

# ALTERNATIVE FUNDING MODEL FOR GROUND AND INLAND SEARCH AND RESCUE IN BRITISH COLUMBIA

## DISCUSSION PAPER



British Columbia Search and Rescue Association (BCSARA)

September 2013

**ALTERNATIVE FUNDING MODEL FOR GROUND AND INLAND SEARCH AND  
RESCUE IN BRITISH COLUMBIA  
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## 1.0 Purpose

The over 4.3 million citizens of British Columbia, and millions of visitors each year that enjoy this beautiful province, have access to one of the best Ground and Inland Water Search and Rescue (SAR) services in North America. The current system utilizes paid responsible agency staff with trained volunteers (unpaid professionals), and a high degree of interagency co-operation to effect searches and technical rescues in often difficult terrain. This system has been developed and enhanced over many years, in response to the appropriately 1,200 SAR incidents annually, which is more than the rest of Canada combined.

While the current system is effective and efficient the critical volunteer component is facing challenges that continue to grow in scale due to;

- increasing numbers of SAR incidents in B.C., from appropriately 400 in 1991, to 900 in 2002, and over 1,300 in 2012 (see Appendix A),
- escalating public expectations that responses will be immediate and effective, whether it is to a lost child in a urban environment or a recreationist injured in a remote location,
- increasing responsible agency expectations as to volunteers responding to non- traditional search and rescue events, such as assisting the police to evacuate residences during fires and floods in support of local authorities,
- recreationists accessing the British Columbia backcountry in increasing numbers and in remote areas eg, snowmobilers with advanced powerful machines climbing into difficult terrain,
- loss of volunteer base in small communities due to downsizing/closures of industry, resulting in volunteers from distant communities having to cover larger areas and increased number of responses,
- evolving liability issues and concerns surrounding volunteer society roles in supporting search and rescue groups,
- more demands on fund raising to purchase technology and equipment which has become standard and essential to ground searches and technical rescue disciplines such as swiftwater and avalanche rescue,
- increasing Health and Safety requirements, while the safety of volunteers is paramount there is an impact on time for training and expenses for Personal Protective Equipment and training.

While the 2,500 plus dedicated search and rescue volunteers in B.C. are willing to evolve it is becoming difficult to maintain even current service due to increasing funding needs, static funding levels, and onerous processes to access funding. This is further exacerbated as non-operational funding comes from

many different sources and, albeit most welcome, is often one time, not recognizing the need for maintenance and recertification.

Through a Search and Rescue New Initiatives Fund (SAR-NIF) project, titled 'Leveling the Playing Field' regional workshops were held by the B.C. Search and Rescue Association (BCSARA) in 2011/12 with SAR Group and agency members to gather input into best practices and challenges encountered in the delivery of SAR services. One of the major challenges identified is the amount of time volunteers have to commit to fund raising and administration, while trying to maintain training and response capability. These same challenges face the volunteer board and officers of the BCSARA in their efforts to support the SAR volunteers.

In November 2012 the Coroner's Inquest jury into the death of a SAR volunteer during a swiftwater response made nine recommendations<sup>1</sup>, one of them being 'That EMBC review and evaluate funding models to better support SAR operations, training, and equipment similar to volunteer fire departments funding.'

A review of the Search and Rescue Training Program was conducted by an independent contractor within the 'Leveling the Playing Field' SAR-NIF project in early 2013. Within the final report<sup>2</sup> there are a number of recommendations including the need to firmly identify which agencies are responsible for funding training, and that additional administrative and coordination resources are required.

This document is presented to stimulate discussion towards creating alternative substantial funding sources which supports this very critical service for the residents and visitors in British Columbia, reduces fundraising demands on volunteers, and addresses the Coroner's inquest recommendation.

## **2.0 Background**

The following information is provided to inform readers on the historic and current structure (model) of Search and Rescue in a brief format.

### **2.1 Evolution of Search and Rescue in B.C.**

Although people have always sought to assist others in need, including searching for lost people or attempting to rescue those in peril, the organizing and formalizing of ground Search and Rescue groups in British Columbia is an outcome of civil defence activities in the 1950s and 60s.

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<sup>1</sup> 'Verdict at Inquest, Jury Recommendations'

<sup>2</sup> 'A Review of the Search and Rescue Training Program in B.C., Kathie Stenton'

With the demise of the cold war threat civil defence volunteers started specializing in various disciplines, such as 'wilderness' Search and Rescue, while others continue to evolve support for local government response to emergencies. The establishment of the Provincial Emergency Program (PEP) in the early seventies provided the critical provincial level support and coordination for the 'Public Safety Lifeline' volunteers, initially with most remaining part of the local government emergency programs.

Initially Search and Rescue training was very basic, search techniques based on military 'shoulder to shoulder' techniques, and rope rescue using equipment and techniques from the mountain climbing community. The need for equipment and training designed specific for these tasks, and for additional specialized rescue disciplines such as swift water and avalanche rescue quickly became apparent. The evolution of equipment, techniques, and training has been driven mostly by the volunteers in response to identified need.

Since the 1960/70s most SAR groups have become independent societies which support their volunteer members towards assisting the police and other responsible agencies response to a variety of emergencies. Following the firestorm 2003 and a number of large scale flood and other fire events many groups have once again become part of local authorities' emergency programs again while maintaining their ability to respond to incidents outside the area and in support of other agencies.

## **2.2 Current Model**

A diagram showing the responsibilities and linkages of the agencies involved in search and rescue is attached as Appendix B. Note this diagram is simplified to show the overall provincial model, there are a number of variations, linkages and supports not shown. While the model may seem complex the best practices generated by the relationships are recognized nationally.

The Province retains the overall responsibility for ground and inland water search and rescue, while the federal government is responsible for marine and air search and rescue. The following is a brief recap of operational responsibilities and roles within the current model;

- Search and Rescue volunteers within the 80 groups located across the province assist agencies by providing trained and equipped personnel during ground and inland water incidents requiring search and/or technical rescue expertise and personnel, and during civil emergencies. In B.C. volunteers trained in Search Management act in Unified Command with the responsible agency to oversee the response.

SAR Groups are assigned a geographical area, typically based on a combination of RCMP detachment boundaries. Each SAR group operates as the primary or lead group within

their area, while providing mutual support to adjoining groups and across the province when requested.

- RCMP and municipal police forces are responsible for searches for lost and missing persons within their jurisdictions; often searches result in the need for rescue of those injured or trapped hence considered the same incident.
- British Columbia Ambulance Service (BCAS) is responsible for the pre-hospital care and transportation of injured persons. Most BCAS staff are not trained or equipped to access subjects in difficult terrain or remote areas, hence BCAS requests SAR volunteers to reach, stabilize, and transport subjects to a transfer location.
- The Office of the Coroner is responsible for the recovery of human remains, SAR volunteers may be requested to assist with the task in non-urban settings.
- The Federal Department of National Defence (DND) is responsible for the search for missing aircraft. While their primary provincial support is through Air search volunteers they also request ground SAR volunteer assistance for specific tasks.
- Canadian Coast Guard (CCG) is responsible for search and rescue in the tidal marine environment, while their primary support is Royal Canadian Marine Search and Rescue (RCMSAR) volunteers, in some cases ground SAR volunteers are requested to conduct shoreline searches.
- The Parks Canada Warden Service is responsible for search and rescue within National Parks, under a long standing agreement with the Province SAR volunteers may be requested to assist.
- Fire Departments in many communities are tasked with rescue as part of the local authorities' emergency program. Fire Departments may request SAR volunteer assistance to provide additional personnel and/or expertise and equipment.
- Local Authorities (municipalities and Regional Districts) are responsible for response to emergencies within their boundaries. SAR volunteers may be requested to assist with SAR incidents (eg swift water rescue during a flood) or in non-traditional SAR roles (eg evacuation of residents due to interface fire threat).
- Emergency Management B.C. is responsible for supporting the emergency plans and response of local authorities and provincial agencies. Critical coordination and support is provided through the Emergency Coordination Centre (ECC) in Victoria, the provincial

SAR Specialist, and regional staff. Operational support for SAR is consistent with that provided during other emergencies involving risk to human life, and is consistent with the B.C. Emergency Management System (BCERMS) objectives.

It should be noted that the above agencies, and other local/provincial/federal agencies, may also respond to assist SAR volunteers and responsible agencies in other types of responses. For example Parks Canada may respond when requested to assist with incidents outside a National Park, DND may affect night time flights to access subjects in remote areas, and Coast Guard may assist with a ground search by transporting volunteers to an island.

### **2.3 Non-Operational Roles**

To support the operational model outlined above a well established structure is required to maintain and enhance response capabilities, the following are the primary roles of the agencies and volunteer organizations;

- The British Columbia Search and Rescue Association (BCSARA) represents and supports the 80 SAR groups in the Province. The BCSARA evolved from the SAR Advisory Committee in 2004, adding the ability to raise funds to the advisory function.

The BCSARA board includes regional volunteer directors, and representatives from the RCMP, Municipal Chiefs of Police Association, B.C. Fire Chiefs Association, and BCAS.

BSCARA participates as a member of the Search and Rescue Volunteer Association of Canada (SARVAC), which in turn represents the interest of SAR volunteers nationally including participating on the Ground Search and Rescue Council of Canada (GSARCC) which also has representation from all Provinces/Territories, RCMP, Parks Canada, and the National Search and Rescue Secretariat (NSS).

- Emergency Management British Columbia (EMBC) provides support to SAR Volunteers by;
  - funding to the Justice Institute of British Columbia (JIBC) for training
  - reimbursement of out of pocket expenses incurred during responses
  - Worker Compensation Board (WCB) coverage during responses and training
  - Liability coverage during approved training and response
  - expertise through the SAR Specialist
  - recognition of volunteer contribution through years of service pins and annual awards

- supports to the BCSARA through a annual grant and access to conference lines

EMBC also chairs the Search and Rescue Advisory Committee which has representation from all agencies and volunteer organizations for air, marine and ground search and rescue in B.C. This committee plays a critical role in furthering interagency cooperation.

EMBC and the BCSARA cooperate in the application for, and administration of, funding under the Search and Rescue New Initiatives Fund (SAR-NIF) funding, in past years this has provided substantial gains for the SAR volunteers such as radio kits for every team.

- The RCMP, as the Provincial police force, have provided support in the past such as access to fixed wing transport. Since 2002 the RCMP, 'E' Division has provided additional funding for volunteer training.
- The National Search and Rescue Secretariat (NSS) provides critical coordination for all aspects of SAR nationally, including holding national conferences (SARscene), supporting the GSARCC and SARVAC, and managing the SAR-NIF program.

### **3.0 funding**

#### **3.1 Current funding**

The overall costs of SAR responses are covered by the responsible agencies, with EMBC covering costs associated with the volunteer component. For example, the RCMP are responsible for rotary wing (helicopters) utilized to search for a lost person. EMBC covers rotary wing expenses to transport volunteers and to effect rescue when conditions meet policy. As mentioned above EMBC reimburses volunteers for out of pocket expenses, as well for SAR group equipment and vehicles utilized during a response according to policy.

The annual response reimbursement to volunteers covered by EMBC is approximately \$2,200,000; other costs such helicopter charter were \$1,250,000 in 2012/13. It has been estimated that the volunteer time on response, based on a RCMP constable wages would exceed \$20,000,000; including training and administration this would likely exceed \$50,000,000, a good return on investment! While reimbursement levels are mostly adequate, increasing use of new technology and increasing costs indicated a review is required.

Non-operational funding comes from a variety of sources, including these at the provincial level;

- \$250,000 for training, and administrative support for the BCSARA, through the JIBC from EMBC. This amount was reduced from \$350,000 in 2002 and has remained constant since.
- \$ 95,000 for training through the JIBC from the RCMP 'E' Division initially provided in 2002 to offset the reduction from EMBC it has become annual.
- \$25,000 for meeting expenses for the BCSARA from EMBC, meeting costs were covered for the SAR Advisory Committee prior to the Association being formed.
- \$250,000 annually has been accessed by the BCSARA through Gaming direct grant application since 2006; in 2004 and 2005 lower levels were also granted. The majority of this funding has gone to training courses to supplement the EMBC and RCMP funding, regional allocations for group/regional training, some specialized training (eg swiftwater), and supports for volunteers to attend training (travel is not covered for most courses). Initially some funding was allocated to SAR prevention, including for the highly successful AdventureSmart program, but other funding pressures has not allowed any for several years.
- As previously mentioned B.C. has been successful in achieving funding for projects such as equipment purchases through the federal SAR-NIF program. Such funding has averaged approximately \$250,000 annually since 2009.
- \$200,000 annually has been provided through Gaming to cover the cost of liability insurance for SAR Societies for several years. Previously SAR groups were either operating without director's insurance, or paid through funding raised as outlined below.

At the local level SAR groups are innovative by necessity in accessing funding wherever and whenever possible to cover non-operational (but operationally required) costs such as equipment, vehicles, insurance, licences, and training not otherwise provided. Some sources (note these vary greatly by group and community);

- Gaming direct grants; Last fiscal year \$2,300,000 was approved to individual groups.
- Mill rate funding through local governments: appropriately \$1,000,000 annually, not including in-kind support such as access to buildings and vehicle use.

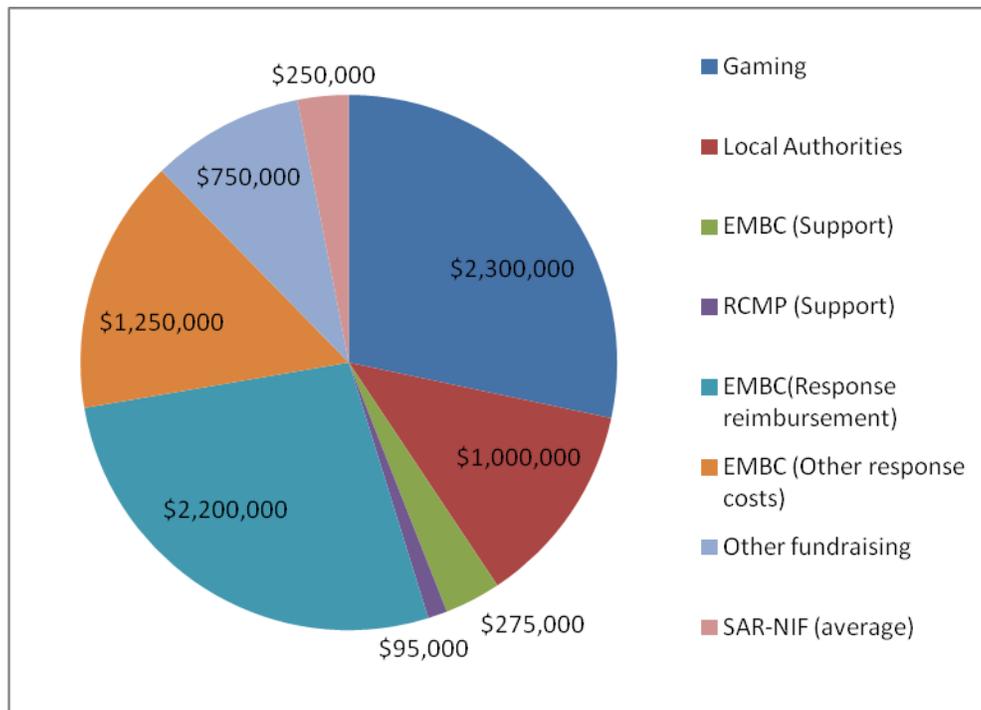
- Other fundraising; appropriately \$1,000,000 from local organizations (service clubs), corporate, donations from family and friends of subjects.

Currently SAR Groups, as individual societies own and operate appropriately \$7.8m in capital assets, including buildings, vehicles, boats, and other equipment.

**Current overall funding sources for Search and Rescue in B.C.**

Source	Amount
Gaming	\$ 2,300,000
Local Authorities	\$ 1,000,000
EMBC (Support)	\$ 275,000
RCMP (Support)	\$ 95,000
EMBC(Response reimbursement)	\$ 2,200,000
EMBC (Other response costs)	\$ 1,250,000
Other fundraising	\$ 750,000
SAR-NIF (average)	\$ 250,000
<b>Total</b>	<b>\$ 8,120,000</b>

**CURRENT FUNDING FOR SEARCH AND RESCUE IN B.C.**



**Figure 1**

### 3.2 level of Funding required for Search and Rescue

An extensive study of SAR Groups responses over 10 years was conducted in 2004 in order to forecast funding required to support training. The study<sup>3</sup> concluded that substantial additional funding is required to maintain response capability and volunteer safety.

The report presented to the Solicitor General centered on a request for increased training funding for SAR volunteers, with the cost for maintaining and replacing equipment also shown. Not included was the initial cost of group equipment (although a value of \$15m was provided), purchase of Personal Protective Equipment (PPE,) and ongoing costs for insurances (vehicles/ equipment/ liability) and licensing (eg radios).The Solicitor General expressed appreciation for the service provided by the SAR Volunteers, however additional funding was not granted.

In addition SAR volunteers are active in SAR prevention; within the AdventureSmart program they present programs such as Hug A Tree and Survive to young children in schools, snow safety programs to older students, and Survive Outside to adults. All are designed to reduce the number and severity of SAR responses. This highly effective program designed and implemented in B.C., and now national in scope, requires support to continue.

The burden of administrating funding and coordination of training has exceeded volunteer resources, it is recommended that additional provincial resources be dedicated to these roles, or funding be provided to BCSARA and SAR Groups to contract for such support.

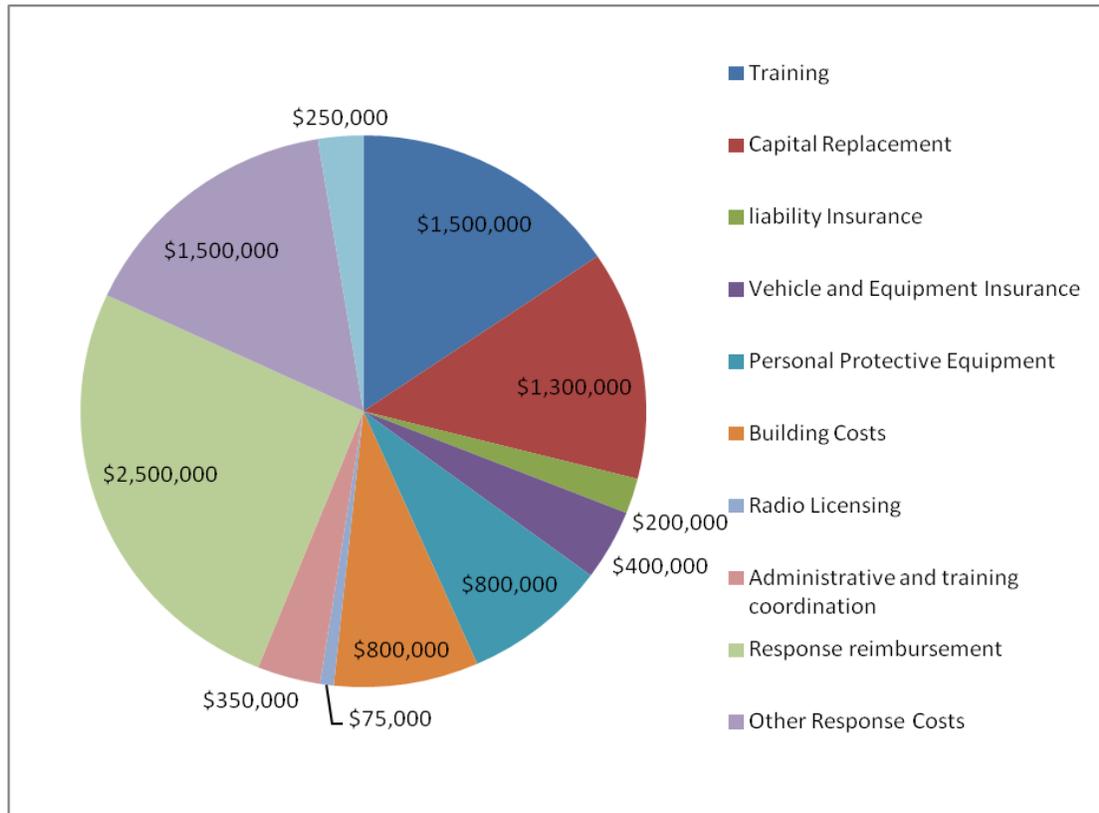
Based on the Business Plan and other past projects, with modest forecasted increases to accommodate growing costs, the following is provided as an overall annual requirement to maintain the current model for search and rescue in British Columbia.

#### Required Funding For SAR in B.C.

Training (updated from Business Plan)	\$ 1,500,000
Capital Replacement (updated from Business Plan)	\$ 1,300,000
liability Insurance (current)	\$ 200,000
Vehicle and Equipment Insurance (estimated)	\$ 400,000
Personal Protective Equipment (updated)	\$ 800,000
Building Costs (estimated)	\$ 800,000
Radio Licensing (estimated from average numbers)	\$ 75,000
Administrative and training coordination (estimated)	\$ 350,000
Response reimbursement (forecasted from current)	\$ 2,500,000
Other Response Costs (forecasted from current)	\$ 1,500,000
SAR Prevention	\$ 250,000
Total	\$ 9,675,000

<sup>3</sup> 'Volunteer Ground and Inland Water Search and Rescue Service Business Plan, Neil Brewer'

**Required Funding for SAR in B.C.**



**Figure 2**

### 3.3 Possible model for managing funding

In order to properly manage funding for SAR, reduce the administrative demands on SAR volunteers to apply, track, and report on funds their group's raise it is critical that a different overall funding model in B.C. be implemented.

The model suggested is used by several U.S. States, including Colorado which can be referenced at <http://dola.colorado.gov/dlg/fa/sar/index.html#overview> . The model includes a Search and Rescue Fund established in state legislation into which funding flows from various sources, and a board which oversees the distribution of the funds. In Colorado funding comes from fishing and hunting licences, a standalone wildlife habitat stamp, off-highway vehicle registration, and through voluntary purchase of Outdoor Recreation Search and Rescue Cards available at retailers and on-line.

There is precedent in British Columbia for such a model; the Habitat Conservation Trust Fund (HCTF) established under the Wildlife Act receives revenue collected from surcharges on hunting, fishing and other licenses. These funds, along with donations, are administered by the Habitat

Conservation Trust Foundation. Since 1981 the trust has received and disbursed over \$140,000,000.<sup>4</sup>

The SAR Fund model has the potential to ease demands on Ministry budget lines, as well as reduce the administrative workload on staff and volunteers involved with applications and grants. For instance, should a set amount be transferred to the SAR Fund from Gaming outside the Direct Grant program the allocation of funding to the 80 SAR groups and for SAR training would be made by the fund management under direction of the board. This is similar to the structure<sup>5</sup> established in New Zealand for SAR.

Funds within the SAR Fund Foundation could be distributed to SAR Groups using a formula based on the type of response capability (eg. Search, Swiftwater, Rope, Avalanche) recognizing the training, equipment and other costs associated with maintaining that service. A set amount could be provided each fiscal year to pay insurance and licensing fees, and for training upon receipt of a training plan. Response costs could continue to be reimbursed following each response as the scale and scope of each varies substantially, an option would be to provide an advance to each SAR group at the start of a fiscal year however that would become onerous administratively.

Such a model requires funding to support the management and disbursement of funds to SAR Groups; this would include staff and office space for the SAR Fund Foundation under the direction of a Board consisting of BCSARA and other SAR Stakeholder Representatives. The coordination of training and administrative support to BCSARA and SAR groups could be included in the funding for the Foundation, or flow from the SAR Fund to BCSARA. The amount required for managing and administering the fund will depend on the model chosen, for the purpose of this paper a 10% of the total annual amount of the Fund is used.

### **3.4 Options for alternative sustainable funding**

The following potential additional sources for funding of a SAR Fund are offered as ideas only; the SAR community recognizes that the Province of B.C. may decide to use existing sources at the required level to supplement the SAR Fund model.

An extensive review of the SAR service in B.C. was conducted in 1995/96, the final report<sup>6</sup>, commonly referred to as the SAR Strategic Plan, suggested a number of potential sources for funding;

User fees – fees as a small cost added to selected recreation fees/licences/registration

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<sup>4</sup> <http://www.hctf.ca/who-we-are/history>

<sup>5</sup> <http://www.landsar.org.nz/Article.aspx?ID=874>

<sup>6</sup> 'Land and Inland Water Search and Rescue Strategic Plan for British Columbia'

- Hunting licences
- Fishing licences
- Alpine ski-lift tickets
- Commercial cross-country skier visits
- Snowmobile registration
- ATV registration
- Provincial park camping
- Free miner certificates (annual)
- Surcharge on outdoor equipment
- Surcharge on commercial recreational licences
- Cost recovery (charging subjects who are found/rescued)

Potential partnerships with the HCTF could be explored if the decision is to look at additional surcharges on licenses; those currently within the HCTF, and others such as ATV licenses.

The response to several of these ideas being ‘sounded’ off representative organizations was very negative. For example the ski hills felt the surcharge on ski lift tickets would be detrimental to business, and was targeting a sector which only accorded for 3% of SAR incidents (out of bound skiers). Given the type of activities that subjects are engaged in encompasses most self powered and powered sports, to ‘walkaways’ in urban settings it is likely any models will have this challenge.

The concept of Cost Recovery is often raised by the public as a penalty to subjects after high profile incidents; it is not supported by the SAR Community given concerns over delayed calling for assistance. As well it would be a burdensome process likely resulting in very little incremental revenue.

Some additional concepts that have been discussed are:

**Charge to responsible agencies**, this option would see a ‘fee for service’ for the SAR volunteer portion of the response to the Police, BCAS, Office of the Coroner, etc. This would be simple to manage, but as these are mostly Provincial agencies it would still be provincial tax based. It is also likely that in some cases a timely response would not be initiated if the local office/ministry did not have the funds in their operating budget.

**Charging for air transport of injured persons**, this option has not been raised formally in the past. Basically it is to level the playing field in that if BCAS can land a rotary wing aircraft and ‘cold load’ the subject they are charged an air ambulance fee. Currently if SAR Volunteers utilizing a rotary wing aircraft funded by PEP/EMBC transport a subject to a waiting ambulance, or direct to hospital if critical, then the subject is not billed. While this could recover some funds for the Province it would not have the desired effect unless directed to

SAR. An estimate would be \$350,000 a year, if based on the BCAS rates, however this does not allow for the cost to recover and non-payments which would probably be significant.

**Outdoor Recreation Search and Rescue Cards:** similar to those sold in Colorado and some other U. S. States, provide a quick and low cost means for the public to show their support for SAR, could be made available at retailers and on-line.

### 3.5 Fund Management model with funding levels

The following diagrams show how possible funding sources could be managed through an SAR Fund Foundation solely or in combination with other methods. Funding from Local Authorities is shown separate in all, recognizing that this maintains SAR Groups link with local emergency programs. Note that values have been rounded off to ease the visual representations.

#### Option 1 SAR Fund Separate from Response Costs

SAR Fund (includes Management Cost)	\$ 5,000,000
Local Government	\$ 1,000,000
Response Reimbursement	\$ 2,500,000
Other response costs	\$ 1,500,000
Total	\$ 10,000,000

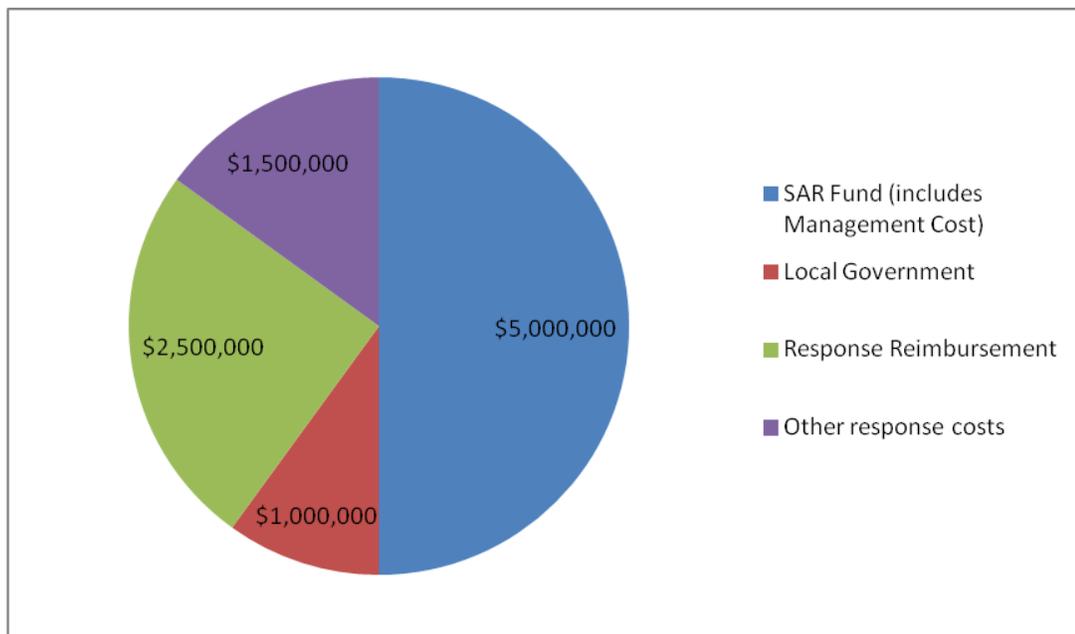
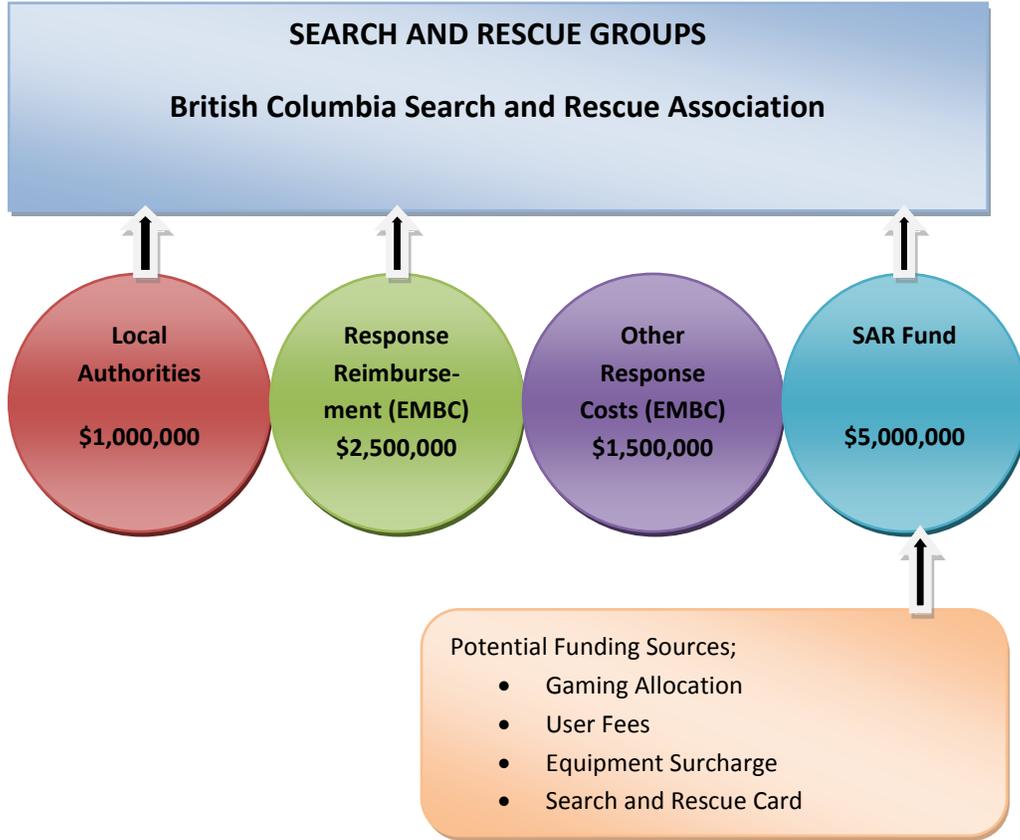


Figure 3



**Figure 4**

**Option 2**

**SAR Fund Including Response**

SAR Fund (includes Management Cost)	\$ 9,900,000
Local Government	\$ 1,000,000
<b>Total</b>	<b>\$ 10,900,000</b>

Notes: A contingency fund should be considered within the SAR Fund Foundation to allow for extraordinary response costs due to large complex incidents. A set increase in annual funding or an established review process should be included to accommodate increases to response costs in future years.

BCSARA believes the current roles of EMBC in SAR should continue regardless of the chosen funding model. The coordination through the Emergency Coordination Centre (ECC), expertise and support of the SAR Specialist, and co-operative relationship with staff and management is critical to the on-going success of the service.

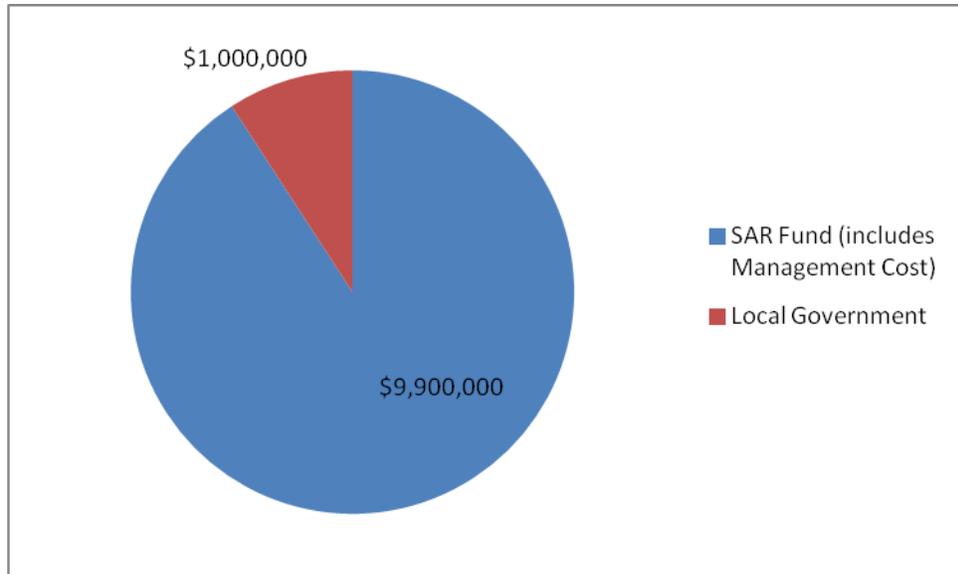


Figure 5

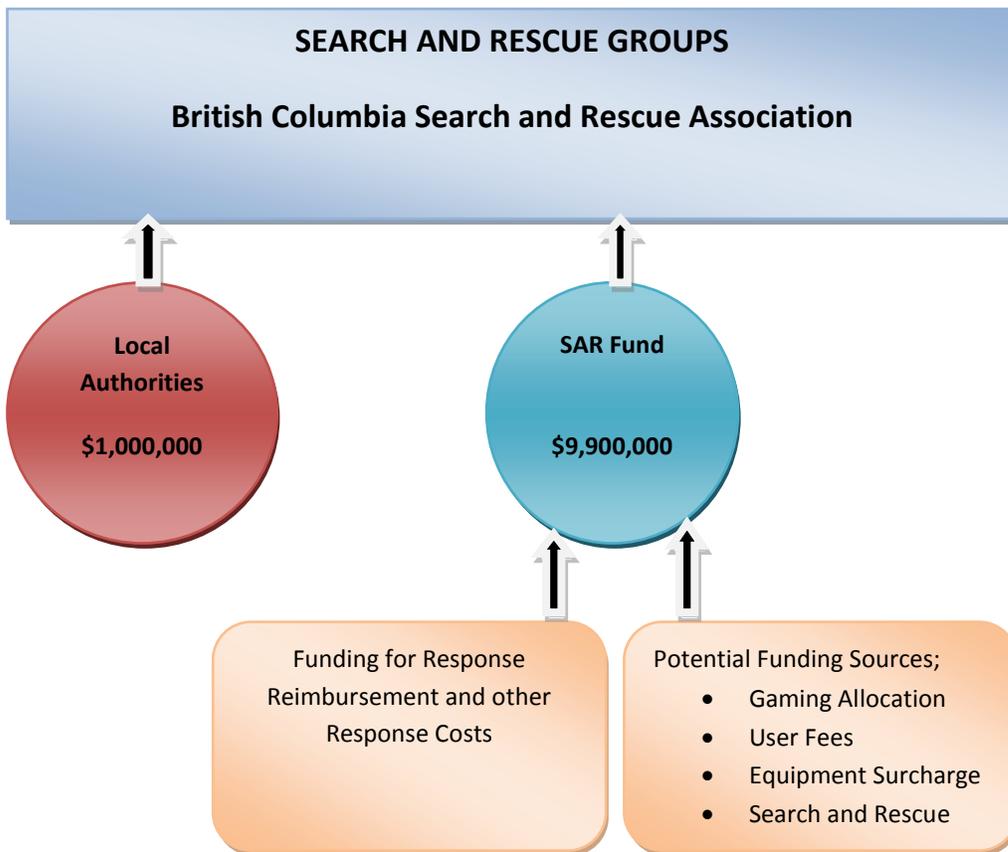


Figure 6

#### 4 Conclusion

As stated the purpose of this paper is to generate discussion on establishing an alternative substantial funding model for search and rescue in B.C. Media coverage of high profile members of the SAR volunteer community stating their frustration with the current funding model will likely continue and grow until a solution is found. It is recommended that discussions between Province and BCSARA be initiated as soon as possible.

Further research, in conjunction with the applicable Provincial government agencies, could be undertaken on options for new funding sources once agreement on a new fund management model is reached. It is critical that existing funding sources continue given the time required to research, develop, and initiate any new funding sources.

The Directors and Officers of BCSARA, representing the 80 Search and Rescue Groups and their 2,500 members, believe that either option 1 or 2 defined in this paper will greatly reduce the demands on volunteers associated with fundraising and administration. The result will be a search and rescue service which will continue to serve the citizens and visitors within British Columbia, and evolve to meet increasing demands.

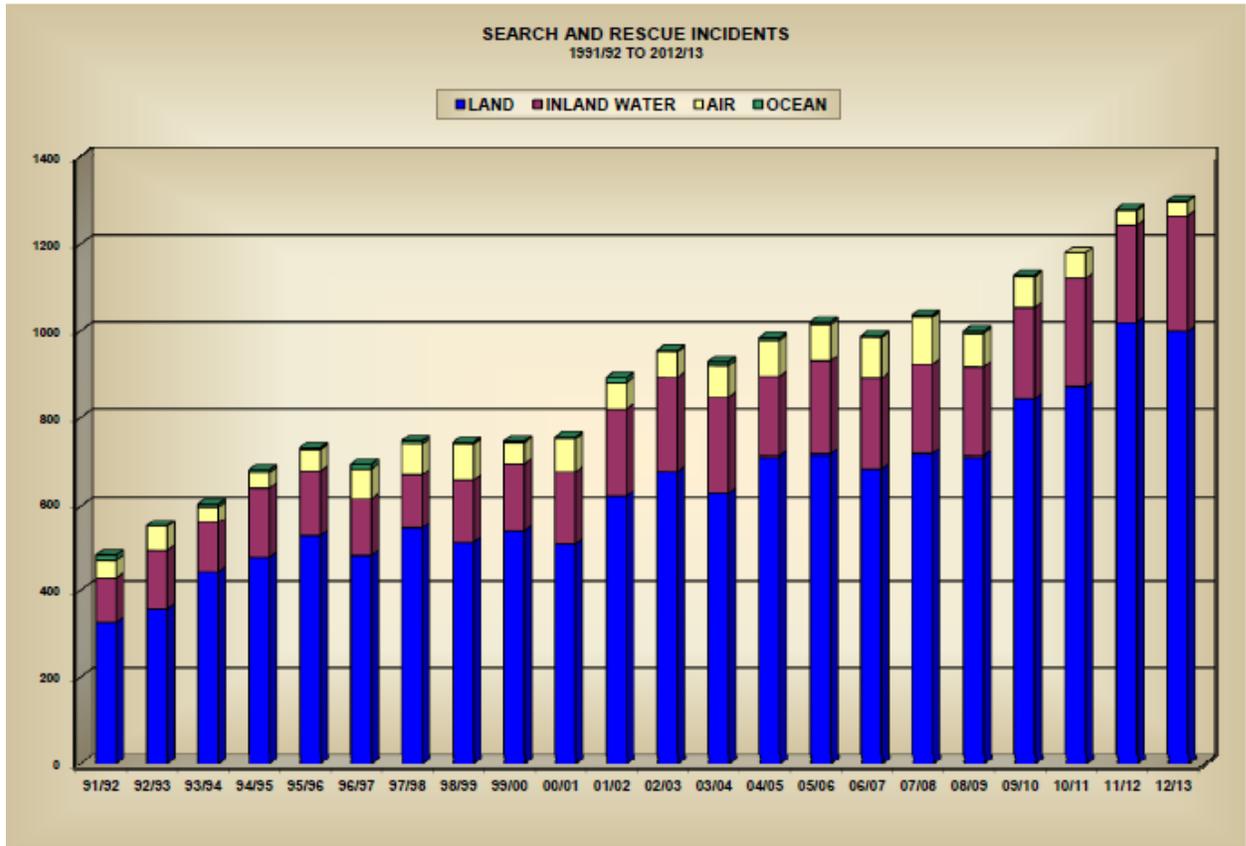
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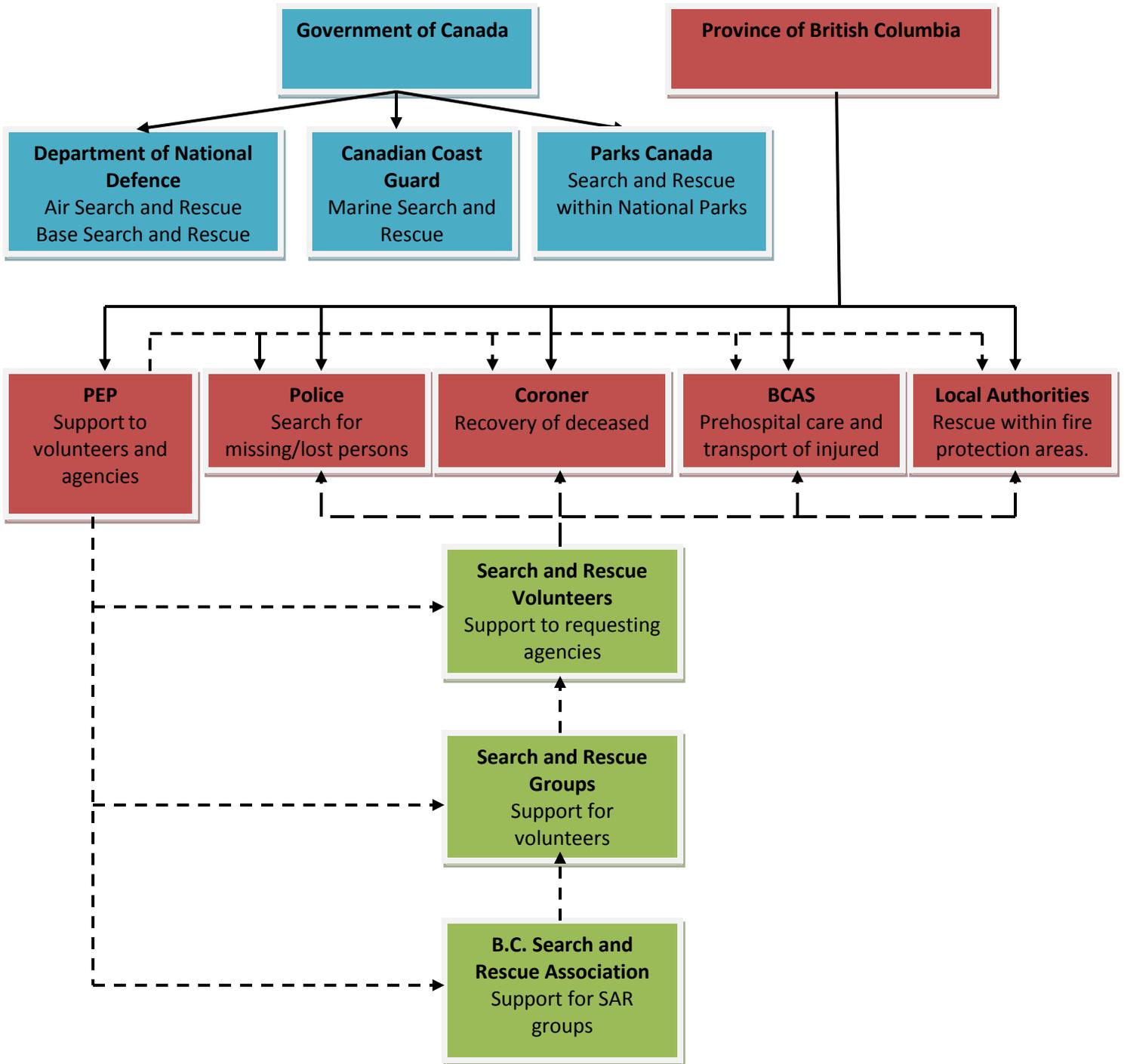
Don R. Bindon  
President  
British Columbia Search and Rescue Association

Appendix 'A'

Search and Rescue Incidents 1991 to 2012



**Appendix 'B'**  
**OVERVIEW OF RESPONSIBILITIES FOR SEARCH AND RESCUE IN CANADA and BRITISH COLUMBIA**



Notes: Solid lines indicate responsibility, dashed lines indicate support provided.  
 Only main relationships are shown for purpose of clarity