

NATIONAL HISTORIC SITE OF CANADA

GROSSE ÎLE AND THE IRISH MEMORIAL

Management Plan



Front Page Photo:

*Hélène Boucher
Parks Canada*

April 2001

FOREWORD

The Government of Canada is committed to the protection and presentation of our heritage. As the Minister responsible for Parks Canada, it is my responsibility to safeguard the integrity of our national historic sites. Accordingly, it gives me great pleasure to approve this management plan for Grosse Île and the Irish Memorial National Historic Site of Canada.

The history of Grosse Île must be told to Canadians. Today a national historic site, this one time quarantine station has been a unique witness to the great waves of immigration occurring from the 19th century into the early 20th. As part of the effort to combat contagious diseases, thousands of newcomers to Canada had to make a halt on the island. Once cleared, they fanned out to all corners of the country where they proceeded to settle and shape their homeland after their own fashion.

Grosse Île was the setting of a human drama that involved the thousands of immigrants who, in 1847, left their native Ireland in hopes of a better future. After a long, trying voyage, many finally succumbed to typhus; for them, Grosse Île was not a point of entry but rather a final resting place. Grosse Île also tells the story of an extraordinary public outpouring of generosity toward the Irish immigrants. Numerous French-Canadian families took in hundreds of orphans, while doctors, nurses and members of the clergy and the religious orders devoted themselves heart and soul to the sick and the dying.

Based largely on the recommendations of an advisory committee formed after public hearings in 1992 and 1993, this management plan will help to ensure the commemorative integrity of Grosse Île and the Irish Memorial National Historic Site of Canada and guide an extensive project of commemoration and heritage development. Many thanks are owed to the members of the committee, Ms. Jean Burnet, the late Dr. Jean Hamelin, Ms. Marianna O'Gallagher, and the chairman, Dr. Larkin Kerwin, for their valuable assistance and the many Canadians who shared their comments and suggestions.

The development of Grosse Île will take several years. Partners from the private and public sectors, and the general public will be invited to collaborate with Parks Canada on this project, particularly with respect to financing and operating the site.

The story of Grosse Île beckons to us at the present time. There, where solidarity and generosity were offered to others without regard for a person's country of origin, we may find striking examples of the values we share today. It is my hope that Grosse Île, a haven of care and solidarity in days past, will become an ongoing source of inspiration for current and future generations of Canadians.

Grosse Île and the Irish Memorial National Historic Site of Canada is one in a system of over 850 national historic sites, through which we learn about and share the story of our country. As places where we commemorate our past, they contribute to an ongoing understanding of Canada's national identity.





Sheila Copps
Minister of Canadian Heritage

**Grosse Île and the Irish Memorial
National Historic Site of Canada**

MANAGEMENT PLAN

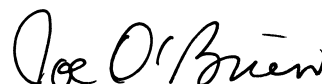
APPROVAL RECOMMENDED BY:



Tom Lee
Chief Executive Officer
Parks Canada



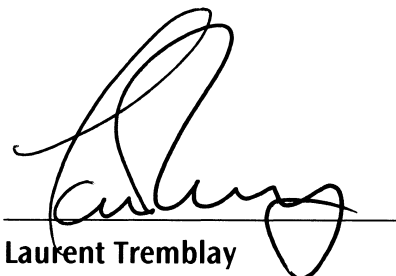
Christina Cameron
Director General
National Historic Sites
Parks Canada



Joe O'Brien
Director General
Eastern Canada
Parks Canada



Jean Desautels
Field Unit Superintendent
Québec Area Field Unit
Parks Canada



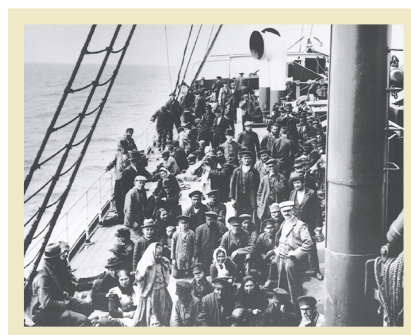
Laurent Tremblay
Executive Director for Quebec
Parks Canada

Table of contents

Introduction	1
Origin and context of the project	1
Management plan	3
- Quarantine and public health	4
- 1847, year of tragedy	7
- Canadian immigration in Québec City during the years of the Grosse Île quarantine station	10
Commemorative integrity of the site	13
Commemorative intent	14
Resources symbolizing or representing the national significance of Grosse Île	15
- Grosse Île and its cultural landscapes	16
- On-site cultural resources	17
- Movable cultural resources	18
Messages of national historic significance	18
- Messages for the Canadian public	21
- Messages for visitors to the site	21
- Communication challenges	22
Other heritage values of the site	23
Analysis of the current situation	27
Ownership and legal context	27
Commemorative integrity of the site	28
- Condition of landscapes and level-1 resources	28
- Communication of site messages of national historic significance	34
Facilities	35
Environment	37
- General status	37
- Impacts of activities past and present	38
Public visitation and use	39
- Visitation figures	39
- Facilities and services	40
- Co-operation	41
Regional tourism context	41

Preservation and presentation of the site	43
Preservation and presentation concept	43
Strategic directions and key actions	47
- Ensuring the commemorative integrity of the site	47
- Visitor services	61
- Facilities	63
- Agriculture and Agri-Food Canada facilities	63
- Preserving and presenting the natural environment	64
- Site visitation	65
- Shared management of the site	66
Summary of the environmental assessment	67
Background	67
Methodology	68
Scope	68
Conformity with strategic directions	68
Identification of impact sources and assessment of concerns	68
Cumulative impacts	69
Mitigation strategies	69
Conclusion	70
Conclusion	71
Acknowledgements	73
Appendix 1: Research reports and other reference works	75
Appendix 2: Conservation priorities for the natural resources of Grosse Île	81

Front page photo:
NAC, C-68842



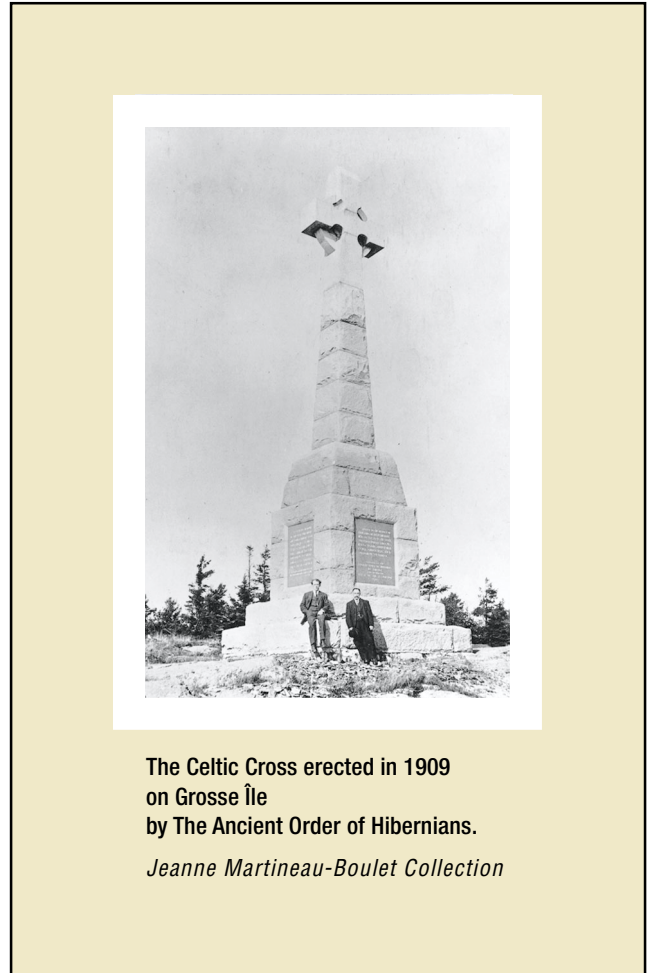
Introduction

Grosse Île and the Irish Memorial National Historic Site of Canada is located in the upper estuary of the St. Lawrence River, some 48 km downstream from Québec City. The significance of Grosse Île in the history of Canada stems from the key public health role it played as quarantine station for the port of Québec, for many years the main point of entry for European immigrants to Canada. In 1847, thousands of Irish immigrants fled the devastation of the Great Famine, only to die of typhus during the sea voyage or upon reaching Canadian shores. More than 5000 of them were buried on the island. That is why Grosse Île has been regarded as sacred ground both in Ireland and among members of the Irish diaspora. The Celtic cross was erected in 1909 to serve as a memorial to that tragic time.

Origin and context of the project

The national historic significance of the former quarantine station on Grosse Île was first recognized in 1974 by the Historic Sites and Monuments Board of Canada (HSMBC). This recognition led to the unveiling of a commemorative plaque in 1980.

In 1984, following a thematic study of immigration to Canada and the various potential sites where this theme could be illustrated, the Board expressed the opinion that *“the peopling of Canada through immigration is a theme of great*

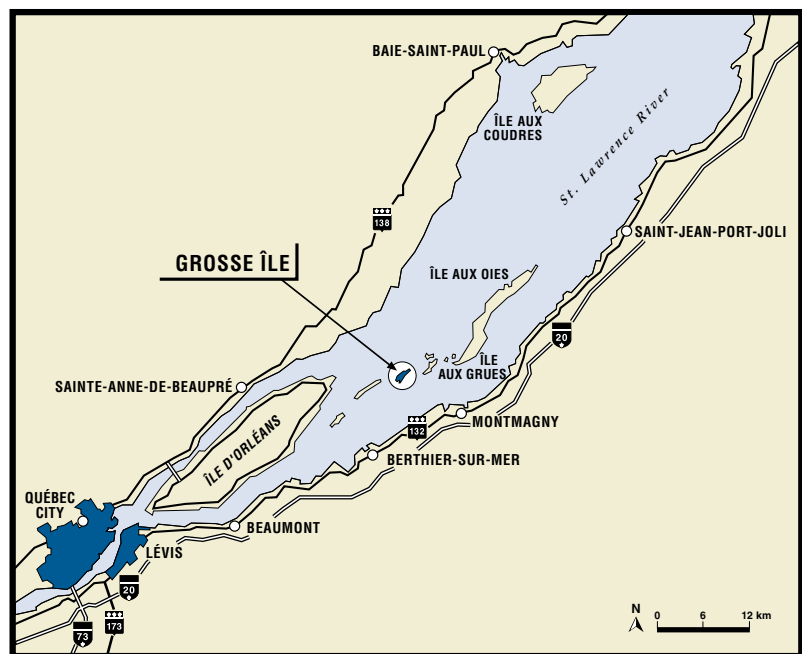


national significance which should be the subject of major commemoration.” The Board added that *“in light of the number and quality of the in situ resources on Grosse Île related to the theme of immigration, the Minister should consider acquiring the Island, or portions of it, and there developing a national historic park.”*

The Minister accepted this recommendation and asked Agriculture Canada, which was then managing the island, to transfer the buildings and sites of historical interest to Parks Canada. In August 1988, the Environment Minister (then responsible for Parks Canada) and the Agriculture Minister signed a formal agreement to this effect.

The project was launched in 1989 with the preparation of a “Themes and Objectives” document based on the HSMBC recommendations.¹ In March 1992, a comprehensive information document² was made public in order to inform Canadians about how Parks Canada intended to preserve and present Grosse Île as a national historic site. The consultation began in spring 1992 with public hearings in Montmagny, Quebec City and Montreal. Following requests from the Irish-Canadian community, further public meetings were also held across Canada in spring 1993. A full report of the opinions voiced during the consultation was published in 1994.³

In August 1994, the Minister of Canadian Heritage announced that an advisory panel would be set up and would suggest to Parks Canada ways by which it could address the many expectations and concerns expressed during the consultations. The committee’s report was made public in March 1996, thus coinciding with the ministerial announcement that the site would henceforth be known as “Grosse Île and the Irish Memorial National Historic Site of Canada.” The report of the advisory panel⁴ covers some 75 recommendations dealing with different aspects of the project, most of them based on the comments and suggestions gathered during the public consultations.



1. ENVIRONMENT CANADA, PARKS SERVICES, *Grosse Île National Historic Site Themes and Objectives*, Quebec Region, Quebec, February 1989, 24 p.
2. ENVIRONMENT CANADA, PARKS SERVICES, *Grosse Île National Historic Site Development Concept*, Quebec, March 1992, 87 p.
ENVIRONMENT CANADA, PARKS SERVICES, *Grosse Île National Historic Site Development Concept Supplement*, Quebec, 1992, 24 p.
3. CANADIAN HERITAGE, PARKS CANADA, *Report on The Public Consultation Program*, Quebec, March 1994, 55 p. plus appendices
4. CANADIAN HERITAGE, PARKS CANADA, *Report of The Advisory Panel*, Quebec, August 1995, 12 p. plus appendices

Management plan

Management plans for national historic sites describe the medium and long-range strategic guidance chosen for protection, presentation and use of these heritage areas. Each plan embodies the commitments made to the Canadian public by the minister responsible for Parks Canada.

A management plan applies Parks Canada's general policies to a specific site and also takes into account the opinions and proposals of the public. The guidance expressed in this plan is directly linked to the essential responsibilities of Parks Canada – that is, ensuring the commemorative integrity of the site, offering quality service to visitors and, finally, using public funds in a wise and efficient manner. In implementing management plan directions, Parks Canada fulfills its duties to Canadians.

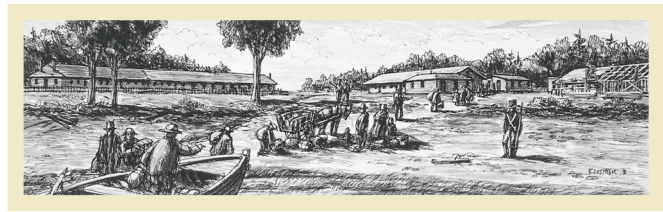
The 1998 legislation founding the Parks Canada Agency stipulates that management plans for national parks and national historic sites must be revised every five years and tabled before Parliament. Thus, this plan, the first produced for Grosse Île and the Irish Memorial National Historic Site of Canada, will be periodically reviewed and updated.

The first section of the plan provides a brief overview of the historical significance of the quarantine station of Grosse Île, the tragedy of 1847 and the phenomenon of immigration to Canada in the 19th century; it also sets out the concept of commemorative integrity and contains excerpts from the commemorative integrity statement for the site. The second section briefly describes the current situation; it highlights features of the site in connection with commemorative integrity, including factual information about its legal status, use, existing partnership agreements and the regional tourism context. The last section of the plan describes the protection and presentation concept proposed in response to strategic objectives, and outlines the comprehensive directions which, over a period of fifteen years, will shape future Parks Canada interventions with respect to the management of cultural and environmental resources, the communication of heritage values, service to be offered to visitors, and visitation targets.

Owing to its fundamentally strategic nature, the management plan does not propose an implementation program or action plan as such, although the conclusion sets out certain priorities. These priorities and the appropriate budget parameters will be confirmed in the site's business plan.

Quarantine *and public health*

- Development of the Grosse Île station
- The great epidemics
- Modernism and efficiency
- The 20th century



Evocation of the first installations, 1832

Illustration by Bernard Duchesne
Parks Canada, 1996

Development of the Grosse Île station

Throughout its existence, the human quarantine station on Grosse Île served to monitor public health at the St. Lawrence gateway to Canada. From the time it opened in 1832 until it finally closed in 1937, a variety of events were to mark the station's history; however, certain developments produced significant repercussions on its evolution.

The great epidemics

The Grosse Île station came into existence in a special context. After the Napoleonic wars ended, increasing numbers of people started to leave England, Ireland and Scotland to make a new life in North America. Around 1830, when Québec City was by far Canada's largest port of entry, the exodus resulted annually in 30 000 new arrivals to this city alone; approximately two thirds of this number came from Ireland. This unprecedented influx of immigration through the St. Lawrence coincided with the great epidemics then rampant on both the Continent and Great Britain. The second cholera pandemic (1829-1837) struck England in 1831-1832; it was the emigrants, including the many Irish passengers embarking at English ports, who brought cholera to America and Canada.

Foreseeing the arrival of this terrible disease in the St. Lawrence valley, the colonial authorities established a full-fledged quarantine station at Grosse Île, downstream from Québec City. This checkpoint was once again confronted with cholera in 1834, and then

was faced with the even deadlier typhus epidemic of 1847-1848. Once again, most of the victims were Irish immigrants. This era of virulent epidemics came to an end after another outbreak of cholera in 1854.

The early decades of the Grosse Île quarantine station were coloured by other particular characteristics: colonial management of what then was termed "British emigration," which went forward in the absence of any control by Canadian representatives over this movement of peoples; improvised quarantine facilities operated by inexperienced staff; ignorance of the causes and carriers of infectious diseases; a chronic inability to safely care for, and minister to the vast tide of immigrants, especially the sick. Adding to this already grim picture, the lengthy transatlantic crossings aboard overcrowded and contagion-bearing sailing ships clearly created an uncontrolled, explosive situation which contributed to the deaths of thousands of Irish immigrants on Grosse Île in 1847.

Modernism and efficiency

History has perpetuated the memory of this tragic period of the St. Lawrence quarantine. However, it has largely ignored the hidden face of Grosse Île's past – that is, the long years spent developing efficient, modern methods for handling immigrants and treating contagious diseases.

From the 1850s on, and especially after Confederation in 1867, the Canadian government enacted a wide-ranging immigration and settlement policy that required a reliable, working quarantine service. The memory of the not-so-distant disasters was still fresh, and the lessons of this experience had been fully understood. On Grosse Île itself, the architect of improvements to quarantine operations was Dr. Frederick Montizambert, a bacteriologist who served as the station's chief medical officer from 1869 to 1899.

Montizambert began by planning the ultimate layout of the island's facilities in a way ensuring that there would be absolutely no contact between sick immigrants and healthy passengers under observation. As the years passed, the immigration and financial situation changed. Montizambert was able to rebuild the station's facilities: hospitals, residences for quarantined passengers, workers' homes and chapels. He ensured that new quarantine regulations were adopted, thus eliminating the loopholes and laxity of ship captains.

Thoroughly versed in the scientific and medical aspects of the diagnosis, treatment and prevention of contagious diseases, Montizambert imposed increasingly strict and efficient health controls on immigration, including: inspection and disinfection of ships, passengers and baggage; vaccination; and diagnosis using laboratory tests. These initiatives came in

response to new developments. Immigration was now a worldwide phenomenon. New potential paths of transmission of contagious diseases had multiplied and sea crossings had become shorter with the advent of new steamships.

The proliferation and improved comfort of these steamships prompted the superintendent to modernize the buildings used for receiving and accommodating immigrants on Grosse Île.⁵ From the end of the 19th century until World War I, Grosse Île featured three modern hotels, each of which corresponded to one of the three types of passenger fare available on board transatlantic liners. Montizambert successfully met the major challenge of his career – that is, thoroughly revamping the concept of public health in an immigration context, while at the same time offering faster processing and more comfortable surroundings for immigrants.



In 1878, three buildings which had served as hospitals in the eastern sector of the island went up in flames. Chief medical officer Montizambert then persuaded the government to erect a modern spacious hospital for infectious diseases on the same location. Built in 1881, this 100-bed hospital was destroyed by fire in 1968.

*D. A. McLaughlin
National Archives of Canada
(hereinafter referred to as NAC) PA-148819*

5. Thus, electrification was carried out on Grosse Île in 1902, several years before many other regions of Quebec.

The 20th century

With such modern facilities and a world-renowned service, the future looked bright indeed for Grosse Île – all the more so because at the turn of the century, immigration to Québec City had begun reaching unprecedented levels: 100 000 new immigrants arrived in 1910, 170 000 in 1912, and 225 000 in 1914. Plans were even drawn up for a new, larger and more modern hospital complex at the station. But a series of developments combined to alter the destiny of Grosse Île once again.

World War I and the Depression that followed the 1929 crash resulted in a sharp decline in immigration to Canada. In addition, medical knowledge in the fields of microbiology and contagious diseases had made enormous strides since the turn of the century. Beginning in 1923, the hospital on Grosse Île dealt exclusively with serious illnesses (cholera, typhus, small-pox, etc.), all of which became increasingly rare. Furthermore, under international health conventions, minor infections and childhood diseases such as diphtheria, chicken-pox and measles no longer required genuine quarantine measures. Also in 1923, ship inspection was transferred from Grosse Île to Pointe-au-Père, a short distance down river from Rimouski. This move, combined with the opening of the Parc Savard Hospital in Québec City (1907), contributed to the decline of the Grosse Île quarantine station, which closed down in 1937.

Shortly afterwards, during World War II, Grosse Île was used to house the Defence Research Board, which set up an experimental station on the island for the

development of bacteriological weapons. In particular, a vaccine was developed against cattle plague, and intensive research was conducted on the anthrax bacillus. Following a short hiatus, experimentation at the station resumed in 1951. The Defence and Agriculture departments conducted joint research into lasting measures for warding off a potential bacteriological attack on Canadian livestock.

In 1956, the Grosse Île facilities were transferred to the Department of Agriculture, which located its Animal Pathology Division on the island. There, the unit conducted studies on animal diseases and trained personnel. Subsequently, beginning in 1965, the Contagious Diseases Division of the same department used Grosse Île as a quarantine station for import animals.



The Parc Savard Hospital, forerunner of the Hôpital du Christ-Roi in Québec City

NAC, PA-23209

1847, year of tragedy

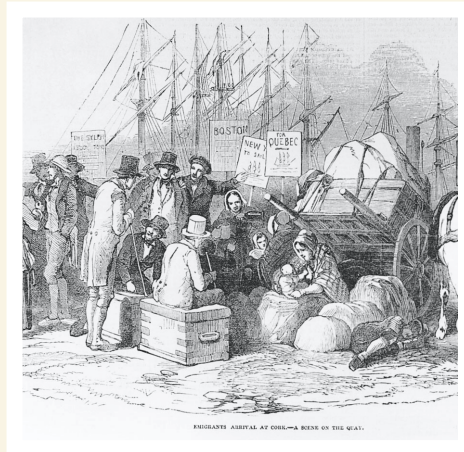
- The Great Famine
- The drama of the quarantine
- A terrible toll

The Great Famine

Grosse Île and the Irish Memorial National Historic Site of Canada recounts and highlights one of the saddest pages in Canadian history, the tragic experience of Irish immigrants in 1847. This catastrophe was to leave an indelible mark on the collective memory of Irish Canadians.

Irish immigrants boarding for the American continent

*Illustrated London News, May 10, 1851
NAC-C-003904*



The tragic events of 1847 on Grosse Île are linked to the Great Famine that afflicted Ireland from 1845 to 1849. These years are considered to be among the most decisive but also the most traumatic in Ireland's history. It is difficult to imagine that in less than a decade, the population of Ireland, then 8 million, was reduced by a quarter. Over one million people died of starvation, disease and malnutrition, and one million more chose to emigrate. Even today, the population of Ireland is still lower than it was in 1841.

The Great Famine reached its peak in 1847. In that year alone, some 100 000 emigrants left Europe for Québec City, with most of that number being of Irish origin. Weak from hunger and malnutrition, crammed into unsanitary sailing ships that were poorly equipped for passengers, the Irish immigrants quickly fell prey

to disease, especially typhus and dysentery, during their crossing. Over 5000 men, women and children perished at sea or while waiting offshore for landing at Grosse Île.

In 1847, this flood of immigrants, and the contagious typhus carried by them, created a crisis situation. The epidemic proportions of the disease aboard the immigrant ships meant that an even worse catastrophe would befall the Grosse Île quarantine station.

The drama of the quarantine

Needless to say, Grosse Île was very poorly equipped to deal with such an influx of sick people and so-called healthy passengers. The latter had to be kept under observation on the island if ever they had come in contact with the sick during the voyage. To handle all these people, Dr. George M. Douglas, the station's medical superintendent, had only 200 beds for the sick and some 800 for healthy arrivals. The inadequacy of these facilities, coupled with the shortage of medical and nursing staff, became sorely apparent in mid-May, when the first four immigrant vessels forced to land at Grosse Île put ashore 285 sick passengers and 1200 others.



The Lazaretto is the last surviving witness to the events of 1847 on Grosse Île.

*Pierrette Boulet Collection
Parks Canada*

This flood of passengers on to the island increased precipitously, to the point that by the end of May, 1300 patients were crammed into every available building. Meanwhile, on the ships, an equivalent number of sick could not be landed for want of beds or shelters. A total of over 12 000 people were held on the island; the situation verged on anarchy. The arrival of additional medical staff and hundreds of army tents did little to alleviate these calamitous conditions.

Only by means of an intensive campaign to build more hospitals and shelters on the island was it possible to gradually bring the situation back under control on Grosse Île. In June and July, priority was given to landing, housing and treating the sick. Then, in August and September, the "healthy" immigrants, many of whom fell ill and died, were moved out of the insalubrious tents. They were accommodated in a dozen huge wooden sheds erected at the eastern end of the island.

Paradoxically, it was at the end of the sailing season, as the need fell off, that the quarantine services finally attained the level so urgently required. The western part of the island now had a number of hospitals, with facilities for 2000 patients, while at the other end of the island, 300 convalescent patients and 3500 healthy immigrants could be accommodated "in comfort." Kitchens, laundries, staff quarters, residences and various homes and other buildings had also been erected; the dreadful months had worked gradual but deep changes in Grosse Île.

A terrible toll

In early October 1847, with the approach of winter, the several hundred sick people still hospitalized on Grosse Île were gradually transferred to Montreal or Québec City. By October 21, all the immigrants had left the island. The authorities officially closed the station on November 3 and could now take stock of the devastation that has remained without parallel in Canada's public health history.

During the previous six months, 398 ships had been officially inspected at Grosse Île. Approximately 100 000 immigrants had sailed for Québec City during the sailing season that year, but over 10 000 of them would never set foot in the Old City. Of the 90 000 immigrants who came ashore at Québec – three times as many as in 1846 – six out of seven were of Irish origin.

The toll in human lives was astounding: over 5000 perished at sea and 5424 were buried on Grosse Île. Thousands more died in Québec City, Montreal, Kingston and elsewhere. The unprecedented scale of

the summer of 1847 catastrophe resulted in one of the most outstanding movements of solidarity ever seen along the St. Lawrence shores. Hundreds of Irish orphans were taken in by numerous French-Canadian families, who brought them up as their own. The Irish catastrophe also led to heroic and courageous actions by station personnel, who often risked their lives to bring help and comfort to the suffering.

As a tribute to all the victims of the Irish catastrophe of 1847, the Celtic cross was erected on Grosse Île in 1909 by the Ancient Order of Hibernians. Every year in August, this long-established Irish society still holds a traditional memorial pilgrimage to Grosse Île.

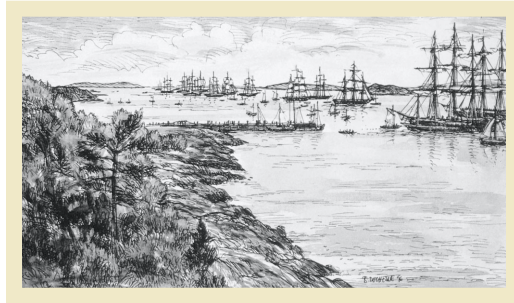


Inauguration ceremony for the Celtic Cross,
August 15, 1909

*Livernois Collection
Archives nationales du Québec
(hereinafter referred to ANQQ)*

Canadian immigration in Québec City during the years of the Grosse Île quarantine station

- Colonial emigration (1832-1860)
- Transition era (1861-1880)
- Gradual consolidation (1881-1900)
- Expanding immigration brought to an abrupt halt (1901-1920)
- Major upheavals (1921-1940)



Evocation of the Quarantine Strait during the summer of 1847

Illustration by Bernard Duchesne
Parks Canada, 1996

The human quarantine station was opened on Grosse Île in 1832. Barely 15 years earlier, the influx of immigration from Great Britain to Canada had started to increase dramatically. British emigration to the shores of the St. Lawrence began after 1815, in the aftermath of the Napoleonic wars. The agrarian and industrial revolution, unemployment, socio-economic problems and overpopulation were the main reasons why English, Irish and Scottish emigrants decided to head for Canada.

With the 105-year history of the Grosse Île quarantine station (1832-1937) serving as backdrop, Canadian immigration in Québec can be divided into five periods.

Colonial emigration (1832-1860)

Immigration to our shores during this period stands out for three features. First, to use the terms indicative of the perspective of that time, Canada came to the assistance of “British emigration” in the form of policies, subsidies and initiatives which had originated in London. Not until the early 1860s was an organization set up to recruit “immigrants”. From 1832 to 1860, Québec City, the country’s main port of entry, landed nearly 30 000 immigrants annually; most of them came from Great Britain and Ireland.

This period was also characterized by strong Irish immigration, which accounted for more than half of the new arrivals in Canada. Beginning in the 1820s, many Irish had left their homeland because of poverty in the countryside, the demands of landlords

and repeated food shortages. The Great Famine of 1845 to 1849, which resulted from the failure of the potato crop, triggered the tragic migrations of 1847.

Finally, this wave of immigration did not merely coincide with the emergence of major epidemics in North America, it also carried them. Immigrants from Great Britain and Ireland spread cholera in 1832 (approximately 6000 victims in Québec City and Montreal), in 1834 and again in 1854. The typhus epidemic that killed thousands of victims in 1847 came from the same source: 100 000 emigrants, most of them Irish people fleeing the Great Famine, carried this contagious disease to Canada with them aboard the overcrowded and infected decks of slow-moving and unsanitary sailing ships.

Transition era (1861-1880)

From 1861 to 1880, Canadian immigration changed radically. However, the number of arrivals remained substantially the same, with some 25 000 immigrants coming ashore at Québec City during these two decades, compared with 30 000 per year in the previous period. Nearly 60% of immigrants came from Great Britain. Now a minority among this group, the Irish preferred to head for the United States, where the industrial revolution was creating an urgent need for manpower.

During this period, two notable phenomena characterized the nation of origin of immigrants: first, a strong increase in Scandinavian immigration (30% of immigrants), and, from the 1870s on, the beginnings of ethnic diversification. Russians, Belgians, Italians,

Icelanders and others had already begun coming to Canada, in what was to remain a growing trend. However, 50% to 70% of the immigrants who landed in Québec City would then go on to the United States.

Throughout this period, especially after Confederation in 1867, the Canadian government was responsible for recruiting immigrants and promoting Canada abroad. Immigration offices opened in Great Britain and Ireland and in Europe. In Canada itself, a policy for admitting and assisting immigrants was gradually established. Processing centres were set up in major Canadian cities. To attract new settlers, the government relied heavily on the railway, the opening up of the western provinces, and the assistance of the new transatlantic steamship lines.

Beginning in the 1880s, immigrants arriving in Québec City landed at the Louise Basin

NAC, PA-20861



In Québec City at that time, the number of British immigrants arriving in Canada again began to rise. This increase reflected the recruitment and propaganda work of the Canadian government in Great Britain after 1867. Moreover, main steamship lines bringing immigrants to Canada were British, and operated out of major ports in the United Kingdom and Ireland.

During this period, an average of approximately 26 800 people came ashore at Québec City every year, few more than in the preceding period. Apart from British immigrants, there were also many Scandinavians and Europeans; a certain number came from the Middle

Gradual consolidation (1881-1900)

East. Poor immigrants increasingly gave way to prosperous farmers, attracted to Canada by the vast lands of Manitoba and the Northwest. By the end of the century, Canada was retaining a larger proportion of immigrants – nearly 70%.

Québec City was still very much the main port of entry to Canada. Around 1885, along with the railway, huge immigrant landing facilities were erected in the port, providing the disembarking immigrants with a full range of modern and efficient services. Gradually, however, ports like St. John and Halifax began competing with Québec City. With the help of the railway, they were also able to begin handling immigrant traffic.

Expanding immigration brought to an abrupt halt (1901-1920)

In Canada, the economic boom during the early years of the 20th century resulted in an unprecedented influx of immigrants. Although the number of arrivals fell sharply during World War I, immigration during the first two decades was three times higher than in 1880-1900. This phenomenon was visible at the port of Québec, which received an average of 92 000 immigrants annually prior to 1915.

Great Britain continued to supply over 60% of these people, thanks to constant and effective recruitment. Scandinavians and Western Europeans still accounted for significant numbers of immigrants, but Eastern

Europeans started arriving in increasing numbers, accounting for 16.3% of arrivals. Canada also became the country of adoption for people from an increasing range of ethnic groups. Immigrants arrived from the world over, including the Middle East, Australia, South Africa, the Far East, the Caribbean and North Africa.

During this period, Canada opened additional ports of entry, including some on the Pacific coast. Although Québec City remained the main entry point for immigrants, the port now handled only 48% of the country's new arrivals.

Major upheavals (1921-1940)

With the end of World War I and the beginning of the 1920s, immigrant traffic to Canada resumed. However, the influx had weakened, and, from the 1930s, it fell off sharply throughout the Depression years. From 1921 to 1932, approximately 123 000 immigrants arrived in Canada every year. Between 1932 and 1941, however, the number dropped to 15 000!

For Québec City, the impact was twofold: not only did the number of new settlers decline spectacularly but the percentage of immigrants arriving via Québec City dropped off markedly. Between 1921 and 1932 the port of Québec continued to handle 45% of immigrants to Canada, however from 1932 to 1941, this share fell to 26%.

Across Canada, the period between 1921 and 1941 saw a significant decline in the number of British immigrants. For the first time, Great Britain no longer supplied the majority of new arrivals (47%). Only 1%



*Pierrette Boulet Collection
Parks Canada*

of immigrants originated in Asia; their numbers would increase after World War II. Most new arrivals hailed from Western, Central and Eastern Europe.

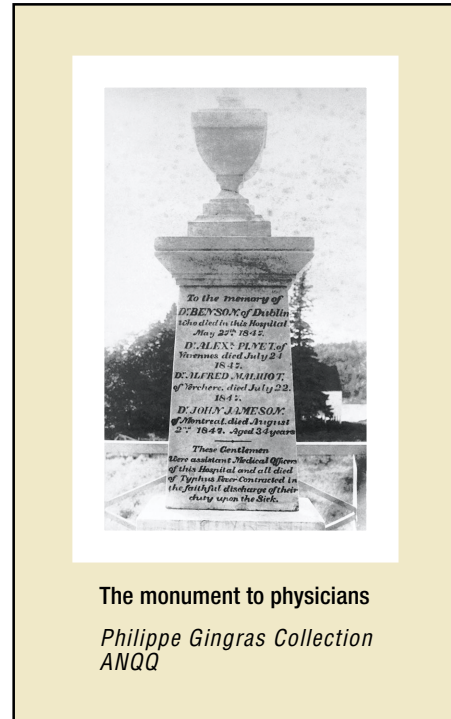
Despite the appeal of its powerful southern neighbour, periods of paralyzing economic depression, world wars, and many years of slow industrial development, Canada nevertheless succeeded in remaining a popular destination for immigrants from the early 19th century to the eve of World War II. During this century and a half of history, through good times and bad, Québec City welcomed nearly 4.5 million souls, many of whom would put down roots in Canada and play an active role in building up their new country.

Commemorative integrity of the site

As a federal government agency, Parks Canada is responsible for protecting and presenting this country's historical and cultural heritage. An important part of its mission is to:

- foster knowledge and appreciation of Canada's past through a national program of historical commemoration;
- ensure the commemorative integrity of national historic sites administered by Parks Canada by protecting and presenting them for the benefit, education and enjoyment of this and future generations, in a manner that respects the significant and irreplaceable legacy represented by these places and their associated resources;
- support and foster initiatives intended to protect and develop the national historic or architectural sites which are not under the jurisdiction of Parks Canada.

Ensuring the commemorative integrity of national historic sites is one of the primary objectives of Parks Canada. A national historic site possesses *commemorative integrity* when the resources that symbolize or represent its importance are not impaired or under threat, when the reasons for the site's national historic significance are effectively communicated to the public, and when the site's heritage values are respected by all whose decisions or actions affect the site.



A statement of commemorative integrity is prepared for each national historic site. It serves to: identify the site's commemorative intent; report on the existing resources and their value; and set out the messages to be communicated to the public. In it, a series of objectives are used to assess the "state of health of the site" and determine that corrective measures may be required. The next few pages are derived from the statement of commemorative integrity statement for Grosse Île and the Irish Memorial National Historic Site of Canada that was produced in 1997.⁶

6. Parks Canada, *Lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais, Énoncé d'intégrité commémorative*, 1997, 56 p.

Commemorative intent

The commemorative intent of a historic site states why a site has been commemorated. A site's commemorative intent is intimately linked with the specific qualities that led to its recognition as being of national historic significance and which ultimately justify its inclusion in the national historic sites system. For the most part, the definition of a site's commemorative intent is based on recommendations of the Historic Sites and Monuments Board of Canada that receive ministerial approval.

In 1974, the Board expressed the opinion that the Grosse Île quarantine station is of national historic significance and recommended that a commemorative plaque be erected on the island. This plaque was unveiled in 1980, and pays tribute to the role of Grosse Île as a human quarantine station (1832 to 1937), especially during the great cholera and typhus epidemics that marked Canadian immigration in the first half of the 19th century.

In 1981, Parks Canada included the theme of immigration within the "social history" section of its **National Historic Sites System Plan**, specifically assigning it to the "peopling policies" component. This thematic component was among those given highest priority in the plan.

In 1983, the Board stated that immigration was one of the most important themes in Canadian history. The following year, it again emphasized this point: *"The peopling of Canada through immigration is a theme of great national significance*

which should be the subject of major commemoration. In light of the number and quality of the in situ resources on Grosse Île related to the theme of immigration, the Minister should consider acquiring the Island, or portions of it, and there developing a national historic park."

However, the following year the Board expressed its view that *"the theme of immigration is of such complexity that it cannot be adequately dealt with at a single site."* Board members recommended investigating sites with concentrations of surviving resources sufficient for interpreting this theme, and which offer a range of historical periods and geographical distribution. This study is still underway.

Following public consultations in 1992-1993, the Board reviewed the commemorative theme of the site. In November 1993, it recommended *"that the primary commemorative intent of the Grosse-Île should be to tell the full story of the Canadian immigrant experience through the 19th century to the closure of the quarantine station, with particular emphasis on the period prior to the First World War"*.

The Board went on to stipulate that *"the Irish experience in the tragic epidemic years and especially in 1847, is a major and extremely evocative aspect of the story of immigration to Canada in the period and, as such, should become a particular focus of the commemoration of the general theme of immigration at Grosse Île. In addition, since the lazaretto, monuments, burial grounds and graves on the*

island, most notably the Irish cemetery are seen to have a special importance, (...) these resources should be commemorated in a manner which reflects their intrinsic value.” These recommendations received the Minister’s approval.

In March 1996, the Minister of Canadian Heritage announced the specific commemorative intent for Grosse Île, stating that the site would henceforth be known officially as “Grosse Île and the Irish Memorial National Historic Site of Canada.” The ministerial news release stressed that Grosse Île had welcomed tens of thousands of quarantined immigrants and also specified that in 1847, over 5000 people, most of Irish origin, had perished there. At the same time, the Minister paid tribute to the station personnel and the families who adopted and cared for the orphans, particularly after the 1847 epidemic.⁷

Finally, in summer 1998, the Board issued a statement that Dr. Frederick Montizambert, the medical superintendent of the Grosse Île quarantine station during the last 30 years of the 19th century, *“is of national historic significance because his knowledge, his indefatigable efforts and his belief in the new science of preventive medicine (microbiology, epidemiology, disinfection, vaccinations) caused him to develop a new generation of Canadian quarantine stations which protected Canadians from the deadly epidemics that ravaged many parts of the world at the time.”*

Based on the above, the site’s commemorative intent has been defined as follows:

Grosse Île and the Irish Memorial National Historic Site of Canada commemorates the importance of immigration to Canada, especially via the entry port of Québec, from the early 19th century until World War I.

Grosse Île also commemorates the tragic experiences of Irish immigrants at this site, especially during the 1847 typhus epidemic.

Finally, the site commemorates the role played by the island from 1832 to 1937 as a quarantine station for the port of Québec, for many years the main point of entry for immigrants to Canada.

Resources symbolizing or representing the national significance of Grosse Île

The following resources have been recognized as symbolizing or representing the national historic significance of Grosse Île and are therefore called “level 1” resources.

These are mainly cultural landscapes, works and buildings, archaeological vestiges, as well as movable cultural resources associated with one of the three themes in the site’s commemorative intent.

7. In order to reflect the additions made to the site’s commemorative intent, a new HSMBC plaque was unveiled in 1998, as a replacement of the previous plaque set in 1980. In addition to referring to the role played by Grosse Île as a quarantine station, the new text stressed the phenomenon of immigration to Canada via the port of Québec and highlighted the tragic events experienced by Irish immigrants, primarily during the typhus epidemic of 1847.

Grosse Île and its cultural landscapes

Grosse Île is one of 21 islands forming the Isle aux Grues archipelago bounded by Île d'Orléans and Île aux Coudres. This region has always been known as being difficult to navigate. For centuries, the shoals, cays and reefs, and, as well, the narrow straits between islands and local mooring areas, have remained virtually unchanged.

With a surface area of 185 hectares, Grosse Île today looks much the same as it did when the quarantine station opened. Most of the island is overlooked by hills or high plateaus. By and large, it has remained in its natural state and is home to a variety of tree species. The whole island is ringed with intertidal zones. Rock outcroppings alternate with the rough sandy beaches inside sheltered inlets.

The spatial organization of land use on Grosse Île dates back to the early years of the quarantine station. The concentration of buildings and facilities on the island's southern shore, dating from the earliest activities, is still present today. This layout is doubtless explained by the location of the main navigation channel at the time, known as the "Quarantine Strait."

The three sectors associated with the various functions of the quarantine station can still be made out today. Moreover, with only a few changes, the road running the length of the island corresponds to that which was built during the early years of the station. The vestiges of the eastern ("lower") wharf and the location of the current western ("upper") wharf still testify to the facilities set up in the mid-19th century. Finally, cemeteries have been a feature



Aerial view of Grosse Île with, in the foreground, Cholera Bay at high tide. A number of islands included within the Isle aux Grues archipelago can be seen in the distance.

*Jacques Beardsell
Parks Canada*

of the island since the quarantine station first opened.

The many buildings on the island present a more modern picture, reflecting the major alterations to the facilities at the turn of the 20th century. As a result, the current landscape bears little trace of the intense activity which occurred on the island at the time of the major epidemics.

Despite inevitable changes, the landscapes on Grosse Île have retained their aura of authenticity and continue to be laden with meaning. The cemeteries, along with building architecture and layout and the proximity of buildings to the river, lend this site an exceptional capacity for evoking the past. The historic names that continue to be used for different parts of the island, such as "Hospital Bay," "Cholera Bay," "Irish Cemetery," and "Cap Masson", are further proof of this.

The commemorative integrity statement contains a more detailed description of the cultural landscapes and the most significant views (level 1) to be found on the island.

On-site cultural resources

Grosse Île was the cornerstone of an entire system devoted to landing immigrants upon their arrival in Québec City. As such, the island served as a front-line facility whose physical infrastructure not only reflected the processing and care of immigrants but was also the home surroundings of station personnel. These dual functions were closely intertwined. Like a fort or industrial complex, the quarantine station offered facilities for the disinfection and hospitalization of immigrants, while also offering support services, such as employee accommodations or various types of storage. All surviving resources (be they architectural, archaeological or ethnological) relating to these functions have been linked to one of the site's commemorative themes. They are therefore regarded as "level 1" resources.

These resources reflect over 150 years of occupation on the island. Their layout testifies to the division of the island into different sectors in which the numerous quarantine functions were organized. Originally, the western part of the island was used to receive, accommodate and care for all immigrants landing at the station, whatever their state of health. Beginning in 1848, however, only healthy immigrants under observation were detained in this sector. Processing, accommodation and disinfection functions occupied most of this part of the island until the human quarantine station was shut down.

Throughout this entire period, the island's central sector was used to house the administrative staff (both civil and military) and station employees. With time, a bona fide village grew up.

Further down the island, in the eastern sector, the hospital zone of the quarantine station was set up beginning in 1847-1848. The Catholic and Protestant cemeteries in this sector date from the same period.

With the exception of structures associated with the more recent animal quarantine facilities and the Agriculture Canada research station, most existing buildings in the central sector date from the final years of the human quarantine station, in particular from the period of reorganization during the first quarter of the 20th century. With the exception of monuments and cemeteries, only four buildings bear witness to the early decades of the station, when the great epidemics occurred.

However, it should be noted that Grosse Île contains potentially over 900 archaeological resources related to immigration, the 1847 tragedy and the history of the human quarantine station. Many of them date from the 19th century. These cultural resources are located primarily in the southern part of the island, although a number of them may be found in other areas. Like the resources already listed, the as-yet uncovered vestiges (remains of buildings and works, layers of ground and artifacts) associated with the site's commemorative intent are also regarded as "level 1" cultural resources.

Finally, a number of buildings (disinfection building, first-, second- and third-class hotels, kitchen, lazaretto) feature graffiti – the work of immigrants passing through the quarantine station. These are also "level 1" resources.

All on-site cultural resources associated with the site's commemorative intent are briefly described by sector (west, centre, east) in the commemorative integrity statement.

Movable cultural resources

The collection of movable cultural resources contains historic items found on the site, particularly inside numerous buildings, as well as artifacts uncovered during archaeological excavations and items acquired off the island. The ethnological collection contains some 5000 objects and over 175 000 archaeological artifacts.

The whole collection has not yet been exhaustively catalogued and evaluated to determine exactly which items bear some relationship to the site's commemorative intent. Major research will have to be undertaken in order to fully understand many of these items and explain their link with immigration, the 1847 tragedy, the human quarantine facilities, immigrants and

station employees. A question mark still hangs over a number of the artifacts. Many objects that are important evidence of the activities at Grosse Île have yet to be identified and explained.⁸ However, a number of items that are highly evocative of the commemorative themes have, at this time, been identified.

Messages of national historic significance

At Grosse Île and Irish Memorial National Historic Site of Canada, messages of national historic significance addressed to the public will focus on the three fundamental themes underlying commemorative intent, as outlined above.

Between 1832 and 1937, more than 4 million immigrants transited through the port of Québec City.

NAC, C-68842



-
8. For example, is it possible to link the carved clay inscription-less plaque discovered in the Cholera Bay sector with the nearby cemetery? Were the tin plaques found near the ambulance shed intended for gravestones, coffin labels, or the construction and repair of buildings?

Messages for the Canadian public

- Between the beginning of the 19th century and World War I, Canada experienced the largest wave of immigration in its history, when nearly 4 million immigrants sailed up the St. Lawrence to settle in North America.
- Grosse Île is intimately linked with the Great Famine in Ireland. In 1847, over 5000 immigrants, most of them Irish, died of typhus on the island.
- From 1832 to 1937, Grosse Île played a major role in the protection of public health in Canada, as a quarantine station for the port of Québec, which for many years was the main entry point for immigrants arriving in Canada.

Messages for visitors to the site

To give audiences a clearer understanding of these messages of national historic significance, the following elements will be elaborated upon:

Immigration:

- the national and international context surrounding the arrival of immigrants in Canada – the causes of immigration;
- government policy for British emigration before 1867 and immigration to Canada after Confederation;
- methods of recruitment and processing of immigrants;
- transatlantic crossings in the days of the tall ships and steamships;
- the socio-economic profile and ethnic diversity of immigrants who passed through the port of Québec;

- the contribution of immigrants to Canadian society.

Irish immigration and the 1847 tragedy:

- Irish immigration to Canada in the first half of the 19th century;
- the Great Famine in Ireland and the events of 1847;
- historiography of the Great Famine viewed from the perspective of Canadian history;
- Grosse Île as a symbol for the Irish-Canadian community;
- the adoption of orphan immigrants.

The Grosse Île quarantine station:

- the great epidemics and the context surrounding the establishment of the quarantine station;
- the processing of immigrants at Grosse Île, inspection of ships, medical screening of immigrants, disinfection procedures;
- the detention conditions applied to passengers under observation and hospital conditions for the sick;
- scientific knowledge and development of the quarantine; medical discoveries in the late 19th century and the revolution in medical science;
- the principal facilities and layout of the station; the critical role played by Dr. Frederick Montizambert;
- station staff, work organization, living conditions; the history of the “village”;
- logistics: transportation, supplies, communications;
- other quarantine stations established in Canada.

Communication challenges

The messages of national historic significance related to the site's commemorative intent are both far-reaching and complex. The period to be commemorated – whose activities span more than a century – saw widely varying phenomena that are still the subject of numerous debates. Presenting messages of national historic significance on Grosse Île thus entails addressing a number of challenges.

Periodization, a necessary task

There were enormous differences between the immigration and quarantine operations of 1832 and those of 1937. In terms of presenting messages of national historic significance, this situation brings into play the concept of “periodization.” In contrast to the great epidemics and hazardous navigation characterizing the first waves of immigration in the 19th century, the era of medical discoveries and the rise of steamship navigation stand out for having completely transformed immigration in later years. Furthermore, the ethnic concentration of English, Scottish, Welsh and above all Irish immigrants was gradually supplanted by a diversity of populations which, beginning at that time, originated from all over the European continent and which attained unparalleled levels just prior to the outbreak of World War I.

Finally, the early facilities at the quarantine station, which were makeshift and reflected the limited knowledge of the field at that time, were followed by a rationally planned system of facilities for processing immigrants not only on Grosse Île but also at the port of Québec, Lévis (Tibbets Cove) and Pointe-au-Père. The history of the quarantine was thus affected in various ways by the history of immigration worldwide and specifically by trends and developments in Québec City.

Immigration as a human experience

Messages of national historic significance at Grosse Île must also highlight the human experience of the immigrants. Whatever the period referred to, immigration has always entailed a passage from the familiar to the unknown. This process awakened a whole range of emotions caused by separation from the family and the attempt to find one's place in the new society of promise.

Limited representative value of on-site cultural resources

Because the quarantine station evolved over many years, interpretation necessarily encompasses many different buildings and works (over a thousand are listed) that have evolved significantly during a century of immigrant-related activities. The value of these resources in terms of conveying the past creates a certain dilemma. As time passed, infrastructure on the island grew but were also rationalized. Grosse Île welcomed fewer immigrants, giving way to new facilities, especially in the port of Québec. This creates an additional challenge as the facilities still standing on the island, most of which date from the final period of occupation, provide little evidence of the station's foremost period of activity, namely the era of the great epidemics in the mid-19th century.

Despite an impressive number of cultural resources, including some 30 heritage buildings, this national historic site has few other resources with which to illustrate certain major aspects of immigration (causes of immigration, transportation of immigrants, socio-professional profile and ethnic composition, etc.), which embody a major portion of the island's commemorative intent.

Historiography and the causes of immigration

The history of immigration includes various aspects, such as the causes of immigration, that continue to be interpreted in different ways by historians. These topics will therefore be discussed and presented in such a way as to reflect the whole range of historiographic material – in particular, from within the perspective of Canadian history.

The Grosse Île station and the port of Québec

Although, strictly speaking, Grosse Île was never a point of entry for immigrants to Canada, it must be regarded as part of the immigrant processing services connected with the port of Québec. Above all, it was the cornerstone of a system of facilities established in Québec City, Lévis or further down the St. Lawrence.

This will also be the context in which the various messages of national historic significance will be presented at Grosse Île. The challenge will consist in presenting a reality that in fact is more strongly associated with the port of Québec. The profile of immigrant statistics is one example of this.⁹

Other heritage values of the site

Although many other resources and values have not been recognized as of national significance, they nevertheless are of historical importance to the site.

These resources and objects relate to: the precontact dimension of Grosse-Île; agriculture and the earliest settlers on the island prior to the quarantine station period; the presence of the Canadian Forces and Agriculture Canada; the island's international, national and regional links; and lastly, the outstanding natural surroundings.

Precontact dimension of Grosse Île

Grosse Île contains scattered vestiges of the precontact era that possibly reflect seasonal or occasional settlement by Aboriginal peoples, who may have used it as a stopping place when travelling, or as a location for hunting wildfowl or fishing. A few objects have been discovered such as blank flakes, tool fragments and a rough projectile head. Fragments of two vases from the Woodland period have also been recovered.



These Aboriginal pottery fragments were found in the vicinity of the disinfection building, and are from a vase which is typical of the traditional ceramics produced by the St. Lawrence Iroquois. This vase probably dates to the period between the early 13th century and the late 16th century.

*Jacques Beardsell
Parks Canada*

9. Current knowledge now affords visitors with an overall profile of arrivals at the port of Québec, but only partial statistics are available in the case of Grosse Île.

Earliest settlers and agricultural use of the island before the quarantine station period

In 1662, the first concession for Grosse Île was granted to Noël Jérémie dit Lamontagne, under the name of Île Patience. However, official documents relating to subsequent transactions soon adopted the name Grosse Île. In 1681, the island passed into the hands of Sieur Bécard de Granville and would remain in his family until 1753, when it was acquired by Charles Vallée of Québec City. Documents of the time refer to “improved lands” but do not mention any buildings on the island. From 1764 to 1816, Grosse Île was owned by various other wealthy landowners who seem to have been more interested in the hunting and fishing rights on the territory than by agriculture and settlement.

In 1816, Louis Gauvreau rented out his concession – acquired the year before – to François Boutin. Buildings, including a house and a barn, were apparently already standing on the island. In 1817, a notary from Château-Richer by the name of Louis Bernier purchased the island. In 1831, he granted a farming lease to Pierre Duplain, the man who was farming Grosse Île at the time it was expropriated for use as a quarantine station in 1832.

The Canadian Forces (1942-1945, 1951-1956)

In 1942, germ warfare was seen as a possible danger, thus prompting the Department of

Defence to requisition the island, which became the *War Disease Control Station*. Various experiments involving viruses and vaccines were conducted in the disinfection building with a view to controlling animal diseases that might be deliberately introduced into North America by the enemy.¹⁰ Personnel were housed in the northwestern part of the island, and the former 1847 lazaretto served as a poultry house. When the war ended in 1945, the station was closed down.

However, beginning in 1951, during the Korean War and the cold war, the Department of Defence again used Grosse Île for further research into biological warfare under the Canadian Armament Research and Development Establishment (CARDE).

Agriculture Canada (research and training station, animal quarantine)

From 1957, the veterinary pathology division of the Department of Agriculture occupied Grosse Île during the summer, conducting animal disease research and running training programs for personnel. These activities came to an end in 1988 when part of the virology laboratory burned down. In 1965, the Department of Agriculture’s Contagious Diseases Division started using the island as a quarantine station for imported livestock.

10. For more on this subject, see John Bryden, *Deadly Allies. Canada’s Secret War 1937-1947*, Toronto, McClelland & Stewart, 1989, 314 p.

International, national and regional links

Grosse-Île and the Irish Memorial National Historic Site of Canada is part of an international network of sites commemorating migratory movements worldwide. The site has close thematic links with various museums and interpretation centres in Great Britain and Ireland devoted to British and Irish immigration to North America. Among them are the *Merseyside Maritime Museum* (Liverpool), the *Cobh Heritage Center* (Cork) and the *Irish-American Folk Center* (Omagh), where the role of Grosse Île is specifically referred to. The *Famine Museum* in Strokestown, Ireland, deals with the role played by Grosse Île at the time of the Great Famine in Ireland.

Because of the themes surrounding Grosse Île's role in immigration and human quarantine, it is also closely associated with numerous figures, sites or events of national historic significance that commemorate various aspects of immigration to Canada, including: *Pier 21* in Halifax; the *Partridge Island quarantine station* in New Brunswick; *the arrival of the Loyalists in St. John*, New Brunswick; *Refugee Slaves* in Windsor, Ontario; *former immigration minister Sir Clifford Sifton*, who played a major role in promoting immigration to Canada, particularly in the West; as well as the *Canadian Pacific Railway station* in Winnipeg.

Although for many years Grosse Île was off limits to the general public, it is important to stress the major contribution made to local tradition by the *Ancient Order of Hibernians*. Nearly every year since 1909, this organization has led a pilgrimage to the island in memory of the victims of the Irish tragedy of 1847.

Finally, in the context of heritage tourism, Grosse Île and the Irish Memorial National Historic Site of Canada is one of a series of heritage resources located on the «Côte-du-Sud» (South Shore) that includes: the *maison Taché* and the *Centre éducatif des Migrations*, both in Montmagny; the *Musée maritime Bernier* in l'Islet; and the *Beaumont mill*.

Outstanding natural surroundings

Located in a transitional area between the estuary and maritime zones of the St. Lawrence, Grosse Île and the Isle aux Grues archipelago form the limits of the distribution of many plant species. The island's flora and ecology present a number of highly specific features: a wide variety of habitats, more than 25 tree species, and luxuriant plantlife. Twenty-two species have been included on the list of plants that are likely to be declared endangered or threatened. Several others are at the limit of their distribution area.

Interest in the plantlife of Grosse Île dates back to at least the second half of the 19th century; members of religious orders gathered many plants that have been preserved in the herbarium at the *Musée de l'Amérique française*. Classification of plant life was further pursued, around 1922 and 1935, by Brother Marie-Victorin and, during the 1940s, by J.J. Sexsmith. After spending time on Grosse Île, Brother Marie-Victorin wrote that "*Grosse Île is the furthest point of advance of estuarine flora into the maritime zone, and vice versa.*"

In short, the natural resources of Grosse Île, such as landforms, woods, the river setting and shoreline plant life play a major role in the island's landscapes and enhance the spirit of the place.

Analysis of the current situation



The western sector, along the edge of Hospital Bay, in the early 1900s

*Rose Dompierre Collection
Parks Canada*

Ownership and legal context

Subsequent to the Parks Canada-Agriculture Canada agreement of 1988, most of Grosse Île was transferred to the Department of Canadian Heritage. At that time, however, Agriculture Canada preferred to retain certain facilities it deemed necessary to pursuing its activities at some later date. As a result, several buildings and pieces of land continue to come under the jurisdiction of Agriculture Canada while others have become the subject of shared jurisdiction. However, owing to the decision by Agriculture

and Agri-Food Canada to definitively give up its operations on Grosse Île, the buildings still in its possession will soon be transferred to Parks Canada, which will then assume total jurisdiction over the island.

In addition, an application was made to append the national historic site to the Order-in-Council concerning national historic sites whereby a number of the articles of the *National Parks Act* (repealed and replaced by the *Canada National Parks Act*, which was proclaimed in February 2001) would also apply to the entire island.¹¹

11. The boundaries of the Grosse Île property extend to the average low water limit.

Commemorative integrity of the site

As defined in the previous chapter, one of the fundamental objectives inherent in the concept of commemorative integrity is achieved *when the resources that symbolize or represent the national historic significance of a site are not impaired or under threat*. This section begins by presenting an overview of the current situation with respect to **landscapes and level-1 cultural resources**.

Condition of landscapes and level-1 cultural resources

- Cultural landscapes
- Built heritage
- Archaeological resources
- Movable resources

Cultural landscapes

Although the main components of the historical landscape on Grosse Île and its exceptional potential for evoking the past have been preserved, the gradual disappearance of several significant features in the inhabited landscape has resulted in a simplified layout and architecture.¹²

A number of more recent facilities, such as the animal quarantine station buildings and the virology laboratory, are more reminiscent of the final years of occupation on Grosse Île, making it more difficult for visitors to accurately perceive the cultural landscapes associated with the commemorative intent of the site.

Although the boundaries of the three former sectors of occupation remain visible, they have nevertheless become blurred, as have many of the features that once gave each sector its specific character. The original divisions have become overlaid with five separate landscape units: 1) the western peninsula, containing the processing facilities, hotels, the Celtic cross, the Memorial and the Irish cemetery; 2) a transitional zone containing the upper block and the Anglican chapel; 3) the remaining buildings in the village and the modern animal quarantine facilities; 4) the employees' residences, the power station and the former Agriculture Canada laboratory; 5) the lazaretto and the eastern cemetery.

Finally, the creeping advance and overgrowth of vegetation have considerably reduced the dimensions of what were formerly "open" spaces, and have concealed the visual relationship between significant zones. Plant growth has also hidden certain buildings from view and made it harder for visitors to comprehend spaces and the way they were interrelated over the years.

For the purpose of identifying the measures designed to protect the significant cultural landscapes of the island and enhance understanding and appreciation of the location, a landscape protection and presentation plan was completed during 1998-1999.¹³ This plan was based on the principles and directions proposed in the Grosse Île landscape survey titled *Étude du paysage de Grosse-Île [Grosse Île landscape survey]*.¹⁴ The main directions contained in the presentation plan are outlined in the next chapter dealing with protection and presentation of the site.

12. For example, the treatment of access to buildings has become less refined, following the disuse or transformation of fences and gates, approach paths, stairways and handrails, galleries and porches; this observation applies to most buildings.

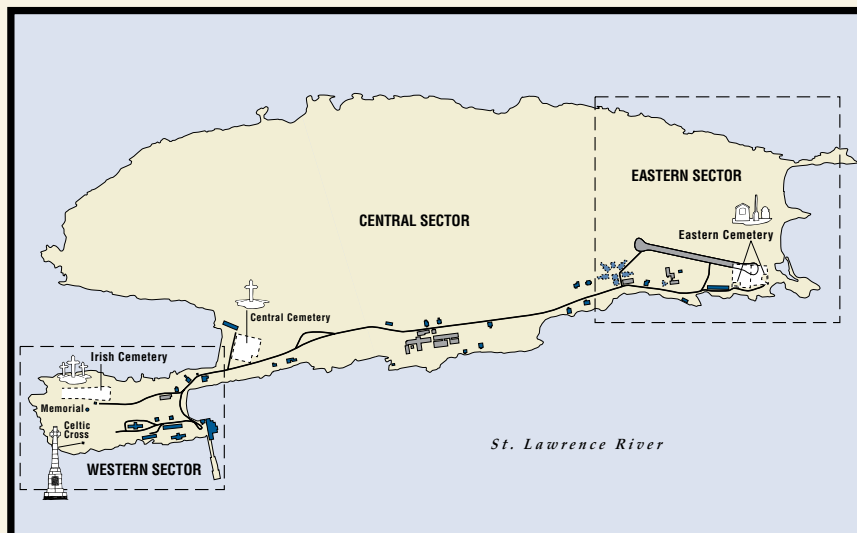
Among the most meaningful cultural landscapes on Grosse Île are the cemeteries; however, their restoration poses special problems.

The Irish cemetery

This is the island's main burial ground and also its oldest, most likely dating to 1832. The cemetery actually contains two separate burial grounds: one was used from 1832 to 1846 for individual burials, and the other was an area of common trenches in which the victims of the 1847 epidemic were laid to rest. In 1996, following historical and archaeological surveys conducted for the purpose of defining the true boundaries of the cemetery, work was begun clearing the perimeter, which was in fact much greater than the lawn-covered area traditionally maintained. The western part of the cemetery was completely cleared of the thick shrubbery that had overrun the site; visitors can now see just how large the burial ground really was.

The central cemetery

Comparatively little information is available about this burial ground. It was laid out in 1867 and seems to have been used intensively until about 1871, when the hospitals were relocated to a different part of the island. Until very recently, the central cemetery occupied a wetland, which had become overrun by dense vegetation to the point of masking its very presence. Archaeological work has made it possible to define the



boundaries of the burial ground, which once was surrounded by fences. Brush-cutting and sodding, combined with rebuilding of the fence, will help restore an appearance in keeping with the cemetery's purpose.

The eastern cemetery

The original burial ground is now reduced to two divided lots containing most of the remaining tombstones and grave markers. Today, a stretch of the island's aerial landing strip encroaches on the burial ground. Archaeological work performed during summer 1999 served to establish the boundaries of this cemetery. Rehabilitation work similar to that conducted in the central cemetery has been planned (see the section dealing with preservation and presentation of the site.)

13. PARKS CANADA, *Plan de protection et de valorisation du paysage - LHN de la Grosse-Île-et-le-Mémorial-des-Irlandais* [Landscape protection and presentation plan, Grosse Île and the Irish Memorial N.H.S.], Québec, May 1999, 49 p. + appendices and maps.
14. PRUD'HOMME, Chantal, *Étude du paysage de Grosse-Île* [Grosse Île landscape survey], Public Works and Government Services Canada for Parks Canada, Architecture and Engineering Services, Québec, 1995, 99 p. + appendix.

Built heritage

A 1995 survey of all architectural resources on Grosse Île may serve as a basis for an overall appraisal of the current condition of the island's works and buildings. This survey has also been used to identify problems that may cause structural deterioration and to set out the appropriate corrective measures that will be required in the short term. With the exception of the first- and third-class hotels, both of which are concrete structures, all buildings on Grosse Île are of wood. Most of the older structures have been erected on masonry foundations, while the relatively newer buildings have been set over concrete foundations. Design and building techniques reflect the major stages in the development of the quarantine station.

All the buildings have been, and continue to be exposed to the rigours of the climate and the elements. Exterior sheathing and untended woodwork are particularly sensitive. Generally speaking, most deterioration is due to water damage, especially where roofs are concerned. Freezing and thawing is especially harmful to foundations. Furthermore, the excessive humidity inside insufficiently unventilated buildings has caused extensive rotting.

- **Salvage operations**

In recent years, various measures have been undertaken to halt deterioration in, and preserve the integrity of the most seriously threatened buildings. A number of structures have been stabilized by installing additional

braces or replacing main structural elements. Seepage and leakage of water through many old roofs has been temporarily controlled by adding modern waterproofing; siding has been made watertight by means of patching and filling as needed. Soil levels along the walls of some buildings have risen either on account of shifting soil or the subsidence of buildings due to foundation damage. To offset the negative effects of humidity, wall bases were exposed to air and rotting structural elements were replaced. Drainage of surface water has been improved by altering slopes. To combat excessive damp in most of the interiors, natural ventilation has been increased using straightforward, reversible methods.

The only work performed thus far has been of a temporary nature, with the exception of the disinfection building, the carpentry and plumbing workshop, the third-class hotel, the lazaretto, the Catholic chapel and the inoculation and medical examination office, all of which are now or will soon be undergoing permanent restoration. All interventions have been designed to ensure that heritage buildings survive until the next stage – i.e., when some type of preservation or restoration work can be performed. As a result, modern materials and reversible methods have been used, since the primary aim has been to halt deterioration as much as possible. Some buildings have also been temporarily restored to respond to current use requirements.

- **Present condition**

The 1995 survey showed that this temporary work has proved beneficial, in many cases ensuring the survival of the building. In most of the structures, deterioration has been slowed down. However, ongoing maintenance and monitoring are still required for all buildings.

Shifting soil frequently modifies the slope of the ground, so rainwater still tends to run toward foundations rather than away from them; crawl spaces often close shut, given the absence of proper ventilation. Plants are continually overrunning the boundaries of these buildings, creating additional humidity. Generally speaking, on outside walls facing north and east – i.e., the walls hardest hit by inclement weather – exterior wood has deteriorated.

Foundations have been exposed to freezing and thawing, and continue to be a source of problems. Nearly all the foundations having concrete surrounding walls are cracked or broken in parts. Foundations on masonry piles or pillars tend to be less damaged, thanks to better drainage of surface water.

Original cedar-shingle roofs that until now had remained intact, such as those of the shed adjoining the house of the Public Works Officer and the superintendent's shed, are now no longer viable. On the roof of the Anglican chapel, the metal overlaying the original material has now deteriorated and there is a risk of damage to the underlying

roof. A number of brick chimneys have also begun to deteriorate.¹⁵

A few structures have been seriously damaged by water. Rain and melt waters draining from the two sides of the Anglican chapel roof has damaged the retaining walls and buttresses, as well as the east wall of the steeple. Water seepage at the Public Works Officer's house has been rotting the structure of the archway and has damaged the covered porch and a section of the shell.¹⁶ At the Catholic presbytery, the base of the walls of the rear annexes has been deteriorating, and the main building's edge beam is rotting away. Edge beam sections are also badly damaged at the Marconi station and the superintendent's shed.

Owing to the fact that, over the years, a number of buildings were damaged by major seepage, the deterioration process has not been successfully halted despite improved ventilation. The interiors of unoccupied, unheated buildings are sufficiently damp for fungus to develop (the "upper block," the assistant physician's house, the Public Works Officer's house, etc.); as a result, plaster and other interior finishes are literally crumbling away. Crawl spaces with inadequate ventilation contribute to the excessive humidity that causes structures to rot. Such is the situation currently observable at the Marconi station, the Catholic presbytery, the Catholic chapel and the assistant physician's house, etc. This situation will be corrected once major work gets underway.

15. For example, those of the kitchen, whose upper portion was covered during preservation work, or those of the second-class hotel and assistant physician's house, which are highly ornamented and represent architectural features that should be preserved.

16. Under an agreement with Public Works and Government Services Canada, the exterior sheathing of the building will be completely restored, with work to include drainage of the land, repairs on foundations and outer walls, repairs on structural timbers as needed, restoration of windows and doors, re-roofing, and rebuilding of the covered porch.

Archaeological resources

In general, the archaeological resources on Grosse Île are relatively well preserved. Concrete and masonry vestiges are in fair condition and many of the wooden vestiges uncovered have stood up well to the passage of time.

Various natural phenomena may threaten the integrity of resources. They include plant overgrowth, freezing and thawing, the movement of underground water and the erosion of slopes. The impact of current human occupation has been mitigated thanks to the assessment of each project, in accordance with the Parks Canada management directive concerning environmental assessment and the Agency's policy governing cultural resource management. Special attention still needs to be devoted to the encroachments of vehicles, which compress layers of earth and cause artifacts to fragment; however, significant progress has been made in terms of both behaviour and use planning. An overview of the situation in each sector of the island will further explain these comments.

- **Western sector**

Natural regrowth of trees, especially north of the Irish cemetery, in the sector where two convalescent homes stood during the quarantine period, is threatening the integrity of the related vestiges. Trees and shrubs cover has expanded, either pushing, raising and crushing vestiges, or overlaying them. Roots have been travelling through layers of soil and dislodging masonry joints. Southeast of the cemetery, the upper part of a masonry vestige has been overrun by vegetation in just that way. This vestige is also exposed to freezing, as are the concrete foundations of

an icehouse/root cellar northeast of the third-class hotel, which otherwise appear to have been holding up well.

In the zone west of Hospital Bay, a poorly drained area with an impervious clay bottom, the water level is close to ground level. Depending on the season, precipitation and temperature, the water level rises and falls, resulting in variations in humidity that may affect the condition of the vestiges buried in this zone. However, the impact seems to vary: some badly damaged wood has been uncovered, while other, well-preserved wood has also been found. Metal is always strongly impacted by ambient humidity. Resources in this sector include the first cemetery and vestiges of the buildings used for receiving and accommodating immigrants.

Few vestiges seem to be threatened by erosion. On the hill where the telegraph was formerly located, a number of remains near the edge or on the slopes (for example, vestiges of the first Catholic presbytery, stairway, path, fences) could be confronted with this problem at some point. Furthermore, along the edges of its roads, the western sector contains several open spaces where vehicle movement and parking can occasionally take place. However, the area west of Hospital Bay is often damp, and vestiges lie close to the surface east of the second-class hotel, west of the third-class hotel and in the vicinity of the stable for healthy animals. Thus, it is important to bear in mind that buried archaeological resources may be damaged by the movement of heavy vehicles over them.

- **Central sector**

This zone has many visible vestiges, such as those near the Anglican presbytery, the superintendent's hothouse and icehouse, and the post office. These are fairly well preserved despite being partially exposed to freezing. However, increasingly heavy plant growth may damage their integrity and endanger buried vestiges in the vicinity of the cemetery and the house of the superintendent's gardener. The ruins of the upper block kitchens, which have been overrun by brush, also require monitoring. The wooden remains of the landing wharf near the gun battery, which are hardly visible and in poor condition, also require enacting protective measures.

Like the western sector, the central portion of the island contains finely textured soils that are hard to drain. The cemetery is located in this poorly drained area.

Erosion could damage the remains of the facilities on the slope behind the superintendent's house, the garbage dumps behind buildings along the river and the pillar on the cliff that once supported part of the pipe linking the eastern wharf pumping station to the water tower overlooking the bakery.

The condition of the vestiges at the eastern wharf, which appears to be stable, has not

been assessed. At high tide, these vestiges are partially submerged, and, in winter, are covered by ice. The impacts of this stress should be inspected and analyzed.

Finally, the vestiges most exposed to the churning action of vehicles are located on the former property of the superintendent, in the pool area near the buildings now in use, and across from the nurses' home.

- **Eastern sector**

No surviving vestiges of the farm have been located, thus ruling out any appraisal. Depending on their location, these remains, like the cemetery vestiges, have probably been disturbed by invasive tree growth. Despite being exposed to freezing, the remains of the unfinished hospital and the top of the foundations of the 1881 hospital and lower block appear to be in good condition at present. Wood also seems to be well preserved in the marshy area where a portion of the cemetery lies. The solid vestiges of the piles and wooden ledgers from the nearby lazarettos have also survived. Erosion appears to pose no threat to these vestiges at the present time. Finally, the resources most likely to be damaged by vehicles are probably those buried in the vicinity of the buildings used by current employees and along the edges of the roads and paths in the northeast section of the island.

Movable resources

As was mentioned above, the “archaeological” collection consists of some 175 000 artifacts and ecofacts discovered during archaeological gathering, exploration or excavations in many parts of the island; the ethnological collection currently contains some 5000 items found on the island.¹⁷

Preliminary processing (registration, cleaning, labeling and numbering) has been completed, and the summary inventory will soon be ready. The physical condition of both collections is generally fair. Because of the organic or inorganic materials making up many of the artifacts and items, especially textiles, special storage and monitoring are required to preserve both of these collections. Many significant artifacts from the early days of the quarantine station need to be restored soon because of their commemorative value.

Communication of site messages of national historic significance

Another yardstick for measuring the commemorative integrity of a site is the communication of messages of national historic significance. Grosse Île and the Irish Memorial National Historic Site of Canada is a site under development. Over the last several years, a range of facilities and services have been set up to communicate the three major themes associated with the site’s commemorative intent, but remain as yet incomplete.

The delivery of heritage experiences to audiences has been partially the responsibility of Parks Canada staff and partially that of the heritage interpreters of the Grosse Île Development Corporation, a community organization. The current interpretation services consist mainly of a guided tour through the once-occupied sectors of the island, and stress the history of the quarantine station as reflected by the most evocative works and buildings. The offering is adapted according to the varying lengths of time visitors have for visiting the island. In addition, an educational program was specially designed for Grade 5 students; this program is different from the usual guided tour and is adapted to the needs of this specific audience. For several years now, visitors have enjoyed free access (without the accompaniment of a guide) to the western part of the island. A printed brochure has been prepared with these visitors in mind. Heritage interpreters are posted in the immediate vicinity of both the Celtic cross and the Memorial.

The complex, content-rich theme of immigration is dealt with only superficially by heritage interpreters. A good introduction to this theme is offered through the exhibits displayed in the disinfection building, which has been open to the public since 1997. However, communication tools adapted to fully cover this major theme will have to be implemented before the objectives of communicating messages of national historical significance can be achieved. In the meantime, Parks Canada acquired from the Musée de la

17. For an overview of this collection, see the commemorative integrity statement.

Civilisation du Québec a thematic exhibit dealing with the phenomenon of immigration. This exhibit was spread out over two buildings: the third-class hotel and the kitchen. As well, efforts have been made to contact the 43 ethnic communities that at one time transited through the port of entry represented by Québec City.

Since the 1990s, Parks Canada has been criticized in various quarters for its presentation of the Irish dimension of Grosse Île history. During the last several years, however, significant improvements have been made on that score (introduction of this theme in the disinfection building; interpreters posted in the western sector; restoration of the Irish cemetery and creation of the Memorial; special publications¹⁸). With the coming installation in the lazaretto of an exhibit dealing with the 1847 epidemic, interpretation of the theme related to the Irish tragedy can be considered as completed.

The project of communicating the history of the quarantine station remains as yet incomplete. Although several aspects of this theme have been successfully developed in the disinfection building, others have been touched on only superficially, for example the organization and logistics of operating the station, the staff on site and their duties and daily life in the village.

Facilities

- Wharf
- Landing strip
- Water supply and waste water treatment system; power supply

Owing to the site's insularity, access and service infrastructures play a key role at Grosse Île.

Wharf

The island's present wharf is the result of a physical and structural evolution over the years. Structures were enlarged and superimposed on one another throughout the station's long history, particularly during the last several decades. In 1994, the wharf was thoroughly investigated to assess its condition and structural stability. Experts found that the wharf, which had become badly deteriorated in parts (particularly the south end) has virtually outlived its usefulness. Major rebuilding would therefore be required to guarantee the durability of the structure and the safety of users. It was also noted that in terms of its new use as a public landing, wharf approaches were inconvenient for the boarding/disembarkation of visitors and daily supplies, especially at low tide, due to the poor draught in mooring zones. The extensive sedimentation which also occurs at this location means that the shoals off the wharf will have to be dredged periodically.

18. In 1997, as part of the special program designed to commemorate the 150th anniversary of the tragedy of 1847, Parks Canada, brought out two publications, one dealing with the everyday events surrounding the summer of 1847 and the other providing a list of the deaths that occurred at sea or on the island.

In response to the expert advice, Parks Canada began major rebuilding work on the wharf in 1999, in consideration of the following directions:

- wherever possible, repair work will leave intact the most significant vestiges of earlier wharves;
- reconstruction interventions should respect the previous dimensions of the wharf and the relationship between the wharf and the disinfection building;
- the dimensions and configuration will remain substantially the same. However, the current approaches, which are ill-situated owing to poor draught at low tide and the heavy sedimentation in this sector of the river, will be relocated and designed in such a way as to simplify boarding and disembarkation of passengers and goods;
- the wharf will be designed to allow for future compliance with universal access standards.

Landing strip

The landing strip in the eastern part of the island was laid out in the mid-1950s by the Department of Defence and later extended and upgraded by Agriculture Canada. This gravel runway is some 400 metres long. It is not certified by Transport Canada. Although it can be

used year-round, the absence of runway lights means it is only suitable for use during daylight hours. Only small aircraft requiring short take-off and landing distances can use the strip.¹⁹

Water supply and waste water treatment system; power supply

All water supply, wastewater and power systems described in the 1992 *Development Concept* presented major shortcomings, including:

- low water pressure and poor water quality;
- outdated water pipes and water storage system;
- no wastewater treatment system;
- overloaded electrical system;
- worn-out generators;
- obsolete fuel supply system.

Following an exhaustive study of infrastructure, various corrective measures were recommended in order to meet the projected user demand and comply with current environmental standards and safety requirements (fire protection). Upgrading work began in 1996 with the installation of a modern wastewater treatment plant.²⁰ Water mains were also partially rebuilt.

Plans call for removing the heating oil tanks situated strategically in the vicinity of the wharf and relocating them to a place where they can continue to serve their essential purpose without disturbing the heritage character of the island.

19. This strip is strictly reserved for Parks Canada use.

20. In addition, an analysis of wells and chlorination operations was conducted by Health Canada in 1998. Measures have been enacted since, and tests of water quality (physico-chemical and bacteriological) are conducted on a monthly basis.

Environment

Studies of the flora and fauna on Grosse Île since 1988 have served to describe the site's natural environment and make recommendations for its protection.

Current data suggest that the island's natural resources, except in inhabited areas, have been little disturbed by earlier human activity. These disturbances can be observed in the island's southern area of occupation. However, more data is required to grasp their impact on ecosystems, and, in particular, the impact occurring outside the southern zone. This information-gathering process is deemed essential to obtaining sufficient insight into the status of ecosystems.²¹ Furthermore, the development of activities and infrastructures on Grosse Île has made it necessary to protect certain habitats and, by the same token, identify conservation priorities for natural resources. The main conservation values concern the plant life and wildlife components (see appendix 2).

General status

Inventories of flora and fauna have shown that while Grosse Île covers little surface area, it is nevertheless home to a particularly rich variety of plantlife, with more than 600 species having been identified. Although major human activities occurred during the previous century, such

as the felling of trees for firewood, the ecological status of some areas shows no apparent signs of the impact of these disturbances. Human occupation of the island for more than 150 years has nevertheless limited the presence of wildlife. Studies of forest plantlife (Marineau and Vaudry, 1997, Marineau, 1995; Mercier and Rouleau, 1988) and shoreline plantlife (Gilbert, 1993) have identified rare species and valued plant communities that could be affected by future development and increased visitation on the island. An inventory of land plants (Flora Quebeca, 1999) served to add four new species that are considered to be rare, endangered or threatened. As a result, a management plan for valued plants should be produced in order to ensure that these species are adequately managed and protected. In addition, an inventory of exotics served to establish a high (24%) percentage of introduced plant species. In that connection, the shoreline presents a very high potential for invasion.²² Salathé and Savard (1993) have recommended that research into certain species of fauna should continue in order to broaden our knowledge of these island populations. The presence of chiropterans on the island prompted Parks Canada to conduct inventories in 1997 and 1998. The findings show that five of the eight species of bats present in Quebec are also found on the island. Grosse Île provides refuge to Canada's largest summertime population of bats. This situation prompted the production of a management plan for protecting

-
21. The natural resources plan (now undergoing revision) dealing with all national historic sites located in the greater Québec City area has identified a series of studies required to complete the base line information on Grosse Île. A number of management plans and a monitoring program concerning natural resources will be implemented over the next several years.
 22. One of the most common species considered to be invasive is purple loosestrife. This species was the subject of a management plan (Lajeunesse, 1998), which recommended controlling the spread of this plant in wetlands.

these small mammals (Vaudry, 1999). In addition, the presence of white-tailed deer on the island impacts on grass or meadow areas. This situation has also entailed producing an assessment of this situation (Vaudry, 1999) and indicating follow-up and management measures that will be required over the next several years.

Impact of activities past and present

- Impacts of human quarantine activities
- Impacts of bacteriological experiments by the Department of Defence
- Impacts of Agriculture Canada research and animal quarantine activities
- Impacts associated with human activities

In 1989, Parks Canada asked Health and Welfare Canada to conduct a risk assessment regarding public safety with respect to past and present activities on Grosse Île. Following recommendations by specialists, a number of measures were taken to ensure public safety and improve the quality of the environment. These measures are summarized below.

Impacts of human quarantine activities

An assessment of the potential risks associated with the presence of viruses or bacteria from the human quarantine activities concluded that there is no possibility that viruses or bacteria have survived on the island. However, a sanitary protocol (Vaudry, 1990) was prepared and applied in

1990 as a preventive measure for workers who might be exposed to pathogens during archaeological digs and excavation work.

Of all the chemicals used to disinfect immigrants and their belongings, only bichloride of mercury seems to have subsisted in the buildings where it was once used. According to historical research, this chemical was used from 1893 to 1899 in two buildings, the wash house and the disinfection building. Both were screened for metallic mercury in 1996, and findings were negative.

Impacts of bacteriological experiments by the Department of Defence

From 1942 to 1945, the Department of Defence conducted bacteriological research on Grosse Île, mainly on the anthrax bacterium (*Bacillus anthracis*). This work was performed in the disinfection building. A special committee from Health and Welfare Canada investigated this matter. Samples were taken in the building and screened for this micro-organism; findings were negative. However, in 1991, in accordance with the committee's recommendations, Parks Canada completely disinfected this building.

Impacts of Agriculture Canada research and animal quarantine activities

From 1957 until the late 1980s, Agriculture Canada ran a research and animal quarantine station on Grosse Île. Because decontamination standards were very strict, the committee from Health and

Welfare Canada concluded that these past activities posed no risk to human health today.²³

Impacts associated with human activities

Activity on the island over the years has resulted in an accumulation of refuse of all types. In 1993, Parks Canada conducted a study of the deteriorated sites on Grosse Île (Tremblay, 1993) and collected and removed all refuse found. Two years later, Parks Canada cleaned up soil that had been contaminated with hydrocarbons. In 1995, a rehabilitation program (Marineau, 1995) for deteriorated sites was implemented to restore these forest environments to their natural state. These measures significantly aided the implementation of both the environmental management system and an action plan for national historic sites located in the greater Québec City area (Vaudry and Quenneville, 1998). These initiatives endorse the principles of sustainable development set out by the Government of Canada and foster a healthy environment. One such measure involves rebuilding a portion of the wastewater treatment system and upgrading it to standards. A second such measure, in operation for several years now, involves managing and recycling dry materials on the island.

Public visitation and use

In 1990, Parks Canada took charge of setting up and administering a program providing reception and services for visitors to the site.

Visitation figures

Over the last ten years, the number of visits to Grosse Île has substantially increased, rising from 5400 visits in 1989 to a peak of 41 000 in 1997. The number of visits held steady at around 15 000 annually between 1992 and 1996. Nineteen ninety-seven was an exceptional year on account of the numerous special activities held in connection with the commemoration of the tragic events of 1847. Since that time, annual visitation numbers have hovered between 26 000 and 30 000.

During the 1999 season, the island welcomed some 29 600 visits between May 1 and October 31.²⁴ The average duration of visits was 214 minutes, by far the longest among all visits recorded at the national historic sites in Québec.

The great majority of visitors boarded at Berthier-sur-Mer. Heritage interpreters provided 726 guided tours during the season, with an average of 41 visitors per guided tour. About 5775 people, or 2 out of 10, toured Grosse Île in organised groups.

23. Nevertheless, it should be pointed out that, periodically, biomedical waste still turns up in fields where manure was once spread. These sectors are, however, off limits to the public.

24. Two thirds of visits occurred in July and August.

The most recent study of visitors dates to 1998. This survey accounted for the significant increase in visitation and the changes in services offered up to that time. For the most part, Grosse Île attracts visitors from Quebec, a great number of them from the provincial administrative regions of Québec City and Chaudière-Appalaches, with smaller numbers arriving from the Montreal administrative region. Most visitors are ages 35 to 54, an age group similar to that found at other national historic sites.

It is important to remember that access to Grosse Île continues to be controlled. This means that visitors may leave the wharf area only if they pay for a guided tour.

Facilities and services

All in all, the facilities established on Grosse Île by Parks Canada have been designed to improve the comfort of visitors, ensure public safety and provide island personnel with reasonable living and working conditions.

A number of permanent works have been completed over the last several years. A visitor reception centre was set up in the former carpentry and plumbing workshop, next door to the disinfection building. In addition, the VRC houses a souvenir shop run by the Grosse Île Development Corporation. Full public wash-room facilities were set up in the disinfection building.

Since 1997, visitors may use a modern cafeteria/restaurant located in the third-class hotel. From May to October, meals are also served to staff posted to the historic site and the

employees of companies performing work on the island.

On account of the dispersion of Grosse Île's heritage resources over more than two kilometres, guided tours are conducted in part aboard a tourist trailer train linking the eastern and western sectors. This service was set up by the Grosse Île Development Corporation in the early 1990s and was upgraded in 1999 when Parks Canada purchased a more efficient, quieter trailer train that also produced less pollution. Once the Corporation's second trailer train is replaced as planned, the historic site will be equipped with a transportation system that is fully adapted to visitors' needs.

There have been requests for access and accommodation facilities for pleasure craft at Grosse Île. Given the dilapidated state of the wharf and the limited mooring capacity, Parks Canada has preferred to use public transport run by ferry operators in order to receive and handle the maximum number of visitors. Thus, pleasure craft have not been authorized, except under special circumstances.

Finally, it should be pointed out that a number of island buildings have, during the last several years, undergone rebuilding and rehabilitation so as to satisfactorily accommodate staff posted to the site and provide office space. The upper floor of the third-class hotel, the inoculation and medical examination office, the laboratory, the electrician's house, the school as well as the former homes of station employees are now used for these purposes. Finally, universal access conditions have been upgraded in most of the restored buildings that will be open to the public.

Co-operation

Co-operation is a priority management strategy at Parks Canada. At Grosse Île, co-operation with public, private and non-profit organizations is one component of site management that has taken a number of tangible forms down to the present time.

At the outset, the island was the joint property of Parks Canada and Agriculture Canada. An inter-ministerial agreement enabled the two to harmonize the management of their respective properties and programs. Following this accord, additional administrative agreements were concluded with a view to providing for the maintenance and monitoring of buildings under shared responsibility or under the responsibility of Agriculture and Agri-Food Canada, and for sharing the costs incurred in that connection. A service contract was awarded to the Grosse Île Development Corporation for the delivery of reception and interpretation services. The Corporation also runs a sales counter (publications, souvenirs, etc.) that was set up in the visitor's centre.

Parks Canada numbers among its collaborators several business people, including one entrepreneur who runs the restaurant/cafeteria concession located in the third-class hotel. Visitors are able to reach the island via the services of private ferry operators, who work out of various docks.²⁵ The promotion and publicity activities of these partners sets off Parks Canada's marketing efforts to good advantage, as they serve to build the visibility of the site among various tourism clientele.

Regional tourism context

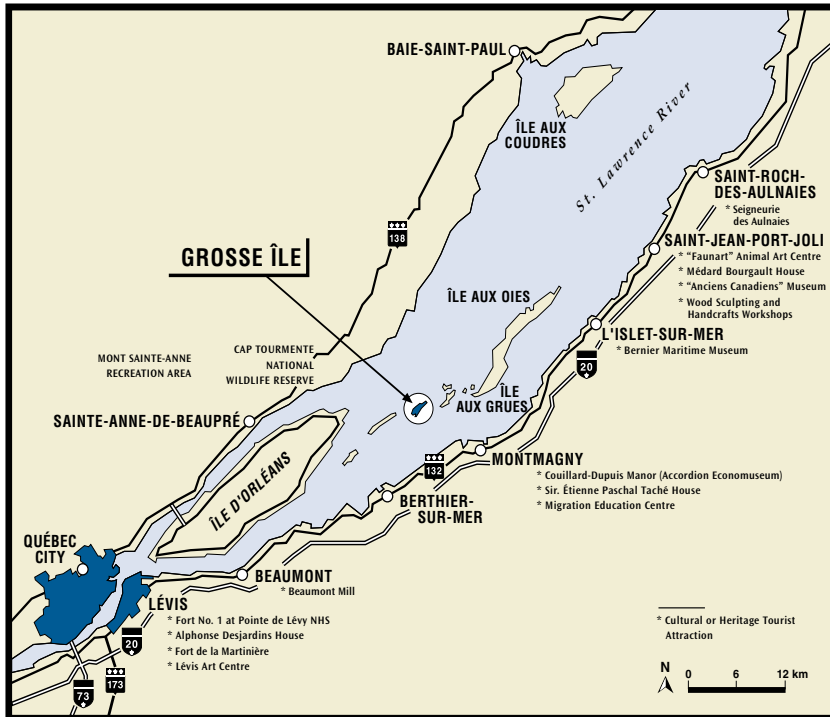
As part of the Chaudière-Appalaches tourism region, the Isle aux Grues archipelago (which includes Grosse Île) is located close to the major population pool concentrated in the greater Québec City area and the international tourist attraction represented by historic old Québec.

The Chaudière-Appalaches tourism region covers an extensive territory; bounded in part by the Eastern Townships to the southwest and stretching eastward to the U.S. border, it extends north and east along the St. Lawrence from Leclercville to Saint-Roch-des-Aulnaies. The South Shore is an entity corresponding to the archipelago and the area adjoining the river between Beaumont and Saint-Roch-des-Aulnaies, along the "*route des navigateurs*."

In addition to Grosse Île and the Irish Memorial National Historic Site, the South Shore region boasts a number of outstanding cultural attractions, mainly in the vicinity of Montmagny, a regional centre and cultural hub, and Saint-Jean-Port-Joli, Québec's arts and crafts capital, famed for its talented sculptors and craftsmen and women.

The architectural heritage of the South Shore is in many ways outstanding. It features some of the best-preserved vestiges of the seigneurial system in Quebec, including the Beaumont mill, the Couillard-Dupuis manor in Montmagny, the manor on Isle aux Grues, the Dionne manor and the mill in Saint-Roch-des-Aulnaies. The history and heritage of the South Shore are closely linked with the St. Lawrence, and the whole

25. Since 1998, a mooring permit is required of ferry operators who wish to carry visitors to the island. A deposit must be paid in order to obtain this permit, which is governed by several conditions and regulations. If ferry operators fail to comply with the terms and conditions of this agreement with Parks Canada, their rights of access to the island may be withdrawn.



riverside area has a particularly evocative maritime feel to it.

In addition to the sites just mentioned, the South Shore's most popular heritage tourist attractions include the Sir-Étienne-Paschal-Taché home and the Centre éducatif des migrations (both in Montmagny), Isle aux Grues, the Musée maritime Bernier (l'Islet), the village of Saint-Jean-Port-Joli and the Seigneurie des Aulnaies (Saint-Roch-des-Aulnaies). Waterfowl hunting attracts large numbers of hunters to the Isle aux Grues archipelago every fall. Other main tourist draws are the Fête internationale de la sculpture de Saint-Jean-Port-Joli (an international sculpture festival), the Carrefour mondial de l'accordéon (world accordion festival), the Festival de l'oie blanche (snow goose festival), the Fête de la Saint-Aubert de Cap-Saint-Ignace (the feast of Saint-Aubert at Cap-Saint-Ignace), and plays and shows performed in summer theatres. There is also growing agrotourism in the region (farm holidays,

vineyard tours, sugaring parties, etc.) and an increasing range of tourist products centred on outdoor rest and recreation (river cruises, bicycle paths, golf, fishing, etc.).

According to the 1999-2000 edition of the *Guide touristique de l'ATR Chaudière-Appalaches*, the Côte-du-Sud (South Shore) sub-region has some 875 rooms (bed-and-breakfasts, hotels and motels, cottages/condos) and nearly 2700 campsites, as well as approximately 10 restaurants with 1800 seats during the tourist season. This infrastruc-

ture, composed mainly of small and medium-sized establishments, covers the entire region, with some concentration at Montmagny and Saint-Jean-Port-Joli. For pleasure boating enthusiasts, both Saint-Michel and Berthier-sur-Mer feature marinas with full mooring facilities.

The efforts of South Shore tourism stakeholders during the last several years have begun to pay off, as is shown by the noticeable increase in tourist length of stay. Diversification of the region's products and attractions, combined with efforts by the Association touristique régionale (ATR) and the Office de tourisme de Montmagny to define a niche for its products on the tourist market, should further strengthen this trend. Against this promising backdrop, the finishing work on the presentation of Grosse Île and the Irish Memorial National Historic Site of Canada, which the ATR views as a future pole of attraction among South Shore tourism offerings, is obviously an eagerly awaited project.

Preservation and presentation of the site

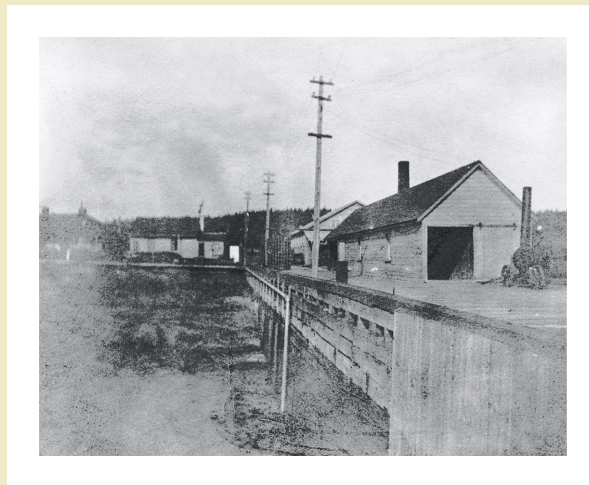
The preservation and presentation concept for Grosse Île and the Irish Memorial National Historic Site of Canada and the concomitant strategic directions correspond to the major principles adopted by Parks Canada for heritage site planning.

Preservation and presentation concept

Fundamentally, Grosse Île and the Irish Memorial National Historic Site will be developed in accordance with the statement of commemorative intent worked out for this site. To achieve that objective, links will be established between the resources symbolizing its national historic significance and the messages used to convey this. Accordingly, three fundamental principles underlie the preservation and presentation concept, which has been designed to ensure the commemorative integrity of the site.

Respecting the spirit of the place

- The *spirit of the place* refers to the character and meaning that a site has acquired over time; before a site can be grasped and understood intellectually, it must first be felt emotionally.



The disinfection facilities, circa 1910

*Chevron Collection
Parks Canada*

- Visitors setting foot on the island experience this emotion in varying degrees. It is not difficult to appreciate the special value and meaning of Grosse Île for Canadians of Irish descent. For the families of those who worked at the station, Grosse Île is also a particularly moving place, which brings back memories of the people who were born and lived there. Thus it is only natural to regard this site as a place of pilgrimage, remembrance and quiet reflection.

- But whatever their links with the people who lived on Grosse Île or lie buried there, today's visitors are also moved by the indefinable atmosphere. They soon realize that this is a place that time has left behind. As Jeannette Vekeman Masson has so aptly written, "*the pilgrim arriving on Grosse Île is struck by the feeling that time came to a standstill.*"²⁶
- Grosse Île is indeed like an open-air history book. To remove this feeling of stepping back in time would be like smothering the voice of the island, at the very moment it can finally speak out to us. Thus the development of Grosse Île will not be allowed to jeopardize the spirit of the place under any circumstances.

Comprehensive and specific view of history

- Grosse Île should be presented both in its overall context – that is, in relation to the history of immigration to Canada – and more specifically – that is, as a quarantine station and as the scene of the tragic events of 1847.
- Whatever the forms or methods of communication used, the public will have the opportunity to learn about all the historical messages embodying the site's commemorative intent.

Nature-culture approach

- The cultural landscape of Grosse Île, moulded by a century and a half of activity, is part of a geographical and natural environment which, as an isolated island in the river, has changed little over time. The relationship between man and the environment is still visible in the landscape today.
- On another level, the insular nature of the site accentuates its inherent heritage interest. In this context, it is perfectly appropriate that visitors should be offered an experience that not only enables them to appreciate the cultural attractions of the island but which also provides them an opportunity to enjoy its natural environment.

In accordance with the Parks Canada Cultural Resources Management Policy and the statement of commemorative integrity for the site, the preservation and presentation concept for Grosse Île essentially focuses on site conservation, by means of preserving the surviving period resources and using them to express heritage values. In order to safeguard the island's special atmosphere, care should be taken when choosing methods of communication and organizing visitor services.

The following text expresses the Parks Canada vision for the desired state of the site.

26. VEKEMAN MASSON, Jeannette, *Grand-maman raconte la Grosse Île*, Québec: Daillac Éditeur, 1990. 163 p.

Grosse Île: looking to the future

Now, at the dawn of a new millennium, people setting foot on Grosse Île arrive by the same river that brought immigrants to our shores many years ago. History buffs, tourists and pilgrims alike are invited to steep themselves in the memory of Grosse Île, listen to the island tell its story, and discover its rough yet tranquil charm, its austere yet welcoming beauty.

On their arrival, visitors are welcomed inside the former disinfection building, as were the immigrants entering quarantine at the beginning of the 20th century. This building has been preserved and restored to its condition circa 1927, complete with the apparatuses and equipment used for disinfecting immigrants and their belongings. As they suddenly adopt the position of new arrivals, visitors experience the jolt of going into quarantine. Then, before setting off on a tour of the island, they are given an idea of the changes that took place at the station over different periods of time and of the major stages which marked the history of immigration to Canada. Finally, visitors learn about the formidable human drama that shook Grosse Île in 1847.

All heritage buildings and works periodically undergo conservation measures to ensure that they remain in viable condition. The protection of cultural resources, including meaningful archaeological and ethnological resources, plays a key role in maintaining the commemorative integrity of the site.

The island's rusticity has been preserved. Likewise, the main features which particularized the landscape throughout its history have been restored – most notably, the division of the island into three distinct

sectors. The monuments erected in memory of the dead are carefully tended. The boundaries of the island's three burial grounds have been marked off and their locations have received appropriately visual identification. In addition, the layout lends itself to pilgrimage. In the Irish cemetery stands a memorial to the thousands of people, most of them Irish, who were buried on the island.

In addition to the disinfection building and nearby carpentry and plumbing workshop, many of the some 30 buildings still standing on the island are open to visitors who want to learn more about the past. The second-class hotel houses a thematic exhibit on the multifaceted history of immigration. A computerized database on the immigrants who passed through the port of Québec City is available for querying. Visitors can also move through the upper floor, where bedrooms are located, and catch a glimpse of the daily life of quarantined immigrants at the turn of the century.



The disinfection building (prior to 1910)

NAC, C-79032

Immigrants who spent time on Grosse Île during the station's early years experienced more primitive conditions. These are depicted in the wash house, built in 1855. The 1847 tragedy, which was to mark the island forever, is recounted in the lazaretto, the only hospital still standing. This emotional and intellectual experience enables visitors to comprehend the scale of the catastrophe which befell the immigrants and the heroic efforts made to care for the sick and relieve their suffering.

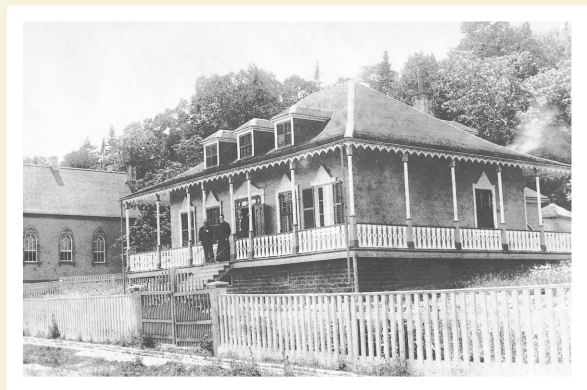
The Catholic and Anglican chapels, which have preserved their original interior furnishings, show how religion played a part in comforting the island's occupants. In their own way, the chapels evoke the passage of time and the seasons, the pain of losing dear ones, but also joy-filled Sundays and holidays. Visitors can go there for quiet reflection and occasionally take part in services.

A visit to the Catholic presbytery, in the heart of the village, introduces visitors to the station personnel. Who were these courageous and dedicated individuals? What were their duties and how did they live? How was the village organized? Visitors have the opportunity to appreciate the generous spirit shown by the island-dwellers.

Grosse Île and the Irish Memorial National Historic Site of Canada is administered by Parks Canada, which has joined with others to promote the site and offer activities, facilities and services enhancing the public's experience of the island.

The South Shore is the "natural" gateway to Grosse Île: centuries-old interrelationships have made the island part of this region. That is why the South Shore is a front-line partner for Parks Canada and stands to benefit from the thousands of tourists and day-trippers who visit the island from May to October every year. Grosse Île is a shrine dear to the hearts of the Irish community. It is also nationally and internationally renowned as one of the foremost Canadian and Quebec heritage tourism sites. A visit to the island is a must for all who are interested in the history and culture of Canada and Canadians.

Grosse Île is a place people come back to, owing to its island charm and emotion-laden landscape, its evocation of heritage values stemming from two centuries of history, and the variety of enriching experiences it offers visitors today. Those who journey to Grosse Île return home inspired and transformed.



The Catholic presbytery (prior to 1913)

*Philippe Gingras Collection
ANQQ*

Management objectives and key actions

Ensuring the commemorative integrity of the site

- **Cultural landscapes**
- **Built heritage**
- **Archaeological resources**
- **Commemorative plaques and monuments**
- **Movable cultural resources**
- **Communicating the site's messages and heritage values**

The following objectives will guide the key actions of Parks Canada in managing level-1 cultural resources and communicating heritage values, in particular the messages associated with the site's commemorative intent.

The objectives appearing in **bold** are considered as indicators of the commemorative integrity of the site and have been taken from the *Commemorative Integrity Statement* for Grosse Île and the Irish Memorial.

Cultural landscapes

Overall, **the components of the cultural landscape of the site and its visual links will be protected and, if needed, reinforced.** Accordingly, interventions designed to protect and

present them will be undertaken with a view to **enhancing appreciation of various areas and deepening understanding of quarantine station history**; however, this will not involve a faithful historical reconstitution of the landscape. The specific nature and scope of the steps to be taken are described in detail in the *Plan de protection et de valorisation du paysage (Landscape protection and development plan)*, approved in 1999. For the most part, the key actions recommended in the plan will seek to:

- protect significant views and lookout points recognized as level 1²⁷ in addition to other views deemed to be valuable²⁸;
- restore the traditional division of the station into three sectors, and stress the distinctive character of each as the reflection of its predominant use during the history of the human quarantine station;
- accentuate the landscape components of the island so as to highlight the historical character of the significant areas dating to the period of human quarantine activities.

Measures designed to enhance and protect the landscape will be implemented primarily in the southern portion of the island, the main area of occupation during the period of the human quarantine. They fall into one of three categories: plantlife management, reminders of previous elements, and the integration of future facilities. The direction of this plan is summarized below:

27. The list of significant views recognized as level 1 appears in the commemorative integrity statement.

28. See the *Plan de protection et valorisation du paysage [Landscape protection and presentation plan]*, pp. 20, 21, 28, 29 and 36.

Vegetation management

Although vegetation will be allowed to grow freely in certain areas of the inhabited portion of the island, other areas will be targeted for control. Thus, for example, distinctions will be made between areas maintained as lawn, areas maintained as managed meadows and areas of controlled vegetation.

Lawn areas will not be overabundant, in order to avoid giving the island an aseptic appearance and so as to limit upkeep expenses. Currently, lawn areas are located in the perimeter of buildings of historic interest as well as the developed portion of the Irish cemetery. New lawn areas will be created for the purpose of recalling the central and eastern sector cemeteries as well as a number of archaeological vestiges.

Viewed as an alternative to traditional lawns, *managed meadow areas* will be used to preserve the country character of various locations and reduce upkeep. Meadow areas correspond to locations receiving little visitation, and will require only occasional mowing (once or twice a year). Mowing time, frequency and height will be decisive for the adaptation of plant species. This method of management will be implemented in: the central area of the western sector, between the cemetery, the stable and the bakery; in the vicinity of the central sector cemetery; and in areas having no special designation throughout the village.

Some areas will be set aside as *controlled vegetation areas*, for the purpose of preserving or recovering perspectives and significant visual relationships. These areas will be managed via regular clearing and selective cutting, as part of efforts to limit the growth of shrubs and young

trees. Grass cover and shrubs will be preserved in these areas. In some cases, portions of wooded areas will be converted into meadowland so as to protect the integrity of archaeological vestiges or certain visual perspectives.

A number of particularly outstanding or significant trees will be preserved. As a rule, the presentation and protection of landscapes will be performed in a way that is mindful of preserving and presenting currently extant plant life. Not only will this approach reduce ecological impact, it will also enhance the aesthetic qualities of the landscape and provide a tangible expression of the nature-culture approach referred to above.

Ornamental shrubs and perennials planted around various residences stand as reminders of human occupation and, in this capacity, should be protected, cleared of overgrowth and occasionally replaced. The planting of trees, shrubs and perennials will be conducted so that the current landscape will recover a degree of its previous appearance, as shown in old photographs, but will, however, account for the presence of archaeological vestiges. There will be no planting of new trees and shrubs in the cemeteries.

In areas requiring major clearing, such as the central sector cemetery, the areas surrounding the lazarettos, and the eastern sector cemetery, efforts will be made to limit its impact on the ecological balance of habitats.

Finally, poison ivy, a highly pervasive species on Grosse Île, will be managed according to the control plan implemented in 1991.²⁹

29. This plan calls for managing poison ivy in a way that ensures the safety and well-being of employees and visitors in the areas that they are likely to travel through.

Reminders of past features

Various elements that have disappeared over time will be recalled in the landscape – in particular, a number of *archaeological vestiges* whose presentation has been deemed critical to understanding commemorative messages; *fences* and *gates* which formed the boundaries of certain historically significant properties; and the *barrier fences* that once divided the island into three sectors.

Archaeological vestiges will be recalled by means of vegetation management and other techniques, such as ground-level marking. These reminders will be distributed throughout the entire area of the former quarantine station.

Fences and **gates** have been identified as significant elements of the village sector. Namely, fencing was a favoured means of delimiting space, and fence type was considered to be an indicator of social status.³⁰

Finally, **barrier fences** will again be placed in the landscape in order to reinforce the identity of the three sectors of occupation and to suggest the compulsory confinement within these sectors and the regulations governing movement from one sector to another during the active period of human quarantine. The exact location of these fences at sector entrances varied throughout the history of the quarantine. Where these fences are to be re-erected will be determined with a view to fitting them logically into today's landscape.

The integration of future facilities

A number of rules will have to be respected if the spirit of the place is not to be impaired as a result of installing new elements in the landscape. For the most part, these rules will apply to the installation of signage and interpretation panels, the setting up of facilities and equipment required by the visit experience, and the erection of commemorative monuments and plaques.

Outdoor signage and interpretation panels will be installed as prudently as possible. So as to avoid deteriorating the integrity of landscapes, visitors' guides (publications, audio guides, etc.) and the services of heritage interpreters will be used as much as possible to communicate commemorative messages. The location and design of current and future signage and panels will be defined so as to blend in with the surrounding cultural and/or natural landscape.

Architectural models related to the historical character of the site must be developed before **facilities and equipment required by the visitors** can be set up. Outdoor furniture (picnic tables, benches, garbage cans, etc.) should be provided in sufficient numbers and located in the appropriate areas. The design of this furniture should be appropriate to the heritage character of the site, and the location of pieces should blend into the landscape.³¹ Interpretation trails will be fully integrated into the landscape and will offer visitors a variety of perspectives enabling them to discover the resources of the site.

30. The fence around the electrician's house, located in the western sector, will also be recalled in the landscape. The building, built in 1847, first served as the physician's home. This role implied building a fence so as to set the house off from the neighbouring hospital and immigrant shelters.

31. A period architectural model for benches has already been adopted.

Built heritage

Grosse Île has an impressive number of architectural resources. Although the commemorative integrity objectives for the site require that the 30-odd buildings with heritage value be preserved and protected, only half will, at some point, be open to visitors. Others will be used for operational purposes, and will be open only to Grosse Île personnel on duty or Parks Canada partners. The following guidelines will be used to frame Agency action:

- An *architectural intervention plan* will be produced for all the heritage buildings on the island. It will describe the specific problems involved in preserving and using each work/structure, produce an assessment of the state of knowledge concerning the resource, specify the intervention principles to be given priority and list the work to be done in the short, medium and long term. Implementation of this plan will be a priority in the national historic site's business plan.
- The interventions recommended under the plan will respect cultural resource management principles and will comply with Federal Heritage Buildings Review Office standards.³² In order to maintain the commemorative integrity of the site, the interventions proposed under the plan will aim to:

- protect the structure and exterior features of buildings;
- protect the details and coherence of the spatial division and interior design of buildings;
- protect the organic and visual relationship between buildings and their environment.

Buildings open to visitors

The following fifteen surviving buildings will be partially or fully open to visitors:

- 1- the disinfection building**
- 2- the carpentry and plumbing workshop**
- 3- the second-class hotel**
- 4- the third-class hotel**
- 5- the wash house**
- 6- the bakery**
- 7- the kitchen**
- 8- the first-class hotel**
- 9- the assistant physician's house**
- 10- the Anglican chapel**
- 11- the Public Works Officer's residence**
- 12- the Catholic chapel**
- 13- the Catholic presbytery**
- 14- the Marconi station**
- 15- the lazaretto**

32. CANADIAN HERITAGE, Federal Heritage Buildings Review Office, *FHBRO Code of Practice*, 1996, 52 p.

-
- Generally speaking, all interventions affecting these buildings will accord with the heritage character, history and special atmosphere of the site. In keeping with the principles of cultural resources management, the architectural intervention concept will seek to preserve and restore all building components.
 - Where necessary, the outer shell of certain buildings will be reinforced and restored in order to bring out their architectural coherence. If necessary, interior spaces will be restored and/or upgraded to meet modern standards and respond to new use requirements (interpretation, visitor services, etc.).
 - All buildings open to the public will be properly protected and equipped to meet current fire regulations.
 - The scale of the electrical and mechanical systems earmarked for installation will depend on visitor use, investment and operating costs, technical and environmental restrictions inherent to an island and the desire to minimize impacts on heritage resources. Generally speaking, the systems installed will not be designed to meet museum standards of preservation.
 - Although current universal access standards will not be fully met, access to buildings open to the public will be improved as much as possible. In order to minimize the impact on the heritage character of buildings, the

spaces made accessible to the public will be restricted and rationalized (e.g., upper floors will be kept off limits).

The disinfection building

This huge building has already been restored and rehabilitated to look as it did in 1927, when it was last expanded. The building's preservation and presentation plan was aimed primarily at: permanently stabilizing the structure, which had become quite unsound; upgrading it to current standards; and preserving as many of the original architectural and cultural features as possible, including two of the three disinfection chambers. The building is used mainly to house interpretive installations, which are spread out over two floors, a multi-purpose room and full washroom facilities.

In the building's annexes, steps were taken to preserve two of the boilers once used to produce the steam required to operate the disinfection chambers, along with the associated facilities (coal bay, etc.). The dynamos used to produce electricity on the island have also been conserved.

The carpentry and plumbing workshop

The restoration/rehabilitation of this building followed the same intervention principles as were used at the disinfection building. Only the ground floor, which houses the visitor reception facilities (information counter) and souvenir shop, is accessible to visitors. The upper floor is used for administration offices.

The bakery and the kitchen

Both of these small buildings have been targeted primarily for conservation work. In addition, the bakery verandah will be reconstructed so as to reestablish the architectural integrity of the building. Both structures will be used to house special or travelling exhibits.

The first-class hotel

This building currently has a neglected look to it, particularly on account of the obvious disrepair of its walls.³³ The outer shell, inclusive of all exterior woodwork, will be completely restored. The interior, currently in very good condition, will be used in particular for hosting special groups. Upgrading work, first conducted in 1994 for the purpose of temporary use, should be revised with a view to opening the building to the public on a permanent basis. An automatic sprinkler system will also be installed.

The second-class hotel

The building's roof and outer shell will be restored, and the interior will be upgraded to standards and partially restored to meet interpretation requirements. Only one wing of the upper (bedroom) floor will be open to the public (to be determined during preparation of the restoration concept). The entire ground floor will be used for a thematic exhibit about immigration. The upper floor will serve to present the living conditions of immigrants placed under observation quarantine subsequent to the improvements to facilities carried out by Montizambert.

The third-class hotel

This building has undergone various preservation work (outer shell) and repairs (interior spaces). It is used as the new location for the island's restaurant services, both for visitors and personnel. The ground floor houses various necessary facilities (kitchens, coolers, storage areas, cafeteria, large hall, washrooms, etc.). The upper floor is now reserved for bedrooms, as in the past: these rooms are used for short periods by the personnel of Parks Canada's partners as well as any Parks Canada employees who make short stays on the island. The hotel will continue to provide accommodation, although the upper floor will remain off limits to the public.

The assistant physician's residence

Major restoration work will be devoted to this massive, all-wood, hip-roofed structure built over stone foundations. Among other measures, plans call for: properly draining rainwater; repointing the foundations; cleaning up the basement; and rebuilding the ground floor structure and flooring, which show signs of rotting. The broad verandah around three sides of the building and the magnificently decorated chimney stack will be restored. Inside the house, damp and seepage have damaged the plaster finishes. As with all buildings open to visitors, upgrading to current standards – including installation of an automatic sprinkler system – must be carried out. Only the ground floor will be open to the public. There, an exhibit devoted to the life and accomplishments of Dr. Frederick Montizambert will be presented.

33. The outer plaster finish covering walls made entirely out of concrete is in very poor condition, and the highly damaged concrete is itself vulnerable to seepage.

Wash house

This building will be preserved and restored both inside and out, following the same principles as were used at the disinfection building. **In particular, care should be taken to protect the functional features of the building: the fireplaces, boilers, cross beams, shower rooms and access openings to the river.** The roof will be refaced with shingles, thus restoring it to its condition at the time of the quarantine station, and the rear porches overlooking the river will be reestablished. Half of the space inside will be taken up by an exhibit about the original functions of the building and the living conditions of immigrants before the station was modernized by superintendent Montizambert.

Catholic chapel

With the exception of the roof, which was temporarily repaired, the shell of the chapel was completely restored, thus recreating the features of the building during the 1910s. The stone foundations were repointed, the main sill was replaced, and the floor joists repaired. The wall structures consisting of beams and planks were restored, as were the board siding, windows and doors. The porch was also reestablished. Future work will centre primarily on restoring the cedar shingle roof once the useful life of the present roofing has ended. The current interior will be preserved.

Catholic presbytery

In addition to the usual work of preserving and restoring existing features, a verandah that originally graced this part of this building will be reconstructed. Only the ground floor, whose layout is to be preserved, will be open to the public. It will house interpretation modules dealing with the founding and history of the Grosse Île village community.

The Anglican chapel

For the most part, the Anglican chapel will undergo preservation work (protection and restoration of exterior finishes). The interior is in good condition and will not be altered.

The Marconi station

Aside from the north wall and a portion of the floor, both of which were damaged by seepage prior to stabilization work, the interior spaces of this small building are in good condition and will require only minor restoration work. Other, more substantial work will, however, be undertaken. To the greatest extent possible, plans to restore the shell should give consideration to conserving and rehabilitating all currently intact components and to reestablishing missing detail work. The cedar shingle roof and the brick chimney will also be restored. Artifacts from the ethnological collection will be exhibited in the building and thus integrated into a small thematic exhibit dealing with the evolution of communications on Grosse Île during the quarantine period.

The Public Works Officer's residence

Under the terms of an agreement with Public Works and Government Services Canada, this architectural ensemble comprising a residence and shed is in the process of being restored. The building's outer shell will be completely restored, with work to include: draining the property; repairing the foundations and outer walls; repairing the framing as needed; restoring woodwork; and redoing the roof and rebuilding the verandah. The interior of this house is in good condition: with the exception of a section of the south wall, which was damaged by water, the interior finishes will require only minor restoration work. However, the building will have to be fully upgraded to current standards. Inside the residence, visitors will be able to view

an exhibit dealing with modernization of the quarantine station by the Department of Public Works in the early 20th century.

The lazaretto

Conservation work on the lazaretto has now been completed. The severely damaged framework was repaired from the outside so as to preserve the interior finishes. The building was set over new piles and its cedar shingle roof was refaced. The lazaretto has changed little since the time of its construction in 1847. However, in terms of its outer architecture, it now appears as it did in 1921, when it was used to accommodate smallpox victims. Thus, the decision was made to preserve the former hospital with its dormer windows, four front doors, stoops and awnings, limited use of windows, back doors, roof ventilators, chimney and louvre vents – all additions made after 1847 but which nevertheless are representative of the evolution of the building in its role as a hospital. As the only surviving building from the era of the 1847 tragedy, the lazaretto will house interpretation modules devoted to this dismal chapter in the history of the Grosse Île quarantine.

Heritage buildings to be used by personnel

Several of the island's heritage buildings will continue to be occupied by Parks Canada personnel or the department's partners either as a work place or living quarters:

- **the electrician's house**
- **the physicians' residence (26)**

- **the physicians' residence (29)**
- **the school**
- **the carter's house**
- **the hospital caretaker's house**
- **the inoculation and medical examination office**
- **the laboratory**

Generally speaking, these buildings will undergo appropriate maintenance and repair measures, in accordance with the Parks Canada Cultural Resources Management Policy.

The electrician's house will also be restored so as to reestablish the architectural coherence of the building. In keeping with this objective, the building's former verandah will be reconstructed.

All buildings in this category will be hooked up to the island's upgraded services system.

Other heritage buildings

The six heritage buildings³⁴ that will not be open to visitors or used by personnel will be stabilized or repaired in order to maintain the essential features that they have retained since being abandoned. They will also be protected against further deterioration. To the greatest degree possible, care will be taken to preserve the signs of the passage of time, which underline the authenticity of these resources. Interior spaces will be preserved.

Buildings/works no longer standing

There will be no reconstruction of buildings or works no longer standing.

34. These buildings are: the guard house, the upper block, the superintendent's shed, the nurses' home, the hospital laundry and the summer kitchen of the upper block.

Archaeological resources

Certain sectors of the island will be the location of archaeological work, including digs. The aim is to protect on-site resources and gather more evidence or information about certain aspects of the quarantine station's history. In particular, **the remains of buildings and works in the area west of Hospital Bay, such as the 1832 and 1847 hospital complexes, will be located, so as to ensure that they receive adequate protection.**

In accordance with the Cultural Resource Management Policy, any work that may disturb archaeological vestiges known or presumed to be present will be accompanied by the appropriate archaeological interventions. Vestiges uncovered during archaeological digs will be brought to the surface. As a rule, these vestiges will be appropriately surveyed and then re-buried.

However, in order to communicate the heritage values of the site, certain vestiges linked more

closely to periods in the station's history that have left behind few other traces will be left uncovered for viewing. Others which are too rare or fragile to remain in the open air will be signposted at ground level or signalled by other means. The following is a list of the vestiges thus selected:

- the fence and gate located at the end of the wharf, the guard's house, the railway tracks laid outside the disinfection building;
- vestiges of the hospital and the 1832 immigrant detention building;
- the 1847 hospital complex, the 1847 immigrant detention shed, the first Anglican chapel and the first Catholic chapel;
- the barrier fence that previously separated the western sector from the central sector, located in the vicinity of the guard post;



View of the hospital complex located in the eastern sector of the station at the end of the 19th century. Only a few archaeological vestiges testify to the era of bustle and activity once characterizing this area.

*Lucienne Masson Collection
Parks Canada*

- the hospital for cholera-sufferers and the summer kitchens of the upper block;
- the central cemetery;
- the Anglican presbytery;
- the superintendent's house, the greenhouse, the icehouse, the stairs leading to the superintendent's dock, the superintendent's wash house;
- the post office;
- the 1832 army buildings and the central block;
- the village bakery;
- the ambulance shed and the pumping stage located near the lower wharf;
- the barrier fence between the central sector and the eastern sector (located west of the hospital administrator's residence);
- the foundations of the 1912 hospital;
- the 1881 brick hospital and accompanying laundry;
- the lazarettos, except those located beneath the brick hospital and in the lower block;
- the lower block;
- the Catholic and Protestant sections of the eastern cemetery.

Care will also be taken to ensure that less obvious vestiges are made more visible by cutting back vegetation and creating an appropriate setting (see the *Landscape preservation and protection plan*).

However, it has been agreed that the swimming pool built within the vestiges of the former superintendent's house will be dismantled when it reaches the end of its useful life, considering the incompatibility of its presence with the existing archaeological resources and the cultural character of the site.

Commemorative plaques and monuments

The existing commemorative monuments (the Celtic cross, the Memorial, the monument to physicians, the commemorative plaques in the two chapels of the island, and the plaques of the Historic Sites and Monuments Board) are irreplaceable symbols of the spirit of the place. Parks Canada will ensure that they are maintained and made suitably visible and accessible.

Subsequent to the recommendations of the advisory committee, a memorial was erected in the vicinity of the cemetery and inaugurated in 1998. The Grosse Île Memorial is an expressive work raised to the memory of all the deceased who were laid to rest in the island cemetery, including the thousands of Irish immigrants who died in 1847 and members of the quarantine station staff. The Memorial is in the form of a circular mound crisscrossed by corridors constructed in dry stone. These corridors direct visitors into the earth, the symbol of Darkness, before emerging into the light, in an area where the names of the buried have been engraved in glass.

Parks Canada will ensure **that these new monuments blend in harmoniously with the cultural landscape** and invite reflection. These two factors must take precedence over "visibility."

As a rule, Parks Canada will attempt to avoid a proliferation of **commemorative monuments and plaques** throughout the island landscape. New monuments and plaques may only be added once an in-depth evaluation of each proposal has been completed. These evaluations will give consideration to the overall development of the site, the presence of resources on the site, and strategic direction governing presentation.

Movable cultural resources

Parks Canada will ensure that collections continue to be inventoried and evaluated in order to identify level-1 objects and artifacts.

Generally speaking, the collections will be preserved and used in a rational way for on-site presentation of the various themes related to the site's commemorative intent.

Grave markers in the cemeteries will be properly maintained by Parks Canada. Although they are recent additions,³⁵ the white wooden crosses planted in rows in the western cemetery will be preserved, maintained and replaced as needed.

Tombstones found in the island's burial grounds will be returned to the cemeteries following appropriate treatment.

Large items from the ethnological collection, namely the ice canoe, the ambulance/hearse and the Bombardier "autoneige" (or multi-passenger snowmobile), will be stored and displayed in an appropriate location.³⁶

Suitable gun mounts will be placed in a setting that has been redesigned to make the battery stand out as a coherent unit of interest.

Arrangements will be made to reproduce handwritten documents so that copies are available for researchers at the National Archives of Canada.

Communicating the site's messages and heritage values

In order to ensure the commemorative integrity of the site, **messages designed to communicate the commemorative intent will be developed with a view to enhancing the link between visitors and resources. Those messages will be clearly conveyed to the public, using methods adapted to various audiences.**

An interpretation plan (titled *Plan d'expérience de visite*), published in December 1998, sets out the chief parameters of the heritage experience offered visitors to Grosse Île, the main communication methods to be used, and the functional and spatial organization plan serving to frame communications methods.

For communicating messages of national significance, the interpretation plan advocates the following guidance:

- Wherever possible, the history and heritage values of Grosse Île will be communicated using surviving resources. However, in order to prepare visitors adequately for appreciating the site's commemorative

35. These crosses were planted as an initiative of Agriculture Canada in the early 1980s to signal the presence of a common grave.

36. The option of presenting these sizable artifacts in one of the buildings of the animal quarantine station would certainly be more economical, and will be favoured over other, more expensive avenues.

messages and help them understand the complex evolution of the station over nearly two centuries, background information will be given to visitors when they arrive on the island, inside the former disinfection building.

- The many sub-themes dealing with the history of the quarantine station will be presented at various locations throughout Grosse Île, and will be linked closely with surviving heritage resources; not only the disinfection building but also the second-class hotel, the wash house, the Anglican chapel, the lazaretto, the Catholic chapel and the Catholic presbytery will be open to the public for this purpose.
- The tragedy of 1847 will be presented at the Celtic cross, the Irish cemetery, the Memorial and the lazaretto.
- The theme of immigration to Canada extends far beyond quarantine activities as such. Correlating this theme with surviving heritage resources is more difficult. Thus, presentation of this wide-ranging theme will be concentrated in one place, the second-class hotel.
- The summer kitchen and the bakery will continue to host, as needed, travelling exhibitions on the theme of immigration or ethnocultural communities in Canada.
- The interpretive signs and displays installed on the island will blend in with the treatment used for preserving heritage resources, including cultural landscapes.
- Heritage interpreters are central to the communication process and will, for that reason, be judiciously deployed on the site for the purpose of guiding visitors as the latter discover resources and learn about commemorative messages.
- Generally speaking, exhibits will not require complicated techniques such as light-proof or controlled-atmosphere rooms, or sophisticated technology. Instead, lightweight, understated media such as straightforward display modules, texts and illustrations, or furnishings and items from the artifacts collection will be used. Positioning these elements inside the buildings open to the public will evoke their previous uses.
- Two interpretation trails will be laid out on the island, in keeping with the objective of sensitizing the audiences to both the wealth and fragility of ecological habitats in the St. Lawrence middle estuary area, and in accordance with the nature-culture approach advocated. One of the trails will be located in the northwest sector of the island, while the second will be situated on the eastern tip; both will provide visitors with the opportunity to familiarize themselves with the environmental characteristics of the island identified as being of level 2 heritage value, and, in particular, with the exceptional vegetation. The biological and morphological components highlighted along both trails will be presented in terms of the influence of the St. Lawrence. In particular, three elements will be used to bring out this influence on both the natural environment and the life of the occupants of the quarantine station.

- Presentation of the main characteristics of the St. Lawrence middle estuary and the Isle aux Grues archipelago.
- Presentation of Grosse Île's natural heritage via its physical and biological characteristics, with a view to enhancing appreciation of natural landscapes.
- Presentation of: the acclimatization of the inhabitants of Grosse Île to this island environment; the influence of the river on access and the transportation of people and goods; the use of the island's natural resources; and the influence of man on the landscape.

Both trails will be laid out in such a way as not to interfere with resources and historic pathways.

- The communication of level 2 messages and heritage values (the island's pre-contact dimension, the presence of the Canadian Forces, activities of Agriculture Canada, etc.) will grow out of partnership agreements that could, at some point, be concluded with the organizations and departments concerned. Parks Canada will take the initiative of contacting and attracting potential collaborators. It will also demonstrate receptiveness to their proposals.

In addition to implementing this guidance, the superintendent of the historic site will analyze the set of issues surrounding the communication of level 1 messages to a non-visiting public. He will set up various off-site discovery approaches and outreach projects, including the improvement of the existing Website, which are likely to raise awareness among members of the main ethnocultural communities whose ancestors transited through the port of Québec and/or Grosse Île during the major waves of immigration prior to World War II. Efforts will also be made to establish relationships with sites

having thematic links with Grosse Île, be they at the international, national or regional level.

Strategic direction for visitor services

The interpretation plan covers in detail all topics relating to services for visitors to the island and describes the location, form, scope and management of these services. The plan has been prepared with respect to the following guidance:

- The proposed interventions, facilities, services and activities will respect the spirit of the place.
- Carrying over a practice initiated with the opening of Grosse Île to the public, visitors will continue to reach the island via the services of private ferry operators. Parks Canada has no plans to run such a service. Boat operators must have the required permits and their vessels must comply with prescribed safety standards. Boarding locations for visitors to Grosse Île will be chosen by the ferry companies.
- In addition to standard road signs indicating the route to the various boarding points, the only installations to be set up off the island will be general information panels at each boarding point. These will show the attractions of Grosse Île, describe the means of access, provide details of the visits and experiences offered, etc. The same information will also be made available in brochure form.
- Given the limited landing capacity of the wharf and considering especially the heritage nature of the site, Parks Canada will not encourage the mooring and anchoring of pleasure craft at Grosse Île, nor will it install

floating pontoons or booms; for the same reason, no facilities for outdoor recreational activities (camping, cycling, horseback riding, etc.) will be set up on the island.

- On the island itself, visitor services will be modest, in keeping with the specific requirements imposed by the isolation of the site. As originally planned, the former carpentry and plumbing workshop now houses a reception and information area and gift shop. The restaurant/cafeteria has been moved to the ground floor of the third-class hotel. This building is easily accessed, being strategically located close to the visitors' reception centre and the arrival/departure point. The restaurant/cafeteria will continue to be operated under a concession.
- For a number of reasons, public transport will continue to be provided: the site is relatively large, with resources being scattered over nearly 2 kilometres; visiting time on the island is limited and the weather is occasionally inclement. A second tourist trailer train will go into service.³⁷
- Although guided tours will be available for groups, interested visitors can tour the island independently at their own pace. Various possible itineraries will be offered to visitors, based on the time they have available for visiting, their interests, their physical capacity, etc.
- Initially, a single picnic area will be laid out on the island. This area will be equipped with the appropriate outdoor furniture and will be located close to the third-class hotel. Depending on how needs evolve and following an assessment of impact, other picnic areas could at some point be set up on the island.
- Full washroom facilities have already been made available to visitors in the western sector. It is expected that these facilities will be able to meet needs appropriately in the years to come. However, the current temporary facilities in the central sector will be replaced by full services that comply with modern standards. Locating these services in one of the former animal quarantine buildings will be opted for if this avenue is shown to be the most economical. No plans have been made to offer public washroom facilities in the eastern sector of the island.
- For the time being, no plans have been made to offer visitors overnight accommodations on the island. At some point during the next several years, a study could be conducted on this subject, with findings to be discussed during the next review of the management plan.
- In compliance with the rules in effect in national parks and national historic sites, the landing strip will continue to be reserved for the exclusive use of Parks Canada and will not be developed to receive private aircraft.

37. In 1999, Parks Canada purchased a new trailer train for use replacing the older of the two trains previously operated by the Grosse Île Development Corporation. Nevertheless, the second of the Corporation's trolleys remains to be replaced by a new, more comfortable train that is better suited to visiting conditions on the island.

-
- Walking paths with stops along the way will be laid out to provide safe access to resources. The interpretation plan will take into account the proposals of the landscape development plan in terms of defining the location and nature of the projected facilities. Care will also be taken to ensure that activities and infrastructures do not damage the habitats of rare or endangered species or those of particular interest.

Strategic direction respecting facilities infrastructure

As a rule, new facilities infrastructure (water, wastewater treatment, power supply/transmission, etc.) will be designed so as to produce minimum impact on cultural and natural resources, and will be as quiet and unnoticeable as possible. The following guidelines apply specifically to the wharf, landing strip, water tower and fuel tanks.

Out of a concern for completely rehabilitating the burial ground, Parks Canada wishes to reorganize the Grosse Île landing strip, part of which encroaches on the former eastern cemetery. This long-term project will, however, only be undertaken provided that: realignment of the landing strip does not compromise the safety of air transport to the island; environmental impact is acceptable; and the cost is reasonable.

Water supply on the island will be increased to comply with fire protection standards and increased domestic requirements. In compliance with the findings of the comparative analysis of the various technical options available in that respect, the new underground water storage tank will be located in the central sector of the island. Once the existing water tower dating to

1913 has been retired, it will be preserved as a reminder of the past.

The oil tanks installed by Agriculture Canada close to the western wharf, where they produce a negative visual impact, will be dismantled; their current location will be rehabilitated. New tanks, to be fed via underground piping originating at the wharf, will be installed inside the former stable for healthy animals.

Finally, considering the isolation of this historic site, in addition to the diversity and great number of resources located on it, a workshop area will be set up near the gravel pit located in the eastern portion of the island in response to maintenance requirements.

Strategic direction respecting Agriculture and Agri-Food Canada facilities

Until a general agreement is signed for the transfer to Parks Canada of the lands and facilities developed by Agriculture Canada, the use of these buildings will be subject to sectoral agreements with Agriculture and Agri-Food Canada.

Once they have been transferred, these facilities will be preserved, improved or dismantled, depending on the case. The stable for healthy animals will be preserved for the purpose of housing new fuel tanks. The animal quarantine facilities set up in the middle of the island will be partially dismantled and partially preserved. One of the buildings in this complex will at some point be fitted out to serve as a public wash-room for the central sector and to house the large artifacts, that is the ice canoe, the horse-drawn ambulance and the Bombardier “auto-neige”.

Other buildings will be taken down and then refitted for integration into the future workshop area. The remaining buildings will be dismantled. The virology laboratory built on the vestiges of the 1881 hospital complex will be dismantled, whereas the power station will be preserved.

Strategic direction for protecting and presenting the natural environment

Grosse Île will continue to be the subject of studies and monitoring designed to gain further information and insight into the species and ecosystems present on the island for the purpose of protecting them – fragile species and habitats in particular.

Sustainable development

For more than 160 years, Grosse Île has been the site of various types of human occupation. Each of these uses has produced impacts on the environment. Rehabilitation of each of the 22 degraded sites on the island is intended to recover a harmonious landscape and the most natural conditions possible. The rehabilitation plan for degraded sites will serve as a framework for future actions and interventions. Accordingly, sites will be restored so that they no longer represent a danger for visitors and the environment. The visual quality of degraded sites will be corrected with a view to visitors' comfort and enjoyment. The invasion of sites by harmful and exotic vegetation will be controlled.

Within the framework of its day-to-day operations, Parks Canada must opt for judicious environmental practices. Island operations must respect the mandate that the Canadian government has set itself in terms of making its

activities more environmentally friendly. Improving the environmental stewardship of Grosse Île will entail enacting tangible measures, primarily with respect to waste management. As part of the general management of the island, a series of actions will be adopted to conform with environmental norms, corrective action, responsible behavior and environmental management.

Plant management

Grosse Île is home to a remarkable variety of biophysical resources, belonging primarily in the plant kingdom. Woods cover a major proportion of the island and, with respect to the classification used in connection with forest fires, include five types of stands. The risks of fire among these stands must be kept at an acceptable level, and steps must be taken to maintain an organization capable of fighting a stage-1 fire. In addition, attention must be devoted to the prevention measures, for the benefit of visitors and historic resources alike.

In terms of habitat protection, the potential impact on introduced plants is an important factor to consider. Approximately 24% of the island's plants are considered to be "introduced" – a high percentage in comparison with other protected environments. Thus, in the medium term, it will be crucial to assess the representativeness of introduced species among all island habitats, particularly so in the case of ecologically rich environments or fragile environments. It will be of utmost importance to control purple loosestrife in a number of degraded environments, where this plant has been particularly invasive.

During the past several decades, Grosse Île was home to a major stand of American elm, which was decimated following the spread of Dutch elm disease in the region. Thus, the treatment

program should be maintained in order to protect this ornamental resource, which played a key role in the landscapes of the island's southern sector. Parks Canada will replace any ornamental tree that is felled in this zone, unless such a measure conflicts with the protection of the cultural resources currently extant.

Furthermore, Grosse Île is a particularly rich environment in terms of the diversity of its habitats and species. Since Parks Canada took charge of the island, two surveys have been conducted for the purpose of identifying and above all locating rare plants. The majority of valued plants are located in the upper section of the shoreline (tidal area). Increased numbers of visitors and expanded development in the southern sector could produce impacts on these resources. As a result, Parks Canada will ensure the conservation of fragile habitats so as to keep these resources intact for future generations. In addition, a management plan for valued plants will be developed so as to provide managers with the tools enabling them to ensure that these species are appropriately conserved.

Finally, given the scope, value and fragility of the natural environment on Grosse Île, natural resources conservation priorities have been established and implemented on a priority basis. Thus, the shoreline will be protected. These priorities will be integrated into a zoning plan similar to that used for national parks. The zoning plan will be prepared and integrated into the management plan when it is next updated.

Wildlife management

The bat colonies on Grosse Île are currently recognized as being among the largest in Canada. This situation is related to the presence of several buildings and facilities that, over time,

have fostered the establishment of maternity colonies. Restoration of heritage buildings is likely to impact these colonies directly. Any disturbance of maternity colonies is also likely to adversely affect female bats during this critical period of their life cycle. In that regard, Parks Canada will enact the measures necessary to maintain bio-diversity, while also conserving and preserving the productivity of bat maternity colonies on Grosse Île. In addition, Parks Canada will sensitize the public to the necessity of conserving and protecting these animal species.

White-tailed deer have been present on the island for some years now. They originated on a number of private islands in the archipelago, where island-owners probably introduced them for sport hunting purposes. The arrival of these mammals on the island may cause a number of safety problems in the medium term, but above all may result in significant impact on island vegetation, including the disappearance of a number of plant species. It is important to monitor the dynamic of the deer population in the short term so as to assess its impact on plants. In accordance with its directives, Parks Canada will enact the necessary management measures upon receiving the findings of these monitoring activities.

Strategic direction respecting site visitation

One of the fundamental objectives of the national historic sites program is to promote fuller knowledge and appreciation of the history of Canada among Canadians. By stimulating visitors' interest in heritage and history, Grosse Île and the Irish Memorial National Historic Site of Canada is destined to play a decisive part in achieving this objective.

Recent studies show that Canadians, like international tourists, are increasingly interested in heritage sites and authentic experiences. While ensuring respect for the commemorative integrity of the sites presented by it, Parks Canada wishes to take advantage of this trend, with the objective of positioning Canada among the major world tourist destinations. That is why the Agency, in collaboration with its partners, periodically updates its integrated marketing communications plan, which is designed to offer products and experiences of outstanding quality.

One of this plan's objectives is to maintain and increase visitation at national historic sites, based on site visit capacity, and to increase awareness and use of these heritage areas. In 1999, Grosse Île registered more than 29 000 visits. The island can certainly cater to larger numbers because it has extremely valuable resources and undeniable drawing power. However, the site's maximum capacity has been estimated at 50 000 visitors for a six-month operating season. This takes into account the landing capacity of the wharf and the site's infrastructure (water supply, wastewater treatment system, etc.).

It should also be noted that the Chaudière-Appalaches tourism region has established the objective of increasing visitation and occupation rates at its attractions and facilities, spreading demand over the whole year and throughout the entire territory, extending the average length of stay, and firming up its market niche and visibility. A number of market segments have been targeted, some of which fit in well with current and future visitation objectives for this national historic site.

Given the interest that this site should arouse among the descendants of Irish immigrants across North America, there is certainly a substantial market potential for individual and group tours, although the real size of the current market and the outlook for growth have yet to be determined.

Mindful of the above considerations, over the next few years (i.e., during the development phase), the site could welcome from 25 000 to 30 000 visitors annually. Once the major development work has been completed and integrated into a well-defined visit experience, an action plan will be prepared with a realistic annual target of 40 000 visitors spread out over several months.

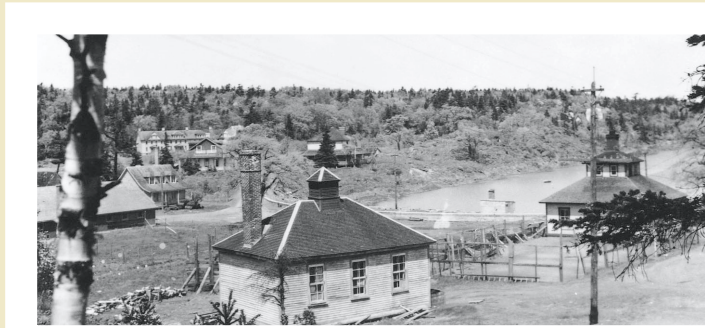
Strategic direction respecting shared management of the site

Shared management is characterized by the continuous, active participation of two or more partners operating a historic site with a view to ensuring its commemorative integrity.

This approach dovetails with one of the main strategic objectives of Parks Canada's Corporate Plan, which is aimed at actively including Canadians in decision-making and program implementation for heritage areas.

Accordingly, **Parks Canada favours partnership with the regional community in terms of the commemoration, preservation and presentation of Grosse Île.** Partnership procedures will be established in accordance with the *Framework for the implementation of Shared Management of National Historic Sites* (November 1995) and its subsequent modifications.

Summary of the environmental assessment



*Lucienne Masson Collection
Parks Canada*

Background

The management plan for Grosse Île and the Irish Memorial National Historic Site of Canada underwent a strategic environmental assessment in accordance with the *Environmental Assessment Process for Policy and Program Proposals* required by Cabinet directive. Under this environmental assessment process, federal departments and agencies use a mechanism of self-assessment to broadly determine, evaluate and mitigate the environmental repercussions of their projected activities and development. Under Parks Canada national management directive 2.4.2 on impact assessment, the scope of these environmental assessments has been expanded to include cultural resources so that only a single report need be produced. The environmental assessment for this management

plan is presented in a separate report *Examen environnemental stratégique du plan directeur du lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais – Octobre 1997* [Strategic environmental assessment of the management plan for Grosse Île and the Irish Memorial National Historic Site – October 1997]. The following is a summary of this report.

The management context on Grosse Île is somewhat peculiar in that, generally speaking, cultural and natural resources are concentrated primarily in different sectors of the island – i.e., in the northern section of the island in the case of natural resources, and in the southern section in the case of cultural resources (built heritage, land use, cultural landscapes and their vestiges).

Methodology

Evaluating the management plan occurred in several phases. The strategic objectives outlined in the plan were examined so as to ensure that they complied with the mandate and policies of Parks Canada. Then, the plans and activities earmarked for development at Grosse Île and the Irish Memorial National Historic Site of Canada were investigated for sources of stress. These impacts were then described in terms of duration (temporary, permanent) and intensity (nil, weak, mitigable, non-mitigable, unknown). Finally, general measures designed to mitigate anticipated negative impacts were defined.

Scope of environmental assessment

This environmental assessment was based on existing reports and references and on the opinions of specialists active in the fields of natural resources and cultural resources. Biophysical resources (soil, air, water, vegetation and wildlife) and cultural resources (cultural landscapes, built heritage and archaeological resources) came in for consideration. However, only elements having significant value were examined for cumulative impacts.

Appropriateness of strategic goals outlined in the management plan

Overall, the installations and activities proposed in the management plan for Grosse Île and the Irish Memorial National Historic Site of Canada jeopardize neither commemorative integrity nor the knowledge and appreciation of heritage. On the contrary, they stand to strengthen the components of Parks Canada's mandate. The impact of other plans or activities is neutral with respect to these components.

The management plan has included several strategic guidelines related to protecting and presenting natural resources and providing ecological management of the site. The guidance provided deals with sustainable development, natural landscapes and plantlife and wildlife management. As such, it enhances the overall vision of the site and fosters sounder management. In some cases, the assessment of the impact of strategic guidelines centering particularly on commemorative integrity and visitor services has brought to light potential conflicts or a lack of information.

Identification of sources of impact and assessment of concerns

The analysis of anticipated impacts on natural resources has brought out several concerns in connection with vegetation and wildlife.

Among the potential sources of negative impact on the locations of rare or endangered plant species are: the restoration of buildings located close to the shoreline, projected realignment of the landing strip, enhancement of landscapes, and self-guided tours. Plantlife on the island itself could be harmed by the restoration of buildings, the enhancement of landscapes, the presentation of cultural resources and archaeological vestiges, the development of trails, and self-guided tours. Realignment of the landing strip is the project presenting the greatest source of potential impact not only on vegetation but also on other biophysical components such as soil and drainage. In addition, the restoration of a number of buildings may significantly disturb the island's bat colonies.

All the same, the anticipated impacts on cultural resources are by and large a greater cause for

concern; at the same time, however, they offer greater opportunity for mitigation. Group tours of heritage buildings could cause damage to, and accelerate wear of certain building components and collection pieces if the visit capacity in these buildings is exceeded. In terms of cultural heritage, the set-up of the public transportation system is also a cause for concern on account of the problems of parking, noise, dust, etc., all of which detract from the appreciation of cultural resources.

It is critical to base any planning projections on ethno-historical and archaeological surveys and other studies that serve to develop continuity between the previously fashioned cultural landscape – starting in the 18th century and, more specifically, occurring since 1832 – and the current development process. The period occurring between these two points was witness to a decline in all cultural resources, including the cultural landscape. Planning projections should necessarily involve protecting and reestablishing the features with which the spirit of the place has been identified and renewing the dialogue between built heritage and its specific landscape setting.

Cumulative impacts

Vegetation in the southern portion of the island is particularly prone to cumulative impacts. In the past, this area was witness to the installation of quarantine station facilities. New sources of stress were to occur in connection with the development of this site and its gradual opening up to visitors. This fear is all the more acute in that the development of Grosse Île involves a number of interventions and calls for an increase in the numbers of visitors and self-guided tours. These factors are likely to have an impact on the

communities of rare or endangered plant species and may lead to increased fragmentation of natural sites. The result could be a loss of tree species, greater vulnerability to diseases, and diminished resistance to inclement weather.

The combined effects of time, successive stages of development and restoration work, and increased numbers of visitors all represent sources of stress for cultural resources that are essentially fragile and non-renewable. The failure to develop an approach that is respectful of the fabric of island heritage, or to exercise some form of control over the development of reception and visiting infrastructures, may jeopardize the preservation of essential features of this national historic site.

Mitigation strategies

In order to offset the anticipated negative impacts resulting from the development of Grosse Île and the Irish Memorial National Historic Site of Canada, the following strategies should be implemented:

- to respect the commemorative integrity of Grosse Île and protect its natural resources, proposed projects and activities should be made subject to the *Canadian Environmental Assessment Act* or the Parks Canada directive;
- shoreline access should be reduced to a minimum during restoration work and during visits so as to completely avoid disturbing this fragile habitat, which is home to several rare and endangered plant species;
- a zoning plan for the island should be developed and integrated into the management plan when this document is next updated;

-
- under the proposed plant management plan, monitoring must be performed as required in order to minimize impacts on landscapes and to ensure that new, invasive or exotic plants do not establish communities on the island. In addition, environmental indicators should be implemented to verify the support capacity of natural resources;
 - realignment of the landing strip should be designed so as to minimize not only the impact on surface water runoff but also to avoid shoreline degradation as much as possible;
 - restoration of buildings should aim at preserving bat colonies, since bat populations worldwide have been undergoing substantial decline;
 - a program of excavations for the purposes of prevention and/or archaeological monitoring should be conducted during all digging and earth-moving operations performed in connection with the construction, restoration and presentation of works and buildings, or in relation to the installation of service infrastructures. As the need arises, the required measures (salvage excavations or site stabilization) should be performed in order to avoid damage to vestiges which, once uncovered, can be placed on permanent display.

Conclusion

The results of this environmental assessment lead to the conclusion that, on the basis of the knowledge currently available, the development concept adopted for this site is acceptable in terms of both the environment and heritage. As a whole, the plan's strategic guidance is consistent with Parks Canada's mandate and management policies. However, this examination has brought out major concerns with respect to protecting cultural and natural resources alike. By the same token, a number of potential conflicts between preserving commemorative integrity and protecting natural heritage have been signaled. A zoning plan similar to that described in the Parks Canada document titled *Guiding Principles and Operational Policies* could quite possibly solve, or at least attenuate these conflicts. This measure has indeed been recommended in the management plan, but will be fleshed out when this document is next updated.

The potential negative impacts of greatest concern can be mitigated by using known techniques and methods or other time-tested means. In-depth environmental assessments should be conducted at a future planning stage, once projects and implementation phasing have been sufficiently defined. Thus, in strategic terms, the environmental assessment has indicated that the directions adopted for developing this site will not represent obstacles to achieving the objectives of ensuring commemorative integrity and protecting natural heritage resources.

Conclusion

The Field Unit Superintendent for the National Historic Sites of the greater Québec City area will be in charge of implementing the management strategic direction described above. Implementation schedule will be defined on the basis of available funding and regional and national priorities.

Preference will be accorded to actions and measures that ensure the site's commemorative integrity and offer quality services to the public. The priority actions that Parks Canada intends to undertake at Grosse Île and the Irish Memorial National Historic Site of Canada are as follows:

- conducting further research in order to acquire the necessary knowledge for ensuring the commemorative integrity of the site;
- completing the planning of site development by means of preparing an architectural action plan;
- carrying out the work required to preserve level 1 cultural resources, in particular currently endangered architectural resources;
- presenting the targeted commemoration theme at the lazaretto;
- completing the rebuilding of the western wharf;
- continuing work on service infrastructures and building a new water storage tank;
- producing a zoning plan for the island and conducting further research in order to protect natural resources.



*Gilles Pruneau Collection
Parks Canada, June 1947*

Acknowledgments

The Management Plan for Grosse Île and the Irish Memorial National Historic Site of Canada is essentially the result of teamwork. From the very beginnings of data collection and commemorative direction (1988-89), until the publication of the Plan, twelve years have elapsed highlighted by memorable episodes, such as public consultations from one end of the country to the other in 1992-93, and the appointment of the Advisory Panel.

Many are those during these years, fired by their true passion for Grosse Île, who actively participated in the planning process. Special thanks are in order to the members of the task force assigned to the project, all those first pioneers: André Charbonneau, historian, Pierre Paré and Gilles Fortin, architects, Monique Élie, archeologist, Michel Barry, specialist in heritage presentation, as well as Alain Maltais, former manager of the historic site.

Many people, at Parks Canada as well as outside the organization, brought their knowledge, talents and expertise; I think here of Yvan Fortier, ethnologist, André Sévigny and Christine Chartré, historians, Francine Auclair, architect, Marie-Andrée Leith, tourist marketing researcher, Annette Viel, expert in heritage presentation, Yves Beauchesne and Michel Carrier, responsible for the natural and environmental studies undertaken on the island, Diane Lebrun, manager of the collections and Simon Courcy, curator, Luc Bérard and Chantal Prud'homme, landscape architects, Pierre Lessard, producer (heritage presentation), and also Rose-Aimée Bouchard, coordinator of public participation programme.

I could not forget Renée Lemieux and Linda Bernier, who did everything to make the Grosse-Île project team's stay comfortable, Paul and Mario Lachance, our great river pilots, François Duchesne and, the staff of Agriculture Canada stationed at Grosse Île, for their hospitality and their technical help, and members of the Advisory Panel, Mrs. Marianna O'Gallagher, Mrs. Jean Burnett, the late Dr Jean Hamelin and Dr Larkin Kerwin, for their cooperation and open-mindedness.

Finally, special thanks go to Claire Beaudoin, who patiently transcribed and revised the whole manuscript and to Christiane Hébert, computer graphics designer, who did the cartography, illustration research, the graphic conception and page make-up of the document.

Jean Barry
Planner

Appendix 1:

Research Reports and Other Reference Works

ANICK, Norman. *Grosse Ile and Partridge Island Quarantine Stations*, Ottawa, Historic Sites and Monument Board of Canada, Agenda Paper No 1983-19, 1984.

BERGERON, Yves and Renée MARTEL. *Programme de collection du LHN de la Grosse-Île*, Québec, Environnement Canada, Service des parcs, Gestion des collections, 1991.

BOUCHARD, Éleine. *Catalogue documentaire des objets historiques du LHN de la Grosse-Île*, edited by Y. Bergeron, Québec, Environnement Canada, Service des parcs, Gestion des collections, 1990, 2 tomes, s. p.

BOUCHARD, Éleine. *Catalogue raisonné des objets historiques du LHN de la Grosse-Île*, edited by Y. Bergeron, Québec, Environnement Canada, Service des parcs, Gestion des collections, 1990, 950 p.

CANADIAN HERITAGE. PARKS CANADA. *Grosse Île National Historic Site, Report on the Public Consultation Programme*, Québec City, March 1994, 55 p. + annexes.

CANADIAN HERITAGE. PARKS CANADA. *Grosse Île National Historic Site, Report of the Advisory Panel*, Québec City, August 1995, 12 p. and annexes.

CARRIER, Michel. *Études toxicologiques sur la Grosse Île - Recommandations et actions prises*, Environnement Canada, Service des parcs, District de Québec, Service de protection et de conservation, mars 1991, 9 p.

CARRIER, Michel. *Plan de sécurité publique des parcs et lieux historiques nationaux du district de Québec*, Service de conservation et de protection, District de Québec, septembre 1993.

CARRIER, Michel and Luc FOISY. *Synthèse et analyse de l'information sur la toxicité de Grosse-Île*, Québec, Environnement Canada, Service des parcs, District de Québec, 1989, 17 p.

CHARBONNEAU, André and André SÉVIGNY. *1847, Grosse Île: a Record of Daily Events*, Canadian Heritage, Parks Canada, Québec City, June 1997, 283 p.

CHARBONNEAU, André and Doris DROLET-DUBÉ. *A Register of Deceased Persons at Sea and on Grosse Île*, Canadian Heritage, Parks Canada, Québec City, 1997, 108 p.

CHARTRÉ, Christine. *Chronologie des aménagements de Grosse-Île: 1796-1990*, Québec, Environnement Canada, Histoire et archéologie, février 1992, 458 p.

-
- CHARTRÉ, Christine. *Évolution physique et structurale des deux quais de Grosse-Île*, Québec, Environnement Canada, Histoire et archéologie, septembre 1989, 28 p., revised in December 1991, 163 p.
- CHARTRÉ, Christine. *La désinfection dans le système quarantenaire de Grosse-Île: 1832-1937*, Parcs Canada, Gestion du patrimoine culturel, Québec, 1995, 345 p.
- CHARTRÉ, Christine. *Le traitement des maladies contagieuses à la station de la Grosse-Île, 1832-1927*. Parcs Canada, Patrimoine culturel et biens immobiliers, Centre de services du Québec, 2001, 341 p.
- CHARTRÉ, Christine. *Rapport synthèse sur les aménagements de Grosse-Île: 1832 à nos jours*, Québec, Environnement Canada, Histoire et archéologie, février 1992, 378 p.
- CIVILIUM. *Grosse-Île, rapport et étude préliminaire, services d'infrastructures pour le secteur ouest*, avril 1994.
- CLOUTIER, Pierre. *Surveillance archéologique à la Grosse Île: structure et conjoncture*, Patrimoine canadien, Parcs Canada, Québec, juin 1997, 61 p. + annexes.
- CONSULTANTS BPR. *Étude des infrastructures de services de la Grosse-Île*, Rapport final, travail exécuté pour le compte de Travaux publics Canada, Service canadien des parcs, Québec, avril 1991.
- DALLAIRE, M. et ass. *Conservation et réhabilitation - Bâtiment de désinfection et buanderie*, en collaboration avec le Groupe Dessau, janvier 1994.
- DESPRÉS, Robert et ass. *Études et analyses de solutions pour l'approvisionnement en eau*, Travaux publics et services gouvernementaux, Services immobiliers pour Patrimoine canadien et Environnement Canada, Montmagny, mars 1998, 26 p. + 9 annexes.
- DORION, Nicole. *Catalogue raisonné des objets de culte de la chapelle St. John the Evangelist*, edited by Y. Bergeron, LHN de la Grosse-Île, Québec, Environnement Canada, Service des parcs, Gestion des collections, 1990, 149 p.
- DORION, Nicole. *Catalogue raisonné des objets de culte de la Mission Saint-Luc*, edited by Y. Bergeron, LHN de la Grosse-Île, Québec, Environnement Canada, Service des parcs, Gestion des collections, 1990, 502 p.
- DROLET-DUBÉ, Doris. *Étude historique de la forêt, du littoral et du sol*, LHN de la Grosse-Île-et-le-Mémorial-des-Irlandais, Parcs Canada, Québec, 1998, 60 p.
- ENVIRONNEMENT CANADA. SERVICE DES PARCS. *Le patrimoine architectural de la Grosse-Île - Rapport 90-31*, Report filed with the Federal Heritage Buildings Review Office, Histoire et archéologie, Québec, juin 1991, 579 p.

ENVIRONMENT CANADA. PARKS SERVICE. *Grosse Île National Historic Site - Development Concept*, Québec City, March 1992, 87 p., (F and E).

ENVIRONMENT CANADA. PARKS SERVICE. *Grosse Île National Historic Site - Development Concept - Supplement*, Québec City, 1992, 24 p., (F and E).

ENVIRONNEMENT CANADA. SERVICE DES PARCS. *LHN de la Grosse-Île - Orientation du projet*, Région du Québec, Québec, décembre 1989, 58 p.

ENVIRONMENT CANADA. PARKS SERVICE. *Grosse Île National Historic Site List of Briefs presented at Montmagny, April 22, 1992;*
List of Briefs presented at Québec City, April 28, 1992;
List of Briefs presented at Montreal, May 20, 1992;
List of Briefs presented at Vancouver, March 22 and 23, 1993;
List of Briefs presented at Fredericton, March 29, 1993;
List of Briefs presented at Toronto, April 13, 1993;
List of Briefs presented at Toronto, April 14, 1993;
List of Briefs presented at Toronto, April 15, 1993.

ENVIRONNEMENT CANADA. SERVICE DES PARCS. *LHN de la Grosse-Île - Thèmes et objectifs*, Région du Québec, Québec, février 1989, 24 p.

ENVIRONNEMENT CANADA. SERVICE CANADIEN DE LA FAUNE. *Inventaire faunique de Grosse-Île avec emphase sur les oiseaux*, Québec, janvier 1993.

ENVIRONNEMENT CANADA. TRAVAUX PUBLICS ET SERVICES GOUVERNEMENTAUX. *Évaluation environnementale, projet de dragage*, Québec, mai 1996, 14 p. + 5 annexes.

FORSTER, Merna. *Through the Eyes of Immigrants 1832-1842*, thèse de M.A. déposée à l'Université Laval, avril 1991.

FORTIER, Yvan. *La vie quotidienne à Grosse-Île; étude de potentiel ethnographique*, Québec, Service canadien des parcs, 1992, 95 p.

FORTIER, Yvan. *L'édifice de désinfection à Grosse-Île; étude de documents d'archives*, Québec, Parcs Canada, 1994, 550 p.

FORTIER, Yvan and Jean ETCHEVERRY. *Inventaire des artefacts à protéger à la Grosse-Île*, Parcs Canada, Histoire et archéologie, Québec, 1985, 2 volumes.

FORTIER, Yvan, F. AUCLAIR, R. COUTURE, C. MARTIN. *L'édifice de désinfection à Grosse-Île; notes d'observation, sondage architectural*, août-septembre 1993, Québec, Parcs Canada, 1993, 184 p.

FRÉDÉRIC, François. *L'accueil et la désinfection à Grosse-Île: 1892-1937; esquisse pour une interprétation de la collection historique et des structures architecturales*, edited by Y. Bergeron, Environnement Canada, Service des parcs, Gestion des collections, Québec, 1991, 114 p.

GAUTHIER, M. R. BRUNET and J. MCDUFF. *Inventaire acoustique des chiroptères du lieu historique national de la Grosse Île - Été 1997*, firme Envirotel inc. Pour Parcs Canada, District de Québec, 1998, 36 p.

GAUVIN, Robert. *Étude archéologique du bâtiment de désinfection et de l'atelier de charpenterie et de plomberie de la Grosse Île*, Parcs Canada, Gestion du patrimoine culturel, Québec, 1996, 337 p.

GAUVIN, Robert. *Le bâtiment de désinfection de la Grosse Île, éléments archéologiques*, Parcs Canada, Gestion des ressources culturelles, Québec. 1997, 28 p. + figures.

GAUVIN, Robert. *Lieu historique national de la Grosse Île: l'implantation des infrastructures de services et les ressources archéologiques*, Parcs Canada, Gestion du patrimoine culturel, Québec, 1996, 7 p. + annexes.

GAUVIN, Robert. *L.H.N. de la Grosse-Île-et-le-Mémorial-des-Irlandais - Le secteur sud-ouest de la baie de l'hôpital: un témoin de l'évolution de la Grosse Île*, Parcs Canada, Gestion du patrimoine culturel, Québec. s.d. (1996), 19 p. + figures.

GROUPE CONSEIL BBGL et SOLIVAR. *Grosse-Île - Potentiel d'utilisation des bâtiments: édifice d'accueil #29 et bâtiments #16, #19, #22, #29, #49 et #100*; Québec, 1991.

GROUPE DRYADE LTÉE. *Inventaire de la végétation littorale*, LHN de Grosse-Île, Québec, novembre 1993.

GUIMARD, Luc. *Relevé toponymique de la Grosse-Île*, Québec, octobre 1987, 83 p.

GUIMONT, Jacques. *Étude du potentiel archéologique de la Grosse-Île*, Patrimoine canadien, Parcs Canada, Québec, 1992, 280 p. + appendix + 4 maps.

GUIMONT, Jacques. *Grosse-Île: Intervention archéologique dans le cadre des travaux préventifs au lavoir de 1855, ressource archéologique n° 16*, Service canadien des parcs, Québec, 1992, 22 p.

GUIMONT, Jacques. *Inventaire des ressources archéologiques de la Grosse Île: guide d'utilisation*, Patrimoine canadien, Parcs Canada, Québec, 1992, 67 p. + annex.

GUIMONT, Jacques and Guy PLOURDE. *Inventaire des ressources archéologiques de la Grosse-Île*, Patrimoine canadien, Parcs Canada, Québec, 1992, 1 184 p.

HAGEAUX, Céline and Renald RODRIGUE. *LHN de la Grosse-Île-et-le-Mémorial-des-Irlandais, Plan de valorisation et de protection du paysage*, sous la direction de Luc Bérard, Québec, Travaux publics et Services gouvernementaux Canada, Services immobiliers pour Parcs Canada, mai 1999, 44 p. + 2 annexes, ill. + maps.

LABRECQUE, J., J. CAYOUCETTE and K. MARINEAU. *Inventaire et localisation des plantes d'intérêt des milieux terrestres, lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, FloraQuebeca pour Parcs Canada, Québec, 1999, 49 p.

LAJEUNESSE, D. *Plan de gestion de la salicaire pourpre, lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, Parcs Canada, Québec, 1998, 43 p.

LAJEUNESSE, D., J. BRISSON. *Les plantes introduites, lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, FloraQuebeca pour Parcs Canada, Québec, 1998, 24 p.

L'ÉCART-TYPE. *Étude de marché - LHN de la Grosse-Île, Volet I: L'environnement*, janvier 1990, 78 p.; *Volet II: Les clientèles actuelle et potentielle*, décembre 1990, 170 p. + 9 annexes; *Volet III: Indicateurs relatifs à la capacité de support*, produit pour le Service canadien des parcs, Région du Québec, section Politique et recherche socio-économique.

MALLETTE, MAJOR, MARTIN. *La Grosse Île - projet de développement récréotouristique*, en collaboration avec Y. Ménard et Pluram inc., rapport final, Québec, mai 1986, 151 p. + annexes.

MARINEAU, K. *Étude de l'ail des bois (Allium Tricoccum Ait.) au lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, Québec, 1997, 30 p.

MARINEAU, K. and R. VAUDRY. *Étude de la végétation forestière, lieu historique national de la Grosse-Île*, Parcs Canada, District de Québec, 1995, 30 p.

MARINEAU, K. and R. VAUDRY. *Inventaire et localisation des plantes d'intérêt, lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, Parcs Canada, Québec, 1997, 30 p.

MCDUFF, J., R. BRUNET and M. GAUTHIER. *Inventaire des chiroptères du LHN de la Grosse-Île-et-le-Mémorial-des-Irlandais, étapes complémentaires - été 1998*, firme Envirotel inc. Pour Parcs Canada, Québec, 1999, 35 p.

MERCIER, Guyta and A. ROULEAU. *Inventaire biophysique de Grosse-Île*, mémoire de fin d'études en vue de l'obtention du baccalauréat en aménagement des ressources forestières, Faculté de foresterie, Université Laval, Québec, avril 1988, 2 volumes.

PATRIMOINE CANADIEN. *Priorités de conservation des ressources naturelles, lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, Parcs Canada, Québec, 1997.

PATRIMOINE CANADIEN. PARCS CANADA. *LHN de la Grosse-Île-et-le-Mémorial-des-Irlandais: étude sur la satisfaction des visiteurs*, 1998, Québec, Marketing et Affaires du programme, janvier 1999, 11 p. + 2 annexes.

PIETTE, AUDY, BERTRAND, LEMIEUX et ass. *Inspection et étude structurale du quai*, Québec, juillet 1994.

PIETTE, AUDY, BERTRAND, LEMIEUX et ass. *Rapport d'étude - Étude technique d'accessibilité à la Grosse-Île; Volet 1: Conditions de la circulation maritime dans le secteur de l'archipel de Montmagny; Volet 2: Évaluation des infrastructures portuaires de la Grosse-Île*, rapport produit pour l'Écart-type dans le cadre de l'étude de marché, Québec, février 1991

-
- PLOURDE, Guy. *Grosse-Île: Surveillance archéologique lors des travaux préventifs au lavoir de 1855 (ressource archéologique n° 16)*, Service canadien des parcs, Québec, 1992, 20 p.
- PLOURDE, Michel. *Étude de potentiel paléohistorique (amérindien) de la Grosse Île, projet 89-1535*, Environnement Canada, Service canadien des parcs, Québec, 1990 (Ottawa, Rapport sur microfiches n° 462), 51 p.
- PRUD'HOMME, Chantal. *Étude sur le paysage de Grosse-Île - Rapport préliminaire*, Architecture et génie, Travaux publics et services gouvernementaux Canada pour Parcs Canada, Québec, novembre 1994, 104 p. + annexe.
- RINGUET, Nadia. *Relevé des cimetières du LHN de la Grosse-Île*, edited by Y. Bergeron, Québec, Environnement Canada, Service des parcs, Gestion des collections, 1989.
- RODRIGUE, R. *Lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais - Plan d'expérience de visite*, Patrimoine canadien, Parcs Canada, Québec, décembre 1998, 62 p.
- SÉVIGNY, André. *Frédéric Montizambert (1843-1929)*, Service canadien des parcs, Région du Québec, Histoire et archéologie, Québec, avril 1991, 4 p.
- SÉVIGNY, André. *Étude polyphasique des aménagements de la Grosse-Île, 1832-1980*, Parcs Canada, Québec, 1991, 187 p.
- SÉVIGNY, André. *Les cimetières de la Grosse Île: quelques précisions historiques*, en collaboration avec André Charbonneau, Québec, Parcs Canada, 1992, 12 p.
- SÉVIGNY, André. *L'immigration canadienne aux 19^e et 20^e siècles: les « où, quand, comment, pourquoi » d'un phénomène*, Service canadien des parcs, Région du Québec, Histoire et archéologie, Québec, mai 1991, 29 p.
- SÉVIGNY, André. *Synthèse sur l'histoire de l'immigration au Canada via Québec entre 1815 et 1945*, Parcs Canada, Région du Québec, Services professionnels et techniques, Gestion du patrimoine culturel, Québec, avril 1995, 403 p. (incl. photographies).
- TREMBLAY, Claudie. *Plan d'urgence environnementale - District de Québec*, Environnement Canada, Service canadien des parcs, dossier 92-0714, mars 1993, 83 p. + annexe.
- TREMBLAY, Claudie. *Vérification de la conformité environnementale*, Service de protection et conservation, District de Québec, novembre 1993, 21 p. + annexes.
- VAUDRY, R. *État de la situation du cerf de Virginie, lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, Parcs Canada, Québec, 1999, 31 p.
- VAUDRY, R. *Plan de gestion des chauves-souris, lieu historique national de la Grosse-Île-et-le-Mémorial-des-Irlandais*, Parcs Canada, Québec, 1999, 31 p.

Appendix 2:

Conservation priorities for Grosse Île natural resources

Planning the development of the Grosse Île and the Irish Memorial National Historic Site of Canada entails conciliating objectives for the protection of the biophysical environment with projected uses for various island sectors. As a first step in this process, conservation priorities will be identified so as provide a good grasp of the protection measures to be applied with respect to the natural resources of this historic site. Thereafter, these priorities will be used to harmonize the development of natural and historic resources with educational and “recreational” objectives.

Conservation priorities for natural resources have been developed in connection with both vegetation and wildlife components which are of key importance from an ecological point of view. These priorities are listed by order of decreasing importance. For example, sectors of the island that have been identified as “Priority I” encompass components presenting the greatest concern for conservation. Without a doubt, the entire shore area of Grosse Île is where the great majority of Priority I natural resources are concentrated.

METHODOLOGY

The analytical method applied in developing conservation priorities for Grosse Île stems primarily from the research conducted by Pelletier (1986) at the Mingan Archipelago National Park Reserve, and to a lesser extent, by Lajeunesse *et al.* (1995), for the Montreal Urban Community. It goes without saying that the present analysis was adapted to the particular situation of Grosse Île, in accordance with the state of knowledge available.

NATURAL RESOURCES EVALUATION CRITERIA

A good quantity of information on Grosse Île’s plant life has been available for some time now. This explains why conservation priorities have need developed primarily in relation to these resources. This analysis was conducted for the most part using the plant communities identified by Marineau (1995). Each community was examined according to the following criteria: diversity, sensitivity, degree of disturbance and uniqueness. These criteria were assessed for each community in the form of a rating designed to facilitate prioritization and enhance objectivity. Each of these criteria has been weighted according to its ecological importance. Criteria were defined as follows:

Sensitivity

By the sensitivity of plant communities is meant the intrinsic fragility of each component and the representativeness (range and dispersion) of each community on the island. Sensitivity may be associated with: the presence of rare or endangered species; wetlands; thin, erosion-prone soil; plants located at the furthest limit of their distribution area; particular communities that are poorly represented on the island; etc. Sensitivity is the main determining criterion, setting off the vulnerability of plant communities in connection with disturbances in a given habitat. Certain plant resources or communities can be stressed by human activity to the point of being irreversibly damaged or destroyed, thus justifying the high value accorded to this criterion. The following ratings were established accordingly:

Very high :	12
High :	8
Medium :	4
Low :	0

Diversity

The federal government is committed to preserving this country's biodiversity. In addition, in its role as defender and promoter of our natural and cultural heritage, Parks Canada has pledged to protect species-rich habitats. That is why this criterion has been accorded practically the same importance as sensitivity. To evaluate this factor and define the appropriate qualitative rating, each community studied by Marineau (1995) was appraised with reference to the richness of species and the indexes of Simpson and Shannon. The following ratings were established accordingly:

Very high :	8
High :	5
Medium :	2
Low :	0

Degree of disturbance

Studying the degree of disturbance characterizing each plant community tends to indicate to what extent the current environment may be considered to be the result of natural evolution, given the major disturbance that has occurred in conjunction with human settlement of the island. Emphasis was placed on stresses occurring in the last several decades, the seriousness of these stresses and how permanent they appear to be. The weight of this criterion is less than that of the two preceding criteria. It nevertheless plays a key role because it serves to distinguish the most representative and the least disturbed sectors of plant communities on the island. The following ratings were established accordingly:

High :	0
Medium :	2
Low :	4

Uniqueness

A number of plant communities may be considered "unique" on the island or in the region. They may stand out for any of the following reasons:

- their intrinsic qualities as a landscape unit;
- the presence of species of wildlife or vegetation that are either rare or endangered, poorly represented or presenting a scattered distribution;
- their conservation in a natural habitat, or a habitat that has been only slightly disturbed by human settlement.

The following ratings were established accordingly:

Uniqueness : 4
Non-uniqueness : 0

The total of ratings for each Grosse Île plant community were used to establish conservation priorities for the site (see table) according to the following four categories:

Priority I : rating totals from 18 to 28, inclusively;
Priority II : rating totals from 13 to 17, inclusively;
Priority III : rating totals from 8 to 12, inclusively;
Priority IV : rating totals from 0 to 7.

It should be pointed out, however, that the above-described assessment was not applied to the plant communities located along the island shoreline. Given that most of the rare, threatened or endangered plants are distributed more or less in communities all along the shoreline, it is clear that this zone requires the highest degree of protection.

CONSERVATION PRIORITIES

Plant communities and certain sectors of the island were considered as units and evaluated according to the criteria outlined above. They were then grouped according to their category of conservation priority. Thus an ecological approach underlay the prioritization process, whereby communities were evaluated solely in terms of the conservation of natural resources, without referring to their value for educational or recreational purposes. Although the results of this exercise do not constitute an official

zoning proposal, they nevertheless represent a key element in the planning process to be adopted for the island, since conservation is part of the Parks Canada mandate.

DEFINITION OF CATEGORIES OF CONSERVATION PRIORITY

Priority I

This group includes components and zones which must be provided the greatest level of protection. Priority I resources (components) are either “highly sensitive”, or “sensitive and rare”, or “highly rare” for the island, Quebec, or Canada. Priority I sectors are considered “unique” or “highly sensitive” on account of either the presence or unusual number of “highly sensitive” or “sensitive” elements or which constitute an outstanding combination of elements in terms of diversity. Priority I sectors are also crucial in terms of the conservation of island habitats. All human activity occurring in Priority I zones runs the risk of ultimately extinguishing the element in question. Returning these zones to the original condition, in cases where degradation has occurred, is either an impossibility or necessitates human intervention.

Generally speaking, this category includes the shoreline of Grosse Île and certain inland habitats located on the western tip of the island. These areas have been earmarked for extra protection because they are home to a number of rare species, including wild leek, floerkea false mermaid, and *Dryopteris Felix-mas*. A particularly rich habitat, the shoreline of Grosse Île requires a high level of protection, especially as it currently features 14 rare, endangered or threatened species. In addition, a number of

species are located at the furthest limit of their distribution area. The Grosse Île shoreline is an outstanding habitat for wildlife, and is visited each year by thousands of ducks and snow geese during migrations. During the summer season, the main inlets provide protection and food to several species of ducks and other shore birds.

Normally, Priority I sectors ought to be included within a “special preservation” zone which is either off limits or which offers only highly restricted and/or controlled access.

Priority II

Areas classified under Priority II include components which should be given a high degree of protection. Most often Priority II resources are “highly sensitive” or “sensitive”, or present a particular interest in terms of rarity and representativeness. Generally included among these resources are components that are rare for the island but which are able to tolerate use to a certain extent: components that are rare and highly representative; and representative but fragile components. Priority II also encompasses sectors considered “sensitive” or “highly sensitive” according to the numbers of components of interest or the degree to which they present a highly diversified distribution, as well as sectors which bear only slight traces of human activity and in which the current environment is the result of natural evolution.

These zones are likely to deteriorate whenever human use goes beyond controlled educational activities.

Coming under this category are sectors which cover a major portion of the national historic site, in particular the western and northwest-

ern tips of this island, in addition to an area located in the centre of Grosse Île. For the most part, these sectors consist of stands of fir and maple whose vegetation presents a relatively high level of diversity. In addition, these plant communities are located on primarily thin, erosion-prone soil.

Priority II areas should be included within a “wilderness” zone, with diversity and fragility serving as the chief criteria for decision-making.

Priority III

Components or sectors classified under Priority III are less a cause for concern than in the preceding levels on account of their capacity for tolerance and their relative abundance. Coming under this category of priority are, for the most part, components or sectors presenting a certain fragility but which either play particular role in the landscape or which arouse public curiosity. These areas are generally capable of tolerating dispersed, extensive-type activities.

On Grosse Île, this category encompasses a broad area of land, in particular wetlands (alder stands), and forests undergoing regeneration. The vegetation in younger wooded areas presents a high degree of diversity, whereas wetlands are generally more sensitive to disturbances. A number of these communities were subjected to relatively minor disturbance by past human activity.

Normally, these areas should be included with a “natural environment” zone, although the greater fragility of some sectors might argue in favour of their inclusion within a “wilderness” zone.

INDEX OF CONSERVATION PRIORITIES FOR GROSSE ÎLE

Plant Communities	Reference no.	Diversity				Uniqueness (4)	Sensitivity				Degree of Disturbance			Ratings Totals	Priority Level
		(8) Very high	(5) High	(2) Medium	(0) Low		(12) Very high	(8) High	(4) Medium	(0) Low	(0) High	(2) Medium	(4) Weak		
Fir stand intermixed with red maple, hemlock and white birch	1		5			0			4		0			9	III
	2		5			0			4		0			9	III
	3					4			4			4		12	III
	4		5			0			4			4		13	II
	5		5			0			4			4		13	II
	6			2		0			4			4		10	III
	7	8				0			4		2			14	II
	8		5			0			4			4		13	II
Fir stand intermixed with red maple, hemlock and yellow birch	9		5			4	12				4		25	I	
	10		5			0			4			4		13	II
Fir stand intermixed h red maple and red spruce	11	8				0			4			4		16	II
	12	8				0			4			4		16	II
	13	8				0			4			4		16	II
Fir stand intermixed with cedar, red pine and red spruce	14			4		0			4			4		12	III
	15			4		4			4			4		16	II
	16				0	4			4		2			10	III
Red maple stand intermixed with red oak and fir	17		5			0			4			4		13	II
	18		5			4	12					4		25	I
	19	8				0			4			4		16	II
	20		5			0			4			4		13	II
	21		5			0			4			4		13	II
Red maple stand intermixed with fir and dennstaedtia (boulder fern)	22		5			0			4			4		13	II
	23			2		0			4			4		10	III
Wetland with alder, Canadian dogwood, skunk cabbage and hellebore	24			2		4	8			0				14	II
	25			2		0	8					4		14	II
	26			2		0	8			0				10	III
	27			2		0	8				2			12	III
	28			2		0	8			0				10	III
	29				0	4	8			0				12	III
Wetland with alder and skunk cabbage * Presence of sugar maple	30				0	0	8			0				8	III
	31				0	0	8					4		12	III
	32				0	0	8					4		12	III
	33				0	0	8			0				8	III
Yellow birch stand intermixed with white ash and skunk cabbage	34		5			0			4		2			11	III
	35	8				0			4			4		16	II
	36		5			0			4	0				9	III
	37			2		0			4			4		10	III
	38		5			0			4			4		13	II
Red oak stand intermixed with Eastern white cedar, red maple and white pine	39		5			4	8			0				17	II
	40		5			4	8			0				17	II
	41		5			4	8					4		21	I
	42		5			4	8					4		21	I
Young forest	43	8							0	0				8	III
	44	8				0			0		2			10	III
	45			2		4	8				2			16	II
	46		5			0			0			4		9	III
	47	8				0			0		2			10	III
Cedar stand intermixed with juniper and heath	48	8				4	8					4		24	I
	49	8				4	8					4		24	I
Black spruce stand and cedar stand	50			2		4			4			4		14	II

Priority IV

Sectors in this category correspond to the inhabited and developed areas of Grosse Île. These zones have undergone ecological disturbance. The measures recommended for Priority IV areas have been designed to permit sustainable development in accordance with applicable rules. A number of sectors included within this category may at some point require special conservation treatment, according to the diversity and the sensitivity of the sector. This is particularly true of ecotone zones located between developed areas and the shoreline.

In addition, a number of resources that appear on an irregular basis should be provided particular protection measures. Although conservation priorities for Grosse Île have been based primarily on plant communities, it should be pointed out that important colonies of bats may be found within the Priority IV zone. This resource is all the more interesting in that the world's bat populations have been declining.

Components of areas "of interest" and classified as Priority IV should at some point be included in "day use" zones.

CONCLUSION

The conservation priorities outlined above were established on the basis of the knowledge currently available on Grosse Île's natural resources, and especially on the surveys of plant life that have been conducted on the island. Accordingly, these priorities are subject to future changes as additional knowledge becomes available.

At the time of publication of the management plan (2001), conservation priority I was chiefly associated with the shoreline, because the populations of 14 species of rare plants are found throughout this area. For the most part, mature plant communities in the western and north-western tips of the island represent conservation priority II, whereas wetlands correspond primarily to priority III. Priority IV areas are located in inhabited sectors or areas that have been disturbed by human activity.

Published by Authority of
the Minister of Canadian Heritage
© Minister of Public Works and
Government Services Canada 2001

Cat. No. R64-105/22-2001E
ISBN 0-662-26324-3



Cette publication est disponible en français.

