THE NATIONAL PARKS AND NATIONAL HISTORIC SITES OF CANADA

LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA

Parks Canada

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Replacement Class Screening Report:

Special Events in the Halifax Defence Complex

May 2004

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Acronyms

Bluenose ACAP – Bluenose Atlantic Coastal Action Program

CEAA – *Canadian Environmental Assessment Act*

CEA Agency – Canadian Environmental Assessment Agency

CEAR – Canadian Environmental Assessment Registry

EA – Environmental Assessment

EERP – Environmental Emergency Response Plan

FA – Federal Authority

HRM – Halifax Regional Municipality

NHS – National Historic Site

RA – Responsible Authority

RCS – Replacement Class Screening

RCSR – Replacement Class Screening Report

RRFB NS – Resource Recovery Fund Board Nova Scotia

SAR – Species at Risk

SARA – *Species at Risk Act*

VEC(s) – Valued Environmental Component(s)

1 Introduction

The Halifax Defence Complex consists of five National Historic Sites (Halifax Citadel, York Redoubt, Georges Island, Fort McNab, and Prince of Wales Tower) within the Halifax Regional Municipality (HRM), Nova Scotia. Because they offer picturesque settings and convenient locations, the sites are frequently chosen for special events.

A special event is defined as a planned, temporary activity conducted for recreation, entertainment, or promotional purposes. Occurring in response to public demand, these events provide a distinctive Park experience and must be deemed appropriate for the site based on its Management Plan (Canadian Heritage Parks Canada, 1994a). The *Canadian Environmental Assessment Act (CEAA) Inclusion List Regulations* establish these events as activities not related to a physical work that may require an environmental assessment. Parks Canada is a Federal Authority (FA)[1] that issues a licence of occupation granting authority to conduct special events within the Halifax Defence Complex National Historic Sites. Parks Canada is therefore the Responsible Authority (RA) and must ensure that an environmental assessment is completed because it has to issue a licence to enable the project to be carried out.

As the special events are routine, repetitive events with predictable and mitigable environmental effects, a Replacement Class Screening enables the environmental assessment process to be streamlined while ensuring the uniform approach remains consistent with the Halifax Defence Complex Management Plans, Halifax Regional Municipality Waste Management and Noise by-laws, and the requirements of the *Canadian Environmental Assessment Act*. It also ensures proponents for all special events take appropriate measures to protect the environment and cultural resources.

1.1 Class Screening and the Canadian Environmental Assessment Act (CEAA)

The *Canadian Environmental Assessment Act* (CEAA) and its regulations set out the legislative basis for federal environmental assessments. The legislation ensures that the environmental effects of projects involving the federal government are carefully considered early in project planning. The CEAA applies to projects which require a federal authority (FA) to make a decision or take an action, whether as a proponent, land administrator, source of funding or regulator (issuance of a permit or licence). The FA then becomes a responsible authority (RA) and is required to ensure that an environmental assessment of the project is carried out prior to making its decision or taking action.

[1] A Federal Authority is defined in Section 2 of the *Canadian Environmental Assessment Act* and has responsibilities as described in that legislation.

Most projects are assessed under a screening type of assessment. A screening systematically documents the anticipated environmental effects of a proposed project, and determines the need to modify the project plan or recommend further mitigation to eliminate or minimize these effects. Screenings are conducted for projects which are not on the *Exclusion List Regulations* or the *Comprehensive Study List Regulations* and have not been identified as requiring mediation or an assessment by a review panel.

The screening of some routine projects may be streamlined through the use of a class screening report. This kind of report presents the accumulated knowledge of the environmental effects of a given type of project and identifies measures that are known to reduce or eliminate the likely adverse environmental effects. The CEA Agency may declare such a report appropriate for use as a class screening after taking into account comments received during a period of public consultation.

A replacement class screening consists of a single report that defines the class of projects and describes the associated environmental effects, design standards and mitigation measures for projects assessed within the report. It includes a conclusion of significance of environmental effects for all projects assessed by the replacement class screening. Once the CEA Agency declares a replacement class screening report, no further environmental assessment is required for projects within the class.

1.2 Replacement Class Screening and the Projects

The applicability of the RCSR to the projects is based upon the following six criteria:

1. *Well-defined Class of Projects:* Special Events at the Halifax Defence Complex National Historic Sites as a class of projects is based on several common characteristics. The sites are located within the Halifax Regional Municipality, Nova Scotia and have similar environmental settings. The special events share many activities, such as the set-up of temporary staging, lighting/sound equipment, portable washroom facilities, etc., have predictable, mitigable environmental impacts, and are all triggered under CEAA in the same manner.

2. *Well-understood Environmental Setting:* Parks Canada has been responsible for the Halifax Defence Complex National Historic Sites since the 1960s, having begun to acquire responsibility as early as the 1930s, and is quite familiar with each site's environmental setting. Events generally take place on paved, grassed, and/or gravelled areas, therefore keeping the environmental settings relatively constant between properties. The slight variations in wooded area and water sources on site are taken into consideration. Site-specific ecological inventory reports and commemorative integrity statements are available to complete environmental setting descriptions of each National Historic Site (NHS).

3. *Unlikely to Cause Significant Adverse Environmental Effects, Taking into Account Mitigation Measures:* Based on previous experience with special events, no

significant adverse environmental effects are likely to occur. Minor environmental impacts have occurred during the past and were successfully mitigated to ensure ecological and commemorative integrity. There is no evidence of significant cumulative effects to date and none are expected due to the short duration and limited environmental damage that results.

4. *No Project-Specific Follow-up Measures Required:* Project-specific follow-up programs are not required as there are no expected variations in predictions or effects to be monitored. A Parks Canada official must verify, however, that the property is returned to its natural state following a special event. This is applicable to all special events, regardless of the site.

5. *Effective and Efficient Planning and Decision-making Process:* Special event projects involve activities that are straightforward and routine in nature, so event planning is uncomplicated. As Parks Canada is usually the only RA involved in the assessments and the proponents are specialized and highly experienced in the delivery of such events, the planning and decision-making processes are straightforward.

6. *Public Concerns Unlikely:* Projects conducted over the past fifty years have not elicited any major public concerns. Complaints may be voiced regarding noise emitted during special events, however mitigation measures outlined in the Replacement Class Screening Assessment minimize public disturbance within the context of municipal noise control guidelines.

As the project class meets the necessary six criteria, the Replacement Class Screening (RCS) is applicable. The Replacement Class Screening Report (RCSR) streamlines the environmental assessment process based on the commonalities shared by the special events subject to the RCS and satisfies the requirements of the CEAA.

1.3 Development of the RCSR

The following six steps summarize the development of the RCSR:

STEP1: Writing the RCSR

Creation of the RCSR involved the following activities:

- Researched past land use of the HDC National Historic Sites during Special Events and the environmental settings of each site
- Described project activities associated with each type of special event and location
- Determined Valued Environmental Components
- Identified potential environmental effects, mitigation measures, and residual environmental effects associated with each type of special event and location
- Considered possible cumulative effects

STEP 2: Preliminary Consultation

Interested organizations reviewed the draft RCSR and provided commentary. Draft revised based on feedback received.

STEP 3: Canadian Environmental Assessment Agency Review

The draft RCSR was submitted for review by the CEA Agency and revised as necessary.

STEP 4: Submit for Declaration and Thirty-Day Public Review

The draft was submitted to the CEA Agency for a thirty-day public review.

STEP 5: Finalize the RCSR

Ensured any concerns/comments expressed by the public were addressed in the RCSR and any necessary revisions were completed.

STEP 6: Declaration

The RCSR was submitted to the Canadian Environmental Assessment Agency for declaration.

1.4 Consultation

Commentary gathered through consultation with Halifax Regional Municipality departments (Solid Waste Resources and HRM By-Laws), environmental organizations (Resource Recovery Fund Board, Clean Nova Scotia, Ecology Action Centre), Environment Canada, Nova Scotia Department of Environment and Labour, and the public was used in the development of the RCSR. Comments consisted of the following:

- The Halifax Regional Municipality's Solid Waste Resources was contacted for information on developing a Solid Waste Management Plan for Special Events. The importance of identifying waste containers with colours familiar to the public to facilitate proper waste separation was stressed. In addition, the HRM Solid Waste Resources provided several resources regarding waste management, including an event greening guide produced by RRFB NS, various posters, regulations from the NS Department of Environment and Labour, and contact information for local waste hauler services.

- The Methods and Procedures Analyst for Community Projects with Halifax Regional Municipality's Noise By-Laws was contacted for information regarding HRM's noise by-laws. HRM By-Law Number N-200: Respecting Noise was referenced as Section 4 (2) (g) exempts "noises in relation to municipal parades, street dances or other community activities until one o'clock in the forenoon". It was explained that although Council could grant exemption, special events within the Halifax Defence Complex National Historic Sites fall under the above-mentioned regulation and compliance with the city's by-laws simply requires cessation of noise prior to 1am. This regulation has been incorporated into the special event mitigation measures.

- Environment Canada, Nova Scotia Department of Environment and Labour, Ecology Action Centre, Clean NS, HRM Solid Waste Resources, and RRFB NS were invited to comment on the Waste Management Plan and any other items of interest in the RCSR. No comments were received from Environment Canada, Nova Scotia Department of Environment and Labour, or the Ecology Action Centre. Clean NS, HRM Solid Waste Resources, and RRFB NS had minor suggestions regarding phrasing in the waste management plan.

- Past public comments regarding special events within the HRM were reviewed in consultation with the Client Service Manager, Halifax Citadel National Historic Site of Canada. There were no written records of public concerns or complaints, however, the Client Service Manager was able to offer anecdotal information based on previous experience coordinating licenses of occupation for special events within the Halifax Defence Complex National Historic Sites. Expressed public concerns included the noise generated from special events and the condition of the Garrison Grounds with respect to grass and litter following large-scale events.

- The CEA Agency conducted public consultation on the RCSR. All comments received were taken into consideration before its declaration.

1.5 The Canadian Environmental Assessment Registry (CEAR)

The purpose of the Canadian Environmental Assessment Registry (the Registry) is to facilitate public access to records relating to environmental assessments and to provide notice in a timely manner of assessments. The Registry consists of two components – an Internet site and a project file.

The Internet site is administered by the CEA Agency. The responsible authority and the CEA Agency are required to post specific records to the Internet site in relation to a class screening report.

Upon declaration of the class screening report, the CEAA requires responsible authorities to post on the Internet site of the Registry, at least every three months, a statement of projects for which a replacement class screening report was used. The statement should be in the form of a list of projects, and will include:

- the title of each project for which the replacement class screening report was used;
- the location of each project; and
- the date when it was determined that the project falls within the category of projects covered by the report.

The project file component is a file maintained by the responsible authority during an environmental assessment. The project file must include all records produced, collected or submitted with respect to the environmental assessment of projects and all records included on the Internet site. The responsible authority must maintain the file, ensure convenient public access, and respond to information requests in a timely manner.

Further information regarding the Canadian Environmental Assessment Registry can be found in "The Canadian Environmental Assessment Registry", prepared by the CEA Agency.

2 Project Class Description

The candidate class for this RCSR is special events that require a license of occupation and occur within the Halifax Defence Complex National Historic Sites (Halifax Citadel, York Redoubt, Georges Island, Fort McNab, and Prince of Wales Tower National Historic Sites of Canada). Special events covered by this RCSR are not carried out on Parks Canada's behalf, but are held by businesses, not-for-profit corporations, and community groups that are responsible for advertising the event, equipment set-up and takedown, and the event itself.

2.1 Projects Subject to the CEAA

Special events are a project under the CEAA because they are captured under section 76 of the *Inclusion List Regulations*. Assessment of special event projects is triggered under Section 5(1)d of the CEAA because paragraph 4(2)a of the *Federal Real Property Regulations* is used to issue a license of occupation.

Small community events held by non-profit organizations do not require a license of occupation and are therefore not subject to the CEAA.

2.2 Projects Subject to the RCSR

The projects subject to the RCSR include special events held within the Halifax Defence Complex National Historic Sites. Seven sub-classes of special events are addressed, including 1) Concerts, 2) Sporting and Community Events, 3) Filming, 4) Parking, 5) Tented Events, 6) Theatrical Performances, and 7) Corporate Trade Shows. Representation in this manner ensures all activities associated with each special event are accounted for in the RCSR.

2.3 Projects Not Subject to the RCSR

Projects that are not subject to the replacement class screening are those that may adversely affect species at risk, either directly or indirectly, such as by adversely affecting their habitat. For the purposes of this document, species at risk include:

- species identified on the List of Wildlife Species at Risk set out in Schedule 1 of the *Species at Risk Act (SARA*), and including the critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act.*
- species that have been recognized as "at risk" by COSEWIC or by provincial or territorial authorities.

Certain areas within York Redoubt National Historic Site are closed to special events to prevent adverse effects on the rare species present in these locations (see York Redoubt map in Appendix 4). Any project taking place within these closed areas is not subject to this RCSR and requires an individual environmental assessment.

The Special Event “Parking” does not apply to Georges Island, Fort McNab, or the Prince of Wales Tower National Historic Sites as there are currently no facilities present to accommodate such use. As the RCSR does not consider the effects of the special event “Parking” at these locations, individual environmental assessments are required.

Special events not in the categories of Concerts, Sporting and Community Events, Tented Events, Parking, Filming, Theatrical Performances, or Corporate Trade Shows are not addressed by this RCSR and therefore require individual environmental assessments.

2.4 Typical Activities

Project activities vary between special events, however, all events share common elements. Due to this variation, the candidate class is divided into seven categories (listed in Table 1 below) for the purpose of identifying activities associated with each type of special event.

Table 1. Project activities associated with special events at the Halifax Defence Complex National Historic Sites, per event and project phase.

Event	Event Phase	Associated Project Activities														
		Equipment/Crew Transportation; Parking	Set up/Dismantle Temporary Staging, Fencing, Tents, etc.	Set up/Dismantle Props	Installation/Removal of Portable Washrooms	Prepare/Remove Vendor Stands/Promotional Displays	Food Preparation, Sales, & Clean-up; Merchandise Sales	Set up/Removal of Waste Facilities, Waste Generation, and Waste Removal	Set up/Use/Removal of Sound/Lighting Equipment	Use of Camera Equipment	Install/Use/Removal of Generators	Special Event (performances, sporting event, etc)	Use of Pyrotechnics	Attendance between 0-1500	Attendance between 0-3000	Attendance between 0-30 000
Concerts	Site Preparation	✓	✓		✓	✓		✓	✓		✓					
	Event	✓					✓	✓	✓		✓	✓	✓			✓
	Site Restoration	✓	✓		✓	✓		✓	✓		✓					
Sporting & Community Events	Site Preparation	✓	✓		✓	✓		✓	✓		✓					
	Event	✓					✓	✓	✓		✓	✓			✓	
	Site Restoration	✓	✓		✓	✓		✓	✓		✓					
Filming	Site Preparation	✓	✓					✓	✓	✓	✓					
	Event	✓						✓	✓	✓	✓	✓		✓		
	Site Restoration	✓	✓					✓	✓	✓	✓					
Parking	Site Preparation															
	Event	✓												✓		
	Site Restoration															
Tented Event	Site Preparation	✓	✓		✓			✓	✓		✓					
	Event							✓	✓		✓	✓			✓	
	Site Restoration	✓	✓		✓			✓	✓		✓					
Theatrical Performances	Site Preparation	✓		✓		✓		✓								
	Event						✓	✓				✓		✓		
	Site Restoration	✓		✓		✓		✓								
Corporate Trade Shows	Site Preparation	✓	✓		✓	✓		✓	✓		✓					
	Event	✓					✓	✓	✓		✓	✓			✓	
	Site Restoration	✓	✓		✓	✓		✓	✓		✓					

2.5 Typical Seasonal Scheduling and Duration of Projects

Special events take place within the Halifax Defence Complex National Historic Sites throughout the year. The majority of events, however, typically occur when the weather is best, with the most active time being the summer season. Event duration varies between one to five days, including site preparation and restoration, with the exceptions of theatrical performances and parking. Theatrical performances require approximately thirty to forty-five days for rehearsals and performances. Past use of the Halifax Citadel National Historic Site of Canada's Garrison Grounds for parking lasted from a few days to several months.

3 Environmental Review Methods

3.1 Introduction

The purpose of this section is to detail the methodology used to ensure potential project activity effects are consistently addressed, regardless of location or special event. To accomplish this, valued environmental components and the boundaries of the environmental review are determined. The rationale used to identify potential environmental, cumulative, and residual effects is explained. Also, the basis for determining potential effects of the environment on the project and accidents and/or malfunctions associated with the project is outlined. Finally, the process for selecting mitigation measures is discussed.

3.2 Issue Scoping and Valued Environmental Component (VEC) Selection

In keeping with Parks Canada's commitment to protect natural and cultural heritage, valued environmental components are selected based on the potential for special events and all associated activities as covered by the RCSR to affect the environment.

Issue scoping consisted of thorough analysis of project activities associated with each type of special event and identification of their potential environmental effects. Potentially affected resources were then used to determine the VECs. Site Management Plans, Commemorative Integrity Statements, Parks Canada Guiding Principles and Operational Policies (Canadian Heritage Parks Canada, 1994b), and background studies on site ecosystems were reviewed to ensure all VECs had been identified. Targeted consultation with key interest groups confirmed the appropriateness of the selected VECs and did not identify additional VECs.

As a result of issue scoping, VECs in this environmental assessment were identified as the following:

Cultural Resources
Cultural resources include cultural landscapes, archaeological sites, structures, engineering works, artifacts, and associated records assigned historic value (Canadian Heritage Parks Canada, 1994b). Cultural resources are valued for their association with aspects of human history and their contribution to understanding and communicating past events. Many cultural resources within the National Historic Sites of Canada are commemorated under provisions of the *Historic Sites and Monuments Act* and are therefore considered nationally important.

Project activities have the potential to affect cultural resources. Set-up and dismantling temporary structures could damage below surface cultural resources and there is a risk of vandalism to exterior structures during the events. Also, in accordance with Section 16(1)(e) of the CEAA which specifies that the RA may include any matter that it considers relevant, Parks Canada has determined that as a matter of policy, it will assess effects on cultural resources whether or not they result from changes to the environment. This assessment includes the five principles of the Cultural Resource Management Policy as outlined in the Parks Canada Guiding Principles and Operational Policies (Parks Canada, 1998).

Flora and Fauna
Parks Canada is committed to preserving ecological integrity on the lands that it manages, including National Historical Sites of Canada. Native flora and fauna are key requirements for ecological integrity. Special value is given to rare or uncommon species occurring within the National Historic Sites since loss of individuals of such species has the greatest potential to affect ecological integrity. Project activities could result in damage or destruction to native flora or fauna through trampling or displacement on some sites and are therefore included as a VEC in this Replacement Class Screening.

Land Resources
Land resources are key elements of protected cultural landscapes within the National Historic Sites hosting the special events covered by this Replacement Class Screening. Land resources within the Halifax Regional Municipality are under stress from urbanization and other forms of land use change. Within the National Historic Sites, large numbers of participants in special events and vehicle use on site could cause soil compaction, and there is also concern about accidental soil contamination from fuel, oil, human waste, or odour control chemicals associated with special event activities. Beyond the sites themselves, increased solid waste generation at special events affects regional land resources. Land resources are therefore considered a VEC.

Water Quality
Water quality is of particular public interest to residents of the Halifax Regional Municipality because of concern over the health of the Halifax Harbour. Also Parks Canada as a general principle is committed to maintain and protect waters under its jurisdiction (Parks Canada, 1998).

Project activities potentially affect water quality through increased sedimentation and accidental contamination from fuel, oil, human waste, odour control chemicals, and garbage. Water quality is therefore considered a VEC.

Visitor Experience
Positive visitor experience is valued because it ensures that Parks Canada achieves its objective to foster public understanding, appreciation, and enjoyment of the National Historic Sites. As visitor experience influences public perception of the importance of National Historic Sites, Parks Canada regulates activities occurring within the sites to prevent negative effects on visitor experience. Special events held at the Halifax Defence Complex National Historic Sites potentially affect visitor experience through noise which distracts from the historical atmosphere of the sites. In addition, air quality could be reduced through the use of pyrotechnics and therefore affect public enjoyment of the National Historic Site. Visitor experience is therefore considered a VEC.

Urban Soundscape
Excessive noise intruding into the urban soundscape is an irritant to residents of the Halifax Regional Municipality. To deal with this issue the municipal government has imposed by-laws to protect the urban soundscape. Noise associated with special events can have a negative effect on the peace and enjoyment of historic sites themselves and the city by its residents and visitors. Inclusion of urban soundscape as a VEC allows Parks Canada to address past public concerns regarding noise from special events and ensure compliance with the HRM's noise by-laws.

Air Quality
Air quality is valued because it influences both human health and the environment. Its selection as a VEC is also important to the Government of Canada's efforts to reduce its contribution to Greenhouse Gas Emissions. Special events could negatively affect air quality through the use of pyrotechnics. In addition, vehicles travelling to and from special events could cause an increase in greenhouse gas emissions.

3.3 Boundaries

Project boundaries are identified as part of the environmental assessment process to ensure consistency when assessing expected environmental effects within the scope of the project. Temporal and spatial characteristics depend on the nature of each special event planned within the Halifax Defence Complex. Given the ephemeral nature of the project activities, the time in which the set-up, event, site restoration, and environmental recovery occurs determines the temporal boundary for each VEC. Specific details are provided in Section 4.2, Valued Environmental Components and Boundaries.

Ecological boundaries have been considered during issues scoping and the identification of potential environmental effects. Significance ratings have been assigned based on consideration of the range or extent of the VEC that could be affected by the project.

Socioeconomic boundaries have been considered during issues scoping and the identification of potential environmental effects. Significance ratings have been assigned based on consideration of the scope or extent of the VEC that could be affected by project development.

As project use of new technology or technology with uncertain effects is unlikely, technical boundaries were not considered during issues scoping and identification of potential environmental effects.

Administrative boundaries have been considered during the development of the Replacement Class Screening Report and are established as the National Historic Site boundaries. Federal, provincial, and municipal requirements have been addressed in the RCSR.

3.4 Defining Environmental Effects

As there are seven different types of special events being considered in this Replacement Class Screening Report, each project type is studied on an individual basis. Typical activities are identified for each project and their interactions with the VECs to determine potential environmental effects.

Given the differences in environmental settings of each National Historic Site within the Halifax Defence Complex, the project activities are considered on a site-specific basis to ensure all possible interactions between the project and VECs are identified.

3.5 Effects of the Environment on Project Activities

Determination of possible effects of the environment on project activities is based on potential magnification of project activity effects because of weather conditions and knowledge of environmental effects associated with poor weather conditions.

3.6 Accidents and Malfunctions

Accidents and equipment malfunctions affecting the VECs are determined based on a survey of project activities, the potential for an environmental emergency, and prior experience with all project types at the Halifax Defence Complex National Historic Sites.

3.7 Mitigation Measures

Mitigation measures lessen the environmental effects caused by project activities. Accomplished through preventative actions, preparation, and proper site restoration,

application of mitigation measures results in residual environmental effects with less significance.

Based on identified potential environmental effects, mitigation measures were developed using the following sources:

Canadian Heritage Parks Canada. 1996. Georges Island National Historic Site Statement of Commemorative Integrity.

Cultural Resource Management Advisor. Halifax Citadel National Historic Site of Canada. October, 2003. Personal Communication.

Government of Nova Scotia. 2000. *Solid Waste-Resource Management Regulations*. Retrieved from the World Wide Web on May 29, 2000 at http://www.gov.ns.ca/just/regulations/REGS/envsolid.htm.

Halifax Regional Municipality. 1999. Halifax Regional Municipality By-Law Number N-200: Respecting Noise. Retrieved from the World Wide Web on August 19, 2003 at http://www.region.halifax.ns.ca/legislation/bylaws/hrm/bln200.pdf.

Nova Scotia Department of the Environment. October 27, 1995. Solid Waste-Resource Management Strategy. Retrieved from the World Wide Web on August 27, 2003 at http://www.gov.ns.ca/enla/emc/wasteman/swms.htm.

Parks Canada. 1997a. Fort McNab National Historic Site Commemorative Integrity Statement.

Parks Canada. 1997b. Halifax Citadel National Historic Site Commemorative Integrity Statement.

Parks Canada. 1999a. Prince of Wales Tower National Historic Site Commemorative Integrity Statement.

Parks Canada. 1999b. York Redoubt National Historic Site Commemorative Integrity Statement.

Parks Canada. 2003. Special Event License of Occupation between Her Majesty the Queen in right of Canada and Gillett Entertainment Group.

Resource Recovery Fund Board (RRFB) NS and Bluenose Atlantic Coastal Action Program (Bluenose ACAP). Event Greening – Managing Waste, Recyclables, & Organics at Events & Festivals. RRFB NS and Bluenose ACAP.

3.8 Analysis and Prediction of Significance of Residual Environmental Effects

Analysis of the significance of residual environmental effects is based on several criteria including magnitude, geographic extent, duration, frequency, reversibility, and the ecological context of the effect (see Table 2). The criteria are combined to determine whether or not an activity's effect is significant.

Table 2. Rating system used to determine the significance of residual environmental effects caused by special event activities within the Halifax Defence Complex National Historic Sites, following the application of mitigation measures.

	Importance Level Rating		
Criteria	**Negligible**	**Minor**	**Major**
Magnitude	▪ Negligible levels of disturbance and/or damage	▪ Minor levels of disturbance and/or damage	▪ Major levels of disturbance and/or damage
Geographic Extent	▪ Limited to project area	▪ Extends beyond project area, but remains within NHS	▪ Extends beyond NHS
Duration of Effect	▪ Within 24 hour period	▪ Days to weeks	▪ A month or longer
Frequency of Effect	▪ Occurs on a monthly basis or less frequently	▪ Occurs on a weekly basis	▪ Occurs on a daily basis or more frequently
Reversibility	▪ Effects reversible over short term without active management	▪ Effects reversible over short term with active management	▪ Effects reversible over extended term with active management or effects are irreversible
Ecological and Historical Context	▪ Little risk to ecological and commemorative integrity	▪ Minor effect on ecological and/or commemorative integrity	▪ Ecological and/or commemorative integrity at risk

These criteria are combined to determine whether or not a residual environmental effect is significant based on the following definitions:

Significant
A residual environmental effect is considered significant when it induces frequent, major levels of disturbance and/or damage and the effects, lasting a month or longer, extend beyond the National Historic Site boundaries following the application of mitigation

measures. The effect is either reversible with active management over an extended term or irreversible and threatens ecological integrity and/or commemorative integrity.

Not Significant
A residual environmental effect is considered not significant when it has infrequent, minor or negligible levels of disturbance and/or damage and the effects, lasting less than a week, are contained within the National Historic Site boundaries following the application of mitigation measures. The effect is reversible with or without short-term active management and there is little risk to ecological integrity and commemorative integrity.

3.9 Cumulative Effects

It is necessary to consider past, present, and likely future projects to determine the full extent of potential environmental effects associated with each project's activities. Although the effects associated with one project may be negligible, other projects can compound those effects to produce more significant ones.

Consideration of the cumulative effects associated with projects covered in this RCSR includes all activities and projects flowing from the current management plan for each National Historic Site within the Halifax Defence Complex. Potential interactions between a special event and activities outside the National Historic Sites are also assessed for potential cumulative effects. Based on knowledge of potential environmental effects and past experience, it is possible to predict the cumulative effects that might result from the combination of projects or repeated special events known at the time of declaration of this replacement class screening report.

4 Environmental Review

4.1 Environmental Setting

The Halifax Defence Complex National Historic Sites fall within the ecoregion known as the South-Central Nova Scotia Uplands. The area is characterized by warm summers and mild, snowy winters, with a mean annual precipitation between 1300-1600 mm (Environment Canada, 2003). Land use includes forestry, recreation, residential and urban development, and some agriculture use.

Cultural resources are identified for each National Historic Site in its Commemorative Integrity Statement. As per Parks Canada's Guiding Principles and Operational Procedures (Canadian Heritage Parks Canada, 1994b), cultural resources of historic value are deemed either Level I or Level II resources. Level I resources are given the highest possible value as they are directly linked to the Statement of Commemorative Intent (Parks Canada, 1999a). Level II resources have historical value because of historical,

aesthetic, or environmental qualities, but are not considered nationally significant. Other resources not identified as Level I or II are exempted from the Cultural Resource Management Policy (Canadian Heritage Parks Canada, 1994b). Until determined otherwise by research and archaeological investigation, any unidentified structural remains are considered Level II resources (Parks Canada, 1997b).

The following subsections contain site-specific environmental setting and cultural resource descriptions for each of the National Historic Sites within the Halifax Defence Complex. For more detailed information regarding the cultural resources present at each site, please consult the site's Commemorative Integrity Statement. Complete maps of the Halifax Defence Complex National Historic Sites are found in Appendix 4.

4.1.1 Halifax Citadel National Historic Site

The Halifax Citadel National Historic Site is comprised of 22.7 hectares of land and is located in a highly urban setting (Cultural Resource Officer, 2003). Surrounded both by commercial and residential buildings, the Halifax Citadel was formally declared a National Historic Site in 1951 and a National Historic Park in 1956 (Cultural Resource Manager Advisor, 2003). The following environmental description is based on information provided in The Hill and the Citadels: Studies in Contour and Structure by Joseph Greenough (1983), unless otherwise referenced.

Situated approximately 250 feet above sea level, the original long, narrow drumlin top of Citadel Hill has been gradually reshaped over the years to form its familiar, sloped shape. During the eighteenth century, plans to excavate the top forty feet of the Hill resulted in the removal of the top thirteen feet through manual labour and mining techniques, accompanied by adjustments to make the Hill slope gently towards town. Recent changes to the environmental setting involved the roads connected to the Citadel, namely the opening of Rainnie Drive, removal of the Gottingen Street access road, and alteration to the Sackville Street exit, all before 1960.

The site is underlain by quartzite and slate bedrock at varying depths and consists of soils from the Wolfville series composed of dark, reddish brown to sandy clay loam over strong brown to sandy clay loam and has good drainage (MacDougall et al, 1963). Wetlands and naturalized areas do not occur on site. All drainage is via the Halifax Regional Municipality's storm water sewer system, which flows into the Halifax Harbour.

Based on recent site visits, flora and fauna at the Halifax Citadel National Historic Site is rather limited. Grass covers the majority of the Hill and a variety of common bird species forage. There are no rare or endangered species on site. Inside the Fort's walls, the outside grounds are covered in pea gravel. There are gravelled and paved areas along Ahern Avenue and paved visitor parking is available inside the Fort's west ditch. Paved access roads link the site to city streets at Rainnie Drive and Sackville Street.

The Halifax Citadel National Historic Site Commemorative Integrity Statement (Parks Canada, 1997b) provides details on the cultural resource inventory on site. Resources of significance include the natural landscape and view planes of Citadel Hill and in-situ resources such as historic structures, buildings, and features within the site and below ground resources. Historic objects from the curatorial collection, fifteen percent of which are Level I resources, include original plans of the fort, harbour, and town clock and various objects linked to the commemorative integrity of the site. An estimated 30,000 items are preserved in the Archaeological collection, the majority of which are Level I resources.

The grounds of the Halifax Citadel National Historic Site are accessible to the public year-round. From May 7 to October 31, visitor hours are 9am until 5pm. (Visitor hours are extended to 6pm during July and August.) Normal site activities include exploration of the fort, viewing the Living History interpretation programs, and visiting the various Halifax Citadel exhibits.

4.1.2 York Redoubt National Historic Site

York Redoubt National Historic Site includes approximately 72 hectares of heavily wooded area on the west side of Halifax Harbour. The site was declared a National Historic Site in 1962 and contains military resources dating back to the late eighteenth century (Environment Canada Parks Service, 1992). The main fort area is east of the highway, however Parks Canada also owns a small section of land to the west (see York Redoubt map in Appendix 4). The following environmental summary is based upon descriptions made in the 1988 Environmental Overview and Management Proposal: York Redoubt National Historic Park report prepared by Francis Hogan, unless otherwise referenced. Little has changed since that time.

The site is underlain by granite bedrock and has large granite barrens in the northeast corner of the property. The acidic soils consist of Gibraltar and Rockland types. Found at the base of lower sloped areas, Gibraltar soils are shallow, extremely stony, porous, and are associated with gently rolling topography. Rockland soils are found where land is composed of at least sixty percent exposed bedrock or extremely stony till.

Several sources of surface water are identifiable on site. Of the three bogs located within York Redoubt National Historic Site, two are found in the southern part of the property. Referred to as blanket bogs, these formed on flat, poorly drained surfaces. The remaining bog, located in the northern portion of the site, formed in a poorly drained, granitic depression. Three streams, two of which pass through the southeastern bog, are located on site and empty into East Pine Island Pond, located just west of the York Redoubt property.

The lower slope of York Redoubt is a mixedwood stand, composed predominately of spruce and fir. In comparison to other areas within the site, this area is a more advanced stage of succession. The upper area of the site, enclosed within stonewalls, is landscaped

and contains grassed areas (Doull, 1996). Indigenous weeds and transitional plants are found along the roads and paths in the property's southeast. Remaining vegetation is consistent with plant species native to bogs, barrens, and coastal settings.

During a recent ecological survey at York Redoubt National Historic Site, several rare plant species were identified based on the provincial lists and ranks developed by the Atlantic Canada Conservation Data Centre (Staicer, 2003). Areas closed to special events (due to presence of rare plants) are identified on the York Redoubt map in Appendix 4 and are excluded from special events covered by this RCSR. The land west of the highway contains Greenland Sandwort (*Arenaria groenlandica*) to the north, Curly-Grass Fern (*Schizaea pusilla*) to the southeast, and Retrorse sedge (*Carex retrorsa*) to the south and southeast. Golden Heather (*Hudsonia ericoides*) is found in the southern fort compound area, around the bogs located in the southern portion of the main park area, and west of the highway (Filiatrault, 2003). A patch of Dwarf Rattlesnake Root (*Prenanthes nana*) is located in the most southeastern corner of the York Redoubt property and Sphagnum mosses are distributed throughout the areas containing rare plant species (Filiatrault, 2003).

Wildlife is composed of species commonly found in the area and there are no endangered or rare species on site.

The Commemorative Integrity Statement for York Redoubt National Historic Site (Parks Canada, 1999b) describes the significant cultural resources present on site. The former military reserve land transferred to Parks Canada composes the historic place and includes such resources as the fort, York shore battery, Fire Command Post at Spion Kop and resources associated with harbour defence. In situ resources depicting defence technology from the late 18th century until the closure of the fort after World War II are present on site. Archaeological surveys revealed ground water supply and drainage systems and surface features associated with the fire control system, submarine mining establishment, and building foundations. The majority of these structures are located outside the Redoubt's walls to the east and south. The archaeological collection contains approximately 400 items, ninety-five percent of which are Level I resources. The Curatorial collection contains various Rifled Muzzle Loading (RML) guns/barrels and artillery accessories.

York Redoubt is open to the public year round. The site attracts around 45 000 local residents and 21 000 out-of-province visitors to view the fortifications and hike along its many trails (Environment Canada Parks Service, 1992).

4.1.3 Georges Island National Historic Site

Georges Island National Historic Site, a 5 hectares drumlin island located in the inner region of Halifax Harbour, has been re-contoured several times to meet the needs of the British military (Environment Canada Parks Service, 1992). Georges Island, a National Historic Site since the 1960s, is home to Fort Charlotte. The following environmental

summary is based upon information gathered from a 1996 inventory of ecological values on Georges Island conducted by Willison et al., unless otherwise referenced.

The island is underlain by Halifax slate and has no exposed areas of bedrock. Soil is of the Wolfville series and has good drainage (MacDougall, 1963). The island's northwest corner is being eroded by wave action, while the remainder of the island tends to be protected by armour stone and sea walls. No significant sources of surface freshwater are found on the island.

Georges Island was likely dominated by coniferous forest prior to development of Fort Charlotte, however significant areas of woodland no longer exist. There are patches of immature trees dominated by white spruce (*Picea glauca*), red spruce (*Picea rubens*), black spruce (*Picea mariana*), and balsam fir (*Abies balsaminea*). Red maple (*Acer rubrum*), yellow birch (*Betula allegheniensis*), and white birch (*Betula papyrifera*) are also common.

Four habitat zones exist on the island. The centre is enclosed by massive stonewalls that provide microhabitat for several plant species. Non-indigenous grasses and clovers dominate the north end, while the eastern slope, which faces Dartmouth, consists of indigenous shrubs naturally established in the area. The final zone, occurring on the western slope, contains introduced grass and herbs. Vegetation on the entire site is managed to preserve the cultural landscape associated with a British military fort.

Several bird species have been identified on the island, however only the song sparrow (*Melospiza melodia*), savannah sparrow (*Passerculus sandwichensis*), and American goldfinch (*Spinus tristis*) appear to be breeding. A wide range of mice and voles are expected given the grassy habitat and rats probably still inhabit the island. Fort Charlotte's underground tunnels provide potential hibernacula sites for bats. A genetically diverse population of Maritime Garter Snakes (*Thamnophis sirtalis pallidulus*) inhabits Georges Island. They have atypical characteristics such as a high frequency of abnormal scales, individual colour patterns not seen elsewhere, and differing thermal dynamics from mainland populations (Barnes, 1994). There are no rare or endangered flora or fauna species present on the island, however, precautions should be taken to avoid disrupting the garter snake population.

The Georges Island National Historic Site Statement of Commemorative Integrity (Canadian Heritage Parks Canada, 1996) identifies significant cultural resources. Geographic setting and view planes contribute to the island's role as an historic place. In-situ resources include the historic buildings, structures and features associated with the commemorative integrity of the site. Archaeological excavations revealed various building foundations, a torpedo mine store, and drainage system. Level I resources compose ninety-five percent of the archaeological collection.

There is no public access to Georges Island National Historic Site at this time. Site use is therefore limited to grounds maintenance and the occasional special event.

4.1.4 Fort McNab National Historic Site

Fort McNab National Historic Site is located on the southwestern side of McNabs Island. The National Historic Site, declared in 1965, is comprised of three properties totalling 13.27 hectares and is elevated thirty to thirty-five meters above sea level (Cultural Resource Officer, 2003; Parks Canada, 1997a). Property consists of McNabs fort with a surrounding land buffer zone, all southern searchlights located south of the fort, and number one to three range finders to the fort's southeast (see map in Appendix 4). The following environmental setting summary is based upon information gathered from a 1996 inventory of ecological values on McNabs Island conducted by Willison et al, unless otherwise noted.

The elongated drumlin hills situated from northwest to southeast are underlain predominantly by Halifax slate, with a section underlain by Goldenville Quartzite formation. Small amounts of surface bedrock are visible. Interior island soils are composed of dark sand to gravely loam, while coastal regions consist of boulders, stony cobbles, and sand. Fort McNab National Historic Site is characterized by gently rising, rock-free hills (Parks Canada, 1997a).

Consistent with military fortifications, the area around Fort McNab was clear-cut. As the grounds have not been maintained, succession is beginning to take place around the fort. Grasses surround the buildings and trees outline the perimeter of the site (Parks Canada, 1990). Vegetation includes white spruce (*Picea glauca*), red spruce (*Picea rubens*), black spruce (*Picea mariana*), and balsam fir (*Abies balsamea*). Red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), and white birch (*Betula papyrifera*) are also common. Alders (*Alnus sp.*) dominate wetland areas, especially along the edges of ponds. Based on the 1996 study, all indigenous plant species are widespread and abundant within the province and no rare or endangered species are present.

Mammals on the island consist of those normally found in Nova Scotia. Three species of snakes and three species of amphibians are present on the island, however none of them are considered rare or endangered. Based on a survey of McNab's Pond from 1966, no rare or endangered fish species are known to inhabit the pond. McNabs Island provides diversified habitat for a wide variety of birds, however rare or endangered species are not known to breed on or near the site.

Fort McNab's Commemorative Integrity Statement (Parks Canada, 1997a) identifies several cultural resources located within the National Historic Site. Lands within the site's boundaries, as well as the view planes associated with surveillance and defence, represent the historic place. In-situ resources include historic buildings, structures, and features and various resources that represent defence technology from the late 19th century until the fort's closure after World War II. These include breech-loading armament, the examination station, and searchlight emplacements. Although no major archaeological excavations have been completed, surveys revealed ground water supply and drainage systems, examining shafts, and range finding pits. Various building foundations have also been discovered. Moveable resources from Fort McNab were

relocated to York Redoubt (the barrel of 10 inch breech-loading gun) and Fort Ogilvie (6 inch gun). The McNab family cemetery, located within the perimeter of the fort, is considered a Level II resource.

The public can access McNabs Island during the summer months by a privately operated ferry service. Fort McNab National Historic Site can be reached by following Garrison Road towards the south. Once there, visitors can explore the ruins and fortifications associated with Fort McNab, as well as the McNab Family Cemetery.

4.1.5 Prince of Wales Tower National Historic Site

Prince of Wales Tower National Historic Site is located in Point Pleasant Park, an urban park close to downtown Halifax and is comprised of 0.186 hectares of land (Cultural Resource Officer, 2003). It was declared a National Historic Site during the 1930s (Environment Canada Parks Service, 1992). The following environmental description of Point Pleasant Park is based upon the 1991 ecological survey of Point Pleasant Park written by J.R. Jotcham, K.W. Strong, and T.K. Marvin, unless otherwise referenced.

The Prince of Wales Tower site is mostly a grassed area, with a few visible areas of slate, surrounded by the forests of Point Pleasant Park. Physical geology of the park consists mainly of granite and slate rock deposits and acidic brown, shaley loam soils.

Surface run-off flows towards Halifax Harbour and the North West Arm as there are no culverts or ditches in place to alter natural water flow.

Most of Point Pleasant Park's forest was cleared while the area was used as a military reserve (Environment Canada Parks Service, 1992). Forests in Point Pleasant Park are best described as typical of early succession and a few areas contain ornamental species. Dominant trees in the area include red spruce (*Picea rubens*), red maple (*Acer rubrum*), and white pine (*Pinus strobus*). White spruce (*Picea glauca*), balsam fir (*Abies balsamea*), and white birch (*Betula papyrifera*) are also common. Much of this forest was blown down by Hurricane Juan in September 2003.

A variety of birds and red squirrels (*Tamiasciurus hudsonicus*) are frequently seen. There are no rare or endangered species within Point Pleasant Park, including the Prince of Wales Tower National Historic Site.

The Prince of Wales Tower National Historic Site Commemorative Integrity Statement (Parks Canada, 1999a) describes significant cultural resources present at the site. The geographic setting of the tower is considered a Level II resource because it contributes to the commemorative integrity of the site. Level I resources consist solely of the Prince of Wales Tower. Other in-situ components, either above or below ground, are not known to exist on site. As items of military, domestic, or architectural nature have not been discovered, an artifact collection is not established. The site originally had several gun barrels, deemed Level II resources, however they were relocated to York Redoubt

National Historic Site. The Historic Sites and Monuments Board plaque erected on site is considered a Level II resource.

Point Pleasant Park is open year round to the public and its trails are highly used for walking. Grounds of the Prince of Wales Tower are open year round, however access inside the Tower is only available from July 1 to September 7, between the hours of 10am and 6pm. Picnic facilities are available on site.

4.2 Valued Environmental Components and Boundaries

Each Valued Environmental Component is assessed within specified boundaries set by the environmental assessment. Spatial and administrative boundaries and the likely duration of effects for each VEC are discussed below.

Cultural Resources
Items assigned historical value are contained within the boundary of each National Historic Site. Although special events are limited to a specified area, the potential for participants to venture beyond the event boundaries exists. To accommodate this, the National Historic Site borders act as the spatial boundary for the assessment. The effects of the project activities will be felt for no longer than 3 months, the duration of the longest special event, as any damage incurred will be temporary and repaired within this time period.

Flora and Fauna
The National Historic Site forms both the administrative and spatial boundaries for this assessment. Direct effects are expected only on areas managed for human use within designated areas of the event sites. Mitigation measures take into consideration any rare species and protection of species found outside event sites within spatial boundaries and outside the park borders. The effects of project activities will be felt for no longer than two years and encompass any necessary natural recovery of species disturbed by the special events.

Land Resources
Soil compaction and waste production is limited to the designated special event areas, however the effects of waste generation extend beyond the site to regional landfill space. To accommodate for increased waste being sent to landfills, the Land Resources spatial boundary for this RCSR is the Halifax Regional Municipality. The National Historic Site forms the administrative boundary. The effects of the special events will be felt for no longer than two years to allow for decomposition of waste.

Water Quality
Project activities do not occur in the immediate vicinity of water sources, however, the possibility for their residual effects to extend beyond the immediate special event location exists. As such, the spatial boundary for this RCSR is set as the Halifax Regional Municipality. The National Historic Site forms the administrative boundary. The effects

of project activities will not extend beyond three months duration, which includes natural recovery from sedimentation, should it occur.

Visitor Experience
Spatial and administrative boundaries are the National Historic Site borders since a special event potentially affects the overall visitor experience at any area within the site. Project effects remain limited to the National Historic Site, so the spatial boundary for this RCSR is set as the National Historic Site. Project activities causing disruption to visitor experience, both as individuals and a collective group, will be felt for no longer than a month. This allows natural recovery of vegetation to occur and visual evidence of the event to fade.

Urban Soundscape
As noise emitted from special events affects residents within the HRM, the spatial boundary for this RCSR is set as the HRM. The National Historic Site borders set the administrative boundary. Noise from project activities is limited to approximately five days duration, however individual irritation from noise is expected to last no longer than two weeks.

Air Quality
As project activities potentially affect air quality within the Halifax Regional Municipality, the spatial boundary for this RCSR is set as the HRM. The administrative boundary is the borders of the National Historic Site. The direct effects of project activities will be felt for no longer than the event itself, assuming any environmental effects disperse with wind.

4.3 Identification of Project Environmental Effects

Project environmental effects vary, depending on the special event and its location. As a result, potential environmental effects are described per special event type, taking into account any site-specific factors, in Table 3 below.

Table 3. Identification of potential environmental effects associated with each valued environmental component (VEC), listed per special event.

			Applicable Special Events						
VEC	**Project Activities**	**Potential Environmental Effects**	Concerts	Sporting and Community Events	Filming	Parking	Tented Event	Theatrical Performances	Corporate Trade Show
Cultural Resources	Set-up/Dismantle Temporary Staging, Fencing, Tents, etc.	Damage of below surface cultural resources	✓	✓	✓		✓		✓
	People Attending Event	Possible vandalism to exterior cultural resources	✓	✓					
Flora and Fauna	Equipment/Crew Transportation & Parking	Trampling of grass	✓	✓	✓	✓	✓	✓	✓
	Set-up/Dismantle Temporary Staging, Fencing, Tents, etc.	Destruction of grass	✓	✓	✓		✓		✓
	People Attending Event	Trampling of grass	✓	✓			✓	✓	✓
	Installation/Removal of Portable Washrooms	Trampling of grass	✓	✓			✓		✓
	Special Event & People Attending	Disruptive to wildlife (York Redoubt and Fort McNab only)	✓	✓	✓		✓	✓	✓
	Special Event & People Attending	Disruptive to Garter Snake Population (Georges Island only)	✓	✓	✓		✓	✓	✓
Land Resources	Equipment/Crew Transportation & Parking	Soil contamination from accidental fuel/oil leak or spill	✓	✓	✓	✓	✓	✓	✓
	Equipment/Crew Transportation & Parking	Soil compaction resulting in reduced water/soil infiltration rates, erosion from rain	✓	✓	✓	✓	✓	✓	✓
	Installation/Removal of Portable Washrooms	Soil contamination from accidental spill/leak of human waste	✓	✓			✓		✓
	Installation/Removal of Portable Washrooms	Soil contamination from accidental spill/leak of odour control chemicals	✓	✓			✓		✓
	Food Preparation and Clean-up	Soil contamination from Food Vendor waste water	✓	✓					✓
	Generation of Waste During Event	Soil contamination from refuse	✓	✓	✓		✓	✓	✓
	Disposal of Waste Produced	Refuse adds to waste stream and ultimately consumes more HRM landfill space	✓	✓	✓		✓	✓	✓
	Installation/Use/Removal of Generators	Soil contamination from accidental fuel/oil spill or leak	✓	✓	✓		✓		✓
Water Quality	Equipment/Crew Transportation & Parking	Surface/ground water contamination from accidental fuel/oil leak or spill	✓	✓	✓	✓	✓	✓	✓
	Equipment/Crew Transportation & Parking	Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, and siltation of surface water	✓	✓	✓	✓	✓	✓	✓
	Installation/Removal of Portable Washrooms	Surface water contamination from accidental spill/leak of human waste	✓	✓			✓		✓
	Installation/Removal of Portable Washrooms	Surface water contamination from accidental spill/leak of odour control chemicals	✓	✓			✓		✓
	Food preparation & Clean-up	Surface water contamination from Food Vendor waste water	✓	✓					✓

VEC	Project Activities	Potential Environmental Effects	Applicable Special Events						
			Concerts	Sporting and Community Events	Filming	Parking	Tented Event	Theatrical Performances	Corporate Trade Show
	Generation of Waste During Event	Surface water contamination from refuse	✓	✓	✓		✓	✓	✓
	Installation/Use/Removal of Generators	Surface/ground water contamination from accidental fuel/oil spill or leak	✓	✓	✓		✓		✓
Visitor Experience	Use of Sound Equipment; Special Event	Noise disrupts site's historical atmosphere	✓	✓	✓		✓	✓	✓
	Use of Pyrotechnics	Noise distracts from site's historical atmosphere	✓						
	Use of Pyrotechnics	Reduced air quality	✓						
Urban Soundscape	Use of Sound Equipment; Special Event	Noise affects peace and enjoyment of property by some city residents	✓	✓	✓		✓		✓
Air Quality	Use of Pyrotechnics	Reduced air quality	✓						
	Travelling to and from special event	Increased traffic adds to Greenhouse Gas emissions	✓	✓			✓	✓	✓

4.4 Effects of the Environment on Project Activities

Potential effects of the environment on project activities are weather-related. Minor trampling of grass leading to increased risk for soil erosion occurs during most special events. Heavy rain will likely increase disruption of the turf cover, erosion, siltation of surface water, and volume of surface water runoff. In addition, heavy rains could augment the effects of an accidental spill. The effects of heavy precipitation are addressed through event planning and the application of mitigation measures (see Section 4.6). Restricting vehicles to level-surfaces and promptly returning the grounds to their natural state minimize erosion and siltation, therefore reducing the effects of heavy rains. Environmental Emergency Response Plans ensure rapid response to any spills, thus minimizing the spread of an accidentally spilt substance during heavy rains. Since interactions between the VECs and environment are minimal and special events are of short duration, it is unlikely that heavy precipitation will result in residual adverse environmental effects.

4.5 Accidents and Malfunctions

As special events do not require a great deal of site preparation prior to the event, accidents with an environmental impact are infrequent. The use of vehicles and generators during special events creates the potential for a fuel/oil leak or spill that could contaminate soil and ground/surface water sources. In addition, installation and removal

of the portable washroom facilities could result in an accidental odour control chemical and/or human waste leak or spill that contaminates soil and ground/surface water sources. The impact of any of these potential accidents is easily reduced through preventative measures. In order to minimize soil and ground/surface water contamination, emergency response plans should be available, along with the necessary equipment, to ensure a quick response and proper clean up. (See Appendix 5 for the Environmental Emergency Response Plan Guidelines and Template.) In addition, a proper procedure for the removal of the portable washroom facilities reduces the spill risk. (Standard clauses in the License of Occupation require the above preventative measures. See Appendix 2 for details.)

4.6 Mitigation Measures

Mitigation measures are developed for each special event type for each potential environmental effect, with consideration of any possible site-specific effects. Despite the application of mitigation measures wherever possible, it is not feasible to reduce all environmental effects to zero.

In the case of using pyrotechnics during concerts, reduction of air quality is a potential environmental effect. Although fireworks contribute ground-level ozone (Johnson, 2001), a respiratory irritant, the infrequent occurrence makes their overall contribution to air pollution insignificant. As a result, mitigation measures will not be included for the use of fireworks as the air quality reduction will be small, quickly dissipate, and be of short duration.

Mitigation measures for all special events are summarized in the table below. Site-specific mitigation measures are located in Appendix 1 and amendments to the license of occupation are in Appendix 2.

Table 4. Mitigation measures associated with each Valued Environmental Component for special events occurring within the Halifax Defence Complex National Historic Sites.

VECs	Mitigation Measures
Cultural Resources	▪ Provide plan detailing proposed use of NHS for review by Parks Canada Cultural Resource Manager ▪ Provide security procedures to keep participants in designated special event area
Flora and Fauna	▪ Return property to its natural state using grass seed or sod ▪ Special event "Parking" permitted on gravelled and/or paved surfaces only ▪ Rapid response to any spill ▪ Environmental emergency response plan (EERP) and appropriate containment/clean-up equipment required (see Appendix 5) ▪ Must comply with HRM's Noise By-Laws

VECs	Mitigation Measures
	▪ Security procedures to keep participants in designated special event area ▪ Access restricted to designated areas (see map in Appendix 4 – York Redoubt only)
Land Resources/Water Quality	▪ Rapid response to any spill ▪ Environmental emergency response plan and appropriate containment/clean-up equipment required (see Appendix 5) ▪ Vehicles restricted to paved, gravelled, and level-grassed surfaces ▪ Special event "Parking" is permitted on gravelled and/or paved surfaces only ▪ Promptly return property to its natural state to prevent erosion ▪ Procedures for proper installation and removal of portable washroom facilities ▪ Proper disposal of waste water ▪ Must comply with HRM's Solid Waste By-Laws and Provincial Landfill Material Bans ▪ Properly separate and remove all waste from site following event ▪ Provide and label waste-separation/recycling containers ▪ Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials ▪ Follow Waste Management Plan (see Appendix 3)
Visitor Experience	▪ Reduce volume on sound equipment during visitor hours ▪ Must comply with HRM's Noise By-Laws ▪ Use of pyrotechnics must comply with HRM's Noise By-Laws ▪ Hold theatrical performances after visitor hours whenever possible
Urban Soundscape	▪ Must comply with HRM's Noise By-Laws ▪ Use of pyrotechnics must comply with HRM's Noise By-Laws

4.7 Evaluation of Residual Environmental Effects

Following the application of mitigation measures, residual environmental effects are not significant based on the criteria used to determine significance (See Section 3.8, Table 2). Due to the simplicity and repetitive nature of the project activities, the project phases have been combined to form a summary of the residual environmental effects (See Table 5 below and its corresponding explanation in Subsection 4.7.1). (Appendix 1 contains residual environmental effects per project activity.)

As shown in Table 5, the majority of criteria are negligible for each project activity and associated VEC.

Table 5. Summary of the residual environmental effects across all project phases for each Valued Environmental Component (VEC) following the application of mitigation measures.

			Importance Level Rating						
VEC	**Project Elements**	**Residual Environmental Effects**	**Magnitude**	**Geographic Extent**	**Duration of Effect**	**Frequency of Effect**	**Reversibility**	**Ecological & Historical Context**	**SIGNIFICANCE**
Cultural Resources	Temporary Structures, Event attendees	Minor damage to cultural resources	1	1	2	1	2	1	**Not Significant**
Flora and Fauna	Vehicles, Temporary Structures, Portable Washrooms	Minor short-term disruption of grass	1	1	2	1	1	1	**Not Significant**
	Event	Minor disruption to wildlife (York Redoubt, Fort McNab) or Maritime Garter Snake population (Georges Island)	1	2	2	1	1	1	**Not Significant**
Land Resources	Vehicles	Possibly some increase in sediment concentration of surface runoff	1	2	2	1	1	1	**Not Significant**
	Refuse	Some HRM landfill space used for waste disposal	1	3	3	1	1	1	**Not Significant**
Water Quality	Vehicles	Possibly some increase in sediment concentration of surface runoff	1	2	2	1	1	1	**Not Significant**
Visitor Experience	Sound Equipment, Pyrotechnics	Some visitors may find event distracts from site's historical atmosphere	1	2	2	1	1	1	**Not Significant**
Urban Soundscape	Sound Equipment	Some people will be deprived of peace and enjoyment of property	1	3	2	1	1	1	**Not Significant**
Air Quality	Vehicles	Increase in greenhouse gas emissions	1	3	1	1	1	1	**Not Significant**

1 – Negligible 2 – Minor 3 – Major

4.7.1 Summary of Residual Environmental Effects

As shown in Table 5, the residual environmental effects are not expected to be significant. The potential residual effects are summarized below.

Cultural Resources
Special events cannot take place if they pose a risk to the site's cultural resources. As the Cultural Resource Manager must approve the special event plan in order for the event to proceed, there is little chance of damage occurring to cultural resources.

Flora and Fauna
As vehicles are restricted to paved, gravelled, and level-grassed surfaces, disruption to the grass will be minor. Residual effects will therefore not be significant.

Human disturbance may cause a slight disruption to wildlife populations (species native to Nova Scotia such as red squirrels, raccoons, and white-tailed deer) at Fort McNab and York Redoubt National Historic Sites. Wildlife continues to inhabit the area and does not appear disturbed by past activities. Special events will not impact the rare plant species identified at York Redoubt National Historic Site as they are not permitted in areas containing rare species as identified in this RCSR. Georges Island Garter snakes do not appear affected by past human disturbance from burning, construction, human occupation, and ground maintenance as indicated in a study conducted by Barnes (1994). As a result, any residual environmental effects that result from a special event will not be significant.

Land Resources
Any increase in sedimentation will be minor as vehicles are restricted to paved, gravelled, and level-grassed surfaces to minimize erosion. Residual effects will therefore not be significant.

Although waste disposal extends beyond the site boundaries and the duration is over a month, the project activity is not significant as refuse disposal and decomposition is part of normal HRM operations and waste management efforts will be in place.

Water Quality
Significant residual effects are not expected as mitigation measures designed to minimize sedimentation of surface runoff are in place.

Visitor Experience
Proposed special events are reviewed to ensure that negative effects on commemorative and/or ecological integrity are not likely. Since any disruption to visitor experience will be of short duration, residual effects are not significant.

Urban Soundscape
As noise produced during the event affects city residents, the geographic extent extends beyond the site boundaries. Overall, the project activity is not significant because all other significance factors are low and mitigation measures to limit noise effects have been established.

Air Quality
Due to limited parking in downtown Halifax (where traffic congestion is most likely), most people choose alternative forms of transportation (walking, public transit, etc) to travel to and from special events. As only a slight increase in traffic is expected, residual effects on air quality are not significant.

4.8 Cumulative Effects

Cumulative effects can result when VECs are affected by interactions between multiple projects. Special events have the potential to interact with; 1) other special events addressed by this Replacement Class Screening; 2) National Historic Site operational activities and; 3) projects occurring outside the sites' boundaries.

4.8.1 Interactions Between Special Events

Over a five-year period, approximately 160 special events covered by this Replacement Class Screening are expected to occur at the Halifax Defence Complex National Historic Sites. These special events are composed of about fifteen concerts, twenty sporting and community events, seventy film shoots, twenty-five tented events, five theatrical performances, five corporate trade shows, and twenty uses of the parking facilities. There are potential interactions of environmental effects for the five following VECs; flora & fauna, water quality, land resources, urban soundscape, and air quality based on the residual environmental effects identified for an individual special event (see Table 5). As residual effects on visitor experience and cultural resources are not likely, cumulative effects are not expected. Cumulative effects resulting from interactions between repeated special events are described and evaluated for significance in Table 6 and Section 4.8.4. Appropriate mitigation measures are those detailed in Table 4, Section 4.6.

4.8.2 Interactions Between Special Events and Operational Activities at the Halifax Defence Complex National Historic Sites

Interactions between special events and operational activities within the National Historic Sites must be factored into the consideration of cumulative effects. Three types of activities occur at the Halifax Defence Complex National Historic Sites; 1) Building & Ground Maintenance; 2) Heritage Presentation, Historical Re-enactments, Administration Activities, and Public Visitation and; 3) Small Parks Canada and Community Events.

Building and Ground Maintenance
Building maintenance and repair occur periodically at the Halifax Defence Complex National Historic Sites, in addition to regular ground maintenance.

There are potential interactions of environmental effects for three VECs; flora & fauna, land resources, and water quality through human presence and soil disturbance. The potential cumulative effects resulting from interactions between special events and building and ground maintenance activities within the Halifax Defence Complex National Historic Sites are described and evaluated for significance in Table 6 and Section 4.8.4. Appropriate mitigation measures are those detailed in Table 4, Section 4.6.

Heritage Presentation, Historical Re-enactments, Administration Activities, and Public Visitation
Heritage presentation, historical re-enactments, administration activities, and public visitation are routine activities at the Halifax Defence Complex National Historic Sites. Experience has shown that negative environmental effects are not associated with their occurrence. Interactions between normal operational activities and special events are small scale and very localized and therefore should not produce cumulative effects.

Small Parks Canada and Community Events
Small internal and community events at the HDC National Historic Sites are very small scale activities and do not require a license of occupation. These events are therefore excluded from this Replacement Class Screening Report. Environmental effects from these events are analogous with those associated with normal operational activities. Because of their very small scale, cumulative effects due to interactions between special events and Parks Canada/Community events are not likely.

4.8.3 Interactions Between Special Events and Activities Outside the Halifax Defence Complex National Historic Sites

Finally, the interactions between special events and activities outside the Halifax Defence Complex National Historic Sites must also be factored into the consideration of cumulative effects. Based on analysis of routine activities within the HRM, two are relevant; 1) Construction & Repair; and 2) Other Special Community Events. Other activities are not expected to interact with the special events covered in this RCSR.

Construction and Repair Projects in the Halifax Regional Municipality
Many larger construction and maintenance projects occur in the highly urbanized areas of the Halifax Regional Municipality, but outside the National Historic Sites.

There are potential interactions of environmental effects for two VECs; the urban soundscape and land resources through noise and waste production. The potential cumulative effects resulting from interactions between special events and Construction and Repair projects in the Halifax Regional Municipality are described and evaluated for significance in Table 6 and Section 4.8.4. Appropriate mitigation measures are those detailed in Table 4, Section 4.6.

Other Special Community Events

Community events in metro Halifax are held both inside and outdoors. Indoor events include hockey games, concerts, and theatrical performances at various locations in downtown Halifax. Outdoor events, which mostly occur along the Halifax waterfront, include the Busker Festival, Tall Ships, and the Jazz Festival. Some of these events could interact with special events at the Halifax Defence Complex National Historic Sites to affect the urban soundscape. Traffic will likely increase when community events and special events coincide, affecting air quality through elevated greenhouse gas emissions. Special events will likely increase the waste normally produced. There are therefore, potential interactions of environmental effects for three VECs; the urban soundscape, land resources and air quality. These are evaluated for significance in Table 6 and Section 4.8.4. Appropriate mitigation measures are those detailed in Table 4, Section 4.6.

Table 6. Summary of the potential cumulative effects and their significance as produced by interactions between a special event and repeated special events, operational activities within the National Historic Sites, and activities outside the Halifax Defence Complex National Historic Sites.

			Criteria Ratings						
VEC	**Project Elements**	**Potential Cumulative Environmental Effects**	**Magnitude**	**Geographic Extent**	**Duration of Effect**	**Frequency of Effect**	**Reversibility**	**Ecological & Historical Context**	**SIGNIFICANCE**
Flora and Fauna	Vehicles, Temporary Structures, Portable Washrooms	Limited recovery time for grass re-establishment	1	1	2	1	1	1	**Not Significant**
	Event, Building and Ground Maintenance	Minor disruption to wildlife (York Redoubt, Fort McNab) or Maritime Garter Snake population (Georges Island)	1	2	2	1	1	1	**Not Significant**
Land Resources	Vehicles	Increase in sediment concentration of surface runoff	1	2	2	1	1	1	**Not Significant**
	Refuse	Some HRM landfill space used for waste disposal	1	3	3	1	1	1	**Not Significant**
Water Quality	Vehicles	Increase in sediment concentration of surface runoff	1	2	2	1	1	1	**Not Significant**
Urban Soundscape	Sound Equipment, Construction Equipment	Some people will be deprived of peace and enjoyment of property	1	3	2	1	1	1	**Not Significant**
Air Quality	Vehicles	Increase in greenhouse gas emissions	1	3	1	1	1	1	**Not Significant**

1 – Negligible 2 – Minor 3 – Major

4.8.4 Summary of Cumulative Effects on VECs

Interactions between a special event and repeated special events, operational activities within the National Historic Sites, and activities outside the National Historic Sites could result in limited cumulative effects. These potential cumulative effects are summarized below.

If cumulative effects beyond those listed in Table 6 are noted, Parks Canada will request the Replacement Class Screening Report be amended to reflect the newly identified cumulative effects and associated mitigation measures.

Flora and Fauna
Increased human disturbance may cause a slight disruption to wildlife populations (species native to Nova Scotia such as red squirrels, raccoons, and white-tailed deer) at Fort McNab and York Redoubt National Historic Sites. Wildlife continues to inhabit the area and does not appear disturbed by past activities. Special events will not impact the rare plant species identified at York Redoubt National Historic Site as they are not permitted in areas containing rare species as identified in this RCSR. Georges Island Garter snakes do not appear affected by past human disturbance from burning, construction, human occupation, and ground maintenance as indicated in a study conducted by Barnes (1994). Cumulative effects, if present, will not be significant.

Land Resources
As vehicles are not likely to traverse repeatedly over the same terrain, interactions between repeated special events, operational activities at the Halifax Defence Complex National Historic Sites, and activities outside the National Historic Site will not cause a significant increase in erosion that results in sedimentation of surface water. Significant cumulative effects are not expected.

Although the environmental effects associated with waste disposal extend into the HRM and the waste takes time to decompose, waste collection and disposal are a normal part of HRM operations. As the HRM and Province of NS have regulations regarding waste management, efforts to divert waste are in place and any cumulative effects will not be significant.

Water Quality
Interactions between repeated special events, operational activities at the Halifax Defence Complex National Historic Sites, and activities outside the sites are not likely to cause a significant increase in sedimentation of surface water. Significant cumulative effects are not expected.

Urban Soundscape
Although some city residents may be aggravated by noise from repeated special events, management of the HDC special events to comply with municipal noise by-laws should prevent cumulative effects related to the urban soundscape. Any noise produced from

activities outside the site should not contribute significantly to the noise associated with special events. Significant cumulative effects are not expected.

Air Quality
Interactions between repeated special events and activities outside the National Historic Sites could cause a slight increase in traffic and therefore affect air quality. Since most people chose alternative forms of transportation (walking, public transit, etc.) to travel to and from special events due to the limited parking in downtown Halifax, significant cumulative effects are not expected.

4.9 Monitoring

As part of a license of occupation, National Historic Sites must be returned to their original condition following a special event. Pre and post event inspections are conducted to ensure this stipulation of the license of occupation is met.

All adverse environmental effects must be identified and mitigation measures must be successful for this RCSR to be effective. Success of the mitigation measures is assessed through the evaluation of any residual environmental effects. Cumulative effects will be noted through routine property maintenance and condition reports.

Public complaints, especially those related to noise impacts on visitor experience and the residents of the HRM, will be recorded and tallied.

As part of the licence of occupation agreement, licensees must keep a record of garter snake sightings and their location while on Georges Island. This information is to be provided to Parks Canada after the event has terminated.

5 Roles and Responsibilities

Parks Canada is the only Responsible Authority involved in issuing a license of occupation for special events covered by this RCSR. Other federal departments are not expected to be involved in the environmental assessment process.

To ensure protection of both the environmental and cultural resources at the National Historic Sites, Parks Canada has developed a set of mitigation measures to be incorporated into the License of Occupation for each National Historic Site within the Halifax Defence Complex. (Amendments to the License of Occupation are found in Appendix 2.) Licensees are held legally responsible for the implementation of the mitigation measures through the Standard Licence of Occupation.

6 Procedures for Amending the RCSR

The purpose of an amending procedure is to allow the modification of the RCSR after experience has been gained with its operation and effectiveness. The reasons for such modification may include:

- clarification of ambiguous areas of document and procedures;
- streamlining or modifying the planning process in areas where problems may have arisen;
- minor modifications and revisions to the scope of assessment to reflect new or changed regulatory requirements, policies or standards; and
- new procedures and environmental mitigation practices that have been developed over time.

The responsible authority will notify the CEA Agency in writing of its interest to amend the RCSR. It will discuss the proposed amendments with the CEA Agency and affected federal government departments and may invite comment from stakeholders and the public on the proposed changes. The responsible authority will then submit the amended RCSR to the CEA Agency, along with a request that the CEA Agency amend the RCSR and a statement providing a rationale for the amendment.

The CEA Agency may amend the RCSR without changing the declaration period if the changes:

- are minor;
- represent editorial changes intended to clarify or improve the screening process;
- do not materially alter either the scope of the projects subject to the RCSR or the scope of the assessment required for these projects; and
- do not reflect new or changed regulatory requirements, policies or standards.

The CEA Agency may initiate a new declaration for the RCSR for the remaining balance of the original declaration period or for a new declaration period if the changes:

- are considered to be substantial; or
- represent modifications to the scope of the projects subject to the class or the scope of the assessment required for these projects.

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Appendix 1 – Environmental Effects & Mitigative Measures Associated with the Projects

Table 1. Summary of the project activities associated with Concerts, their potential environmental effects, mitigation measures, and the significance of residual environmental effects.

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Cultural Resources	Set-up/Dismantle Temporary Staging, Fencing, Tents, etc.	Damage to below surface cultural resources	Provide plan detailing proposed use of NHS for review by Parks Canada Cultural Resource Manager	None	Not Significant
	People Attending Event	Possible vandalism to exterior cultural resources	Procedures for security to keep attendees in designated special event area	None	Not Significant
Flora and Fauna	Equipment/Crew Transportation; Parking	Trampling of grass	Return property to its natural state using grass seed or sod	Minor short-term disruption of grass	Not Significant
	People Attending Event				
	Installation/Removal of Portable Washrooms				
	Set-up Dismantle Temporary Staging, Fencing, Tents, etc.	Destruction of grass	Return property to its natural state using grass seed or sod		
	Special Event & People Attending	Disruptive to Wildlife (York Redoubt and Fort McNab only)	- Security procedures to keep attendees in designated special event area - Must comply with HRM's Noise By-Laws - Access restricted to designated areas (see Appendix 4 map – York Redoubt only)	Minor disruption to wildlife	Not Significant
		Disruptive to Maritime Garter Snake Population (Georges Island only)	- None	Minor disruption to Maritime Garter Snake Population	Not Significant
Land Resources & Water Quality	Equipment/Crew Transportation; Parking	Soil and Surface/Ground Water contamination from accidental fuel/oil leak or spill	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, erosion from rain, and siltation of surface water	- Vehicles restricted to paved, gravelled, and level-grassed surfaces - Promptly return property to its natural state to prevent erosion	Possibly some increase in sediment concentration of surface runoff	Not Significant
	Installation/Removal of Portable Washrooms	Soil and surface water contamination from accidental spill or leak of human waste	- Procedures for proper system installation and removal	None	Not Significant

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
		Soil and surface water contamination from accidental spill or leak of odour control chemicals	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required		
	Food Preparation and Clean-up	Soil and surface water contamination from waste water	Proper disposal of waste water	None	Not Significant
	Installation/Use/Removal of Generators	Soil and surface/ground water contamination from accidental fuel/oil spill or leak	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
	Generation of Waste During Event	Soil and surface water contamination from refuse	Properly separate and remove all waste from site following event	None	Not Significant
Land Resources	Disposal of Waste Produced	Refuse adds to waste stream and ultimately consumes more HRM landfill space	- Must comply with HRMS's Noise By-Laws and Provincial Landfill Material Bans - Provide and label waste-separation/recycling containers - Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials - Follow Waste Management Plan (see Appendix 3)	Some HRM landfill space used for waste disposal	Not Significant
Visitor Experience	Use of Sound Equipment; Special Event	Noise disrupts site's historical atmosphere	- Reduce volume on sound equipment during visitor hours - Must comply with HRM's Noise By-Laws	Some visitors may find event distracts from historic atmosphere	Not Significant
	Use of Pyrotechnics	Noise distracts from site's historical atmosphere	Use of pyrotechnics must comply with HRM's Noise By-Laws		
		Reduced air quality	None	Short-term reduction in air quality	Not Significant
Urban Soundscape	Use of Sound Equipment; Special Event	Noise affects peace and enjoyment of property by some city residents	Must comply with HRM's Noise By-Laws	Some people deprived of peace and enjoyment of property. Others enjoy added life and vitality of city	Not Significant
Air Quality	Use of Pyrotechnics	Reduced air quality	None	Short-term reduction in air quality	Not Significant
	Travelling to and from special event	Increased traffic adds to Greenhouse Gas emissions			

Table 2. Summary of the project activities associated with Sporting and Community Events, their potential environmental effects, mitigation measures, and the significance of residual environmental effects.

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Cultural Resources	Set-up/Dismantle Temporary Staging, Fencing, Tents, etc.	Damage to below surface cultural resources	Provide plan detailing proposed use of NHS for review by Parks Canada Cultural Resource Manager	None	Not Significant
	People Attending Event	Possible vandalism to exterior cultural resources	Procedures for security to keep attendees in designated special event area	None	Not Significant
Flora and Fauna	Equipment/Crew Transportation; Parking	Trampling of grass	Return property to its natural state using grass seed or sod	Minor short-term disruption of grass	Not Significant
	Special Event and People Attending				
	Installation/Removal of Portable Washrooms				
	Set-up Dismantle Temporary Staging, Fencing, Tents, etc.	Destruction of grass	Return property to its natural state using grass seed or sod		
	Special Event & People Attending	Disruptive to Wildlife (York Redoubt and Fort McNab only)	- Security procedures to keep attendees in designated special event area - Must comply with HRM's Noise By-Laws - Access restricted to designated areas (see Appendix 4 map – York Redoubt only)	Minor disruption to wildlife	Not Significant
		Disruptive to Maritime Garter Snake Population (Georges Island only)	- None	Minor disruption to Maritime Garter Snake Population	Not Significant
Land Resources & Water Quality	Equipment/Crew Transportation; Parking	Soil and Surface/Ground Water contamination from accidental fuel/oil leak or spill	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, erosion from rain, and siltation of surface water	- Vehicles restricted to paved, gravelled, and level-grassed surfaces - Promptly return property to its natural state to prevent erosion	Possibly some increase in sediment concentration of surface runoff	Not Significant
	Installation/Removal of Portable Washrooms	Soil and surface water contamination from accidental spill or leak of human waste	- Procedures for proper system installation and removal - Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil and surface water contamination from accidental spill or leak of odour control chemicals			
	Food Preparation and Clean-up	Soil and surface water contamination from waste water	Proper disposal of waste water	None	Not Significant

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
	Installation/Use/Removal of Generators	Soil and surface/ground water contamination from accidental fuel/oil spill or leak	Rapid response to any spill EERP and appropriate containment/clean-up equipment required	None	Not Significant
	Generation of Waste During Event	Soil and surface water contamination from refuse	Properly separate and remove all waste from site following event	None	Not Significant
Land Resources	Disposal of Waste Produced	Refuse adds to waste stream and ultimately consumes more HRM landfill space	- Must comply with HRM's Solid Waste By-Laws and Provincial Landfill Material Bans - Provide and label waste-separation/recycling containers - Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials - Follow Waste Management Plan (see Appendix 3)	Some HRM landfill space used for waste disposal	Not Significant
Visitor Experience	Use of Sound Equipment	Noise disrupts site's historical atmosphere	- Reduce volume on sound equipment during visitor hours - Must comply with HRM's Noise By-Laws	Some visitors may find event distracts from historic atmosphere	Not Significant
Urban Soundscape	Use of Sound Equipment; Special Event	Noise affects peace and enjoyment of property by some city residents	Must comply with HRM's Noise By-Laws	Some people deprived of peace and enjoyment of property. Others enjoy added life and vitality of city	Not Significant
Air Quality	Travelling to and from special event	Increased traffic adds to Greenhouse Gas emissions	None	Short-term reduction in air quality	Not Significant

Table 3. Summary of the project activities associated with Filming, their potential environmental effects, mitigation measures, and the significance of residual environmental effects.

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Cultural Resources	Set-up/Dismantle Temporary Staging, Fencing, Tents, etc.	Damage to below surface cultural resources	Provide plan detailing proposed use of NHS for review by Parks Canada Cultural Resource Manager	None	Not Significant

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Flora and Fauna	Equipment/Crew Transportation; Parking	Trampling of grass	Return property to its natural state using grass seed or sod	Minor short-term disruption of grass	Not Significant
	Set-up Dismantle Temporary Staging, Fencing, Tents, etc.	Destruction of grass	Return property to its natural state using grass seed or sod		
	Special Event	Disruptive to Wildlife (York Redoubt and Fort McNab only)	- Security procedures to keep attendees in designated special event area - Must comply with HRM's Noise By-Laws - Access restricted to designated areas (see Appendix 4 map – York Redoubt only)	Minor disruption to wildlife	Not Significant
		Disruptive to Maritime Garter Snake Population (Georges Island only)	- None	Minor disruption to Maritime Garter Snake Population	Not Significant
Land Resources & Water Quality	Equipment/Crew Transportation; Parking	Soil and Surface/Ground Water contamination from accidental fuel/oil leak or spill	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, erosion from rain, and siltation of surface water	- Vehicles restricted to paved, gravelled, and level-grassed surfaces - Promptly return property to its natural state to prevent erosion	Possibly some increase in sediment concentration of surface runoff	Not Significant
	Installation/Use/Removal of Generators	Soil and surface/ground water contamination from accidental fuel/oil spill or leak	Rapid response to any spill EERP and appropriate containment/clean-up equipment required	None	Not Significant
	Generation of Waste During Event	Soil and surface water contamination from refuse	Properly separate and remove all waste from site following event	None	Not Significant
Land Resources	Disposal of Waste Produced	Refuse adds to waste stream and ultimately consumes more HRM landfill space	- Must comply with HRM's Solid Waste By-Laws and Provincial Landfill Material Bans - Provide and label waste-separation/recycling containers - Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials - Follow Waste Management Plan (see Appendix 3)	Some HRM landfill space used for waste disposal	Not Significant
Visitor Experience	Use of Sound Equipment	Noise disrupt site's historical atmosphere	- Reduce volume on sound equipment during visitor hours - Must comply with HRM's Noise By-Laws	Some visitors may find event distracts from historic atmosphere	Not Significant

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Urban Soundscape	Use of Sound Equipment	Noise affects peace and enjoyment of property by some city residents	Must comply with HRM's Noise By-Laws	Some people deprived of peace and enjoyment of property. Others enjoy added life and vitality of city	Not Significant

Table 4. Summary of the project activities associated with Parking, their potential environmental effects, mitigation measures, and the significance of residual environmental effects.

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Flora and Fauna	Equipment/Crew Transportation; Parking	Trampling of grass	Parking permitted on gravelled and/or paved surfaces only	Minor short-term disruption of grass	Not Significant
Land Resources & Water Quality	Equipment/Crew Transportation; Parking	Soil and Surface/Ground Water contamination from accidental fuel/oil leak or spill	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, erosion from rain, and siltation of surface water	- Vehicles restricted to paved, gravelled, and level-grassed surfaces - Promptly return property to its natural state to prevent erosion	Possibly some erosion and increase in sediment concentration of surface runoff	Not Significant

Table 5. Summary of the project activities associated with Tented Events, their potential environmental effects, mitigation measures, and the significance of residual environmental effects.

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Cultural Resources	Set-up/Dismantle Temporary Staging, Fencing, Tents, etc.	Damage to below surface cultural resources	Provide plan detailing proposed use of NHS for review by Parks Canada Cultural Resource Manager	None	Not Significant
Flora and Fauna	Equipment/Crew Transportation; Parking	Trampling of grass	Return property to its natural state using grass seed or sod	Minor short-term disruption of grass	Not Significant
	People Attending Event				

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
	Installation/Removal of Portable Washrooms				
	Set-up Dismantle Temporary Staging, Fencing, Tents, etc.	Destruction of grass	Return property to its natural state using grass seed or sod		
	Special Event & People Attending	Disruptive to Wildlife (York Redoubt and Fort McNab only)	- Security procedures to keep attendees in designated special event area - Must comply with HRM's Noise By-Laws - Access restricted to designated areas (see Appendix 4 map – York Redoubt only)	Minor disruption to wildlife	Not Significant
		Disruptive to Maritime Garter Snake Population (Georges Island only)	- None	Minor disruption to Maritime Garter Snake Population	Not Significant
Land Resources & Water Quality	Equipment/Crew Transportation; Parking	Soil and Surface/Ground Water contamination from accidental fuel/oil leak or spill	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, erosion from rain, and siltation of surface water	- Vehicles restricted to paved, gravelled, and level-grassed surfaces - Promptly return property to its natural state to prevent erosion	Possibly some increase in sediment concentration of surface runoff	Not Significant
	Installation/Removal of Portable Washrooms	Soil and surface water contamination from accidental spill or leak of human waste	- Procedures for proper system installation and removal - Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil and surface water contamination from accidental spill or leak of odour control chemicals			
	Installation/Use/Removal of Generators	Soil and surface/ground water contamination from accidental fuel/oil spill or leak	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
	Generation of Waste During Event	Soil and surface water contamination from refuse	Properly separate and remove all waste from site following event	None	Not Significant
Land Resources	Disposal of Waste Produced	Refuse adds to waste stream and ultimately consumes more HRM landfill space	- Must comply with HRM's Solid Wasate By-Laws and Provincial Landfill Material Bans - Provide and label waste separation/recycling containers - Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials - Follow Waste Management Plan (see Appendix 3)	Some HRM landfill space used for waste disposal	Not Significant

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Visitor Experience	Use of Sound Equipment	Noise disrupts site's historical atmosphere	- Reduce volume on sound equipment during visitor hours - Must comply with HRM's Noise By-Laws	Some visitors may find event distracts from historic atmosphere	Not Significant
Urban Soundscape	Use of Sound Equipment	Noise affects peace and enjoyment of property by some city residents	Must comply with HRM's Noise By-Laws	Some people deprived of peace and enjoyment of property. Others enjoy added life and vitality of city	Not Significant
Air Quality	Travelling to and from special event	Increased traffic adds to Greenhouse Gas emissions	None	Short-term reduction in air quality	Not Significant

Table 6. Summary of the project activities associated with Theatrical Performances, their potential environmental effects, mitigation measures, and the significance of residual environmental effects.

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Flora and Fauna	Equipment/Crew Transportation; Parking	Trampling of grass	Return property to its natural state using grass seed or sod	Minor short-term disruption of grass	Not Significant
	People Attending Event				
	Special Event & People Attending	Disruptive to Wildlife (York Redoubt and Fort McNab only)	- Security procedures to keep attendees in designated special event area - Must comply with HRM's Noise By-Laws - Access restricted to designated areas (see Appendix 4 map – York Redoubt only)	Minor disruption to wildlife	Not Significant
		Disruptive to Maritime Garter Snake Population (Georges Island only)	- None	Minor disruption to Maritime Garter Snake Population	Not Significant

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Land Resources & Water Quality	Equipment/Crew Transportation; Parking	Soil and Surface/Ground Water contamination from accidental fuel/oil leak or spill	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, erosion from rain, and siltation of surface water	- Vehicles restricted to paved, gravelled, and level-grassed surfaces - Promptly return property to its natural state to prevent erosion	Possibly some increase in sediment concentration of surface runoff	Not Significant
	Generation of Waste During Event	Soil and surface water contamination from refuse	Properly separate and remove all waste from site following event	None	Not Significant
Land Resources	Disposal of Waste Produced	Refuse adds to waste stream and ultimately consumes more HRM landfill space	- Must comply with HRM's Solid Waste By-Laws and Provincial Landfill Material Bans - Provide and label waste-separation/recycling containers - Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials - Follow Waste Management Plan (see Appendix 3)	Some HRM landfill space used for waste disposal	Not Significant
Visitor Experience	Special Event	Performance may disrupt site's historical atmosphere	- Hold performances after visitor hours whenever possible - Must comply with HRM's Noise By-Laws	Some visitors may find event distracts from historic atmosphere	Not Significant
Air Quality	Travelling to and from special event	Increased traffic adds to Greenhouse Gas emissions	None	Short-term reduction in air quality	Not Significant

Table 7. Summary of the project activities associated with Corporate Trade Shows, their potential environmental effects, mitigation measures, and the significance of residual environmental effects.

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
Cultural Resources	Set-up/Dismantle Temporary Staging, Fencing, Tents, etc.	Damage to below surface cultural resources	Provide plan detailing proposed use of NHS for review by Parks Canada Cultural Resource Manager	None	Not Significant
Flora and Fauna	Equipment/Crew Transportation; Parking	Trampling of grass	Return property to its natural state using grass seed or sod	Minor short-term disruption of grass	Not Significant
	Special Event and People Attending				
	Installation/Removal of Portable Washrooms				
	Set-up Dismantle Temporary Staging, Fencing, Tents, etc.	Destruction of grass	Return property to its natural state using grass seed or sod		
	Special Event & People Attending	Disruptive to Wildlife (York Redoubt and Fort McNab only)	- Security procedures to keep attendees in designated special event area - Must comply with HRM's Noise By-Laws - Access restricted to designated areas (see Appendix 4 map – York Redoubt only)	Minor disruption to wildlife	Not Significant
		Disruptive to Maritime Garter Snake Population (Georges Island only)	- None	Minor disruption to Maritime Garter Snake Population	Not Significant
Land Resources & Water Quality	Equipment/Crew Transportation; Parking	Soil and Surface/Ground Water contamination from accidental fuel/oil leak or spill	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil compaction resulting in reduced water/soil infiltration rates, increased surface runoff, erosion from rain, and siltation of surface water	- Vehicles restricted to paved, gravelled, and level-grassed surfaces - Promptly return property to its natural state to prevent erosion	Possibly some increase in sediment concentration of surface runoff	Not Significant
	Installation/Removal of Portable Washrooms	Soil and surface water contamination from accidental spill or leak of human waste	- Procedures for proper system installation and removal - Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
		Soil and surface water contamination from accidental spill or leak of odour control chemicals			
	Food Preparation and Clean-up	Soil and surface water contamination from waste water	Proper disposal of waste water	None	Not Significant

VEC	Project Activities	Potential Environmental Effects	Mitigative Measures	Residual Environmental Effects	Significance
	Installation/Use/Removal of Generators	Soil and surface/ground water contamination from accidental fuel/oil spill or leak	- Rapid response to any spill - EERP and appropriate containment/clean-up equipment required	None	Not Significant
	Generation of Waste During Event	Soil and surface water contamination from refuse	Properly separate and remove all waste from site following event	None	Not Significant
Land Resources	Disposal of Waste Produced	Refuse adds to waste stream and ultimately consumes more HRM landfill space	- Must comply with HRM's Solid Waste By-Laws and Provincial Landfill Material Bans - Provide and label waste-separation/recycling containers - Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials - Follow Waste Management Plan (see Appendix 3)	Some HRM landfill space used for waste disposal	Not Significant
Visitor Experience	Use of Sound Equipment	Noise disrupts site's historical atmosphere	- Reduce volume on sound equipment during visitor hours - Must comply with HRM's Noise By-Laws	Some visitors may find event distracts from historic atmosphere	Not Significant
Urban Soundscape	Use of Sound Equipment	Noise affects peace and enjoyment of property by some city residents	Must comply with HRM's Noise By-Laws	Some people deprived of peace and enjoyment of property. Others enjoy added life and vitality of city	Not Significant
Air Quality	Travelling to and from special event	Increased traffic adds to Greenhouse Gas emissions	None	Short-term reduction in air quality	Not Significant

Appendix 2 – Amendments to the License of Occupation Agreement

		Application of Mitigation Measures & Monitoring	
VEC	**Mitigation Measure/ Monitoring**	**Current Operational Requirement**	**Amended/Additional Operational Requirement**
Cultural Resources	Provide plan detailing proposed use of NHS for review by Parks Canada Official	Submit for the approval of the Superintendent, a detailed schedule for the Event including: – Event site use plan/layout	– None
Cultural Resources; Flora & Fauna	Provide security procedures to keep participants in designated special event area	Submit for the approval of the Superintendent, a detailed schedule for the Event including: – Security plan	– None
Flora & Fauna; Land Resources; Water Quality	Promptly return property to its natural state using grass seed or sod to prevent erosion	Subsequent to the removal of the trade fixtures and chattels in accordance with Article 12.01, the Licensee shall rehabilitate the Land in accordance with the instructions from, and to the satisfaction of, the Superintendent. If the Licensee fails to comply with this Article, then the Superintendent may rehabilitate the Land and charge the costs thereof to the Licensee, and such costs shall constitute a debt due and owing to Her Majesty and shall be payable upon demand.	– None
Flora & Fauna; Land Resources; Water Quality	Special event "Parking" permitted on gravelled and/or paved surfaces only	– None	For "Parking" special events only: The Licensee agrees to keep vehicles on gravelled and/or paved surfaces
Land Resources; Water Quality	Vehicles restricted to paved, gravelled, and level-grassed surfaces	– None	Licensee must ensure vehicles are kept on paved, gravelled, and level-grassed surfaces throughout the event, including equipment set-up and take down.
Flora & Fauna; Land Resources; Water Quality	Rapid response to any spill Environmental emergency response plan and appropriate containment/clean-up equipment required	– None	Submit for the approval of the Superintendent, a detailed schedule for the Event including: – Environmental Emergency Response Plan The Licensee agrees to immediately implement the Environmental Emergency Response Plan and ensure a quick and thorough clean up of the spilt substance.
Flora & Fauna; Visitor Experience; Urban Soundscape	Must follow HRM noise by-laws	– None	Licensee must comply with HRM noise by-laws.
Flora & Fauna	Access restricted to designated areas (see map in Appendix 4 – York Redoubt)	– None	Licensee must adhere to any access restrictions placed on areas within the National Historic Site as outlined in the map provided. (York Redoubt only)

Flora & Fauna	Must keep record of garter snake sightings and their location (Georges Island only)	– None	Licensee must keep record of garter snake sightings and their location and provide it to Parks Canada after the event has terminated (Georges Island only).
Land Resources; Water Quality	Provide procedures for proper installation and removal of portable washroom facilities	Provide a suitable number of portable washroom facilities, including a suitable number of wheelchair accessible washrooms.	Provide a suitable number of portable washroom facilities, including a suitable number of wheelchair accessible washrooms. Ensure the supplier follows proper installation and removal procedures.
Land Resources; Water Quality	Proper disposal of waste water	– None	Ensure proper disposal of waste water, if produced.
Land Resources; Water Quality	Properly separate and remove all refuse from site following event	Provide recycling facilities for public use and remove recycled waste from the site during clean-up.	Provide and label waste-separation/recycling containers for public, vendor, and staff use. Properly separate and remove all refuse from the site during clean-up. Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials.
Land Resources	Provide and label waste-separation/recycling containers		
Land Resources	Encourage the use of reusable, recyclable, and/or compostable food service packaging and serving materials		
Land Resources	Must comply with HRM's Solid Waste By-Laws and Provincial Landfill Material Bans	– None	Licensee must comply with HRM's Solid Waste By-Laws and Provincial Landfill Material Bans
Land Resources	Follow Waste Management Plan (see Appendix 3)	– None	Licensee must follow the provided Waste Management Plan guidelines.
Visitor Experience	Reduce volume on sound equipment during visitor hours	Entertainment will not commence until XhXX.	Entertainment will not commence until XhXX. The Licensee must keep noise to the level established by a Parks Canada Official during visitor hours.
Visitor Experience; Urban Soundscape	Use of pyrotechnics must comply with HRM noise by-laws	- None (other than providing time allocated for event)	Licensee must comply with HRM noise by-laws.
Visitor Experience	Hold theatrical performances after visitor hours whenever possible	- None (other than providing time allocated for event)	Licensee must hold theatrical performances and practices after visitor hours unless permission from Parks Canada granted.

Appendix 3 – Waste Resource Management Guide

Solid Waste Resources Management Guide for Special Events

November 2003

Table of Contents

1 Background

The province of Nova Scotia strives to maximize diversion of all recyclables and organic material from landfills on an on-going basis. As part of this effort, certain materials have been banned from landfills under the Solid Waste-Resource Management Regulations found under Section 102 of the Environment Act. These banned materials include such items as redeemable beverage containers, corrugated cardboard, newsprint, compostable organics, and steel/tin/glass food containers (Government of NS, 2000).

Special events tend to have multiple areas generating a significant amount of waste, mostly from packaging and food services. Efforts must be made to ensure that the amount of waste produced during special events is not only minimized, but also properly diverted to save landfill space. In addition, these efforts will help preserve our natural resources and reduce environmental burdens through the use of recycled materials, increased economic opportunities for Nova Scotians, and creation of value added products.

This Solid Waste Resources Management Plan will provide guidelines on how to "green" special events, through four key components of waste diversion: source reduction and material reuse, recycling, and composting.

2 Objectives

The objectives of this plan are as follows:

- Reduce the amount of disposed waste through provision of containers for the separate collection of recyclables, organics, and waste that are available for public/vendors/staff use
- Reduce the amount of disposed waste through provision of corrugated cardboard recycling containers for vendor/staff use
- Encourage vendors/staff to purchase supplies that are reusable, recyclable, or compostable where possible
- Educate public/vendors/staff about properly separating organics and recyclables from refuse to ensure active participation

3 Meeting the Objectives

Steps to meet the objectives described in this plan will vary depending upon the size of the event. The following categories offer suggestions to help ensure the Waste Management Plan objectives are met, however all items may not be applicable, especially in the case of small special events.

3.1 Organization

- Identify someone responsible for coordinating the Waste Management Plan
- Recruit staff/volunteers to carry out the plan under the guidance of the Waste Management Coordinator
- Ensure that the necessary arrangements have been made for waste-separation/recycling containers, proper labelling, and waste removal

3.2 Waste Separation System

- Based on the size of the special event, set up an appropriate number of waste-separation/recycling containers to collect organics, recyclables, and regular refuse
- Ensure that three-stream waste stations are placed in convenient locations for public/vendor/staff use
- Have corrugated cardboard recycling containers available for staff/vendor use
- If paper/flyers will be generated during the event, ensure that paper recycling containers are available

3.3 Communication

- Post signs on or above receptacles to ensure waste is being sorted properly
- Use familiar colours to represent each waste stream (Blue – Recycling; Black – Regular Refuse; Green – Organics)
- Encourage vendors to reduce their impact on the environment through:
    - Reduced packaging
    - Using refillable containers for dispensing food/condiments (ie. milk, ketchup, etc.) rather than single-serving packages
    - Using dishes/utensils that are compostable, recyclable, or reusable
    - Limiting use of unnecessary disposable items such as stir sticks, straws, etc.
    - Using environmentally-friendly products
- Have volunteers promote waste management goals and encourage public participation
    - Announcements during special event
    - HRM Solid Waste Resources Educators will set up informative booth displays at special events

3.4 Monitoring

- Empty waste, recycling, and organics containers as necessary to ensure that waste sorting occurs throughout the event

- Record number of bags collected and approximate average weight of bags in each waste stream

3.5 Follow-up

- Calculate the following:
  - Average weight per bag x Total number of bags = Total waste weight
    - Calculation done for each waste stream
  - (Sum of waste weights for recyclables and organics/Total waste weight of all waste streams) x 100 = Percent of waste diverted
- Inform Parks Canada of any additions that would help to achieve the Waste Management Plan objectives

3.6 Contacts

The following companies can be contacted for Recyclable and Organic Collection Services:

- Canadian Waste 902-468-5339
- Enviro Waste Ltd. 902-864-4213
- Gerald's Trucking 902-443-8799
- Green Waste Systems Inc. 902-477-8800
- Leo J. Beazley Ltd. 902-465-6053
- Marriott's Container Rentals 902-876-7388
- Miller Waste Systems 902-468-3161

The following organizations provide current information regarding waste management, as well as contact numbers for waste management facilities, haulers, and suppliers of source-separation/recycling containers:

- NS Department of Environment and Labour 902-424-5300
  Solid Waste Resource Management
  www.gov.ns.ca/enla/emc/wasteman

- HRM Solid Waste Resources 902-490-5960
  www.region.halifax.ns.ca/wrms

- Clean NS 902-420-3474
  www.clean.ns.ca

- RRFB NS 1-877-313-7732
  www.rrfb.com

4 Conclusion

Although special events vary within the Halifax Defence Complex, the Waste Management Plan objectives remain constant. Participants can adjust the guidelines to suit their project, provided the objectives are still being met, and as a result, Nova Scotia's goal to divert waste will be achieved.

5 References

Government of Nova Scotia. 2000. Solid Waste-Resource Management Regulations. Retrieved May 29, 2000 from the World Wide Web at http://www.gov.ns.ca/just/regulations/REGS/envsolid.htm

Halifax Regional Municipality (HRM) Waste Resources. 2003. Apartment Recycling/Composting Program – Resource List for Building Owners. Halifax Regional Municipality.

Nova Scotia Department of the Environment. October 27, 1995. Solid Waste-Resource Management Strategy. Retrieved August 27, 2003 from the World Wide Web at http://www.gov.ns.ca/enla/emc/wasteman/swms.htm

Resource Recovery Fund Board (RRFB) NS and Bluenose Atlantic Coastal Action Program (Bluenose ACAP). Event Greening – Managing Waste, Recyclables, & Organics at Events & Festivals. RRFB NS and Bluenose ACAP.

Waste Resource Analyst with HRM Solid Waste Resources. Halifax Regional Municipality. August 2003. Personal Communication.

Appendix 4 – Site Maps of the Halifax Defence Complex National Historic Sites

Figure 1. Map of the Halifax Citadel National Historic Site

Figure 2. Map of York Redoubt National Historic Site –

Please note areas closed to special events under this RCSR

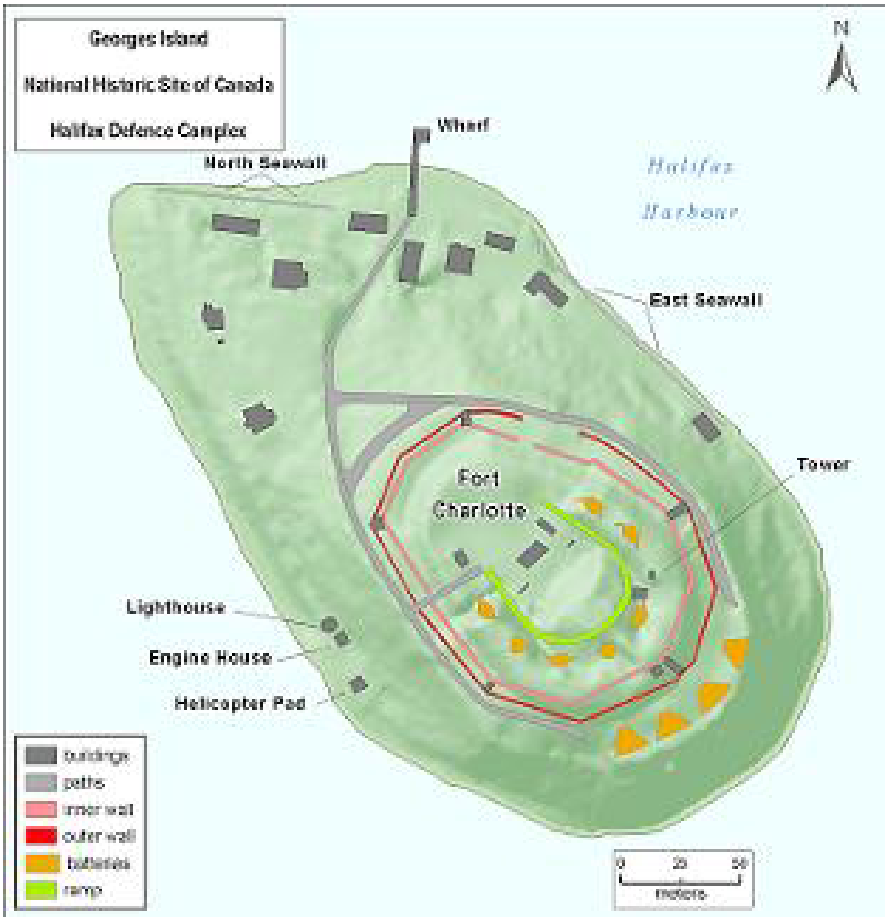


Figure 3. Map of Georges Island National Historic Site

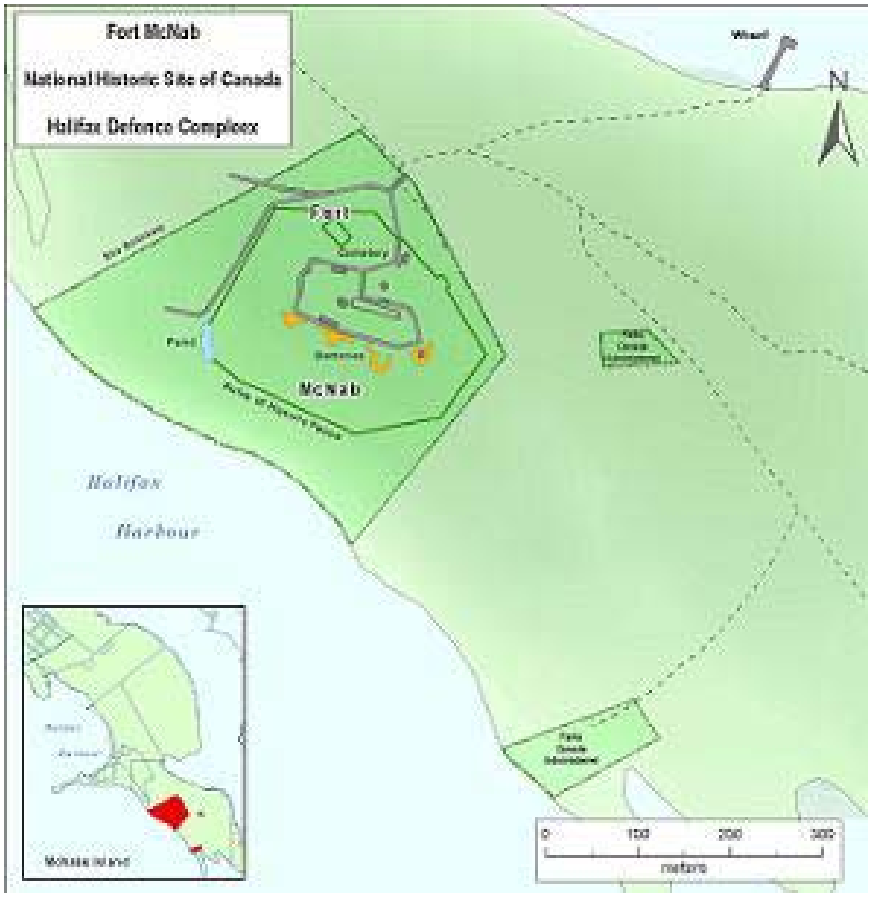


Figure 4. Map of Fort McNab National Historic Site

Figure 5. Map of Prince of Wales Tower National Historic Site

Appendix 5 – Environmental Emergency Response Plan Guidelines and Template

Guidelines for Preparing an Environmental Emergency Response Plan for Special Events within the Halifax Defence Complex

Background

An environmental emergency is defined as an uncontrolled, unplanned, or accidental release of a harmful substance into the environment or the reasonable likelihood of such a release that may adversely affect the environment and/or human health. The potential for such an emergency has been identified through the Replacement Class Screening Report and is mitigated through the development of an Environmental Emergency Response Plan.

An Environmental Emergency Response Plan identifies all potential spill sources and describes the preventative measures used to reduce the likelihood of an environmental emergency. The plan includes a detailed response protocol which assigns responsibilities to individuals and provides step-by-step instructions to handle a spill.

To aid individuals holding special events within the Halifax Defence Complex, Parks Canada has developed an Environmental Emergency Response Plan format that allows each event to individualize its plan while ensuring the necessary response procedures are addressed. This guide clarifies the steps required to complete an Environmental Emergency Response Plan using the electronic template provided.

It is the responsibility of the Licensee to ensure the Environmental Emergency Response Plan covers all potential environmental emergencies associated with his/her project.

Steps to Complete an Environmental Emergency Response Plan

Step 1: Open the template document

The document template (saved as "Special Event EERP Template") will automatically open as a new document when you double click on the icon and will need to be saved under a new title.

Please do not open the template from Microsoft Word as it will open as the template rather than a new document based on the template.

Step 2: Section 1.3 – Site Description

There are several areas within this section that are shaded. The shaded areas, found throughout the document, represent "fields" that need to be filled in or have a response selected. Pressing F1 while in one of these fields opens a help box detailing the required information.

In this section, choose the type of event from the drop-down menu. Next, choose the location of the event. Specify either the Garrison Grounds or Parade Square if the event is taking place at the Halifax Citadel. If the event is at the Halifax Citadel, but in neither location listed, select the "Halifax Citadel National Historic Site". Finally, select the

relevant environmental settings by clicking on the appropriate check boxes (located beside each descriptor). If the setting is not listed, please specify under "Other".

Step 3: Section 2.1- Environmental Emergency History

This section provides details on any environmental emergencies that occurred during past special events, either on Parks Canada properties or elsewhere. Please enter the current date in the first field, in the format "month day, year" (ie. January 1, 2004). In the next field, select whether there "has" or "has not" been any environmental emergencies. If there have been environmental emergencies associated with the event, please describe each one in detail in the last field provided. Include such information as the cause of the spill, substance type and quantity, response procedures, success of the cleanup, and corrective measures now taken to prevent its recurrence.

Step 4: Section 2.2 – Potential Environmental Emergencies

This section addresses the potential environmental emergencies that have been identified for the special events covered in the Replacement Class Screening Report. Some special events have more risk of an environmental emergency than others based on each project's activities. For each subsection, please identify whether the indicated spill is possible on site. If the potential spill substance is present, provide the location, type (if possible), quantity, and where and how it is stored in the blank fields under each potential spill heading. Certain events may have additional risks, so please take the time to consider all possible areas where an environmental leak/spill could occur. If any additional risks are identified, please include the details under "Other".

Step 5: Section 2.3 – Preventative Measures

This section lists the preventative measures in place to reduce the likelihood of an environmental leak/spill. Please describe the actions taken to prevent an environmental emergency in the field provided. (If fuel/oil is being transferred from containers to equipment, drip trays must be used.)

Step 6: Section 3.1 – Roles and Responsibilities

Roles and duties have been assigned to the personnel responsible for the successful implementation of the Environmental Emergency Response Plan. The duties can be rearranged between individuals if necessary, however they must remain in the plan.

Step 7: Section 3.2 – Contact Information

The Emergency Response Crew (Subsection 3.2.1) identifies those individuals involved with the special event who are responsible for implementing the Environmental Emergency Response Plan. Please provide the name, work title (if required), and contact number(s) for each position.

Include contact information for local resources that would be helpful in the event of an Environmental Emergency under Subsection 3.2.4. Names and phone numbers for two excavating contractors must be provided. Please enter the company name in the first field and phone number in the third field. If additional resources are added to the table, please use the second column to provide information regarding the company's function (ie. Environmental Consultant).

Under Location of Emergency Resources (Subsection 3.2.5), please identify the location of the emergency resources listed. The remaining subsections already contain information, but additional names and numbers can be added if useful.

Step 8: Section 4 – Emergency Action Guidelines

Environmental emergency response guidelines are listed in this section and need to be reviewed to ensure their applicability to your circumstances. (Contact numbers listed in the emergency response procedures must remain.) The response plan for a portable washroom contents spill is not complete. Please contact your supplier and determine the best response procedures to follow based on their recommendations. Update the procedures as required. If any other potential spill sources were identified, response procedures must be developed for those sources as well.

Step 9: Section 5 – Post-Emergency Operations

Review the post-emergency response procedures. Add any steps that you feel are necessary or beneficial.

Step 10: Section 6 – Flowchart of Emergency Actions

Update the flowcharts to reflect the step-by-step response protocol outlined in Section 4. The response procedures for a portable washroom leak/spill must be updated to reflect the recommendations of your supplier. If any other spill sources were identified, creation of a corresponding flowchart is required. Please ensure that the necessary contacts are made as modelled in the prepared flowcharts.

Step 11: Table of Contents

Please update the Table of Contents. To do this, hold the cursor over the existing Table of Contents. Right click and choose "Update Field". (If you receive another prompt, select "Update Entire Table".)

Step 12: Review

Your individualized Environmental Emergency Response Plan is now complete. Please review the plan with a Parks Canada Official to ensure its accuracy.

Environmental Emergency Response Plan for Special Events within the Halifax Defence Complex

Table of Contents

1 Introduction

1.1 Scope

The goal of this plan is to provide all individuals associated with the special event, such as staff, volunteers, suppliers, and vendors, with a detailed course of action for specific environmental accidents that could occur on site. Duties and responsibilities are assigned to designated individuals as detailed in the Special Event Environmental Emergency Response Plan. Contact information for appropriate support agencies is provided.

1.2 How to Use this Document

As an individual involved in a special event within the Halifax Defence Complex, you should be familiar with this document well in advance of any emergency. In the event of an emergency, use the flowchart in Section 6 to guide your actions. After the danger has passed, review the entire document to ensure no steps were missed. Follow up with the post-emergency operations.

1.3 Site Description

This Environmental Emergency Response Plan pertains to Special Events taking place within the Halifax Defence Complex National Historic Sites, as covered by the Replacement Class Screening Report. The Concert is held within the Halifax Citadel's Garrison Grounds and the following environmental settings are relevant to the event's location:

- ☐ Pavement
- ☐ Grassed surface
- ☐ Gravelled area
- ☐ Wooded area
- ☐ Near water (stream, river, bog, etc.)
- ☐ Other: _____
  Please specify

2 Hazard Analysis

2.1 Environmental Emergency History

As of , this special event has had Environmental Emergencies associated with the project activities.

2.2 Potential Environmental Emergencies

2.2.1 Fuel Spill

2.2.2 Oil Spill

2.2.3 Spill from Portable Washrooms

2.2.4 Other

2.3 Preventative Measures

3 Emergency Response

3.1 Roles and Responsibilities

On-Scene Commander

- Advise the Parks Canada Asset Officer of spill and the emergency operations that are taking place
- Coordinate any media releases regarding emergency operations
- Complete a report for the Parks Canada Asset Officer detailing the spill, emergency response, and cleanup procedures
- Recommend any changes required to the Environmental Emergency Response Plan

Emergency Response Coordinator

- Act as the Emergency Coordinator or delegate this responsibility to another capable individual
- Assess the situation and activate the Environmental Emergency Response Plan
- Coordinate activity of the Response Crew
- Ensure that the necessary federal departments are notified of spill and emergency operations

Response Crew

- Responsible for containment and clean up of spill

3.2 Contact Information

3.2.1 Emergency Response Crew

Name	Environmental Emergency Response Position	Work Title	Contact Number	
	On-Scene Commander			
	Emergency Response Coordinator			
	Response Crew			
	Response Crew			
	Response Crew			
	Response Crew			
	Response Crew			

3.2.2 Key Parks Canada Staff

Name	Title	Work
Carl Gardiner	Asset Officer, Halifax Citadel National Historic Site of Canada	902-426-1993
Commissionaire	Halifax Citadel National Historic Site of Canada	902-426-9696
Hilary May	A/Client Service Manager	902-426-1995
Warden Service	Kejimkujik National Park & National Historic Site of Canada	1-800-565-2224 or 902-758-2232

3.2.3 Outside Agencies

Agency	Contact Person	Phone Number
Fire department		911
RCMP, Halifax Headquarters		911 or 902-426-3644
Environment Canada, Environmental Emergencies		902-426-6030
Environment Canada, Regional Environmental Emergency Coordinator	Roger Percy	902-426-2576 or 902-426-6200 (24hrs)
Nova Scotia Emergency Measures Organization	Bill Weagle (Zone Controller for Central Region)	902-893-5896

3.2.4 Local Resources

	Excavating Contractor	
	Excavating Contractor	

3.2.5 Location of Emergency Resources

Resource	Location
First aid kit	
Telephone	
Fire extinguisher	
3 portable emergency lights	
3 shovels	
3 pairs of disposable coveralls	
3 pairs of rubber boots	

3 pairs of disposable rubber gloves	
1 case of heavy duty garbage bags	
25 kg of absorbent material (eg. cat litter; sand)	
Yellow Caution Tape	

4 Emergency Action Guidelines

When an emergency is reported, the designated Emergency Coordinator shall immediately go to the scene to make an initial assessment. The first priority while approaching the scene should be personal safety. Activate the plan, following the guidelines for the appropriate type of accident. As much of the following information should be gathered:

- Type of accident
- Time/location of the accident
- Material involved and quantity
- Number of deaths/injuries
- Size of area affected
- Weather conditions
- Assistance required

The procedures to be followed are outlined below and are in the attached flowchart.

In case of fuel or oil spill

1. Initial assessment by Emergency Coordinator
2. Ensure safety of public and site staff (protective clothing, first aid, etc)
3. If necessary, contact the Emergency Measures Organization (NS) (902-893-5896)
4. Contact Carl Gardiner, Asset Officer, Parks Canada (902-426-1993)
5. Contact Environmental Emergencies (902-426-6030)
6. If significant, contact the RCMP (911 or 902-426-3644)
7. Contact the Warden Service, Kejimkujik National Park & National Historic Site (1-800-565-2224 or 902-758-2232)
8. Contain spill
9. If possible, stop leak
10. Cleanup with absorptive materials (sand)
11. If necessary, excavate the area under the supervision of an Environmental Specialist
12. Proper disposal of contaminated absorptive materials
13. Complete Summary Report

In case of portable washroom contents leak or spill

1. Initial assessment by Emergency Coordinator
2. Ensure safety of public and site staff (protective clothing, first aid, etc)
3. If necessary, contact the Emergency Measures Organization (NS) (902-893-5896)
4. Contact Carl Gardiner, Asset Officer, Parks Canada (902-426-1993)

5. Contact Environmental Emergencies (902-426-6030)
6. If significant, contact the RCMP (911 or 902-426-3644)
7. Contact the Warden Service, Kejimkujik National Park & National Historic Site (1-800-565-2224 or 902-758-2232)
8. Contact supplier of Portable Washroom Facilities
9. Follow recommendations of supplier
10. Complete Summary Report

5 Post-Emergency Operations

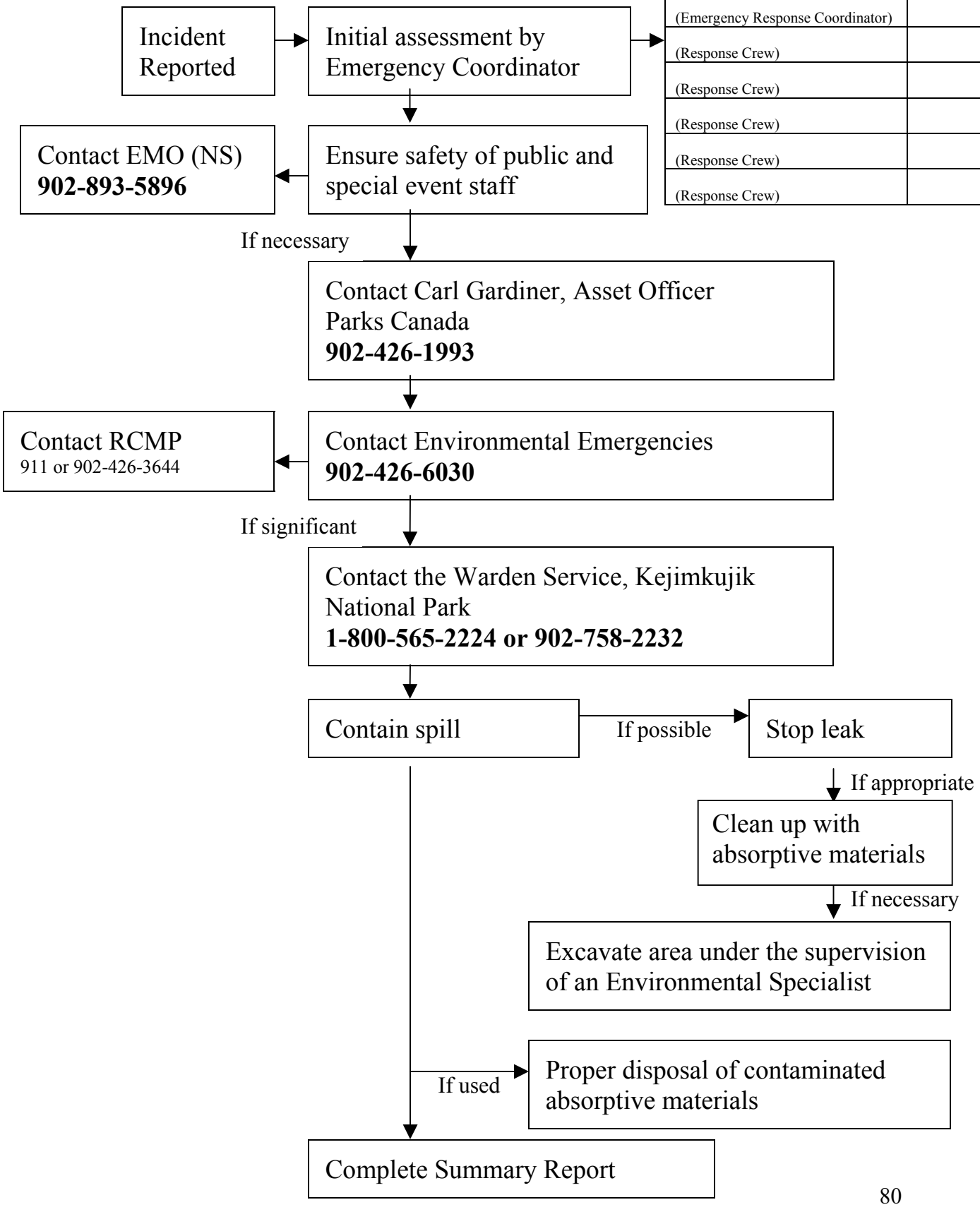
Complete Summary Report, including information gathered during the initial assessment, a description of response activities, description of any injuries, and the date and time of clean up completion. Recommend any changes to the Environmental Emergency Response Plan.

Submit report to Carl Gardiner, Asset Officer, Halifax Citadel National Historic Site.

6 Flowchart of Emergency Actions

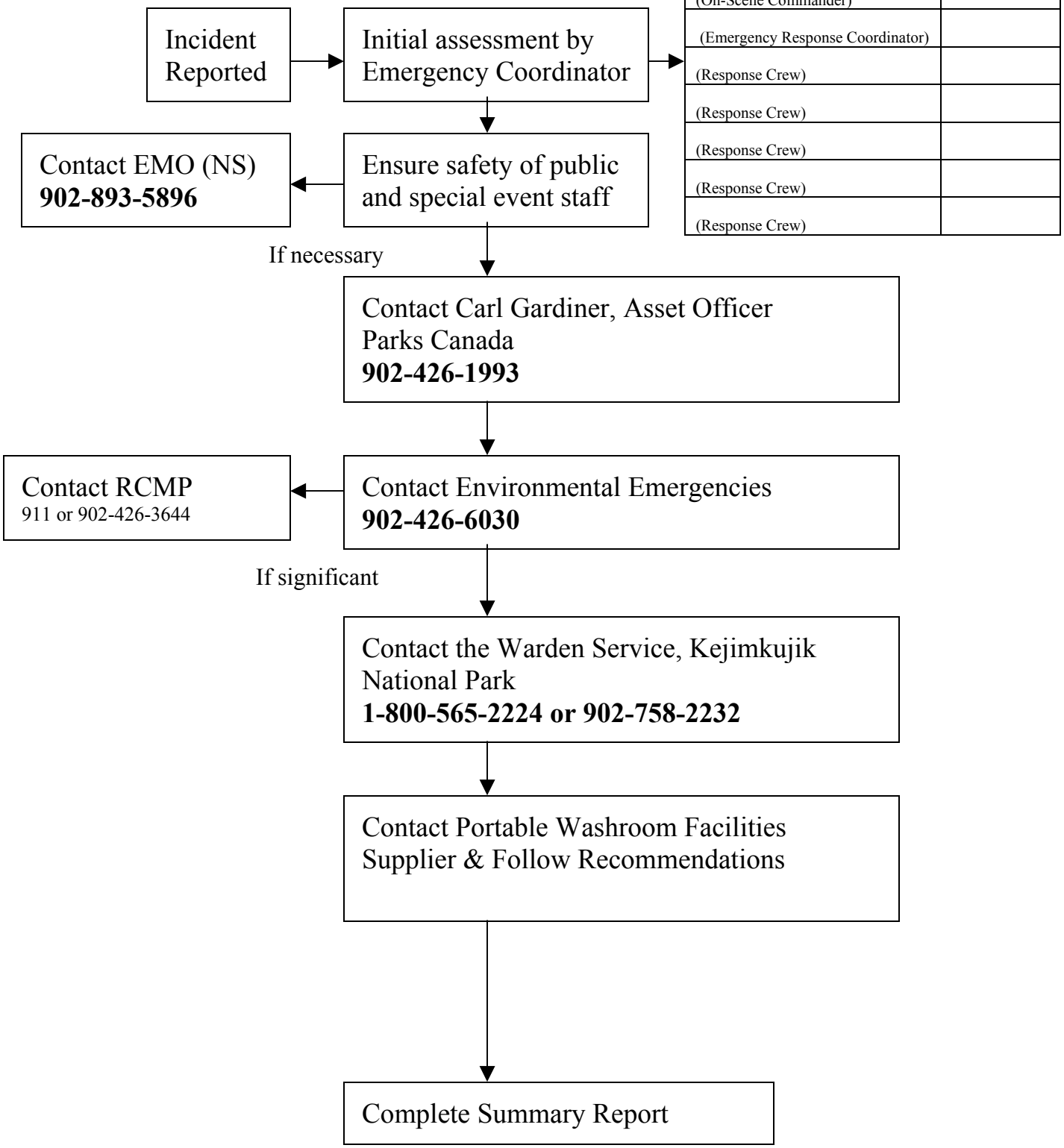
6.1 Fuel/Oil Spill

Name	Contact Number
(On-Scene Commander)	
(Emergency Response Coordinator)	
(Response Crew)	
(Response Crew)	
(Response Crew)	
(Response Crew)	
(Response Crew)	



6.2 Portable Washroom Contents Spill

Name	Contact Number
(On-Scene Commander)	
(Emergency Response Coordinator)	
(Response Crew)	
(Response Crew)	
(Response Crew)	
(Response Crew)	
(Response Crew)	



6.3 Other