benefit from reliable performance data:

- < Monitoring of the impact of prevention activities on reducing risks to visitors should be improved. For example, are program clients aware that “safety is a shared responsibility”? Do information sessions and pamphlets reduce the number and severity of incidents in a targeted visitor group? Are clients satisfied with PS prevention efforts? Without this type of information, managers will be unable to assess the effectiveness of their awareness activities.
- < Client satisfaction with SAR response times is an important program result and should be tracked. Data on client satisfaction with overall PS Program can be generated as part of PHAs visitor surveys. However, the national occurrence tracking system could include information on victims’ and other clients’ satisfaction with SAR response rates.
- < Finally, the program also needs to track data on its impact on reducing Crown’s potential for legal liability in the context of the Public Safety Program.

Data collection in these areas is a high priority.

SUMMARY OF PRIORITY INFORMATION NEEDS

High Priority

- < Monitoring of Program outputs
- < Performance information on intermediate results

Medium Priority

- < Information on Program resources
- < Monitoring Program client data

3.2 Evaluation of the Program

The Program is currently in the process of putting in place an occurrence tracking system which would provide data at the national level. Although the Program would need a few years (2-4 years) to build an effective performance monitoring system, a formative evaluation would provide detailed findings and recommendation for improving different elements of the program.

We therefore recommend that an evaluation of the Program be scheduled for 2003-04 fiscal year. Evaluation issues, indicators of success and data sources are outlined in Table 4 on the following pages.

TABLE 4
POTENTIAL EVALUATION ISSUES, INDICATORS AND DATA SOURCES
FOR THE PUBLIC SAFETY PROGRAMS

POTENTIAL ISSUES & QUESTIONS	INDICATORS	DATA SOURCES
<p>Issue 1: Continued Relevance</p> <p>1. Is the mandate for Public Safety Program continue to be consistent with overall mandate of Parks Canada, and government-wide priorities?</p> <p>2. Is the program a logical and relevant response to the need for public safety services at PHAs?</p> <p>3. To what extent does the program complement, duplicate, or overlap with other federal SAR programs?</p> <p>Issue 2: Success</p> <p>4. Does the existing relationship between the National Office and the sites enable the program to achieve its objectives?</p> <p>5. Are there effective national PS policies, directives and guiding documents? Have these documents been kept up-to-date?</p> <p>6. Does the Program work as intended? Is the VRM effective in focussing program activities and resources on high risk areas?</p> <p>7. Do all Field Units have a Public Safety Plan with a VRM component in place? When was the plan revisited and renewed?</p>	<ul style="list-style-type: none"> • consistency of the PS mandate with the Agency's mandate / government priorities • opinion of program management • Actual visitor needs and demands for PS services • Visitor activities and associated risks at PHAs • Level of overlap or duplication with other federal SAR programs • Mandate of other federal SAR programs • Opinion of program management at National Office and sites • Opinion of senior management • National PS policies, directives and other documents • PS staff's opinion at National Office and FUs • National Office data • Degree to which PS Planning is based on VRM • Program staff' opinion • Field Unit's management opinion • Program focus on "hot spots" • Number of FUs with PS Plans updated every five years • Number of PS Plans based on a VRM process 	<ul style="list-style-type: none"> • Parks Canada legislation and other documents • PS Program documents • Program management • Program documents / files • visitor services files • Federal SAR documents / managers at other federal departments and agencies • Program management • Senior management; • National PS documents • National Office / FU staffs opinion • National Office databases • FU PS Plan • Program staff • FU management • Occurrence tracking system • Field Units • National Office databases

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<p>8. Do all FUs have Levels of Service identified in their PS Plans? Is there a consistent approach nationally to setting these LOS? Do PS LOS meet federal governments policy and guidelines in setting service standards?</p> <p>9. Does the Program have the necessary capability and readiness to respond to the range of potential incidents at PHAs?</p> <p>10. Do PS Prevention activities help prevent and or reduce the number of incidents at PHAs? Are PHA clients satisfied with Prevention activities?</p> <p>11. Is the Program's "Safety is a shared responsibility" approach to PS planning effective?</p> <p>12. Is the response rate to incidents satisfactory considering all the variables? Are visitors satisfied with PS services?</p> <p>13. Does the program result in any unwanted or negative outcomes?</p>	<ul style="list-style-type: none"> • Levels of Service in PS Plans • Program structure to meet LOS • Consistency between LOS at different sites • Parks Canada management's opinion • Consistency of PS LOS with TBS policies and guidelines on service standards • Program capability measured against incident response demands • Program response capability • Program staff's opinion • Number and nature of Occurrences at PHAs; Victim data • Program clients/ stakeholder' opinion on Prevention tools (brochures, awareness sessions, etc.) • Program staff's opinion • Program clients' awareness of their responsibility • Program clients knowledge of "Safety is a shared responsibility" brochure • Stakeholders' opinion • PS staff's Opinion • Response rates measured against Program LOS • Program clients' opinion • Program staff's opinion • Appropriateness of produced results • Stakeholders' opinion • FU staff's opinion 	<ul style="list-style-type: none"> • PS Plans • TBS Policies and guidelines • Parks Canada Management • Other federal SAR Programs LOS • PS Program databases • Program client/stakeholder • Program staff • Program clients / stakeholders • Agency PS website • PS staff • Program databases /documents • SAR co-delivery agents • Stakeholders' opinion • Program staff • Program databases and PS Plans • Program staff • Program files and reports • PS staff • PHA management • Client satisfaction surveys • Program Annual reports • Program stakeholders • FU staff

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<p>14. Is the program reducing the number and severity of incidents in proportion to the number of visitors, participation level in activities and other related factors?</p> <p>15. Has the program been successful in reducing Crown's liability?</p> <p>16. Is there a system for tracking Program activities and results? Is the information used to change or modify the actions of the program?</p> <p>17. To what extent does the program use its resources efficiently in achieving its results?</p> <p>18. Does the program have an effective annual reporting process?</p> <p>19. To what extent does the program help achieve the objectives of the NSS?</p>	<ul style="list-style-type: none"> • Number/severity of incidents in relation to visitation and activity participation levels • Number of court cases related to PS • Crown's potential liability related to PS • PS staff's opinion • Agency Legal Services Opinion • An effective performance monitoring systems in place • Programming actions on the basis of performance information • Reliable data on Program resources • Risk-based resource allocation • Efficiency of operational plans • Increased LOS with existing level of resources • Program annual reports and results-based information • Agency management's opinion • Level of coordination between Agency and other federal SAR programs • Opinion of NSS management • Opinion of Agency management 	<ul style="list-style-type: none"> • Occurrence tracking system • Visitor and activity databases • PS files and documents • PS staff; FU management • Legal Services • Program infrastructure, files and documents • Program staff • Program files and document • PS Plans • PS reports • PS staff • Program document • PS staff • Agency management • NSS management • Agency management • NSS documents and files • Agency PS files and documents •
<p>Issue 3: Cost-Effectiveness</p> <p>20. Are the most appropriate and efficient means being used to achieve outcomes, relative to other SAR programs (in Canada and else where) design and delivery approaches?</p>	<ul style="list-style-type: none"> • Effectiveness and efficiency of PS Program compared to other PS delivery models • Opinion of PS staff • Opinion of National Search and Rescue Secretariat staff 	<ul style="list-style-type: none"> • Other SAR programs in Canada and abroad • PS staff • NSS staff