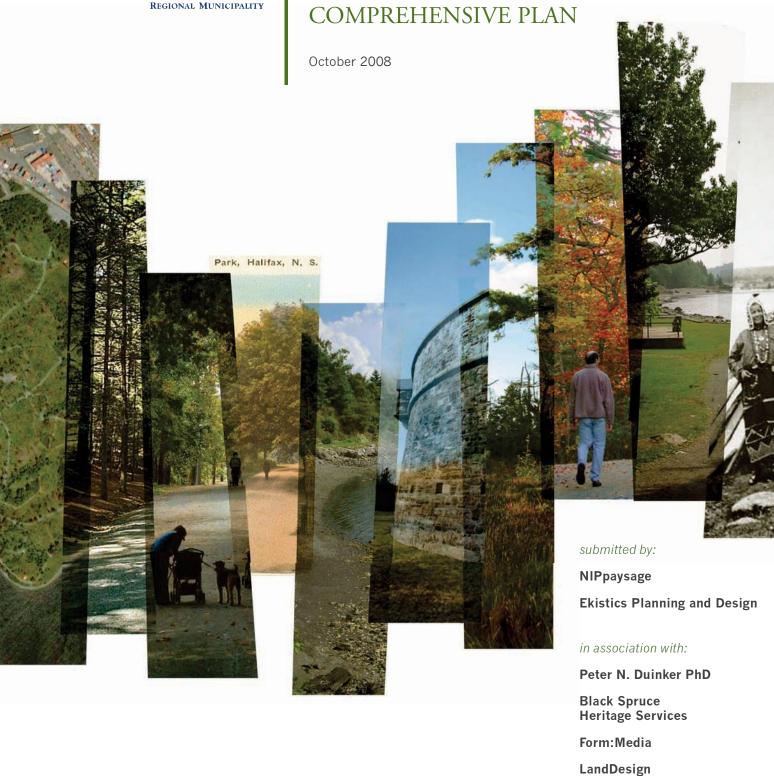


POINT PLEASANT PARK



Engineering Services

Report layout designed by form: media



Exe	ecutive Summary	1
	1. Background	1
	2. The Forest	6
	3. The Shoreline	12
	4. Fortifications	15
	5. Park Development Plan	19
	6. Implementation	23
Int	troduction	.27
	1.1 Background	27
	1.2 Park Chronology	30
	1.3 The Way Forward	36
	1.4 Comprehensive Plan Vision and Objectives	37
	1.5 Organization of this Report	40
Inv	entory & Analysis	.41
	2.1 Geology, Soils and Hydrology	42
	2.2 Coastal Dynamics	48
	2.3 Climate and Microclimate	59
	2.4 Forest Conditions	63
	2.5 Landscape Physiology	74
	2.6 Infrastructure	78
	2.7 Historic Resources	81
	2.8 Landscape Character and Experiential Qualities	97
	2.9 Park Uses	107
	2.10 Summary	111

	ıiding Principles	115
	3.1 Park Sustainability	. 115
	3.2 Park Aesthetics	. 120
	3.4 Cultural Resources	. 126
	3.5 First Nations' Resource Principles	. 129
	3.6 Park Management, Administration and Operations	. 130
	3.7 Public Involvement	. 132
	3.8 Education and Interpretation	. 132
	3.9 Safety and Security	. 133
	3.10 Human Impacts	. 134
Ma	anagement Plan	135
	4.1 Forest Framework	. 136
	4.2 Forest Management Strategies	. 143
	4.3 Shoreline Framework	. 160
	4.4 Cultural Management Framework	. 166
Pa	rk Development Plan	175
Pa	5.1 Introduction	
Pa	•	. 175
Pa	5.1 Introduction	175 177
Pa	5.1 Introduction	175 177 179
Pa	5.1 Introduction	175 177 179 192
Pa	5.1 Introduction	175 177 179 192 203
Pa	5.1 Introduction	175 177 179 192 203
Pa	5.1 Introduction 5.2 The Idea Behind The Plan 5.3 Circulation Plan 5.4 Landscape Experience 5.5 Amenities and Furnishings 5.6 Site Concept Plans	. 175 . 177 . 179 . 192 . 203 . 205 . 235
Pa	5.1 Introduction	175 177 179 192 203 205 235
Pa	5.1 Introduction 5.2 The Idea Behind The Plan 5.3 Circulation Plan 5.4 Landscape Experience 5.5 Amenities and Furnishings 5.6 Site Concept Plans 5.7 Wayfinding/Signing Strategy 5.8 Interpretation: Visitor Experience Concept	175 177 179 192 203 205 235 242
	5.1 Introduction	175 177 179 192 203 205 235 242 245
	5.1 Introduction	175 177 179 192 203 205 235 242 245 247
	5.1 Introduction 5.2 The Idea Behind The Plan 5.3 Circulation Plan 5.4 Landscape Experience 5.5 Amenities and Furnishings 5.6 Site Concept Plans 5.7 Wayfinding/Signing Strategy 5.8 Interpretation: Visitor Experience Concept 5.9 Drainage Design 5.10 Services	175 177 179 192 203 205 235 242 245 247

Glossary	.271
Appendix A: 1999 User Survey Summary	.275
Appendix B: Summary of Winning Entries	.279
Appendix C: Case Studies	.281
Appendix D: References	.297
Appendix E: Botanical and Common Names of trees at Point Pleasant Park	.303

List of Maps

Мар	2.1: Soils	43
Мар	2.2: Hydrology & Outcrops	47
Мар	2.3: Coastal Features	51
Мар	2.4: 1858 Shoreline	55
Мар	2.5: Climate	61
Мар	2.6: Lidar	75
Мар	2.7: South-Facing Slopes	76
Мар	2.8: Slopes	77
Мар	2.9: Park Infrastructure	79
Мар	2.10: Cultural Heritage	83
Мар	2.11: Park Structures	89
Мар	2.12: Landscape Character	99
Мар	2.13: Summary Map	14
Мар	4.1: Forest Management Zones	47
Мар	4.2: Forest Aesthetics	53
Мар	4.3: Coastal Management Zones	61
Мар	4.4: Cultural Management Zones1	67
Мар	4.5: Existing Park Monuments	74
Мар	5.1: Historical Roads1	.86
Мар	5.2: Existing Circulation	.87
Мар	5.3: Additions And Subtractions	.88
Мар	5.4: Proposed Path Hierarchy1	.89
Мар	5.5: Proposed Vehicle Access	90
Мар	5.6: Areas Diagram	94
Мар	5.7: Landmarks And Special Places1	95
Мар	5.8: Historic And External Views	.99
Мар	5.9: Proposed Internal Views	02
Мар	5.10: Overall Park Plan2	07
Мар	5.11: Existing Signage	41
Мар	5.12: Proposed Signage	41

List of Figures

Figure 1.1: Location of Point Pleasant Park on Halifax peninsula	28
Figure 1.2: Point Pleasant Park - 2005	29
Figure 2.1: Multibeam bathymetry map	49
Figure 2.2: Point Pleasant Battery, circa 1890	53
Figure 4.1: Park management framework	135
Figure 4.2: Relationship between age and average percentage of damage of the important tree species in all the plots following the 1938 hurricane at the Harvard Forest. (Source: Foster, 2003.)	144
Figure 4.3: Existing forest patches (witness groves) overlaid on LIDAR imagery	148
Figure 4.4: Dichotomy between forest visual quality and ecological sustainability (Sheppard, 2001)	151
Figure 4.6: Section "C". See Map 4.3 for section locations	162
Figure 4.5: Bonaventure Anchor relocation	162
Figure 4.7: Section "B". See Map 4.3 for section locations	163
Figure 4.8: Section A. See Map 4.3 for section locations	164
Figure 4.9: Hicks 1782	166
Figure 5.1: Contextual circulation plan	179
Figure 5.2: Main Pedestrian Paths	182
Figure 5.3: Secondary Pedestrian Paths	183
Figure 5.4: Minor Pedestrian Paths	184
Figure 5.5: Proposed permanent park benches	204
Figure 5.6: Landscape Seasonality	206
Figure 5.7: Proposed entrance improvements at Young Avenue	212
Figure 5.8: Proposed improvements - Tower Road entrance	214
Figure 5.9: Proposed improvements - upper parking lot to Cambridge Drive	214
Figure 5.9a: Proposed improvements - lower parking lot	216
Figure 5.10: Harbour look-off	217
Figure 5.11: Proposed improvements - Eastern shoreline	220
Figure 5.12: Proposed improvements - Arm Road near Chain Battery	222
Figure 5.13: Proposed improvements - Fort Ogilvie	224
Figure 5.14: Proposed improvement - Cambridge Battery	226
Figure 5.15: Ocean Meadow - Point Pleasant Battery area	228
Figure 5.16: Proposed improvements - North West Arm Battery	230
Figure 5.17: Proposed gateway monolith	236
Figure 5.18: Proposed kiosk	237
Figure 5.19: Proposed wayfinding signs	238
Figure 5.20: Proposed interpretive signs	239
Figure 5.21: Proposed emergency telephones	240
Figure 5.22: Proposed tour markers	2/10

List of Tables

Table 1.1: IDC Public Participation Questionnaire Summary	34
Table 2.1: Forest data from Guscott (2000) corresponding to the five main patches of forest not blown down by Hurricane Juan	
Table 2.2: Major tree species in Point Pleasant Park	68
Table 2.3: Historic viewsheds	96
Table 2.4: Park visitor summary	109
Table 4.1: Criteria, elements and values for sustainable forest management in Point Pleasant Park	140
Table 4.2: Values, objectives, indicators, and targets for Point Pleasant Park	141
Table 4.3: Targets and generic actions for management of Point Pleasant Park	142
Table 4.4: Non-native species removal strategy	150
Table 4.5: Forest aesthetic management approaches	152
Table 4.6: Seedling plantings in Point Pleasant Park (2007-08)	156
Table 4.7: Understorey non-native plant treatments	157
Table 4.8: Forest monitoring requirements	158
Table 4.9: Cultural resource outcomes and treatments	173
Table 5.1: Landmarks ("Key" references Map 5.7)	192
Table 5.2: Special Places ("Key" references Map 5.7)	193
Table 5.3: Historic Views	196
Table 5.4: External views ("Key" references Map 5.8)	198
Table 5.5: Internal views ("Key" references Map 5.9)	200
Table 5.6: Views to Mitigate	201
Table 5.7 Park interpretive themes	242
Table 5.8 Park interpretive themes	243
Table 5.9 Park interpretive themes	244
Table 5.10 Park interpretive themes	245
Table 6.1 Summary of indicative costs	269
Table 6.2 Summary of Project Phasing	270



Point Pleasant Parks 35 kilometres of trails serve 1.5 million visitors every year.

Preamble

In most municipal recreation parks, cultural resources are not the focus: the ecosystem consists of turf and trees and public recreation dominates. In most Canadian historic sites, the cultural resources are in full focus, with nature well-tamed and public recreation discouraged. In most nature-oriented parks cultural resources are not a focus, and public recreation opportunities are limited.

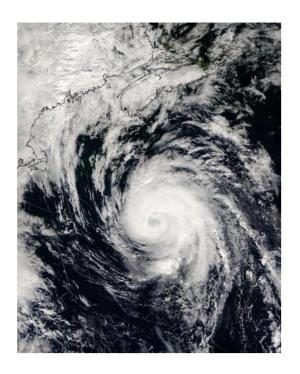
The goal of the Comprehensive Plan for Point Pleasant Park is to achieve a balance: a distinctive landscape with clearly presented historic features in an Acadian forest setting; a landscape where cultural heritage and the natural environment enhance each other and are balanced with recreational uses that respect the Park's sustainability.

1. Background

The southern end of the Halifax peninsula was one of many gathering points around Chebucto (Halifax Harbour) for the Mi'kmaq well before Europeans set foot on this continent. Long recognized by seafarers as the entrance to a fine harbour, it was where British settlers landed in 1749, and where they first intended to build their settlement. However,

its dangerous shoals and lack of fresh water caused them to move northwards to the area now overlooked by the Citadel. Some houses and farms were built at Point Pleasant, and the Point was fortified to protect the infant city. Once the inhabitants had time for leisure, it became a destination for walkers, carriages and people on horseback











The next 200 years saw a cycle of abandonment of fortifications on Point Pleasant during times of peace and the hasty restoration of old fortifications and construction of new ones when Great Britain and its colonies were under threat. The woods were cut many times to provide sightlines for the forts and for timber. By the late 19th century, armaments had become so powerful that Halifax could be guarded from the outer harbour, although Point Pleasant remained in use by the military until after World War II. In 1866, the City of Halifax acquired Point Pleasant on a 999-year lease for a park. New roads and paths were designed and built, new tree species were imported and Point Pleasant Park was born: a forest park where the ruins of fortifications and fortifications in active use could be found at every turn. Gradually many of the signs of earlier use became obscured.

By September 2003, the forest was in poor shape. It was of even-age, mature trees dominated (90 per cent) by red spruce. In 2001, 2,500 trees were cut in an effort to eradicate the brown spruce longhorn beetle which had infested the forest. Then early in 2003, an ice storm destroyed another 10,000 trees. When Hurricane Juan, a Category 2 storm, struck from the southeast on the night of September 28, 2003, the forest was ripe for nature's own process of renewal to begin.

By morning, Point Pleasant Park was a tangled mess of downed trees and upended roots. Many trees had snapped off at half height, and many were leaning perilously on their neighbours. Seventy five per cent of the trees had been lost. The Park was closed and Halifax Regional Municipality staff assembled

a team of arborists, foresters, ecologists, park specialists and archaeologists to advise on what to do. The public was distraught. Those who trespassed found they became disoriented within feet of the road—nothing was recognizable in the tangle of roots, trunks and branches that covered the area.



After the hurricane

Guided by the guided by advisors, teams of foresters, teams began clearing the Park, using modern forest machinery and taking care to preserve young trees so as to speed up the recovery of the forest. Enough material was removed to make the Park manageable and reduce fire hazard, but as much as possible of the woody debris was left on the ground to rot and provide nutrition. One patch of forest, just south of Cambridge Battery, was left untouched, as an experiment in natural regeneration and to remind people of Hurricane Juan's fury. Standing dead trees (snags) were left as habitat for insects, birds and other wildlife. Archaeoogists examined beneath the fallen trees and discovered many artifacts and lost sites and features The damaged shoreline was strengthened to prevent further erosion.



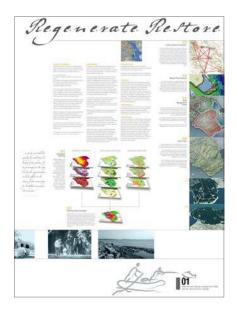


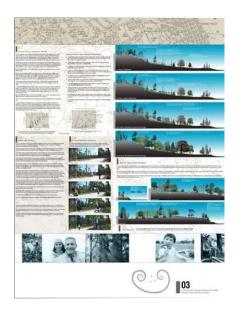
Sailors Memorial Way was cleared first and, in October 2003, the Park was open for a day so that citizens could see the task ahead. Over 100,000 people walked along Sailors Memorial Way as far as Point Pleasant and were amazed at the extent of the destruction. In June 2004, the Park was reopened and people were able to see all that the hurricane had done. What had been a huge enclosed forest full of secret spaces and shady paths, a place where you could still get lost after exploring it for 10 years, had become a moonscape dotted with stumps and dead trees. You could see in all directions. New views of ocean and city had appeared everywhere. The Park seemed to have shrunk dramatically.

In 2005, Southwest Properties Ltd. sponsored the Point Pleasant Park International Design Competition to choose the best way of renewing the Park. The word "design" in the title served to rally a public fearful that the nature of its Park might change. Public consultation preceding the competition resulted in an overwhelming cry of "Give us back our forest." People were asked to describe what the Park meant to them. Over 300 replied. an unprecedented response. From these often beautiful and heart-wrenching documents HRM compiled a list of descriptions of the park. This list informed competition, and is now the basis of the Comprehensive Plan. Users said that Point Pleasant Park offered them:

- · An oasis in the city
- A nature-dominated landscape
- Natural beauty
- An atmosphere of peace, tranquillity and serenity
- A natural place to find relief
- A place for contemplation
- Alfriendly community
- A place to connect with local history
- A place for walking, dog walking, running and picnicking
- A park for all seasons for all citizens
- A non-commercial park
- A park with the minimum number of buildings













The competition was won jointly by Ekistics Planning and Design of Dartmouth and NIP paysages of Montréal. Their entries responded to the public's demand for the recreation of a healthy forest, the restoration of the shoreline, and the preservation of other forts and other historic sites and features in the Park. These themes became the primary focus of the work that followed.

Preparing the Comprehensive Plan

The winning consultants were charged with the creation of a Comprehensive Plan based on their submissions and with principles firmly based on the statements received from the public. These principles include:

- Balance
- Ecological sustainability
- Park use
- Context and connectedness
- Accessibility

In addition to guiding the restoration of Point Pleasant Park, the Comprehensive Plan's emphasis is to make the Park even better than it was before Hurricane Juan. The public demanded both a healthy and a natural looking forest. However, forest experts have made it clear that the appearance of a natural forest can only be achieved by carefully following the management strategy outlined in the Comprehensive Plan. Longterm threats to the forest include hurricanes, fire, ice storms, global warming, sea level rise, invasive pests and poor management, but it is possible, by adhering to the Comprehensive Plan, for park managers to be prepared for some of these eventualities in a way that nature cannot. This will be accomplished by managing the growth of a healthier and more sustainable forest, while at the same time repairing and preserving the shoreline, and stabilizing and interpreting the forts and other cultural assets within the forest.



The plan also outlines a number of potential improvements to Point Pleasant Park: upgraded entrances, a new multi-purpose building, more stable roads and paths, new toilets, a wayfinding system and new park furniture. Consistent use of highquality and appropriate design for all built aspects of the Park will give it a visual cohesion that has been lacking. The future management structure of the Park, the cost of implementing the Comprehensive Plan and the program of monitoring needed to gauge the success of work carried out are also addressed.

Nature at Work

While the competition and subsequent creation of the Comprehensive Plan took place, nature, the most active member of the partnership, began to heal the Park in her own way. Tree seedlings germinated in much increased numbers, and fallen broadleaf tree stumps produced tall, healthy shoots that will quickly become trees. With more light available, the more than 100 species of smaller plants and shrubs that make up the forest

understorey flourished. Lady's-slipper orchids could be found and the raspberry, blueberry and blackberry crops were the best ever. A native grass species quickly grew in treeless areas and passersby were enchanted by the silvery wave patterns that rippled across it even in the lightest wind. After the first shock wore off, people adjusted to the wounded landscape and learned to recognize the signs of natural regeneration.





2. The Forest

Research

Initial work to create a management plan for the forest included the study of much existing research on hurricanedamaged forests, their rate of regrowth, and such beneficial aftereffects as encouraging a more mixed-age forest and increasing forest diversity. Much of this information was gathered from work done on the Harvard Forest in Massachusetts, which was damaged by a hurricane in 1938. In addition, the landscape of Point Pleasant Park was carefully classified, and the geology and soils were studied. An inventory of existing tree species was created, as was a study of the natural regeneration taking place in the Park.

Guiding Principles for The Forest

The guiding principles for the forest require balancing landscape ecology with human use. They include encouraging the development of a sustainable mixed-age Acadian forest containing a diversity of native tree species. The emphasis is to be on long-lived, hardy, shade-tolerant varieties like sugar maple, yellow birch, red oak, eastern hemlock, white pine and red spruce, although many other species will be encouraged. Wherever possible, natural regeneration is the favoured means of renewing the forest, augmented with planting where a greater diversity of species is desired. The target is to increase the forest area, and the Comprehensive Plan makes it very clear that Point Pleasant Park is a forest park, not a park of lawns, sports fields and large buildings.





Management Method

Growing a forest is less predictable than growing a field of corn. To create a naturalized forest ecosystem in Point Pleasant Park, the Comprehensive Plan calls for the implementation of adaptive management, which it considers well-suited to projects in which the long-term results of managing natural resources and ecosystems are uncertain. Using adaptive management, long- and short-term goals are set and actions take place. Results are then carefully monitored and, if necessary, methods are adapted to take advantage of results. This management approach encourages experiments in which systems are managed in different ways to generate knowledge as to the best method to use. Halifax Regional Municipality is responsible for implementing the Comprehensive Plan, with the help of contractors and (in certain cases) volunteers. Implementation of the plan will require careful records of work carried out and regular assessments of progress. Monitoring will be carried out by staff and interpreted by a new Monitoring and Research Committee.







Creating the Forest

The Comprehensive Plan considers first the stands of trees, mainly needleleaved varieties, which survived Hurricane Juan. They are clustered mostly in the northern, more protected areas of the Park and represent about one-third of what will be the forested areas of the Park. These stands are referred to as "Witness Groves" because they bear witness to the former life of the forest. They contain mostly mature trees and to keep them healthy for as long as possible, protective bands of broadleaved trees will be planted round them. Although the Witness Groves will receive minimal management in the early years of the plan, they play many important roles in renewal of the forest, including providing a supply of seeds.

In the remaining two-thirds of the forest, emphasis will be put on encouraging the growth of a mixture of broadleaved and needleleaved species, with emphasis on broadleaved trees. Such a composition will give the forest maximum resistance to future hurricanes and to the stress that comes from constant interaction with humans and their pets. It will also guarantee a high aesthetic appeal year round.

A top priority for attention will be the three east-west bands of south-facing slopes of the Park, which are a major geological feature. (See map 2.7, page 76) These suffered badly from Hurricane Juan; moreover, they dry out fast and are subject to erosion. So important are these slopes that planting on them began in 2007. In separate spring and fall plantings, the slopes nearest the sea were planted with 30,000 broadleaved and needleleaved seedlings, which, thanks to a wet

growing season, are thriving. In the spring of 2008 another 42,000 were planted on the remaining south slopes. (see Table 4.6, page 156) A program of regular thinning of natural regrowth was also introduced throughout the Park to ensure that the most desirable young trees flourish and that a good mix of species is obtained. As the years pass, this highly skilled work, which is the centrepiece of managing the forest restoration, will proceed on a continuous basis.





Beginning of forest regeneration - Heather Road - Summer 2005

Non-native species

Non-native species of trees, shrubs and lower plants, of which there are about 15 species in the Park, will be treated in a variety of ways depending on the extent to which they threaten native species.

For example, the Norway Maple, which seeds itself so aggressively as to hinder the propagation of other species, will be actively discouraged. Seedlings will be removed on a regular basis and some mature examples of this species may be removed where doing so does not spoil the appearance of the forest.

The copper-leaved variety of the European beech will be preserved in the areas where they were originally planted: mostly along roads. Where the rows are incomplete, the missing trees will be replaced with stray seedlings growing in the Park. The North American beech, which is native to Nova Scotia, is currently suffering from a bark disease and is not available for planting. However, HRM staff are investigating trials of a disease-resistant strain which, if successful, will be the preferred

beech for the Park. If this is not successful, European beech (green) will be encouraged to take its place.

Heather is deemed to be part of the history of the Park because it is said to have propagated itself from twigs that fell from the mattresses of Scottish soldiers. The patches on Sailors Memorial Way and other nearby areas will be maintained, but further spreading will be prevented.

Other non-native species will be dealt with according to Table (Table 4.4, page 150). Work to eradicate Japanese knotweed has already begun.

The Comprehensive Plan notes that as global warming takes place, the range of trees found naturally in Nova Scotia could change. Some trees will do less well and need to be replaced by more heat tolerant species. The plan calls for the early introduction of some trees found in southern Ontario and the New England states to prepare for this eventuality.







Hemp-nettle



Spotted devils paintbrush



Common hawkweed



Japanese knotweed



Heather



Norway maple



Sycamore maple

Park Fauna

Birds and animals are an important aspect of creating a sustainable forest for many reasons, including their ability to distribute seeds. Attention will be paid to improving the habitat of all park fauna.

Drainage

A healthy forest will also be encouraged by altering some drainage patterns so that there are areas of wetland and not all water flows immediately to the sea. A full study of drainage in the Park is an imminent requirement.

Trees and History

One place where trees will not take priority is where they have grown on the slopes and tops of forts or other cultural artifacts. Here it will be necessary to remove some trees so as to preserve the forts from further deterioration and enable stabilization to take place. In addition, so as to make the original purpose of the forts clearer to visitors, trees will not be planted or encouraged to grow in at least part of their original sightlines.

- "A fantastic opportunity to enjoy the outdoors in all seasons with my family and pet in a friendly atmosphere for all of us."
- Anonymous, 2005 PPP questionnaire response

Forest Aesthetics

Forest aesthetics looks at forests from a purely human point of view—considering the visual effect of the forest on the people who visit it. The plan suggests that consideration of forest aesthetics be incorporated into decisionmaking about the forest. For example, when species are chosen, the eventual height and density of the forest canopy can be planned to create a variety of different experiences for Park users. Guided by aesthetics, the Park can be tailored into one of several categories of forest styles. These include "picturesque," "pastoral," "primeval," "coastal barrens" and "sacred forest."





There will be instances where tension arises between the competing goals of forest management and forest aesthetics. From a forest management perspective, leaving snags upright and fallen trees and brush on the forest floor to rot is essential to provide a long-term source of food for a healthy forest. In some locations, logs have been placed to discourage entry to a sensitive area, to provide growing pockets of earth or to prevent runoff of water. From an aesthetic viewpoint, many people do not like what they perceive to be the "mess" that this creates. This situation can be mitigated to some degree by dragging debris away from paths and into the forest or by arranging

logs in more attractive ways. However, the management plan makes it clear that where forest management and the public's perception are in conflict, the health of the forest must be given priority.

Views

People come to the Park for the forest and its cultural resources, but they also come to enjoy what is to be seen within and beyond the Park. The sight of a sudden transition between one landscape and another, or of a ship entering the harbour, can bring a sudden lift of the spirits, a moment of elation.

Views are an important component of the landscape architecture of Point Pleasant Park and one gift that Hurricane Juan gave to Point Pleasant Park is an opportunity to frame historic views long concealed by a burgeoning forest, and to create new ones. Some of these views will be permanent, and others temporary. Depending on the season, the Park forest plays a role in framing, filtering or obscuring views.





Historic views

In its role as a fortress, Point
Pleasant was the eyes of the city,
alert for signs of enemy approach.
Each fort and battery within the area
had its essential sightlines towards
the sea and lines of communication
with other forts and batteries
around the harbour. High forts such
as the Martello Tower and Fort
Ogilvie were able to communicate
with the Citadel, as well as McNabs
Island and other major forts.

Now these historic views can be restored, bringing to life the strategic importance of the forts and batteries. Most of this work will be done by managing the regeneration of the forest to leave some historic views clear, although in some cases pruning or removal of trees may have to take place.

In the case of the sightline from the Martello Tower to Citadel Hill, it does not make sense to restore what would now be an urban view, so markings to indicate the direction of Citadel Hill will be put on the ground.

At Chain Battery, a viewing platform will be installed to allow visitors to see views that sweep up and down the Northwest Arm.

External views (Borrowed Landscapes)

There are other views beyond the Park: McNabs Island, York Redoubt and the view through the outer harbour to the distant horizon. These views, known as borrowed landscapes, are part of the experience of Point Pleasant Park and are essential to the public's long-term enjoyment of the Park. There is not at present any means to ensure that these borrowed landscapes retain their traditional appearance.

McNabs Island and York Redoubt are secure in public ownership, but areas of the Northwest Arm and the Dartmouth shore are vulnerable to development and should be carefully watched as the future unfolds. If necessary, view plane protection for Point Pleasant Park could be explored.

- " It restores the spirits of those who walk through it. My children and grandchildren love its soothing mystery and freedom."
- Anonymous, 2005 PPP questionnaire response

Internal views

These are more intimate views within the Park, usually along straight paths, at intersections, between two landscape types or towards a point of interest. Sometimes they can be seen from a distance, sometimes they come as a surprise. All will be enhanced by careful management of forest regeneration.

View screening

Then there are the views we do not want to see: trees are already being planted to mask views of the Halterm container terminal, parking areas, the backyards of private homes and maintenance facilities.



3. The Shoreline

The sea dominates and defines most of the boundary of Point Pleasant Park, and the Comprehensive Plan contains a proposal to form a municipal marine reserve in waters immediately offshore. This would complement onshore efforts to promote the sustainability of the Park.

A number of shoals lie just offshore Point Pleasant Park, including the well-known Hen and Chickens. These shoals affect the strength of wave action on the shoreline: increasing it in some areas and reducing it in others. In areas where the shoals mitigate the strength of the waves, this effect is lost at high tide when they are covered, and even more so during storms when the wind drives the tides higher than normal. It will also be lost by predicted sea level rise.

Erosion is a natural feature of shorelines, and so is the process of progradation (the building up of some areas with sand and cobbles). There are many factors that affect the way an area of shoreline erodes, one of which is



that areas with steeply sloping beaches are more susceptible to erosion than those with shallow slopes.

The predominant direction for high winds in the Park is from the southeast. Because the major effect of wave energy is on areas perpendicular (at right angles) to the direction of wave energy, the greatest erosion has occurred between the Bonaventure Anchor and the North West Arm Battery. The shoreline from Black Rock Beach to the Bonaventure Anchor and from the North West Arm Battery to Chain Battery, which is relatively sheltered from high wave energy, has suffered less from erosion in recent years. Studies done in preparing the Comprehensive Plan included comparing the present shoreline with a survey prepared by Hopkins in 1858 (See page 55). This comparison shows that since

1858 the shoreline between the Bonaventure Anchor and the North West Arm Battery has retreated 25 to 30 metres. As a result, some archaeological remains are likely to be found on what is now the seabed. Otherwise, although there are some notable changes, the shoreline has remained remarkably stable in the 150 years since the Hopkins study.

For purposes of preparing the Comprehensive Plan, the shoreline has been divided into four clearly defined areas. See map on page 161 (Map 4.3) These zones are defined by their different levels of wave energy, offshore and nearshore underwater conditions, and onshore topography. In planning for the future, predicted sea level rise of between 30 and 50 centimetres over the next 100 years must be taken into consideration. Without a protective strategy in place, accelerated rates of erosion are likely. A shoreline





Guiding Principles for The Shoreline

The following principles will guide work on the shoreline of Point Pleasant Park:

- Erosion is inevitable and should be expected and planned for if other objectives do not demand stabilization.
- Stabilization should only be undertaken if archaeological features are seriously threatened by erosion.
- Because of the inevitability
 of eventual erosion,
 archaeological work along the
 shoreline should be carried
 out as soon as possible.
- Where cultural features are seriously compromised by erosion and pose a safety hazard to the public, they should be removed or entombed after all cultural assets have been recorded.

Black Rock Beach to Bonaventure Anchor

This area consists of three coves with beach particle sizes increasing as you move south. They are divided by slate promontories that extend out into the harbour and protect them from wave action. This is the most heavily used stretch of shoreline and the most highly maintained. The first cove is Black Rock Beach, where sand has been artificially introduced. It was formerly a swimming beach and we hope to be able to open it to swimming again when the Harbour Solutions project has sufficiently reduced the level of pollution in water. The second cove is more exposed than Black Rock Beach. This area is under little threat and can be relied upon to exist in its present state for some time, so no immediate protection is required.

Bonaventure Anchor to Start of Point Pleasant Bluff

This section of shore, which faces the prevailing storm wind, is most vulnerable to waves and to erosion. This entire stretch of shoreline suffered from erosion during Hurricane Juan and a subsequent major storm in 2003. The Bonaventure Anchor may have to be moved in the near future and placed in another location close to the shore. If so, it should be positioned on shallow bedrock to reduce its vulnerability to erosion.

As a result of erosion, Point Pleasant Battery is at high risk for structural failure and poses serious risk to human safety. Archaeological studies, followed by either removal or entombment, are a high priority for this feature. Entombment is the recommended option.







The searchlight emplacement just west of this battery is in very bad condition and poses a serious threat to human safety. It should be documented and then removed as soon as possible. It is not easy to install protective measures in this area because waves tend to wash round any installations and erode them from the sides and behind.

As noted above, steep slopes erode more quickly than shallow ones, and recent efforts to stop erosion by piling stones along the connection between beach and meadow are likely to be worsening rather than improving the situation and should be stopped.

The shoreline lawns are in poor condition due to compaction and poor soil, and growing conditions must be improved. These lawns are also susceptible to inundation if the sea level rises, with consequent loss of park area.



Point Pleasant Bluff to Purcell's Landing (including bluff and landing)

The bluff is a drumlin-like feature, which is a classic eroding headland or coastal bluff composed of red brown till. Under the force of wave action the bluff erodes from the base, the slope then falls into the eroded void. The till is washed out to sea, leaving the larger cobbles and boulders on the beach.

The bluff has received the most remedial attention in recent years, including a large amount of rock reinforcement after Hurricane Juan. It is a complex engineering project and one of the greatest challenges facing park management because its east and west sections suffer from differing wave effects. In this location, the recording of archaeological resources, followed by stabilization, are urgently required. Work is also needed to control surface and shallow groundwater runoff over the edge of the bluff, which also cause erosion. Remains of the original house east of Point Pleasant Bluff are vulnerable to erosion and also need urgent attention.



Shore of Northwest Arm from Purcell's Landing to Chain Battery (excluding landing)

This area consists of a rocky shore with steep till and bedrock cliffs behind it. The steep slope amplifies the energy of the incoming waves. The road is the chief cultural feature of this area. The worst threat to the cliffs arises from poor drainage running towards the shore. Improvements to drainage and the diversion of shallow groundwater under the road are recommended. Special care is also recommended in the area toward Chain Battery because this is the location of many Mi'kmag cultural resources.





4. Fortifications

Point Pleasant Park is rich in tangible reminders of human history. Archaeological exploration after Hurricane Juan brought the number of known archaeological features in the Park more than 240. They range from complete forts to faint depressions in the earth. Pre-Contact Mi'kmag history is represented, as is early British civilian architecture. The Park's military history is well represented, with a range of forts and batteries, including the Prince of Wales Tower National Historic Site of Canada.

All these cultural resources together form an unusual combination of historic sites in a forest landscape. In most Canadian historic sites, the cultural material is usually in full focus, with nature well tamed, while in nature-oriented parks any cultural resources are often neglected. In Point Pleasant Park the goal of the Comprehensive Plan is to achieve a balance: a distinctive landscape with clearly presented historic features in an Acadian forest setting, where cultural heritage and the natural environment enhance each other. (See Map 4.4 Cultural Management Zones, page 167)





Guiding Principles for The Forts and Other Cultural Assets

The cultural resources in the Park are subject to the Province of Nova Scotia's Special Places Protection Act, which provides for the protection, preservation, regulation, exploration, excavation, acquisition and study of archaeological finds. In addition to this legislation, the Comprehensive Plan adapts Parks Canada's Cultural Resources Management Policy to provide guidance in managing the Park's historic and cultural assets. The essential components of this policy are:

- Maintaining an inventory of resources
- Evaluating resources
- Understanding the historic significance of sites
- Giving consideration to historic value in conservation and preservation
- Monitoring to ensure that conservation and preservation objectives are met

In the past many countries,
Canada included, rebuilt historic
sites as replicas. Since the signing
of the UNESCO Venice Charter
in 1972, this practice has been
less common. Today ruins are
stabilized and preserved and
interpreted with pictures, maps
and written and oral material so
that visitors can understand and
enjoy the site without causing
further damage to it.

The creation of a detailed inventory of the cultural resources of Point Pleasant Park is a high priority. It will serve as a management tool, enabling staff to better understand the Park's historic and archaeological resources and how to protect them from such routine activities as snow clearing and grass cutting. The inventory will also be the basis of preservation work, and will provide information for the interpretation of sites. In addition, the Comprehensive Plan recommends that all information about cultural resources be entered into the Geographic Information System (GIS) HRM uses in its management of sites.

After stabilization of cultural assets has taken place, they must be monitored periodically to ensure stability.

Vegetation management protocols have been described in the forest section above. These are essential to avoid damage to the cultural resources. Some locations will have trees, saplings and shrubs removed and will be stabilized with native grasses or other low plants to stop erosion. There will be a two-metre to five-metre treeless buffer zone around major cultural assets and only trees less than 10 metres in height will be permitted near major fortifications to minimize potential damage from windthrow. Vegetation around the summerhouses will be managed to enhance their views. A section of 18th century field between Heather Road and Sailors Memorial Way, overlooking Point Pleasant Battery will be preserved as grass meadow and will also help form a lookoff to McNabs Island and Halifax Harbour.



To ensure that newly discovered cultural assets are protected, there will be instances where work that requires digging below the surface of the Park will be supervised by archaeologists. This is especially important along roads and paths, many of which of date back to the second half of the 18th century, and in areas where Mi'kmaq artifacts are difficult to recognize.

First Nations

The design competition and preparation of the Comprehensive Plan have involved consultation with members of the Mi'kmaq community, and the Park has been chosen as a suitable location for commemorating the Mi'kmaq presence in Halifax. The Mi'kmaq community's reverence for Mother Earth is the basis of management for all Mi'kmaq sites of special significance in the Park.



Mi'kmaq sites will be recognized, protected and preserved, and some will be interpreted for the public. In the case of others, it will be more appropriate not to call attention to them. In addition to these policies, the Comprehensive Plan suggests the revival of Saint Aspinquid's festival as a celebration of Mi'kmaq heritage.

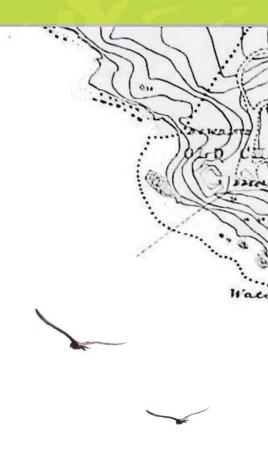
Historic Architecture

Some evidence of 18th century stone foundations was discovered after the hurricane. There is proof that more than one house was built in Point Pleasant during the 18th century, and there is tantalizing evidence, including a painting, of the fine house and garden once inhabited by Lieutenant Governor Edmund Fanning (1783-86), but at present its location is not known.



Blaskowitz map -1784





Military History

Table 4.9 (Page 173) describes the treatments and outcomes for many of the military sites in the Park. Fort Ogilvie will be stabilized and viewing decks constructed. Its defensive ditch, which has partially infilled over time, will be planted with groundcover, grass or shrubs for stability. Point Pleasant Battery will be entombed. North West Arm Battery and Chain Battery will be cleared. All these activities will require archaeological consultation to ensure the historic integrity of the stabilization.

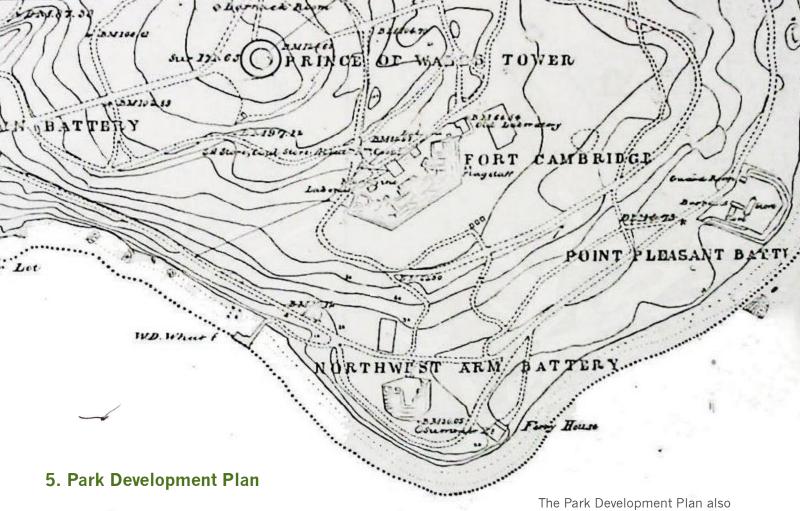
Monument Policy

The Comprehensive Plan suggests a monument policy for Point Pleasant Park that would include a process of application, review and approval (with public input) for the installation of new monuments. These must be fully funded, including maintenance costs. The subjects of new memorials must be directly associated with Point Pleasant Park, and be significant to a wide range of HRM citizens, and to future generations. The location of a monument must be accessible to all and must not compete with existing trees, structures or services, or cause traffic that conflicts with existing walking patterns. Monuments must not block important views: landscape, nature or historic features in the Park are to be

landscape or nature. No trees or archaeological remains are to be compromised. Possible future events connected with a monument should be considered when it is designed.

Existing monuments that contravene this policy will be grandfathered if they are safe and in good condition. Those that are not must either be made safe and put in good condition or, after discussion with any group associated with them, removed from the Park.





The Park Development Plan describes opportunities to improve the visual and practical aspects of the Park, enhancing the quality of the experience people enjoy there and giving it a visual cohesion it did not have before. Visual identity is the core of all this work.

Visual Identity

The concept of creating a visual identity for a place, institution or firm is well established. Although the components of such an identity may not be recognized by many of the people who see them, they provide subliminal confirmation of where they are, and enhance the natural character of a location.

In a park the visual identity is a system that ensures that the same materials, shapes, and colours are used for all built components, thus ensuring that these objects enhance rather than conflict with the works of nature. In the system devised for Point Pleasant Park, materials related to the natural environment are used. Timber, stone and steel are the materials of choice and the way in which they are used mirrors the built items of the past. Stone is to be used in ways that reflect the walls of the early military period. the Park entrances of a later era and the natural rock outcrops found throughout the Park. The wood used will be rot-resistant second-growth cedar or hemlock.

deals with roads and paths, views both near and distant, a new multipurpose building at the harbour entrance, wayfinding and signage, and park furnishings. The way in which Point Pleasant Park seemed to shrink after Hurricane Juan was described earlier. Much of the Park Development Plan deals with ways in which the Park will be made big again by providing a wide variety of experiences for the visitor. It also outlines how the Park fits into the network of open spaces on the Halifax peninsula and how people can circulate between them. This includes the proposed urban greenway and an Active Transportation trail to the Park from the waterfront via the port of Halifax and the container port.

Entrances

All three main entrances to the Park will be enhanced to provide a clear definition of when visitors enter the Park. Each will offer a real welcome and a promise of the rich experience of forest and history which is to come, and information about the Park will be readily available.

At each entrance an area of paving will mark the transition from the city to the Park and a stone and concrete monolith marked Point Pleasant Park will be installed. See graphic on page 236.

Harbour Entrance: Design elements include a belt of trees to hide the container port, natural features to control traffic speed, a new multi-purpose building and possibly a small outdoor skating rink.

Young Avenue: A new surface and traffic calming mechanisms will be introduced to link the existing historic gates more directly with the Park. A new, lower, water feature will be added to make the entrance more welcoming. An interpretation plaza and the Superintendent's Lodge and its garden will be integrated into the welcoming approach.

Tower Road: Changes will be made to rationalize parking and make the entrance more welcoming for visitors.



Paths (Circulation)

Paths will be made accessible to visitors in wheelchairs wherever possible. Accessible pathway loops will be created and their locations clearly advertised. In the circulation plan, most present trails and surfaces will remain. In addition, 1,400 metres of historic trails will be revived to bring back views now unavailable and to restore traditional circulation patterns. Approximately 350 metres of informal trails created by park users since Hurricane Juan will be closed and vegetation planted in their place. The path hierarchy will consist of four different levels of trails identified by their width, surface, edge treatment and signage. Motor vehicle traffic will be discouraged within the Park. The use of large maintenance vehicles will be limited as much as possible.

Main paths:

These will consist of the upper and lower loops around the Park. They will feature panoramic views and views into the forest, and will give access to most Park destinations. Surfaces will be stone dust, and extra measures will be taken to prevent this dust from spreading into adjacent vegetation. In addition, rough cut stone edging will be installed at intersections and in high interest areas. Open joints between the stones will allow water to drain but prevent the spread of the stone dust.

Secondary paths:

These connect the upper and lower loop paths. They will be surfaced with stone dust, and drainage ditches and other strategies will prevent the dust from spreading to adjacent vegetation.





Minor paths:

These will have various surface materials depending on location and site condition. Where the slopes are not too steep, wood chips will be used. This material has the advantages of being available on site, retaining moisture, resisting erosion and adding organic matter to the soil. Vegetation will be encouraged to grow naturally beside these paths, giving visitors an opportunity to enjoy the remnants of the needleleaved Witness Groves and the mixedwood succession groves.

Special paths:

These are new, narrow woodland paths, built boardwalk style through areas of special interest that are not now visible. They will provide opportunities for nature hikes and other small group activities.



Site Amenities and Furnishings

Existing pit toilets and others that are in poor condition will gradually be removed and replaced with new ones where piped water permits. Drinking fountains, with dog-level fountains, will be placed where existing water lines permit.

Furnishings will enhance the park experience by providing places to stop, rest, eat and gather. They will be of good design and built of the materials appropriate for the Park (wood, stone and steel) and in compliance with the visual identity plan, so they contribute to the character of the Park. Their design will be understated so that natural features of the Park remain the focus of attention. The existing concrete and painted wood benches will be reused.



Greenbank Multi-Purpose Building

An exciting new building will be placed at the harbour entrance to the Park, approximately where the canteen now stands, thus concentrating visitor services in one of the least environmentally sensitive areas of the Park. Pending future studies, it could serve many purposes: park and city information centre, park office, interpretation area, canteen and café, formal restaurant, multi-purpose space for program groups in case of inclement weather, fully accessible restrooms, all-season change rooms to support swimming, skating, and so on.

Greenbank will be an environmentally friendly building (possibly with a green roof) designed to enhance the entrance to the Park and to provide a visual link between land and sea with views of the harbour mouth. The design will reflect Nova Scotia's architectural history, but be contemporary in style and constructed of materials that comply with the visual identity plan for the Park. The existing restaurant/ Shakespeare by the Sea building in the lower parking lot will be removed.



Wayfinding and Signage

Wayfinding in the Park will be provided by brochures, prerecorded guided tours for electronic devices and signage. Signage in the Park will be more than just a set of signposts, markers and symbols. It will conform to the visual identity plan and thus reflect the special attributes of the Park. It will add to the safety of the Park and ensure people find their way to places of interest. When they reach their destinations, a welldesigned interpretation system will tell the ecological and cultural stories embodied in the Park.

Gateway monoliths

Stone and concrete monoliths announcing the name of the Park will stand at the pedestrian entry points of all three main entrances. Their height and mass is designed to draw people into the Park. The use of native plants and shrubs and stone walls that incorporate seating sections will complement these new entry features.

Directional and information kiosks

To be located at decision points along the park trail system. They comply with the Park's visual identity plan and are vandal-resistant. They contain a map of the Park and directions to key locations, exits and washrooms. They also incorporate a display space for reproductions of items from the Park's history.

Wayfinding signage

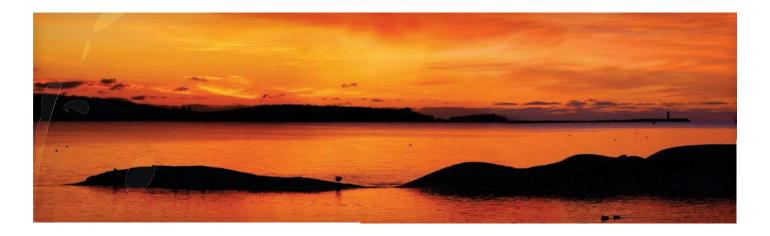
Will be a simple contemporary design with a strong wood support, in compliance with the visual identity plan.

Interpretive signs and tour markers

Interpretive signs will enhance the visitor's experience in the Park. Made of the same materials as other signage elements, they will contain panels of tempered glass on which text and images can be reproduced. The translucent panels and wood support allow the signs to blend into the landscape. Tour markers are discreet but visible because of their compliance with the visual identity plan.

Emergency telephones

Emergency telephones will be clearly visible throughout the Park. They will comply with the visual identity plan.



Lighting

Exterior lighting will only be installed around buildings and in parking lots where it meets a need and enhances safety. Minimum lighting levels will be employed. Up-lighting of the Sailors Memorial will be retained to provide a beacon for ships entering Halifax Harbour. All other light fixtures will be dark-sky compliant.

Detailed plans of special places

Detailed concept plans for 10 special areas of the Park are included in the Park Development Plan. These areas are: the three main entrances, described above, the Eastern Shoreline area (beaches), the Western Resource area, Fort Ogilvie area, Cambridge Battery area, Point Pleasant Battery area, North West Arm Battery area and Chain Battery area. See illustrations in chapter 5, pages 210-233.

6. Implementation

In implementing the Comprehensive Plan, highest priority will be given to restoring the forest. This will be followed by the stabilization of the Park's cultural assets and its shoreline. Efforts will then move into improving existing amenities and the creation of new ones. That said, some major projects should be carried out early in the plan's life to create enthusiasm for the whole management process. However, timing of most large-scale projects will almost certainly be dependent on the availability of funding from the different levels of government. Seeking such funding will be a major task for those involved in the implementation of the Comprehensive Plan.



This section of the plan describes the many good things that have come out of the crisis caused by Hurricane Juan and stresses the importance of maintaining all of these achievements for the future.

- The design competition and the Comprehensive Plan process have led to an increased understanding of the value of the Park by the public and by all levels of government, including HRM, which has only been managing the Park since 1996.
- Essential work that needed to be carried out before the Comprehensive Plan was ready has led to a foundation of best practices in many fields and the emergence of better coordination between the groups involved in park management.
- A technical advisory group composed of experts in many fields from all three levels of government, the Mi'kmaq First Nation, local universities, and Nova Scotia community colleges has worked closely together on all aspects of Point Pleasant Park.
- HRM has been able to task skilled people from many of its departments to help with Park issues. This has been very beneficial to the Park and the plan calls for this group to remain in place for the immediate future. The group will be formalized as a Point Pleasant Park working group for a minimum of five



- years. In addition, HRM will set up a park system task force to focus on a goal of integrated management for all the region's parks.
- More than 35 government and non-government bodies play a role in the life of Point Pleasant Park. These include agencies from all three levels of government, the Mi'kmag First Nation and such nongovernmental parties as the Friends of Point Pleasant Park. This can cause some confusion in the minds of the public and the stakeholders themselves. Working together since the hurricane has brought new clarity to the relationships among all these groups, and the plan stresses the importance of retaining this clarity.





Responsibilities of the Owner and Tenant

Under the terms of the agreement by which the HRM leases Point Pleasant Park, the federal government, as landowner. is directly responsible for all fortifications in the Park. Discussions concerning this responsibility must take place before the stabilization of the fortifications can begin. All aspects of the property's role as a park are the responsibility of HRM. The current lease does not assign to either party responsibility for managing the Park in a sustainable way.





Staffing and Management

The implementation plan also includes an evaluation of the current park management structure, which has grown up since the inception of HRM in 1996. It outlines weaknesses in the structure and gives suggestions for improvement. At present, day-to-day management of Point Pleasant Park is the responsibility of the Supervisor of Major Parks, who is also responsible for five other parks. The plan calls for a central management system for Point Peasant Park based at the Park. It is also notes that the operational needs of the recovering Park cannot adequately be met by the current level of staff. which consists of two full-time employees and seven part-time (usually summer) employees. Administrative support is also needed.

It is also important for HRM to clarify funding for Point Pleasant Park, which is currently fragmented among many departments and not clearly itemized in their budgets. According to the plan the budget for Point Pleasant Park needs to be increased to meet the goals of the recovering Park. In addition, an annual report for Point Pleasant Park is essential, as is a formal archive.

Phasing and Cost

Estimates exist for the work to be undertaken in Phase 1, the first five years of the project, from 2007/8 to 2011/12. (See table 6.1, page 269). Lists of projects to be undertaken in phases 2 and 3 are included as well, but are dependent upon future available funding.

A Role for the Public

Upon taking over the management of Point Pleasant Park, HRM established the Point Pleasant Park Advisory Committee to represent the interests of the public on matters pertaining to the Park, and to advise on the direction, management and evolution of the Park. Members are volunteers appointed by HRM Council. A number of issues need to addressed if the committee is to function as was intended.

The Comprehensive Plan for the Park will help guide a "Volunteers in the Park" program that will engage the public directly in the Park's renewal and stewardship. With modest goals to start, the program will target forest maintenance and trail renewal in its first years. As different projects within the plan are undertaken, more ways in which the public can help will be explored.





Next Steps and Areas of Study

The following detailed studies are required as implementation of Comprehensive Plan proceeds:

- An Operations Plan for use by park staff and park administrators. This will be completed within one year of adoption of the Comprehensive Plan.
- A Cultural Resources Inventory.
- A Park Drainage Plan to outline a coordinated approach to managing runoff in the Park.
- A Forest Management and Evaluation Strategy.
- A Fire Management and Emergency Response Plan.
- A Coastal Zone Monitoring and Shoreline Study.
- Further exploration of the benefits of designating a Marine Coastal Reserve offshore from the Park.

- A Signage and Wayfinding Schematic Design encompassing the design elements outlined in the plan.
- An Interpretive Plan to give detail to the recommendations in the Comprehensive Plan.
- Detailed designs for specific built projects outlined in the Comprehensive Plan.
- A strategy to link Point
 Pleasant Park to the broader
 urban landscape.
- An Information and Communications Plan that supports the informed involvement of the public in the Park and encourages the involvement of scholars from a variety of disciplines who may contribute to its effective management.









