The Cultural Landscapes of the Rideau Canal Corridor

Phase II Study

"... special fusion of culture and nature that gives the Rideau Canal Corridor its modern day character..."

The Institute for Heritage Education study team

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March 1998
This study is presented in memory of Larry Turner and his special vision for the Rideau's future. Larry Turner avidly shared his Rideau enthusiasms and knowledge with all; he intuitively understood that the Rideau was a treasure of importance not just to Canadians but to all mankind, a resource of "exceptional universal value", in the words of the World Heritage Convention. He worked tirelessly in the last years of his life to promote interest in nominating the Rideau to the World Heritage List. Larry's life-long passion for the area's history and landscape qualities survives in a remarkable and lasting legacy of reports, articles and publications. These will continue to inform and inspire Rideau residents and visitors for many generations to come.
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Writing Credits

While all team members but Jim Mountain contributed sections of written text to the study, I ultimately bear responsibility for the way in which individual contributions have been adapted, modified, and used in the text. If the individual authors are happy with the presentation of their material, the credit should be theirs; if they are unhappy, the blame is mine.

I have tried to indicate below for each of the report's principal sections the identity of the principal author.

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Preface

The Rideau Canal and its associated landscape is one of the most fascinating areas of heritage value on the face of the earth. The partly man-made, partly natural channel and the nearby lands through which it passes contain a closely woven tapestry of historic themes profoundly illustrative of the early phases of settling and building Upper Canada set within a remarkably significant and stirring natural context. Moving through the Rideau is moving through time, from awareness of the defensive preoccupations of our forefathers, their stubborn engineering assault on the natural obstacles in the way, to the struggle of early settlement and farming. But moving through the Rideau is also moving through the mythic landscape of Shield, lake and forest that shapes the idealized vision of nature that Easterners consider their birthright.

This landscape of lake, forest and swamp was here before the Europeans arrived; the Native people had moved through it and lived on it for millennia and done little to alter its character; this relatively pristine landscape was here when the Europeans arrived, and though their interventions altered it irrevocably, the same landscape, shoved around and re-shaped, is still substantially present. The legacy of settlement has placed a complementary and highly legible layering of the traces of human aspirations within this enduring and accommodating natural fabric.

Moving through the Rideau on a sunny September mid-week day is a remarkable privilege. The Parks Canada lawns are neatly clipped; the late afternoon sun silvers limpid pools of water at the lockstations; but there are no boats, no people, no lockstation staff evident. The lockstations appear abandoned, emptied for reasons unknown, a detail-perfect stage set for my exclusive benefit. The fusion of natural and human is never so present, never so powerful as on such a day, with the chatter of the tourists silenced, the motors of the boaters suddenly and totally erased.
Full appreciation of the qualities of the cultural landscape of the Rideau is not easy. For the most part we move through such landscapes at speeds, and by means unknown and unimagined by our predecessors. Our ability to absorb details and patterns is impaired by the high speed of our movements. What we retain, what we absorb is also related very much to the nature of the landscape experience adjacent to the transit routes we use; we are unable to experience but a small proportion of the totality of the landscape we would see from the air, and that proportion we experience is badly skewed by the concentration of services inevitably lining such routes, and shielding the fuller landscape from our senses.

This study is meant to help readers appreciate the larger picture of the Corridor's landscapes, and to better understand the special fusion between culture and nature which has given the Rideau Canal Corridor its modern day character. The study is meant to improve understanding of the relationships between culture and nature along the Corridor, the means by which these relationships have been expressed and exist in the landscape and of some of the means by which, with heightened appreciation, these qualities can be better protected.

Herb Stovel
September 1997
Acknowledgements

The results of this study are very much due to the special efforts of the members of the team, all of whom put in far greater efforts than they could be compensated for. The primary study team included:

Jim Mountain, who helped give our public meetings, credibility and focus, and whose enthusiasms and knowledge of the area inspired many of our explorations;

Barbara Humphreys, whose intimate knowledge of the Corridor and whose long time leadership in promoting increased appreciation of its buildings, structures and features gave special depth to our efforts;

Meryl Oliver, whose historian's skills and preservation perspective both kept our efforts honest and assured our productivity, and whose experience with rural landscapes in Vermont and Vaughan provided useful analogies for the issues we attempted to treat;

David Jacques, whose passion for cultural landscapes allowed him to plunge into the minutiae of an Eastern Ontario landscape without hesitation, and to quickly focus on the key elements in that landscape.

Nick Adams and Rob Snetsinger were invited in the late stage of the project to carry out research focused on particular attributes of the Corridor (prehistoric archaeology, and natural qualities, respectively). Although they did not work directly with team members, their contributions have considerably enriched the final project.
This report was typed and assembled by Margaret Stovel of the Institute for Heritage Education (at least 6 or 7 times over) whose skills were willingly provided at all hours, and under all circumstances to ensure deadlines were met.

The Steering Committee guiding the project also contributed enormously to shaping the final product, through their participation in study visits during the summer of 1994, and their subsequent review of segments of the emerging manuscript. Committee members assisting the project included Susan Buggey, Robert Hunter and Manuel Stevens of Parks Canada, Pam Craig of the Ontario Government's Heritage Branch, Johane Portier of the National Capital Commission and Nora Mitchell of the U.S. National Park Service. All contributed substantially of their own time and enthusiasm to help improve the project, and participated in field visits and exercises.

A special note of thanks is due Peter Carruthers of the Ontario Government's Heritage Branch who provided a week of his professional time to help with the field studies in July 1994.

Special thanks are also due Irv Mazurkiewicz of the Smiths Falls office who lent his unfailing good humour, his deep knowledge of the area and, on occasion, Parks Canada's boats and vans to our efforts. His daughter Melissa played a special role in the project in babysitting four-year-old Colin Bruce Oliver Stovel on many occasions during the month we occupied a cottage near Portland on the Big Rideau, and deserves credit for our ability to be productive during our stay.

Finally, I would like to acknowledge the inputs received from area residents and visitors who attended our public meetings and shared their views with us, and with many Parks Canada lockstation staff who assisted our visits, our research efforts and who contributed with their questions and comments to our public meetings.

Herb Stovel
September 1997
RIDEAU CANAL CORRIDOR CULTURAL LANDSCAPE STUDY
EXECUTIVE SUMMARY

Introduction

In 1994, Parks Canada, the leading federal agency responsible for heritage conservation in Canada, launched a cultural landscape study of the Rideau Canal Corridor. The Rideau Canal, built in the period 1826-1832 to secure Canadian waterway communications in the event of conflicts with the United States, was the largest single public works expenditure in the history of the British Empire at the time, and is today an exceptionally well preserved national historic site. Its 202 kilometre length traverses two river and lake systems, and includes 21 lockstations, 47 locks and 20 kilometres of engineered canal cuts to link water bodies. It straddles a landscape important both for its natural and cultural qualities: in part the landscape is typical of the Canadian Shield, granite uplands of lakes, forest, wetlands and rivers; in part the landscape reflects the farming landscape created in Eastern Ontario in the 1780s, following the American Revolution, and accelerated by the access offered by the canal to the newly opened lands of Upper Canada. The character of this landscape and of its early settlement patterns is threatened today by suburban development pushing out from the urban centres of Kingston and Ottawa, by economic pressures forcing farm amalgamation to create large-scale "efficient" units, on the one hand, and by abandonment and reversion to forest cover of the cleared land on the other.

The purpose of the Parks Canada study was both to combat these threats, and to improve collaboration among the many public and private interests present within the Corridor in preserving its significant cultural landscapes. Paramount in pursuing these objectives has been the need to find ways to identify and describe the qualities of the Corridor's cultural landscapes in ways which could ensure their being explicitly respected in future development in the area.

The team assembled for the study, led by architect Herb Stovel, included architects, historians, archaeologists, landscape architects, natural heritage specialists and urbanists. It adapted cultural landscape practices and principles espoused by the World Heritage Committee in 1992, when it explicitly recognized cultural landscapes as an eligible typology for inscription on the World Heritage List.
The report was completed and provided to Parks Canada in September, 1997, and a final version produced following review in March, 1998.

This executive summary of the report first presents the heritage values of the Corridor (in the form of a modified Heritage Character Statement). It then summarizes the threats to the cultural landscapes of the Corridor, identifies the strengths already in place to protect their qualities, and concludes with recommendations to improve care for those landscapes.
Heritage Character Statement

Description

The Rideau Canal Corridor runs from Ottawa to Kingston astride the navigable channel threaded through the Rideau and Cataraqui waterways. It includes those bodies of water, landforms, natural areas, settlements and settlement patterns adjacent the canal which define and contribute to its distinctive identity. Because the boundaries of the Corridor have proven elusive, this Heritage Character Statement assumes the Corridor to be bounded laterally by the boundaries of the municipalities and townships which flank the canal to east and west.

Reasons for Importance

The draft Commemorative Integrity Statement prepared for the Rideau Canal (version of 1997) describes the references made to the canal by the Historic Sites and Monuments Board of Canada (HSMBC).

The Rideau Canal was first recognized to be of national significance by the Historic Sites and Monuments Board in 1925; the Board resolved "that the construction of the Rideau Canal be declared an event of national importance." The Board's plaque to commemorate the canal noted:

This tablet commemorates the hundredth anniversary of the beginning of the construction of the Rideau Canal in September, 1826, under the direction of Lieutenant Colonel John By, R.E., connecting the Ottawa River with Lake Ontario for ship navigation, thereby laying the foundation of the City of Ottawa and advancing the development of Eastern Ontario.

A plaque erected in 1939 in Merrickville focuses on one of the defensive attributes of the canal, the blockhouse, noting the Merrickville Blockhouse to be "a fine example of the best type of blockhouses erected for the defence of the Rideau Canal about 1832."

A Board recommendation of 1967 confirmed "the Rideau Canal to be of national historical importance", resolving that:

the entire lock system of the Rideau Canal including locks, blockhouses, dams, weirs and original lockmasters' houses be declared of national historical significance...
the Minister should assume such responsibilities for the policies of Canal maintenance and operation as may be necessary to maintain the existing structures and preserve the unique historical environment of the Canal System.
The Board, in a 1987 review of the Trent-Severn Waterway, further noted that the Rideau Canal "is unique among Canadian canals in that so many of its original structures have survived as built and most of its lockstations retain their integrity...

A comparative study carried out by ICOMOS/TICCIH in 1996 of possible inclusions on the World Heritage List rated the Rideau Canal as a possible (though marginal) inclusion on the List. The study had the following to say about the Rideau's values from an international perspective:

This was one of the first canals designed specifically for steam-powered ships. It was built in 1826-32 as a military supply route by the British Corps of Royal Engineers and so it is an important example of intercontinental technology transfer. It runs over 202 km from Kingston to Ottawa. There are 47 large masonry locks and 52 dams and embankments. A series of stone-arch dams, including the large one at Jones Falls (the first large stone-arch dam in North America), created the series of lakes used to form the waterway. Now a National Park and a popular recreational waterway, it is particularly important in international terms because it is the only canal dating from the great North American canal-building era of the early 19th century that remains operational along its original line with most of its original structures intact.

The importance of the Corridor (the Rideau Canal and its associated cultural landscapes) goes well beyond the reasons advanced to define the importance of the canal at national or international levels, though these contribute significantly to our understanding of the nature and use of the Corridor.

The Rideau Canal Corridor is an engineered transportation corridor whose development and use gave form and utility to a highly significant part of Eastern Ontario.

The development of the canal, given the need to raise and channel waters through Colonel By's slack water system, gave form to the shorelines and water course in place today. By's drowned lands are today appreciated as important wetlands, in all sections of the canal. The manipulation of the area's water levels also created or increased in size many of the lakes along the canal, including Dows Lake, Upper Rideau Lake and Opinicon Lake.

The use of the waterway had consequences for all of the areas through which it passed. In some cases, the canal gave rise to communities to support its construction; while Smiths Falls and Newboro remain modest examples of such settlements, By's early vision for Ottawa provided a structural framework for the
subsequent creation of Canada's capital city. The development of other small communities whose origins proceeded the canal (e.g. Merrickville, Kingston Mills, Burritts Rapids) was accelerated and focused by opening the canal. While the canal did not create or define the agricultural patterns of land use adjacent to it, its existence increased population flows to the area and assisted in the movement of farm produce at least until the arrival of the railways in the mid-19th century. For the major part of the history of the Corridor, most of the Corridor's associated cultural landscapes have been farming landscapes, and farming lifestyles and practices have dominated.

The transformation of the canal from commercial to recreational use gave a leisure focus to the use of the waterway, and has inspired several generations of cottage buildings, resort development and shoreline intensification.

For whatever purposes the canal has been used, its 21 lockstations and associated engineering works and buildings have continuously played a critical role in the management of the waterway for its various users.

Character-defining attributes

The Corridor possesses a range of attributes (elements, features, patterns, practices, traditions and uses) which support and carry the values identified above.

These are summarized below in relation to the areas in which value has been defined. Again, articulating character-defining attributes for the Corridor involves beginning with an enumeration of those directly relevant to the construction and operation of the canal itself, in its own areas of value.

- the canal as a transport waterway facilitating movement of people and goods between the Lake Ontario and the Ottawa River:
  - the engineering features which permit the operation of the canal: the 47 locks and lock gates and their predominantly manual mode of operation, the 21 historic lockstations, various engineered channels, dams, weirs, embankments etc.;
  - evidence of the boats, wharves, slips, sheds, and related facilities used to transport goods and people along the Rideau during key phases of its development (including freight, passenger and recreational phases);
  - the shipyards and related boat repair and storage facilities.
• the canal as an exceptional illustration of technological and engineering ingenuity:
  • engineering features of particular note such as the flight of eight locks at the entrance to the Ottawa River, and the stone-arch dams such as those at Jones Falls and Long Island.

• the canal as an important measure in the defense system planned for the United Provinces of Canada:
  • the continuous navigability of the Rideau waterway from Kingston to Ottawa;
  • features such as the four Blockhouses and the twelve defensible lockmasters’ houses located at various Rideau lockstations, such as Merrickville, Newboro etc.

In relation to the Corridor, the following areas of value and related character-defining attributes may be identified. Areas of value identified reflect the nature of the relationships between the canal and the surrounding lands.

• the canal as a generator of natural landscape patterns and features (by virtue of its construction):
  • the many drowned lands (now wetlands) in the reaches of the canal between Merrickville and Lower Rideau Lake, and south of Jones Falls;
  • the new and enlarged lakes on the system (including Upper Rideau, Opinicon and Dows Lake etc.).

• the canal as a primary vehicle in opening up settlement in this sector of Eastern Ontario:
  • the settlement nodes along the canal through which people and goods could obtain access to the canal, including Merrickville, Smiths Falls, Kingston Mills and so on.

• the canal as a primary avenue for development within this sector of Eastern Ontario:
  • the market towns and service centres which supported agricultural activity within the Corridor;
• the industrialized sectors of the canal, from early grist and saw mills to the industrial precincts of Merrickville, to stone quarries and mining camps;

• the recreational shorelines of the Rideau waterway and their many resorts, cottages, and support facilities;

• the road and rail transportation systems which served these uses and linked them to the canal.

• the canal as a prime generator of the urban form of Bytown, within 30 years to become the capital city of Canada:

  • the urban settlement and land-use patterns which distinguish Upper Bytown and Barracks Hill (modern-day Centretown and Parliament Hill) from Lower Bytown and Colonel's Hill (modern-day "the market" and Major's Hill Park);

  • the park-like and institutional developments inspired by the canal, including the Exhibition Grounds, the Central Experimental Farm, the Greenbelt, the two universities and various public improvements adjacent to the canal.

**Threats, strengths, recommendations**

The values and character-defining attributes identified above in the heritage character statement prepared for the Corridor will require considerable attention in the generations to come if they are to survive. It is worth looking at the threats to these qualities, the strengths of existing approaches to their care and the primary recommendations emerging from this report to counter these threats.

**Primary threats to the cultural landscapes of the Rideau Corridor:**

1. Lack of co-ordination among various groups involved in Rideau Corridor affairs.

   • some initiatives within government attempt to coordinate response to property development proposals among Ministries involved. However, in general, no built-in mechanisms exist to address the range of concerns and interests (heritage conservation, water conservation, tourism, development, boat safety etc.) present on the Rideau. Hence, positive initiatives coming from any one group may have unforeseen negative impacts on others.
2. Threats to water quality in the region.

- continuing concerns for deterioration in water quality caused by increasing numbers of shoreline residents, and inadequate provisions for sewage treatment.

3. Threats to the area's natural habitats and ecological systems.

- threats to the area's important natural ecosystems and their flora and fauna as a result of increasing development of Rideau shorelines.

4. Perceived threats to recreational use of the canal.

- changing priorities in government (the proposed new Parks Canada agency, the popularity of user-pay philosophies, continuing budget reductions) and uncertainty about how these new realities will be handled cause some uneasiness among canal users concerning the quality and availability of future services. The need to improve provisions for safety among recreational users is also perceived to be of great importance.

5. Excessive and unsympathetic forms of property development.

- continuing concern for unchecked suburban growth and development along the Rideau south of Ottawa, and for the impact of strip developments (catering to automobile shoppers) on the commercial cores of the Corridor's towns and on the traditional landscapes they replace.

6. Transformation of cottages for permanent residential use.

- the growing tendency to transform shoreline cottages into permanent suburban homes appears to have negative consequences for the Corridor's natural values.

7. Excessive and uncoordinated regulation.

- perceived excessive, uncoordinated and at times contradictory government policies have a negative impact on the credibility of any new government initiatives affecting the Rideau.
8. Lack of appreciation of heritage.

- residents and town officials showed little appreciation of the importance of the heritage qualities and features in the Corridor to the quality of life of citizens and communities. The "cultural landscapes" idiom was not familiar nor was the state of these landscapes perceived to be of high importance among citizens.


- Ontario Government policy which encourages efficiency through smaller numbers of larger farms, and which through imposition of production quotas has had a larger negative impact on the traditional agricultural character of the Rideau Corridor than any other single force.

**Primary strengths in conserving the cultural landscapes of the Rideau Corridor**

1. Strong and continuing leadership role played by Parks Canada.

- in the absence of mandated planning authorities or coordinating mechanisms which could improve integrated discussion and management of the various interests along the canal and the associated landscapes, Parks Canada plays a key role in stimulating individuals, groups and communities to work together in defence of their common interests.

2. The high profile enjoyed by the Rideau Canal in the region.

- the Rideau Canal itself is much valued by residents, visitors and also those who depend on it for economic support. Few historic sites in Canada are as well known, and as much appreciated by as many sectors. This high degree of existing public interest represents an important strength which can be utilized in developing positive policies for the Corridor's cultural landscapes.

3. High levels of public interest in the natural heritage of the Rideau Corridor.

- many groups, inside and outside government, have committed themselves to a range of programmes, activities and initiatives to protect the Rideau Corridor's natural
qualities. These positive attitudes and related accords provide an excellent base onto which to graft concern for the cultural values in the Corridor's landscapes.

4. Existing initiatives which could support efforts to strengthen concern for the Corridor's cultural landscapes.

- many existing initiatives are already in place to promote and strengthen interest in elements of the Corridor's cultural landscapes (e.g. an inventory of barns in Leeds and Grenville County); such initiatives provide an excellent base from which to broaden interest and strengthen capacity to protect all aspects of these landscapes.

5. Existing infrastructure for land management along the Corridor.

- in addition to the leadership displayed at the Federal level by Parks Canada, it is important to recognize that the two provincial conservation authorities in the Corridor (Cataraqui, Rideau) provide built-in mechanisms for considering and coordinating decisions affecting land management within the Corridor, since the conservation authorities include representatives from all of their constituent municipalities and townships.

Recommendations

The following are recommendations for addressing the threats identified above and for building on the strengths noted; these are arranged in three broad categories (organisation, policy and legislation, and planning and design).

A. Organisational

1. Strengthen the Corridor's identity:

- the need to strengthen a sense of shared identity and belonging for the Corridor among all residents and visitors.

2. Strengthen public appreciation for, and sensitivity to, the fate of the Corridor's cultural landscapes:

- the need to improve public awareness and education programmes and initiatives focused on the nature and importance of the Corridor's cultural landscapes, and the threats to their existence.
3. Explore the feasibility of establishing a coordinating commission which brings together decision-making authorities:

- the need to develop a coordinating mechanism (not a structure, or institution) which could provide both an appropriate forum for discussion and debate on common issues, and an appropriate communications means to keep those involved abreast of relevant current issues and news.

4. Explore the feasibility of launching a Heritage Canada type "Heritage Regions" project in the area:

- while investigation of the feasibility of establishing a formal Heritage Canada, "Heritage Regions" project is beyond the scope of this report, the characteristics of the approach (holistic; integrated; "sustainable"; grassroots base; links to economic life within a region) seem to offer many benefits to the Rideau Corridor and may merit an informal adaptation of the programme's approach to the Corridor's circumstances.

5. Strengthen appreciation of tourism value of the Rideau Corridor cultural landscapes and integrate within tourism infrastructures:

- here the need is two-fold: to build interest in cultural landscapes within an existing service infrastructure for visitors, and also to increase availability of "heritage tourism" experiences to disperse visitors and visitor opportunities throughout the Corridor.

6. Increase efforts to present and interpret the Corridor's landscapes by developing relevant itineraries for visitors:

- in a pragmatic sense, the tourist experience could be strengthened in ways which promote greater appreciation of the Rideau Corridor's cultural landscapes, by designing thematically-inspired itineraries (e.g. milling along the Corridor).

7. Increase opportunities for existing public interest groups to mobilize themselves around the cause of the Corridor's cultural landscapes:
in the failure of long-term efforts to revise the Ontario Heritage Act, more emphasis has been put on an informal broadening of the mandate of LACACs (municipally-appointed heritage advisory boards, called Local Architectural Conservation Advisory Committees) to include the identification and protection of significant cultural landscapes in a township. Similarly wide perspectives can easily be encouraged within other public interest groups whose mandates touch heritage — e.g. local historical societies.

8. Develop a World Heritage List nomination dossier for the Rideau Canal Corridor:

- the process of preparing such a dossier (even if nomination proved unsuccessful) would provide a positive focus for community groups over several years, and undoubtedly strengthen shared appreciation for the Rideau's many qualities, and enhance commitment to their protection.

9. Identify an immediate responsibility focus for promoting the cause of the Corridor's cultural landscapes.

- given increasing threats to the area's cultural landscapes, the large numbers of groups and individuals with competing interests of some kind along the Corridor, and the lack of existing effective coordinating mechanisms, it would be useful for one group to spearhead efforts to improve the care offered to the Corridor's cultural landscapes, at least in the short term.

B. Policy and Legislation

1. Ensure examples of best practice are provided by agencies directly promoting policies for improving management of Corridor lands:

- there is a need for the primary agencies involved with the Rideau (such as Parks Canada) to lead by example, and to demonstrate consistently through management of their own sites the expected standards for cultural landscape care along the Corridor.
2. Encourage development policies in provincial and federal agencies concerned with the Rideau which are sensitive to the value of its cultural landscapes:

- agencies whose mandate is not cultural heritage (e.g. transport, agriculture, resource extraction etc.) can have a negative impact on the Corridor's cultural landscape values, unless provision for ongoing impact assessment of these values can be made in planning and project implementation, and re-orientation of harmful policies assured.

3. Use of the revised Ontario Planning Act:

- there is a need to bring existing measures, initiatives and proposals to identify and protect the Corridor's cultural landscapes in line with the framework provided by the new Ontario Planning Act for identification and care of "cultural heritage landscapes" at municipal and township levels.

4. Strengthen framework for initiation of land trusts:

- there is a need to exploit the considerable experiences gained in the Province of Ontario in the use of land trusts as a management tool for lands of natural heritage value, and to explore their utility in working with lands of cultural heritage value.

5. Implement provisions of the Planning Act which would protect archaeological resources within municipal control:

- there is a need to recognize the latent archaeological potential of the lands within the Corridor and to plan for their protection, within the new framework provided by the Ontario Planning Act, and building on the archaeological provisions of the Ontario Heritage Act.

C. Planning and Design

1. Develop Guidelines for use in working with cultural landscapes at the municipal level:

- it would be useful to provide "guideline" models to municipalities and townships intended to assist them in
identifying and caring for cultural landscapes set within their boundaries.

2. Promote greater awareness of the qualities of cultural landscapes and appropriate treatment among those involved with environmental and natural area conservation:

   • there is a need to develop approaches sympathetic to the qualities of existing cultural landscapes, so that those suitable to protect natural landscapes do not diminish the value of existing cultural patterns of land use and development. The idea of "clustering" new houses, for example, popular in protecting natural values, must be understood as offering possible disruption to important cultural landscape patterns.

3. Develop an integrated documentation centre and management system for the Parks Canada Rideau Corridor research materials:

   • Parks Canada's Rideau Corridor heritage documentation is scattered throughout the Corridor, and retrieval of useful information is both time-consuming and unnecessarily difficult. At minimum, there is a need to link all available materials through a central consulting catalogue, preferably accessible electronically.

4. Improve availability of Rideau Corridor cultural landscape resource materials:

   • there is a need to use existing information-dispensing infrastructures (such as the Manotick Resource Centre) to hold and distribute relevant Rideau cultural landscape promotion and documentation materials.

5. Test innovative methods for cultural landscape inventory and management:

   • there is a need to examine precedent elsewhere approaches to management of large-scale cultural landscapes in complex patterns of ownership and overlapping jurisdictions — in exploring the applicability of potential innovative approaches to cultural landscape inventory and management to the Rideau context.
SECTION 1. INTRODUCTION

1.1 Context for the study

The Parks Canada proposal call for a cultural landscape study of the Rideau Canal Corridor established a very clear context for the study. Most of the preamble to the proposal call, written in late 1993, is reproduced below in order to share that context with readers of this report. Its messages are still relevant.

The Rideau Canal is a national historic site and recreational waterway connecting Ottawa and Kingston. The Canal's historic structures, natural environment and diverse cultural features along its length combine to create a unique heritage corridor. The heritage character of the Corridor can be generally described as the combination of Canal buildings and engineering works, urban and rural landscapes, wetlands, woodlands, scenic areas and shore lands which in their totality combine to create a cultural landscape which is unique and worthy of protection.

The mission of the Ontario Region of Parks Canada and the mission of the Rideau Canal commit us to protect the nationally significant national and cultural heritage of Ontario through leadership and cooperative action. The protection of the heritage character of the Rideau Canal Corridor in cooperation with others is an inherent part of this mission.

The heritage value of the Rideau Canal Corridor has been recognized for almost 25 years. In 1967 all Canal engineering works and buildings from the military era were designated as being nationally significant by the Historic Sites and Monuments Board of Canada. In 1969 the Canadian Inventory of Historic Building undertook a survey of pre-1880 buildings in the corridor and discovered that there were 1800 such buildings in existence. This study is summarized in the report by Barbara Humphreys titled: The Architectural Heritage of the Rideau Corridor. The report concluded that the Corridor contained "...some of the best 19th century buildings in Ontario in the form of hundreds of stone cottages." It goes on further to state that: "This is a rich heritage. The quantity and quality of the surviving 19th century buildings in the Rideau Corridor,...the history they represent and the canal itself make this area of the province a fascinating one both historically and architecturally."

The original CORTS study (Yesterday Today Tomorrow) attempted to deal with this study and recommended the establishment of historic zones and measures to assist owners of significant buildings to
restore and maintain them. Over the last 20 years there have been some notable successes. The preservation of districts in Perth, Merrickville, and Barriefield and numerous private restoration efforts elsewhere, point to the commitment of Corridor residents to the protection of their heritage. Unfortunately, there has been virtually no recognition of the value of the cultural landscape of the Rideau Canal Corridor and the need to protect it. While most Official Plans contain policies to protect historic buildings, protection to the societal interaction with nature implicit in a cultural landscape is rare. As a result there has been no action to date to identify or protect these areas.

In 1969, the Rideau Corridor was still very much rural with a few small villages and concentrations of cottages along the shoreline. The area was in economic decline. Farms were being abandoned and the towns and villages were losing population as their traditional manufacturing base eroded away. There were few rural severances and any new development was generally of a scale that fitted readily into the landscape. Also, development was slow, so that the changes occurring in the landscape were not generally noticeable.

Since the 1960s, the pace of development has quickened and its character has changed. The rural open space character of the Corridor is being replaced by low density residential land use with no relationship to the existing settlement pattern. The heritage character of small villages and towns is being threatened by subdivisions and commercial development incompatible with the scale and design of more traditional forms. The end result is that the heritage character of the Corridor is gradually being lost and replaced by a bland uninspired landscape which bears no resemblance to its former distinctive character.

If the cultural landscape of the Rideau Canal Corridor is not protected, its distinctive heritage character could be eroded by the year 2000. A significant cultural resource would be jeopardized and the tourism and long term economic value of the Corridor would be affected.

In order to protect the Corridor, potentially significant landscapes must be identified and evaluated. Municipalities should be made aware of the importance of cultural landscapes and encouraged to protect them through the provisions of the Ontario heritage Act. Residents and developers should be provided with development and management guidelines so that they can demonstrate their commitment to stewardship of their heritage.
Jasper is one of the Corridor's most appealing small villages. Its curvilinear nature, its close contact with both the Rideau waterway and the rail system, and the diversity of its house types and structures define a village of high appeal and significance and one worthy of special efforts to conserve its qualities.
1.2 Purpose of the study

It was expected that the study would in general identify, describe and evaluate the Corridor's cultural landscape integrity and significance and recommend broad principles for the management and preservation of the significant landscapes so identified.

It was also expected that the study would be used to raise awareness of and sensitivity to the cultural landscape resources of the Canal Corridor, which in turn could become the focus for private stewardship, heritage tourism and potential municipal designations.

More particularly, the study team was expected, in identifying and defining the cultural landscapes of the Rideau Canal Corridor, to create a conceptual model and to place these cultural landscapes in a hierarchy of relationships, clarifying their component characteristics. The study was expected to focus on the evolving inter-relationship between the natural environment and human activities.

The study was also expected to pay particular attention to the relationship between the construction and evolving use of the Rideau Canal as a transportation and recreation facility and the cultural landscape of which it is a part. The study was expected to answer related key questions: in what way did the Rideau Canal influence the cultural landscape? is the Corridor landscape markedly different from other areas in eastern Ontario because of the Rideau Canal? what is the character of the cultural landscape associated with the Rideau?

The study team was also expected to consult with key organizations and individuals with an interest in the protection of the heritage character of the Rideau Canal Corridor, including the Superintendent, Rideau Canal, municipal planners for rural canal municipalities and a wide variety of corridor residents representing the various interests along the Canal Corridor including historical societies, archaeological interests, LACAC's, lake associations, builders or developers, tourism operators, the agricultural community etc.

The study was expected to identify and describe the key defining characteristics of the cultural landscapes of the Rideau Canal Corridor through narrative description, sketches, photographs and maps.

In addition, the study was expected to identify existing and potential threats and the negative impacts of development on the integrity of the cultural landscape. It was also hoped that the study would identify relative levels of significance and the integrity of the Corridor's cultural landscape, and result in an evaluation of the significance and integrity of the Rideau Canal Corridor in a national context.
As well, it was hoped that the study, based on a knowledge of the type of cultural resources within the Corridor, development trends, land management practices, municipal planning policies, and federal and provincial heritage policies, would include a set of broad cultural resource management principles for the preservation of the Corridor's cultural landscape in general and for its specific components. It was hoped to provide direction for the preservation of cultural landscapes for landowners, municipalities, and land management agencies, and to serve as a basis for more detailed treatment guidelines.

Finally, it was expected that the study would provide recommendations concerning landscapes, touching areas such as municipal designation, Official Plan Amendments, private stewardship, the roles of federal and provincial agencies and heritage groups, heritage tourism, building design and landscape management guidelines, etc.
The Rideau Canal continues to be a very popular recreational waterway both for permanent cottagers and boaters passing through. These boaters are "locking through" at the Poonamalie lock station.
1.3 **Methodology used in the study**

A key element in the study's methodology was the composition of an interdisciplinary team, comprising skills and backgrounds important in dealing with the many facets of cultural landscape analysis. The primary team included:

- Herb Stovel - architect, planner, educator, conservationist
- David Jacques - landscape architect, international cultural landscape specialist
- Meryl Oliver - historian, preservationist, rural landscape specialist, community revitalization specialist
- Jim Mountain - historian, community revitalization, community facilitation specialist
- Barbara Humphreys - architect and architectural historian, area resident and activist, expert on vernacular architecture and inventories

Consulting mandates were also given to the following individuals in particular technical areas:

- Rob Snetsinger - natural heritage specialist
- Nick Adams - archaeologist, area resident

Their various contributions have been blended into the overall text of the report. Credit is provided for major contributions within chapter and section footnotes.

Since project inception, a Steering Committee, representing the various organisations supporting the project, has guided project review at various intervals. The Steering Committee included.... The many detailed and useful comments of individual Steering Committee members have been of enormous benefit in bringing overall coherence and utility to the study.

This study was preceded by a preliminary exercise concerned with developing an evaluative framework for cultural landscapes. This framework was meant to provide criteria which could be used in assessing the significance and integrity of Rideau Corridor landscape units. While the criteria presented in the study have been fairly useful at a macro-scale in evaluating the overall significance of the Rideau Corridor cultural landscape, these have been less useful at a micro-level, in evaluating particular landscape terrains along the Corridor. To use the language of the World Heritage Committee's *Operational Guidelines*, most of the Rideau Corridor may be understood as a "continuing landscape", and therefore the Phase I criteria are generally too broadly drawn to be applied meaningfully to the great variety of continuing landscapes found along the Corridor. However, inevitably the demands of the Corridor study have promoted methodological analysis more finely tuned to the landscape's characteristics.
The study was carried out in the following steps:

- **familiarization field work on-site** (May–June, 1994)

  A two-month blitz by team members to increase familiarity with the physical and human reality of the Corridor. This included five evening meetings in various locations along the Corridor with members of the public; in each case, citizens were asked to discuss the Corridor's special landscape qualities, its "boundaries" (if any), threats to the Corridor's landscapes and suggestions for improving landscape protection and care. Dozens of orientation trips, by road and waterway including two trips organized by Parks Canada along the Rideau itself were organized for team members, and members of the project's Steering Committee. The team visited officials and groups involved with land management issues in all sectors of the Rideau and at all levels of government, and participated in sessions of both the region's conservation authorities. The team consulted Rideau Canal documentation collections in Smiths Falls, in Cornwall and in Ottawa; an extensive bibliography of references has been prepared to include the sources reviewed for the study.

- **preliminary synthesis of findings** (July, 1994)

  Development of methodologies to support a landscape chronology for the Corridor and to permit identification of significant landscape types. The methodology for carrying out this synthesis began with efforts to understand the historical record, and those particular impulses which at intervals altered its forms, patterns, and land-use practices. This was meant to provide a context for later field work, by providing a framework to which observable attributes could be linked.

- **elaboration and presentation of findings** (July, 1994 to September, 1997)

  For administrative reasons, finalisation of this segment was delayed until Sept. 1997. The findings presented in the study have been updated at intervals over the period since the study's inception to attempt to ensure the report reflects a contemporary reality.

- **review and modification of report** (September, 1997 to March, 1998)

  The final draft report submitted in September, 1997 was reviewed by the project's Steering Committee. Their recommendations and suggestions for modifications, improvements and new material were integrated within a further draft, provided to the client in March 1998.
Organisation of the report

Given the complexity of the study subject, the many individuals involved in preparing the report, and the time consumed in its writing, the final report is a composite of mini-reports produced for particular reasons by different individuals at different points during the project. The following provides some background concerning the preparation of particular elements in the report and their intended use. This should be read together with the Table of Contents.

- the Executive Summary (including the Heritage Character Statement) was prepared following completion of the report, in January, 1998;
- Section 1.4 is essentially the text of a slide show used by the team in public meetings held during the summer of 1994;
- Section 2.2 was prepared as an independent study by archaeologist Nick Adams, in 1994;
- Section 3.2.5 and Section 5.3.3 contain parts of an independent natural heritage study prepared by natural heritage specialist Rob Snetsinger in 1994;
- Section 5.2 was prepared in 1996 and 1997, after completion of the report's first draft. It is intended to be used as a stand-alone document in guiding municipalities to develop their own approaches to cultural landscape identification and management;
- Those parts of Section 6 relating to Ontario planning instruments were developed in the summer of 1997 and completed in early 1998. They attempt to integrate the current planning framework being developed for use in the Province of Ontario. They have been built on the basis of input and draft materials provided by Pam Craig and Peter Carruthers of the Ontario Ministry of Citizenship, Culture and Recreation.

Orientation of the report

As a result of the great size of the Corridor, and the complexity of relations within it, the emphasis during the study moved early on from efforts to provide comprehensive analysis of the various terrains within it, to efforts to provide suggestions, models and guidelines which could be applied by local officials in carrying out full analyses of the cultural landscapes in their care.

In spite of the considerable investment of contributed time by all team members (ranging, depending on the individual, from four to eight times the professional time budgeted in the original project proposal), the study team have not been able to travel all of the Corridor's roads or to traverse all of its waterways. Undoubtedly,
many important landscape attributes remain unnoted or "undiscovered". Nevertheless, the study team felt that fostering greater awareness among local officials and providing relevant analytical tools — encouraging a kind of do-it-yourself approach — offered the most useful benefits to the Corridor within the time available to devote to the project.
Ill. #3
The Rideau Canal is one of the best documented historic sites in the country. Primary sources include an extraordinary collection of watercolours and sketches prepared by members of Colonel By's team now in the hands of the Public Archives of Canada. This 1830 pencil and watercolour of Jone's Falls is attributed to either John Burrows or William Thompson Clegg. NAC C-001219.
Ill. #4
Narrow, treed country roads, like this one near Portland, contribute to the rural character of the Corridor.
Many early settlers built a log house as a quick temporary shelter and replaced it as soon as feasible. As a result, few early log cabins remain and many of those that do are hidden under a later veneer of brick or clapboard.
Ill. #6
Early farms, as this one outside of Port Elmsley, illustrate how careful planting helped create a special micro-climate around houses, protecting them from winter winds while maintaining summer shade. These landscape features are important to maintain as properties are sold or pass out of their original use.
Much of the character of the Rideau's farming landscape changes with the seasons and the advance and retreat of various crops. This gently rolling corner of the Rideau lies near Freelands.
SECTION 2. HISTORY OF THE LANDSCAPE ASSOCIATED WITH THE RIDEAU WATERWAY

2.1 Introduction

Prior to looking in detail at the development processes that shaped the Rideau Corridor, this section looks at questions concerning definition of the Corridor's boundaries (2.1.1), and of an analytical framework for review of the processes and their associated landscape overlays (2.1.2).

2.1.1 Defining the Corridor's boundaries

The study team's mandate included defining appropriate boundaries for the Corridor. Many choices are possible, each with advantages and disadvantages:

- the Rideau Canal Corridor defined and illustrated in Parks Canada's Management Plan is a fairly narrow band along the Canal and its waterways, drawing in particularly important heritage landscapes along its route;

- the area's two Conservation Authorities work with the two principal watersheds, the Cataraqui and the Rideau; this approach results in a much broader definition of the Corridor;

- a Rideau Corridor may be composed by amalgamating administrative units (townships and municipalities adjacent the Canal and its waterways;

- other corridors could be drawn on the basis of geological or geomorphological structures in the area, though these would not necessarily correspond to the cultural imprints acquired since the arrival of European settlers.

Making a choice of appropriate boundaries for the Corridor requires clarifying the criteria which should apply to the choice:

- boundary definition should facilitate Corridor management;

- boundary definition should ensure inclusion of cultural landscapes whose development is directly and strongly associated with the Canal itself;

- boundary definition should ensure inclusion of relatively whole landscape patterns and units;
• boundary definition should acknowledge existing Corridor identity where this exists in the regions' communities.

As well, it should be noted that precise boundaries may be necessary in future if a World Heritage nomination is prepared for the Rideau Canal Corridor.

This study concludes that the most appropriate boundaries for the Corridor are those of the townships adjacent to the Canal and associated waterways. While these boundaries in many cases truncate landscape units of relatively homogenous character, they provide unmistakable management advantages as well as ready links to the Conservation Authorities who work closely with the townships located in their watersheds.

The resulting Corridor is not, however, easily recognizable on the ground. While it may be argued that the arrival of the Canal accelerated the development process along the Corridor and that its natural landform and features (e.g. falls of water) determined the location of many existing landscape nodes and forms, it is more difficult to argue that the farming and settlement landscapes contained within the townships adjacent the Canal owe their particular forms and patterns solely to the Canal. The farming and settlement patterns characterizing much of Eastern and Southern Ontario are difficult to distinguish from those of the Rideau; hence in parts of the Rideau Corridor, the landscape is physically difficult to distinguish from that of Eastern Ontario.
2.1.2 Overview of development processes at work in the landscape

Human interaction with the environment can be seen in terms of a change of circumstance which creates or initiates a new process in the landscape. This, in turn, brings about distinctive physical changes, which may be quite diverse, but in aggregate constitute a new 'overlay' in the landscape.

There have been many processes at work in the landscapes associated with the Rideau Waterway in the 200 years since European settlement. The team distinguished 14 particular phases or overlays (see Figure 1). This number could be reduced or expanded by others to suit the detail required.

Once these phases or overlays are defined, it becomes possible to assess which of these have left significant imprints upon the contemporary Rideau landscape. A number of questions can be addressed: which overlays have been in place for the longest period? which are still in place? which have been interrupted? This assessment will help identify the most important (or character-defining) overlays in particular geographic areas.

Ultimately, the goal of such an assessment is to identify the Rideau Corridor's characteristic cultural landscape types. These are looked at in more detail in Section 3.

Subsequently, the various overlays can be considered in more detail in order to better understand their attributes, their significance, their state of preservation, and the conservation problems they face. The following checklist was used by the team:

a. the human aspirations associated with each overlay, and the process set in motion;

b. the overlay's character-defining components, patterns and practices:
   i. land use practices and traditions
   ii. broad landscape patterns (e.g. land survey patterns, farm fields)
   iii. transportation and communications patterns (e.g. pathways)
   iv. delimiting structures or earth and plant forms (e.g. fences, tree lines)
   v. buildings, structures;

c. factors which determine the significance of the overlay:
   i. design achievement
   ii. whether a significant pattern of land use
   iii. associations;
d. the state of preservation (integrity):
   i. form, materials, function, traditions, context, spirit
   ii. associated documentation;

e. the conservation issues faced:
   i. nature and severity of threats
   ii. conservation mechanisms
   iii. recording.

Assessments can be developed within several perspectives:

a. the significance of the overlay as a whole may be assessed in a national context (e.g. the Canal, The Eastern Ontario dairy landscape);

b. the significance of the overlay's characteristics may be assessed in terms of their importance to the overlay itself (e.g., the patterns of lots defined by boundaries and roads, or the types of farm barns and rails);

c. the significance of the overlay's surviving components, seen individually as structures or elements, but also within a wider architectural context, may also be assessed (e.g. the stone houses of the Rideau).
<table>
<thead>
<tr>
<th>Impulse</th>
<th>dates</th>
<th>process</th>
<th>product</th>
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<tbody>
<tr>
<td>Natural succession,</td>
<td>post-glacial</td>
<td>development of soil and vegetation, hunting, trapping</td>
<td>agricultural soils, natural vegetation, occupation sites</td>
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<tr>
<td>aboriginal living</td>
<td>1783 - 1815</td>
<td>purchase of Indian lands, land surveys, early settlement</td>
<td>pattern of lots and divisions, shanties and log houses, tracks, sawmills</td>
</tr>
<tr>
<td>Planning for settlement</td>
<td>1815</td>
<td>forest clearance, wheat &amp; sheep farming</td>
<td>log houses, cedar rail fences, stone houses, quarries, bridges, grist mills, carding mills</td>
</tr>
<tr>
<td>Early settlement</td>
<td>1815 - 1850</td>
<td>lumbering</td>
<td>clearance of timber from land, log chutes, spring floods necessitating rebuilding of Hog's Back dam, summer droughts necessitating reservoirs in 1870s, Bytown expands</td>
</tr>
<tr>
<td>Demand for timber</td>
<td>1810s - 1870s</td>
<td>finding a means to transport troops and munitions</td>
<td>canal, with dams, locks, quarries, blockhouses, fortified lockmasters' houses, workmen's camps (now archaeological only), wetlands</td>
</tr>
<tr>
<td>Defence of the colony</td>
<td>1812 - 1840s</td>
<td>rail construction, mechanization, manufacturing</td>
<td>railway lines and stations, Chateau Laurier, expansion of Smith's Falls as a rail node, brickyard from 1850s, brick houses, crafts like blacksmithing die, rural depopulation, some attempt at industrialization, e.g. foundries, textiles</td>
</tr>
<tr>
<td>Industrialisation</td>
<td>1850s - 1920s</td>
<td>conversion to mixed dairy farming and cheese making</td>
<td>more cedar rail fences, barns, fairgrounds, the Cattle Castle, cheese factories, cheese boxes at Delta, cooperage for butter churns, tanneries</td>
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<tr>
<td>Event/Change</td>
<td>Period</td>
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<td></td>
</tr>
<tr>
<td>Rise in outdoor recreation</td>
<td>by 1883 - now</td>
<td>recreation on waterway steamboats, fishing, pleasure craft, boat building, camps, hotels, boathouses, cottages, marinas, water pollution, weeds and algae on waterway</td>
<td></td>
</tr>
<tr>
<td>Creating a nation's capital</td>
<td>1899 - now</td>
<td>creating a capital city the experimental farm, the Rideau driveway c.1900, other parks and parkways by NCC</td>
<td></td>
</tr>
<tr>
<td>Infra-structure for modern living</td>
<td>1920s - now</td>
<td>highways, generation and distribution of electricity, the airport new and improved highways, bridges, signage, power plants, Hydro lines, gas stations, motels, Ottawa airport</td>
<td></td>
</tr>
<tr>
<td>Increased leisure time</td>
<td>1950s - now</td>
<td>reuse or redesign for various pursuits golf courses, horse riding, paintball games, picnic areas at lock stations, nature trails, campgrounds</td>
<td></td>
</tr>
<tr>
<td>Modernisation of dairying</td>
<td>1960s - 1980s</td>
<td>silage making, economic stress on traditional farming farm amalgamation, silage towers, new barns, tree invasion along fences, abandonment old barns and marginal land, closure of cheese factories, beef and goats being tried as alternatives, reforestation, increase in deer, beaver, turkey, etc., populations</td>
<td></td>
</tr>
<tr>
<td>Desire to live in rural areas</td>
<td>1960s - now</td>
<td>commuting, retired people, those on the information highway, move to country subdivisions in rural areas, and conversion of cottages to year-round living, lawns, trailer parks, increasing young adult population in small towns (full implications yet unseen), hobby farming</td>
<td></td>
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<tr>
<td>Desire to conserve the environment</td>
<td>1970s - now</td>
<td>designation, zoning, repairs to historic buildings sanctuaries for wildlife, reforestation, sustainable uses, controls on boathouses and septic tanks, historic buildings gain new use</td>
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</tbody>
</table>
2.2 The prehistoric archaeological record of the Rideau Corridor

2.2.1 Introduction

Histories of the Rideau Corridor rarely afford more than the most cursory acknowledgement to the ten thousand years of human history which preceded the construction of the Rideau Canal. At best, the retreat of the ice sheets and the subsequent peopling of the land are covered in a paragraph or two, with the emphasis clearly placed on who was where when the Europeans arrived. Historical events during the seventeenth and eighteenth centuries resulted in the virtual abandonment of Eastern Ontario by native people. Unfortunately, one result of this has been the widely held notion that native occupation of the region was never very intensive nor (in historical terms) significant. It overlooks the vast time depth, the consistency of occupation and the cultural variety of the prehistoric past. It also ignores the vast body of available information, which can significantly add to our collective understanding of the pre-historic use of the area.

The raising of the levels of some lakes during the construction of the Rideau Canal may have had a minor impact on some prehistoric and historic native sites along the corridor, while flooding some and eroding others. It has not, however, eliminated the pre-canal archaeological record.

The following overview of the archaeological record along the Rideau Corridor is intended to correct the generally held impressions described above. Even though there are few tangible indicators of aboriginal occupation present today within the Corridor landscape, the archaeological analysis of the prehistoric period in this area is presented in some detail. This permits heightened appreciation of the role played by Amerindian groups in the area, and greater awareness of the latent potential of unexcavated sites. While at present, the prehistoric archaeological record may seem somewhat ephemeral, it is important that Corridor planning and management mechanisms integrate concern for the Corridor with archaeological potential.

Data provided is based on a wide variety of sources. Most important of these are the archaeological excavation and survey reports on the Rideau Lakes prepared by archaeologist Gordon Watson. His substantial and thorough work, conducted since the 1970s, has more than adequately demonstrated that the Rideau Lakes area has been inhabited by native people for approximately ten thousand years. By analysing existing collections, and following up the analysis with field work of his own, he has provided a body of data which demonstrates the breadth and substance of the pre-canal occupation of the Rideau Lakes area.

Apart from Watson's work, salvage excavations on prehistoric sites at Bell Island, near the mouth of the Cataraqui River, and at the
Kingston Outer Station site in Kingston, have contributed significant data on prehistoric and historic native use of the area. Excavations at Fort Frontenac in Kingston have provided a considerable amount of information about the historic use of the Cataraqui River area by native people. However, systematic archaeological surveys of the lands bordering the majority of the Rideau/Cataraqui River corridor have yet to be completed. As well, numerous chance finds from cottage properties, or discoveries made during lakeshore lunch stops, have been reported to staff at the Royal Ontario Museum, the National Museum of Canada, and the Ontario Ministry of Culture, Tourism and Recreation. In addition, collections of prehistoric artifacts from the area have been deposited with the Perth Museum, or other local museums. While individual chance finds and stray artifacts often only provide tantalizing hints, collectively they provide important clues to the nature and extent of land use within the area.

Surveys and excavations such as those conducted on Charleston and South Lakes to the east, provide an indication of the nature and extent of the prehistoric sites which might be anticipated near the as yet uninvestigated lakes within the Rideau/Cataraqui system.

It is worth looking at the archaeological record over a number of distinct eras. These include the Palaeo-Indian Period (ca. 9,500 B.C. - 7,000 B.C.), the Archaic Period (7,000 B.C. - 1,000 B.C.), the Early and Middle Woodland Period (1,000 B.C. - A.D. 800), the Late Woodland Period (A.D. 800 - A.D. 1650) and the Proto-Historic/Historic Period (ca. A.D. 1650 - A.D. 1850).

2.2.2 Palaeo-Indian Period (ca. 9,500 B.C. - 7,000 B.C.)

As the last vestiges of massive ice sheets which had once covered the whole of Ontario melted back, Eastern Ontario became available for colonization by animals and humans. The whole area was ice free by about 11,800 years ago. The weight of the ice had pushed the land down to close to sea level. By 11,000 years ago much of the Ottawa Valley, as far inland as Upper Rideau Lake, was inundated by the Champlain Sea - a brackish inland extension of the St. Lawrence estuary.

To the south of the Rideau/Cataraqui River corridor, early Lake Ontario was connected to the Champlain Sea by the St. Lawrence River. Lake Iroquois, its predecessor, extended inland as far north as Brewers Mills.

Evidence of the peopling of the area during and immediately following these geological events is limited but tantalizing. A fluted point, an artifact characteristic of Clovis people, was found near Lower Rideau Lake. Clovis people are among the earliest people known to inhabit North America. The fluted point has tentatively been dated to between 11,000 and 10,000 years old. Another fluted point, either modified or of a slightly later date,
was found near Lower Rideau Lake in an area which would have been under water when the Champlain Sea occupied the area. It, and a few other artifacts attributed to the slightly later 'Late Palaeo-Indian Period', have also been found in the area and are estimated to be between 10,000 and 9,000 years old.

Palaeo-Indian studies from elsewhere in the province suggest that these people may have specialized in hunting herds of caribou along the shores of large, post-glacial lakes. While caribou and other large game may have been their mainstay, they would also have taken advantage of whatever else the area had to offer at the time. The gradually receding waters of the Champlain Sea may have provided a varied diet, including sea mammals, fish and waterfowl, while the surrounding country would have allowed for the harvest of wild plants and small mammals. Population densities were almost certainly low. It is unlikely that more than a few dozen Palaeo-Indian people occupied the whole Rideau/Cataraqui corridor.

So far, no archaeological sites dating to the Palaeo-Indian Period have been found. To do so will require specialized archaeological survey which focuses on examining the former shorelines of the Champlain Sea. No Palaeo-Indian artifacts have been recovered from the Cataraqui River Valley.

2.2.3 Archaic Period (7,000 B.C. - 1,000 B.C.)

Beginning in about 7,000 B.C. the climate began to moderate, changing from the sub-arctic conditions found during the Palaeo-Indian Period, to conditions more like those of today. As people adapted to these changes, their hunting methods also changed. This is reflected in the artifacts which have been left behind. The manufacture of aesthetically pleasing fluted and lance-shaped spear points was abandoned in favour of less carefully made, more utilitarian points formed from a wider variety of local rocks. We can only speculate about what these changes meant in the daily lives of the people, but it seems clear that Archaic people were becoming more oriented to a particular locality, and less nomadic in their habits.

The people of the Archaic also used a number of tools not found during the Palaeo-Indian Period. These included axes, gouges and adzes made of pecked, ground and polished rock for woodworking, grinding stones for processing nuts and seeds, and specialized fishing gear, such as notched net sinkers and plummets. Their flaked stone tools (the spear points, knives and scrapers) were made with far less attention to detail than those of their predecessors.

During the 6,000 year duration of the Archaic Period numerous changes and innovations occurred in the way people lived in, and used the world around them. Archaeologically, these are recognizable through the use of native copper for some classes of
tools, changes in burial practices and ceremonialism (especially towards the end of the period), and the use and manufacture of a wide variety of non-utilitarian items, including gorgets, pipes, and 'birdstones'. By the end of the period, the tools and artifacts left by these people were quite different than those from the early part of the period. These changes were slow and cumulative, suggesting that the basic 'Archaic' way of life was quite successful and that change was neither sought nor needed.

Gordon Watson's examination of the archaeological collections from the Rideau Lakes area suggests that there may have been a significant increase in population between 5,000 and 4,000 years ago. This coincides with the time when the climate was warmer than today, when broad-leafed, animal-rich forests, similar to those now found to the south of the Great Lakes, would have cloaked the region. Watson suggests that at this time, Late Archaic peoples were making 'Broadpoints' out of a variety of poor quality local materials, and that these people exploited the rich lake shore/forest environment.

Evidence of the 6,000 years of Archaic occupation has been found throughout the Rideau/Cataraqui River corridor. More information is available about the Rideau Lakes than the rest of the system, by virtue of the extensive archaeological surveys and excavations undertaken by Watson, following the pioneering work of Inderwick, McLaren and Beeman. Watson's excavations at the multi-period Wyght Site on Lower Rideau Lake, in particular, have provided a range of radio-carbon dates for the use of the site which extend from 6,080 B.C. to A.D. 1,120. Watson's excavations at the Late Archaic Inderwick Site on Big Rideau Lake in North Burgess Township have demonstrated clear evidence of a local tradition of Broadpoint manufacture and use. Perhaps more significantly, the excavations at Inderwick showed that valuable archaeological data could be retrieved from sites affected by flooding.

While the prehistoric occupation of Lower Rideau Lake may have been particularly intensive because of the exceptional, four-directional travel opportunities the lake provided, evidence of Archaic occupations elsewhere can be surmised by assessing the collections of reported surface artifacts. These collections have been deposited in the various cultural institutions in the province. Individual artifacts collected and reported by people untrained in archaeology often indicate the presence of more extensive cultural deposits. Most people can recognize an arrowhead, but would overlook the chipping detritus - the by-product of its manufacture - or the tiny burnt fragments of animal bone which might indicate the presence of an ancient campsite. Similarly, ground slate pendants or 'birdstones' are easy to recognize as something unusual on the surface of a ploughed field; however, it may not be recognized that their presence may indicate a near-by prehistoric cemetery, as these items were often included in Archaic burials.

Some of the artifacts suggestive of Archaic occupation along the system include a 'pick-like implement' from North Gower Township,
and a 'ground slate point' from near the Hog's Back. Further south, a 'copper point' has been reported from Bastard and South Burgess Township, and a 'slate gorget' was found in North Elmsley on the banks of the Tay River. These are undoubtedly no more than precursors of the large number of Archaic sites awaiting discovery.

2.2.4 Early and Middle Woodland Period (1,000 B.C. - A.D. 800)

Some time between about 1,100 B.C. and 900 B.C., techniques for making containers from fired clay were introduced into the area from the south. As a plastic medium (in the unfired state), pottery provided a 'canvas' upon which artisans could express themselves through the forms and decorations of the vessels. Fortunately for archaeologists, while pottery is easy to drop and break during use, pottery sherds tend to be durable, lasting well, even in the acidic soils of the Canadian Shield. And since techniques of manufacture, preferred designs, and even the shapes of the vessels changed through time, these have provided an important time marker for archaeologists. Other changes which accompanied the introduction of pottery are less dramatic and more cumulative in nature; hence, the distinctions archaeologists like to draw between the Archaic and the Woodland periods on the basis of pottery may be somewhat artificial.

Archaeologists have identified two 'complexes' which comprise the Early Woodland Period (1,000 B.C. - 0 B.C.) in Eastern Ontario: Middlesex and Meadowood. Evidence of Meadowood occupation of the study area is indicated by the discovery of 'Meadowood points or blanks' (distinctively shaped projectile points) in the Rideau Lakes and also near the mouth of the Cataraqui River. Some of the ground slate 'gorgets' reported for the area may also relate to this complex, since trapezoidal, two-hole gorgets are a characteristic artifact from Meadowood burials. The 'slate gorget' and 'ceremonial' flint blade, which were reported from close to Jones Falls, may have been associated with a Transitional Archaic/Early Woodland Meadowood burial.

The Middlesex complex is only known from a number of disturbed burials on Wolfe Island. However, the proximity of Wolfe Island to the mouth of the Cataraqui River is sufficient to suggest that archaeological sites relating to this poorly known complex should be present within the study area. The Middlesex complex is thought to have been related to, or an off-shoot of, the Adena Culture of southern Ohio. An 'Adena' projectile point from the Rideau Lakes is included in the collections of the Perth Museum. These archaeologically recognizable 'complexes' may represent intrusions into the area by different groups of people. However, it should be noted that ideas and fashions are equally portable, and exotic artifacts were readily acquired through trading.

By A.D. 0, the Meadowood and Middlesex complexes had given way to a more homogenous Middle Woodland complex - the Point Peninsula
Culture. By about A.D. 0 the local people had developed ways of making their pots which are immediately recognizable as different to those which preceded and succeeded them.

Point Peninsula sites have been found throughout Eastern and Central Ontario, and as far east as southern Quebec and parts of New York State. The distinctive characteristic of the archaeological remains of this culture is the finely made, and crisply decorated pottery with 'pseudo scallop shell' or 'dentate' decoration arranged in zones around the vessels. Other aspects of the material culture of these people -- the bone harpoons, hafted beaver incisor tools, antler combs and fishhook gorges -- were shared with other groups and other time periods, and are not such reliable time markers.

Archaeologists have developed a picture of the seasonal patterns these people used to exploit the wide variety of resources in their home territories. During the spring, summer and fall, groups of people congregated at lakeshore sites to fish, collect shellfish and hunt in the surrounding forests. As the seasons progressed, the emphasis probably shifted away from fishing and towards hunting, as the need to store up large quantities of food for the winter became more pressing. By late fall, or early winter, the community would split into small family hunting groups and each would return to a 'family' hunting area inland to await the return of spring. Sites such as those identified on South Lake and Charleston Lake, where Point Peninsula pottery has been found in conjunction with large quantities of deer bone, may have been deer butchering and rendering sites in preparation for winter.

So far, few Point Peninsula sites in the Rideau/Cataraqui corridor have been examined archaeologically. An eroding Middle Woodland burial site was salvaged from the water's edge on Bell's Island in Kingston, while parts of the multi-period Wyght and Driscoll sites on Lower Rideau Lake relate to this phase of prehistoric occupation. Numerous Point Peninsula archaeological sites have been found within, and adjacent to, the Rideau/Cataraqui River corridor and many more undoubtedly awaiting discovery. For example, a small Point Peninsula campsite was recently discovered at the heavily used park area of Newboro Lockstation.

Although research into the Point Peninsula people of the Rideau/Cataraqui River corridor is at a preliminary stage, it is clear that the area was extensively used by these people. In all likelihood, the rivers, lakes and forests of the region were part of an extensive 'homeland' for one or more bands. Population levels were probably similar to, or fractionally less than, those achieved during the Late Archaic Period. The area was not highly populated - such prehistoric hunter/gathering groups needed a large territory in order to sustain themselves - but it consistently supported a number of people.

Virtually the whole lakeshore area of the corridor to the south of the height of land should be regarded as having considerable
potential for archaeological sites, particularly of the Early and Middle Woodland Period. Although the majority of these sites will lie close to, or at the current water's edge, others will probably be discovered inland. Sheltered terraces, close to water, and prominent sandy knolls back from the water's edge were probably also sought for winter camping and burial sites.

2.2.5 Late Woodland Period (A.D. 800 - A.D. 1650)

Sometime after A.D. 500, maize (corn) was introduced into southern Ontario from the south. Initially this cultivated plant had little effect on the lives of people living in Eastern Ontario, but as the centuries passed, cultivation of corn, beans, squash, sunflowers and tobacco gained increasingly in importance. Not surprisingly, this transition from an economy based on the products of the lake and forest, to one in which the sowing, tending and harvesting of crops was important, also hastened cultural and technological changes.

Initially at least, the changes were small. People were naturally conservative, and the risks of crop failure must have been too high to allow for too much reliance on the products of the field. Some re-orientation of the seasonal movements of these people must have occurred at this time. Fishing and hunting sites continued to be used, although the pattern of summer gathering along the shores of the major lakes of the region probably diminished. The small plots of cultigens would have needed to be tended and harvested during the summer. Gradually, however, the settlements adjacent to the corn fields began to take on a greater permanency as cultigens became more of a staple food. The best quality, easily tillable farmland was sought out for cultivation, with village sites located near a reliable source of water.

Archaeologists have defined the 'Pickering' phase (ca. A.D. 800-1,300) as the earliest part of the Late Woodland Period in Eastern Ontario. Pickering is the first of three phases of development which culminated in the distinctive St. Lawrence Iroquoian culture. Pickering people established small villages adjacent to their farm land, but continued to hunt and fish throughout their territory, much as their Middle Woodland ancestors had before them. So far, only Pickering fishing and hunting camps have been identified within the Rideau/Cataraqui River corridor. Sites such as the Kingston Outer Station site, near the mouth of the Cataraqui River, and Plum Point, on Lower Rideau Lake, have been identified as used during this phase. To date, no Pickering 'villages' have been found in the area.

Subtle changes in pottery types, village size and location have lead archaeologists to define the Middleport (ca. A.D. 1,300-1,400) stage in Iroquoian development. Middleport villages tend to be located in areas where cultivation was profitable. These villages contained longhouses (multiple family dwellings) and were usually
surrounded by a defensive palisade. By this time, corn had become a staple, and populations were on the increase. Middleport people continued to hunt and fish in the Rideau/Cataraqui corridor, usually using the same locations chosen by their ancestors.

The period following A.D. 1,400 saw the rapid development of a distinctive Iroquoian culture in the St. Lawrence River Valley. The St. Lawrence Iroquoians occupied a series of large, defensible villages containing up to 2,000 people. Two clusters of villages lay close to the Rideau/Cataraqui Corridor; the Prescott cluster, of which the Roebuck village is the most well known, and the Jefferson County cluster, in New York State. Although the cultivation of plant crops formed the basis for the diet of these people, they continued to hunt and fish throughout the surrounding country. So far, there is no evidence to suggest that St. Lawrence Iroquoians established any permanent settlements in the Rideau/Cataraqui River corridor. However, their distinctive pottery has been found in many places, showing that the system continued to provide important resources for these people.

Gordon Watson has suggested that the rapid development and population expansion of the St. Lawrence Iroquoians prevented other people from occupying, or even continuing to use, the Rideau/Cataraqui corridor. Certainly, the extensive defensive works surrounding St. Lawrence Iroquoian villages, and evidence of captive torture and butchering, suggests that these people were not on friendly terms with their neighbours. For the last two hundred years of the prehistoric period, the Rideau Corridor probably fell within the hunting territory of the St. Lawrence Iroquoians and was part of a 'buffer zone' between adjacent peoples when not actively being used. Archaeological evidence of these people within the corridor probably relates to their seasonal and/or sporadic use of the area.

In the northern parts of the corridor, the development of the St. Lawrence Iroquois may have had less impact. Algonkian groups occupying the Ottawa Valley and its watershed probably continued to use the lower Rideau, relatively free from harassment by their southern neighbours. Unfortunately there is very little archaeological evidence of this period from the northern part of the corridor.

**2.2.6 Proto-Historic/Historic Period (ca. A.D. 1650 - A.D. 1850)**

In 1534, when Jacques Cartier explored the St. Lawrence River valley, he met St. Lawrence Iroquoians in their villages in Montreal and Quebec and at their fishing and hunting camps on the Gaspe Bay. Sixty years later, when Samuel de Champlain travelled the same route, he found the villages abandoned and the people gone. Whether they fell prey to European diseases, were wiped out in wars with their neighbours (the Huron and the Five Nations Iroquois) or some combination of both, is unknown. What is certain...
is that by the late sixteenth century, the once powerful and numerous St. Lawrence Iroquoians no longer existed as a distinct people.

Historically recorded Algonkian groups; the Onontchataronnon in the South Nation River drainage, and the Matouweskarini, the Keinouche and the Kichesipirini in the Ottawa Valley may have occasionally resorted to the waters of the Rideau River system during the seventeenth century. Unfortunately, these groups are virtually unknown archaeologically, and there is currently no way to distinguish their products in the meagre Proto-Historic archaeological record.

By 1650, with the dispersal of the Huron by the Five Nations Iroquois, the Rideau/Cataraqui River corridor effectively came under Five Nations' control. Iroquois raids also effectively chased the Ottawa Valley Algonkian groups out of the area. Thus, during the latter part of the seventeenth century the study area was virtually abandoned. Iroquoian hunting groups probably used the area on a sporadic basis, but so far no archaeological evidence of this activity has been identified.

The most extensive archaeological data relating to the use of the corridor by native people during the historic period comes from the excavations undertaken at the site of the French Fort Frontenac (1673-1758) in Kingston. Even before the establishment of the fort, it is clear that Five Nations Iroquois were familiar with the strategic value and environmental resources of the Cataraqui River mouth area. Shortly after the establishment of the fort, a group of Oneida established a village outside its walls; the village was to remain occupied for as long as the French maintained the Fort.

Excavations of some disturbed burials at Fort Frontenac in 1989 exposed the remains of a mission cemetery dating to between 1730 and 1750. The burials had been dug through a midden/garden adjacent to the Iroquois village. Numerous artifacts of native manufacture, and abundant quantities of animal bone are assumed to have been discarded by the villagers living in the adjacent longhouses. Historical references and the archaeological evidence suggest that although the village was nominally a 'mission' village, it operated in much the same way as other Iroquoian villages of the period. Hunting parties radiated out from the village centre, exploiting the resources of the surrounding countryside. The rich hinterland of the Cataraqui River valley was undoubtedly included within this settlement system.

By the turn of the eighteenth century, the Five Nations Iroquois had lost much of their former strength and influence on the north side of Lake Ontario. Algonkian groups from the Lake Huron/Lake Superior region moved south to occupy much of what had been Iroquois territory, even resorting to the same village sites that the Iroquois had established along the north shore of Lake Ontario. In 1703-04, Mississauga and Saulteur warriors were harassing Iroquois people at Fort Frontenac.
As the potential threat from the Iroquois diminished, Algonkians continued to move south, gradually occupying much of southern Ontario. Compared to other parts of the province, expansion into Eastern Ontario was limited because it was still perceived as part of Iroquois territory. When the British re-occupied Fort Frontenac during mid-summer 1783, some of the Mississaugas living in the area were quite displeased as some British officials had chosen to overlook the Mississauga's claim to the area in favour of the Six Nations Iroquois and had not informed them of their plans. By November, however, the Mississaugas rights of occupancy had been recognized. The British Crown purchased much of the land surrounding the Fort, including the sale of the lands attributed to Chief Mynass, whose lands extended from near Gananoque to Kingston, and north to the Ottawa River. Indian populations in the Rideau/Cataraqui River corridor during the eighteenth century had never been high. As European settlement began in the area in the early nineteenth century, those few native people who did use the region received scant attention from the settlers. In a letter to the Reverend Dr. James Hall, William Bell of Perth wrote in 1817 that:

> The native Indians are not numerous, in this neighbourhood. Since we came here, I have seen only two hunting parties in the town, and now and then a man and his squaw selling baskets made of birch bark. They all carry the tomahawk, but seem to be very quiet and inoffensive.

**Notes**

1. **Algonkian**: this term is used to describe various peoples all of whom spoke languages of the Algonkian group. They include the Ojibwa, Mississauga, Saulteur, Amikwa, Algonkin, etc.

2. **The Five Nations**: Seneca, Cayuga, Onondaga, Oneida and Mohawk.

3. The Mississaugas were originally a small band occupying the territory around the mouth of the Mississagi River. As they moved south, for some inexplicable reason this name became applied to all the Algonkian people near the north shore of Lake Ontario.

4. The Tuscarora, an Iroquoian people from North Carolina, moved north to join the Five Nations after a series of devastating military defeats and massacres in their homeland. They were formally admitted into the Iroquois Confederacy in 1722/23.
2.3 Rideau Corridor landscape development phases

2.3.1 The Rideau Corridor prior to European occupation

Dramatic transformations to the landscape began with the arrival of Europeans in the Rideau Corridor. It is worth looking closely at the landscape in place prior to their arrival.

The soils had developed in the approximately 11,000 years or more since the glaciers retreated, forming poor, thin, acid soils over the underlying granites, gneisses and hard limestones of the 'Frontenac Axis' (a part of the Canadian Shield) in the Cataraqui watershed, and better, but still thin, and easily exhausted soils over the sandstones and limestones of the middle and lower Rideau watershed.

The natural vegetation which had colonized the area included: white pine on the thin, acid, soils, particularly those of the Frontenac Axis; oak, hickory, basswood, red and sugar maples, and beech on the better soils; and cedars, common in wetland areas. There were also elms, spruce, birch, poplars and alders. Some of the white pine reached well over 100 feet high, and the large proportion of large coniferous trees meant that the forest was fairly open at ground level.

Deer roamed these woods, and beavers were to be found on streams, damming them to make pools. Other animals included bears, racoon, black, grey and red squirrels, pine marten, muskrat, porcupine, otter, fisher, mink, woodchuck, hare, lynx, moose, wolf, skunk, wolverine, fox, chipmunk and bison. Birds included the turkey, blue bird, osprey, heron and loon. The rivers and lakes were populated by freshwater fish and molluscs.

This pre-settlement landscape was altered out of all recognition in the early nineteenth century. The forests were cleared to such an extent that first growth stands of timber are virtually non-existent.
2.3.2 Preparing for settlement

Kingston was well established by the mid-eighteenth century as a trading and ship-building centre. The Cataraqui valley was the immediate hinterland for timber supply. At Kingston Mills the Government built a sawmill in 1782-85 at the first available waterpower site upstream from the town. There were also lesser towns along the St Lawrence, such as Brockville and Prescott.

Apart from Kingston, though, and until the American War of Independence (1776-1783), the British Government was content to regard the lands north of the St Lawrence as Native land and a source of furs. However, the influx of loyalists to British-controlled areas in 1783 changed this attitude. To acquire further territory suitable for settlement, the Government sought and secured treaties with the Mississaugas and the Iroquois by which these tribes ceded territory which included the Cataraqui and Rideau valleys.

The next step was to carve up the territory so that lots could be allocated to settlers. The surveyors began their work in the already partly-settled land around Kingston; Kingston Township was set out in 200-acre lots in 1783, and Pittsburgh Township, across the Cataraqui, in 1787. The resulting grid of concessions and lots was entirely a drawing board exercise, and took no account of natural obstacles such as rivers or lakes. Land around Brockville, which was well known as a strongly Loyalist settlement during the American War of Independence, was quickly surveyed and settled.

The Rideau valley was explored by an officer of the British army in 1783 with a view to assessing its potential for settlement. The Government recognized the area as possessing indifferent soils, and accorded it a lesser priority than lands on the St Lawrence. Nevertheless, Loyalist settlers from New England and New York had already begun to move out from Brockville and Prescott into the Rideau valley in the 1790s. Colonel Stephen Burritt arrived from upstate New York with a small group, and built himself a cedar log house in 1793. William Merrick followed in 1796. Both gave their names to later settlements. Meanwhile, Philemon Wright had gone up the Ottawa River from Montréal and established mills at the Chaudière falls.

In response, the surveyors tackled the division of Gloucester Township, which was immediately south of Wright's settlement, in 1792, and then moved into the Rideau valley in the mid-1790s, tackling areas where there seems to have been the most pressure for settlement. Kitley and North Elmsley townships were laid out in 1794, Bastard in 1795, Montague in 1797, and Oxford in 1799. The surveyors divided the areas into townships of ten miles square, with thirty lots in each concession. Areas at the further (i.e. northern) end of the Rideau River were surveyed much later; Osgoode was not surveyed until 1822, and North Gower and Nepean until 1823.
Settlers began to arrive and give form to this theoretical pattern. The next group after the loyalists were the so-called 'late loyalists', coming from New York in the period between the 1790s and 1812, who were willing to swear loyalty to the Crown in order to take advantage of the free land. Men like Chaffey and Davis, after whom lockstations were later named, belonged to this group. A man called Abel Stevens from Vermont had brought over 100 families, mostly relatives, into the townships of Bastard and Kitley by 1800.

Merrick and some of the other early settlers located themselves by falls, and built the sawmills which enabled other newcomers to finish off their log houses more comfortably. Distilleries sprang up near the mills. There would also have been blacksmiths, needed for shoeing horses and forging. At first, portable forges were probably in use. The earliest blacksmith recorded in the area was near Merrickville in 1805.

Settlers intending to be farmers balanced the soil quality, (suggested by the presence of oak and maple) against access to the mills and other services in choosing land. They carved out small fields from the forest, where they grew potatoes, vegetables and wheat; their stock would have included cattle, hogs and sheep which browsed in the woods. At first they built log shanties with crude cedar log roofs, soon to be replaced by sawn timber. Probably most early farms were no more than three acres.

The process of clearing the land was painfully slow work. In the first 20 years since the initial surveys, the settlers made little impact on the natural forest, and the surveyors' grid would not yet have been fully apparent.

The early tracks established by the settlers went inland from Brockville and Prescott, winding their way across the landscape so as to avoid obstacles like wetlands and rivers. Water, too, was used for transport; for example there seems to have been a route linking Portland and Oliver's Landing.

Surviving landscape components from this very first period of settlement are few, consisting of a few log shanties, and the lines of very early tracks.
Ill. #8
Early surveyors were challenged by swamp, thick forest, and heavy underbrush. The house in the clearing at Hog’s Back is attributed to one of two early settlers, either Braddish Billings or Abraham Dow. The watercolour was prepared by James Pattison Cockburn, August 17, 1830. NAC C-012515.
Ill. #9
The manicured banks of the Rideau today, contrast with the dense bush captured near Nicholsons Rapids in this watercolour by James Pattison Cockburn, 1830. NAC C-012513.
2.3.3 Early settlement

From 1815 the rate of settlement stepped up greatly. The War of 1812 had dramatized the possibility of invasion from the United States, and British authorities viewed the disbanded army units from the Napoleonic Wars in Europe, and the War of 1812, as a useful source of any future militia. The Rideau valley was also viewed as being able to relieve growing population pressures in Britain, particularly Scotland.

Accordingly, in 1815 the authorities established military settlements in Perth, Richmond, and elsewhere. A planned emigration via Edinburgh, Scotland, to Brockville, and thence to Perth, resulted in the arrival of many would-be settlers in 1816. They proved to the vanguard of a huge influx from England, Scotland and northern (Protestant) Ireland, lasting till the late 1840s, by which time most of the good land had gone. There were also some southern (Catholic) Irish arrivals from the 1840s onwards, but in this part of Ontario they were smaller in number.

These settlers arrived to face the still dense forest; land clearance was the greatest priority, occupying the winter months. At most, a man could clear three acres in a winter. Logs would be piled in a heap, and burnt once dried out in the summer. By the 1850s, the landscape had gained a totally different face. The continuing clearance activity resulted in an open landscape with just a few sugar bushes retained from the wild. Ironically, the stump pulling machines which would have helped considerably in the clearing were not imported from the United States until the 1850s.

On occasion, the logging companies who had been granted timber concessions by the Crown, would seek to remove the cleared timber. This could be understood as variously a help for land clearance, or as a liability, if the farmer wished to exploit the best timber for his own gain. The timber companies were, however, not the principal agent for stripping the farmland in the middle and lower Rideau valley of its forest cover; rather 70 percent of the clearance was accomplished by the farmers themselves who had completed this task by the 1850s.

More tracks were established across the countryside. The road from Brockville to Perth can be traced over most of its length, and the Kingston Road (i.e. taking traffic from Perth in the direction of Kingston) which runs between Rideau Ferry and Portland, remains as one of the Corridor's more charming back roads. Other early roads were regularised as the grid became more firmly established when settlers took up their lots, and concession roads were built, such as the one between Bytown and Perth via Richmond.

The surveyors' plans, after 50 years, had become reality, as the settlers laid out their fields and established the local roads between concessions. The rectilinear grid of the plans was writ large on the Eastern Ontario landscape as roads and fences gave
concrete form to what had been mere lines on a map. By the mid-nineteenth century, this grid was a predominant feature on all maps of the Rideau area; the continuity given it by land ownership has meant that it remains a strong determinant for all changes in landscape pattern at the local level.

The predominant farming activity prior to the 1860s was the cultivation of wheat and the raising of a few sheep. For this, farmers would need only simple small structures for sheltering equipment and stock in the winter. Some cedar rail fences were installed in order to control stock movements. Grain was taken directly to the grist mills which were springing up, and from there, exported to urban markets like Toronto.

Manufacturing woollen goods was a cottage industry, followed eventually by fulling and carding mills. Merrickville had a carding mill in 1817, and Chaffeys had one which was destroyed by the construction of the canal about 1830. There was a fulling mill at Merrickville 1844. Burritts Rapids acquired further mills in the 1830s. The earliest annual fairs were established in the area at that time.

The settlements established in pioneer days continued to grow; the building boom of the 1820s was fuelled by the desire for more salubrious living conditions. Some settlers managed to move out of their log cabins and into stone houses within a decade. The houses were remarkably consistent in design, being one-and-a-half storey with a central hall, and a centre gable. Local sandstone was used, the quarries often being very close by. As soon as they could, communities erected churches, and there are several in the Rideau valley dating from the 1820s. Burritts Rapids had a school by 1826.

The original surveyors had made no provision for towns. Settlements tended to accumulate haphazardly at the 'corners', i.e. where concession roads intersected. Examples included Lombardy and Eatons Corners. In places, though, entrepreneurs convinced of continued future growth of the area set out street grids, inviting people to buy house lots. Portland, Burritts Rapids, Westport, Merrickville and Smiths Falls were all laid out in the 1820s and 1830s.

These settlers gloried in the destruction of the forests, and cared nothing for the wildlife displaced. The changes they brought about were, in fact, catastrophic for the animals and birds that had once been so plentiful.

This early settler landscape was typical of the dramatic changes taking place to the Ontario landscape in the first half of the nineteenth century. The stone houses, as a group of buildings, are attractive, and the ensembles they form with contemporary and later timber farm buildings and cedar fences are points of great interest in the landscape. Although research on cedar fences is still rudimentary, these seem most concentrated and most fully developed in this part of Ontario.
Documentation concerning this period is exceptionally good. A wealth of local historical data has been collected over the past few decades, giving detail on the settlers, their houses and their farming practices. There has also been strong interest in the stone houses of the period, many of which have been increasingly well recorded.

This landscape was added to later, but remained little changed until the late twentieth century. It is, however, now disappearing quickly, as land is abandoned, farming practices change, and the stone houses are separated from their land. The cedar rail fences, the definers of these early landscape patterns, are disappearing slowly, and the land assuming a forested make-up quite foreign to its nineteenth-century appearance.
The community of Merrick's Mills, later Merrickville, was the largest milling community on the Rideau prior to the Canal's construction. Unlike many other early milling communities, the mills were not destroyed by the Canal. The watercolour is by James Pattison Cockburn, circa 1830. NAC C-010656.
Exploration of the Corridor's meandering streams reveals the remnants of dozens of early mill settlements, such as this one adjacent to the Scotch line west of Perth. Now partly abandoned and sited on unimproved gravel roads, it is difficult to visualize the lost prosperity of these settlements in their early years.
ILL. #12
The Canal brought an end to the traveller's need for long arduous portages along the Rideau waterway. This portage at Smiths Falls illustrated by James Pattison Cockburn (circa 1830) was approximately 3/4 of a mile in length. NAC C-012603.
Settlers quickly transformed the wilderness into farms and settlements by cutting forests for lumber or by simply burning off acres of brush. Early roads were not much more than muddy tracks making water travel the preferred mode of transportation. This view of Smiths Falls (circa 1832) was captured by John Burrows. NAC C-092886.
2.3.4 Demand for timber

Lumbering in the Cataraqui valley started in the eighteenth century, with shipbuilders in Kingston being interested in the white pine for the masts of sailing ships. The earliest significant logging in the Rideau valley appears to have been by Braddish Billings, a loyalist who once worked for Philemon Wright and who afterwards settled a few miles up the Rideau River in 1810. He, amongst others, had become interested in lumbering in the Ottawa Valley to respond to the demand for timber arising from the Napoleonic War which, in 1807, had cut Britain off from its supply of Baltic timber.

Lumbering took place in the winter, and the logs were floated downstream on the spring floods. Log chutes were needed to traverse the various falls along the way. Most lumbermen were French Canadians who returned to their farms in the summer. Whilst lumbering, they would have established temporary camps, of which little trace survives.

The number of falls and rapids on the Cataraqui and Rideau rivers made the transport of logs difficult; the rate of logging was at first slowed by this. These constraints on extraction were overcome with the opening of the Rideau Canal in 1832. From this time on, vast quantities of timber were floated down both rivers. Export of timber peaked in 1866, then fell to a quarter of that level only ten years later. This occurred primarily because the area was depleted of marketable timber by around 1877. The white pine had gone first; then the oak — used for framing and the beams of houses and barns — much of it in the United States. Originally the canal lock gates on the canal were in oak. Afterwards, deal (spruce) was used for more general purposes.

Commercial lumbering was more important in the Cataraqui valley and Rideau Lakes than in the middle Rideau valley; it was closer to Kingston, and there was more white pine on the granites and gneisses of the Frontenac Axis; as well complications with farmers were less. In the middle and lower Rideau valley a huge amount was extracted, but the land clearances were carried out predominantly by the pioneer farmers themselves, and it was only in the northern townships like Osgoode and North Gower, where settlement was later, that the timbermen had a virtually free hand until the 1830s.

Downstream, the settlement of Bytown, originally established for the construction of the canal, burgeoned as a centre for the logging industry. The first sawmill there was erected in 1830.

The initial clearances of white pine would have removed stands of those trees, but not denuded the whole landscape. However, later, less discriminating extraction did leave a virtually treeless landscape, rapidly invaded by fireweed, chokeberry and hardwood suckers in hardwood areas, and wild raspberries and poplar in pine ones. The changes were serious for the animals and birds that had
populated the forest, particularly if settlers quickly turned the land into fields.

One of the consequences of the clearances was that the melt water, which had been held back by the litter of the forest floor, ran off much more quickly, and caused far greater spring floods than had previously been experienced. The spring floods in 1862 were particularly severe, and caused the collapse of the Hog's Back weir and partial destruction of By's masonry dam there. A further consequence was the shortage of water later in the year. By the 1860s the summer water levels in the canal were so low that additional reservoirs had to be constructed in the headwaters of the Rideau valley.

The most obvious legacy of the lumbering activity in the Rideau and Cataraqui valleys was its contribution to the clearance of the land, and to the loss of the wildlife it sheltered. On a more positive note, the timber produced still exists in the fabric of countless houses in Canada and the United States. The timber used for ships has not lasted as long, and the oak that went into the original canal locks and their gates was replaced after thirty years; at this juncture, there was no more large dimension oak, so western hemlock was used. The structures required for the additional reservoirs of the 1860s also remain.
Ill. #14
Explorations by area residents have uncovered vestiges of early logging camps. The remains of this camp, near Perth, were sketched by John Hollinger in the early 1990s.
There are few visible reminders of the once lucrative logging industry in the Rideau Corridor. This passing truck reminds viewers that the industry is still alive.
Ill. #16
At the end of the last century, Hog's Back was part of a rural landscape with no hint of a growing capital city nearby. The photograph was taken by James William Topley in 1892.
NAC PA33932.
2.3.5 Defence of the Colony

The fear during the War of 1812 that American forces could bombard traffic on the St. Lawrence River, or even invade, prompted the British Government to take measures to defend the colony of Upper Canada. The military settlements in Perth and Richmond, intended to provide a trained and loyal militia in the event of invasion, were part of the response. The idea of a water route, avoiding the St. Lawrence, and using the Rideau and Cataraqui rivers, was mooted as early as 1814, but not until 1826 was authority given to begin construction of the canal, as well as fortifications at Kingston.

The Royal Engineer, Lieutenant Colonel John By, was appointed to supervise construction of the canal. He realised that the Americans would have a decisive advantage if they struck quickly, because the British would need time to resupply from the home country. His strategy relied upon the canal to provide a rapid re-deployment of troops and munitions to meet any threat, using the latest form of transport, the steamboat.

The story of the building of the canal through country that was still mostly wilderness has been told many times. Major efforts were devoted to construction of dams and weirs to manipulate the levels of water in the rivers and lakes, and to erect locks to enable boats to move from one level to another. Where the level differences were provided by dams, the canal cuts associated with the locks could be minimal or absent, but where the drop in elevation was at natural falls, canal cuts were often excavated for the locks beside the river channel. The largest example of this was at the Ottawa end, where eight locks and five miles of cut bypassed the Rideau Falls.

Once built, the canal needed lockmasters, and defensive works. Hence several blockhouses and fortifiable lockmasters' houses were erected. Several quarries were enlarged or opened for the canal, and tracks established to serve the camps and quarries. Little evidence of these appears to survive.

Land to the east of the flight of eight locks was used as a depot and camp for the canal project, and was called Bytown. This is now the so-called Market area of Ottawa. There were also temporary camps established by the contractors. Most disappeared and left little trace, though Newboro appears to have been established partly in order to service the canal construction. Perhaps the most evident legacy of the camps are the cemeteries of those who died from malaria and other diseases during the construction period.

Once the canal was open, its commercial advantages were clear. Traffic from Montreal to Kingston would make its way up the Ottawa River, then follow the canal. On the return journey, traffic would take the fast-flowing St. Lawrence downstream. Bytown prospered; not only was it a centre for logging, but it enjoyed its commercial heyday following 1832 after most traffic heading for Upper Canada.
began to pass through. The banks of the canal acquired depots and warehouses. When the canal construction was over in 1832, the town had perhaps 1,000 inhabitants; by 1850 it had 7,000.

Burritts Rapids, Chaffeys, and Merrickville also expanded because of the traffic on the canal. However, the benefit from the river was to be short-lived, because improved canals along the St. Lawrence River, completed in 1848, made it easier for traffic to use the river in both directions.

The area of water that was raised in level totalled thousands of hectares; the raising drowned some Aboriginal settlement sites and large areas of land, creating extensive new wetlands. By contrast, the total area of canal construction was not large. It cannot be said that the canal had a major impact upon the landscape in terms of changes in land use, but it had required the removal of all the mills that existed prior to canal construction on the Rideau and Cataraqui rivers. Some mills were quickly rebuilt, but others were not, and this must have caused temporary disruption to the agricultural community that depended upon them.

The impact of the flooding on the wildlife must have been severe for a few years. The area of drowned lands was considerable, and the trunks of many cedars still stand as a mute reminder of canal construction. Nevertheless, lake and river margins re-established themselves in time, and there are today several Grade 1 wetlands on the artificial levels of the Rideau waterway.

The canal construction was a remarkable achievement in many ways. Those aspects which make it of outstanding importance in relation to other canals of the period include the following points:

a. it represents a superlative technical achievement, in that works of such engineering quality (incorporating the largest dams built in North America at the time) were made in wilderness settings;

b. it was, unusually for the time, a military canal, designed with the strategic purpose of defending a country, and with built-in defences against attack;

c. it was the world's first canal designed to handle steamboats; hence, unlike all previous canals, it has no towpaths, and the locks were unusually wide to accommodate the new type of boat;

d. it had important spin-offs for the lumbering industry and commercial health of the area, particularly for the settlement of Bytown created to support construction of the canal: a town which grew into the capital city of Ottawa.

The integrity of structures is very good, bearing in mind the maintenance that has been required over 160 years. Landscape components are replaced faithfully, including the lock gates which
need replacement approximately every 12 to 15 years. Most dams and locks are virtually intact. The design and construction process for the canal and its operating mechanisms has been very well documented.

Threats to the canal's character-defining features are not serious, given the high standards of care implicit in Park's Canada's ownership, yet a number of these should be monitored:

a. continuous maintenance is required; proposals to mechanise, would reduce integrity of fabric and tradition;

b. erosion of banks and peaceful atmosphere is resulting from the increasing presence of power boats and seadoos;

c. loss (or change) of character is accompanying increasing suburbanisation and cottage development;

d. contemporary planting by Parks Canada staff at lockstations, or plant invasion being allowed to take hold, obscures the visual relationships, for example between blockhouses and locks.
Ill. #17
Lieutenant-Colonel John By's house was one of the first buildings in Ottawa (originally called Bytown) when Canal construction began to transform the wilderness into a community with homes, churches, gardens and farms. The watercolour is attributed to Philip John Bainbrigge, 1841. NAC C-002163
By 1855 (when this tinted lithograph was prepared by Edwin Whitefield), Ottawa's Lowertown had grown and was now dominated by the newly constructed Notre-Dame Basilica. The community itself was largely populated by Irish and French Canadian Catholics living in small single-storey homes. It was not until a couple of years later that Queen Victoria selected Ottawa for the capital. The area adjacent to the canal, the present site of the Chateau Laurier, was virtually unoccupied. NAC C-00600
In order to create a passage through a long marsh, Colonel By raised the water level two feet and cut a channel through the dead trees. The tales of the hundreds of workers who died of malaria clearing marshland are part of the heroic stories of the Canal construction. After construction, the steamboats, like the one in the background, made their way through the eerie forests of dead trees which gave rise to other tales from visitors and new residents. Today, these trees remain just below the surface of the Canal. The watercolour was painted by Major George Seton, August 4, 1844. NAC C-001073.
This view of Merrickville was captured in watercolour by John Philip Bainbrigge (circa 1838) shortly after the Canal's completion. The stone blockhouse occupying a strategic position overlooking the locks is one of the few built. NAC C-011849.
The dam at Jones Falls was one of the remarkable feats of the Rideau's construction and perhaps even the greatest engineering accomplishment in the British Empire at that time. Virtually unaltered, the 62-foot high, stone arch dam remains much the same as when John Philip Bainbrigge prepared this watercolour. NAC C-011835
The lockmaster's job has not changed much over the years. With the exception of a small number of electrically operated locks, locks continue to be opened and closed manually.
The combined locks at Smiths Falls was electrified in 1972. The three original combined locks were replaced by a single electrically operated lock.
2.3.6 Industrialisation

The first railway lines in Eastern Ontario ran along the St. Lawrence between Montréal and Kingston. Two later lines, intended for the timber trade, went inland from suitable ports. One was built from Prescott, arriving in Ottawa in 1854; in 1858, the Brockville to Pembroke line went through, providing stations in Smiths Falls and Carleton Place. Over the next thirty years Ottawa became an important centre of an expanding rail network, with large areas of railway yards. Smiths Falls, too, became an important junction, being supplied with coal by steam barge until the 1930s.

Obvious physical changes in addition to the lines, included the marshalling yards, repair yards, coal depots and the many stations, from the terminus at Ottawa to rural stops at places like Portland. The splendid Chateau Laurier Hotel was built across the street from the Ottawa station by the railway company in 1912. Less tangible but equally important were the many ways in which the railways changed the lives of people in the Rideau area.

The railways allowed cheap manufactured goods or equipment to replace human labour. Farms started the process of mechanisation, and there was a lesser need for local tradespeople like blacksmiths and shoemakers when the local store stocked imports from Montréal or Toronto. Many of these people drifted to the cities in search of employment, often, no doubt, making the goods that had driven them out of the country. Redundant farm labourers could move to the rich lands of the American Mid-West, as so many from New England were doing.

These factors, allied to a sudden decline in the agricultural fortunes of the area in the 1850s, led to a decline in populations in smaller settlements and the countryside generally. No sooner had the dramatic rise in population between the 1810s and the 1840s saturated the countryside, then numbers began to fall back. A small decrease occurred in the 1850s, and the pace quickened towards the end of the century and into the twentieth. Small towns declined: some simply through loss of tradespeople, and others like Burritts Rapids, where the mills were no longer required by farmers who had switched to dairying. Andrewsville was founded and died within the space of a few years towards the end of the nineteenth century.

The building boom of the 1820s to the 1840s came to a halt, and from the 1850s, new building in the countryside was at a far lesser scale. In the period between 1910 and 1950, very few new buildings were built in the area.

Those towns like Perth, Kemptville and Smiths Falls that joined in the mini-industrial revolution did comparatively well. Foundries and textile factories kept people in work, and there were brickyards near Merrickville. The latter avoided decline for a time. Its foundry started making ploughs in the 1850s; it adapted to the decline of wheat growing, beginning to produce general
agricultural implements and stoves. However, the decline of the woollen and grist mills there led to a population fall, beginning in the 1870s.

The railway boom was over by the end of the century; there was a shakedown in the industry in the 1910s when some lines closed. There was a further dramatic decline in the 1950s when the general means of transport became the motor vehicle.

The industrialisation of the area has left behind railway lines, bridges and stations, as well as the remnants of a few mills and foundries. Generally though, once closed, such features have disappeared or lost their integrity.
Ill. #24
Rail lines eventually replaced the Canal for moving raw materials and finished products. Now many of these rail lines lie abandoned, replaced by an improved road network with its large trucks.
Ill. #25
This rail line at Osgoode will disappear with the next road repaving and the former line will become much more difficult to find and trace in the landscape.
Ill. #26
A 19th century industrial building in Perth has found a new life while others sit neglected.
2.3.7 Changing market; wheat to cheese

The settlement and building boom of the 1810s to the 1840s, dramatic as it was, had not been as early or rapid as in many parts of southern Ontario. As the authorities had noted in the 1790s, the land was not as good as elsewhere. In the poorest areas, according to the county maps of the 1860s, there were still many areas unclaimed in the upper parts of the Rideau valley at that time. Even in the comparatively better soils, the constant growing of wheat had seriously depleted soil fertility by the 1850s. Also the area's winters were slightly harsher. The Corridor was thus always likely to suffer first from an agricultural depression.

When cheap grain became available from the mid-Western United States, the grain produced in places like the Rideau valley could no longer compete. The farmers proved themselves adaptable, however, and quickly found a new niche in the agricultural market. They sought uses less demanding of the soil, and dairying was the obvious choice.

The arable fields were laid down for permanent pasture. More fences were needed in order to keep in the cattle. This led to a further elaboration of the cedar rail fence field pattern, until wire fences began to come in about 1900. Sometimes, in areas that had not previously been cleared, a farmer would not need bother to control his stock, but would simply turn them into the forest. In time this resulted in a 'wood pasture' appearance, with grass at ground level and surviving first growth trees scattered about.

Barns were required for over-wintering and milking. The 'raised two-bay' form developed. A rough stone-built ground floor housed the cattle. An upper storey was used for the storage of hay with which to provide feed in the winter; many had ramps up to that level so that carts could be driven in for unloading. They were usually erected by 'barn raising bees', when the surrounding farming community would converge to erect the wooden frame of a new barn, and turn the effort into a community celebration.

Getting dairy products to the markets was a troublesome question. Farmers were not close enough to Ottawa to supply milk, but they could produce butter and cheese. Until the American Civil War, cheese had been imported from the United States; suddenly a ready market opened up in Canada, and later in Britain. Furthermore, the relative isolation of the Rideau area did not matter as the railways were arriving in the 1850s, and refrigeration was also becoming available.

The area's first cheese factory was set up in Forfar in 1865, and nineteenth-century accounts suggest there was a cheese factory every four miles.

Packaging industries were required to service the cheese and butter making. Cheese boxes were made in Delta. The cooperage at
Merrickville, which made barrels for flour and salt pork, started making butter churns. Tanneries were established in the 1850s.

County fairs and exhibitions were a cornerstone of business in Victorian times. As early as 1868, the City of Ottawa Agricultural Society had acquired rural land for use as a showground. In 1875 the City of Ottawa hosted the thirtieth annual exhibition of the Provincial Agricultural and Arts Association. For the occasion, the Ottawa Agricultural Society invested in the construction of a new building, octagonal in shape, measuring 92 ft by 92 ft, with eight wings, each measuring 60 ft by 36 ft. This new exhibition facility exceeded in size any other structure then in use for agricultural exhibitions in the province.

The opening of the Aberdeen pavilion, the 'Cattle Castle', for the 10th annual Central Canada Exhibition of 1898 epitomised the progression of the site to a significant national and international venue for the display of advancements in agriculture, livestock and the burgeoning realm of manufactured goods of all shapes and sizes. The newspapers of the day noted that the pavilion contained many commercial items on display, including 'an enormous cake of Old Comfort Soap' and an entire creamery outfit featuring an 'Alpha de Laval Cream Separator'.

Today the Cattle Castle is the last remaining Canadian example of a popular exhibition hall of the late nineteenth century, and has recently been restored for modern use.

The farmers made an adequate living from dairying, never enough to provide them great wealth, but certainly enough to avoid poverty. Hence the landscape established in the 1860s remained almost unchanged for 100 years; this landscape, the 'traditional' East Ontario Landscape is familiar to all, and appreciated by most.

This landscape has been undergoing a radical transformation in the last thirty years, as the barns have become disused and the use of the fields has changed or been abandoned. Suburbanisation, spreading out from Ottawa, has been making inroads on this landscape, and this is likely to be made more severe by the proposed improvements to Highway 16.

The barns are the outstanding elements added to the landscape in this phase. They represent a true 'vernacular' tradition, and are impressive buildings in themselves. To date, there has been little work done in inventorying or recording these.
With the growth of dairy farming, cheese factories serving local farmers appeared and cheese became a major export of the area. Forfar's cheese factory is one of the few left in use. Others have been abandoned or, like this factory near Newboro, converted to residential use. Retention of the building's original form helps express former patterns of dairy farm production and distribution.
A hotel has been located at Jones Falls since 1877 when it was first opened by the Kenney family. Unlike the Hotel Kenney which is still run by descendants of the original family, many of the other resort hotels from this era have disappeared.
2.3.8 Rise in outdoor recreation

The taste for picturesque scenery had been rising amongst the educated classes throughout the nineteenth century. Kingston, with ready access to the Thousand Islands and the Cataraqui valley and the Rideau Lakes via the canal, was a convenient stopping place, readily accessible from Toronto and several other cities in Canada and the United States by steamboat or rail.

Logging had effectively ceased in the 1870s, and excursions were started up the canal, from this point in time onward. Passengers could stay at hotels en route. Kenney's was established in 1876, and the Opinicon, slightly further upstream, in the 1890s. Murphy's Hotel was built in Portland in about 1900. It was also possible to take a train to Smiths Falls and board a steamboat there.

The Rideau Lakes attracted out-of-doors vacationers interested in fishing, camping, or both. Many Americans came, attracted by the quality of the fishing; by the 1890s, they began using local guides. Hotels offered accommodation, and also serviced campsites on islands. The more rugged fishermen interested in a wilderness experience might set up their own camps.

Some very wealthy people built cottages on islands in Great Rideau Lake in the 1890s. They would travel back and forth to Portland via a rowboat or a steam launch. After the First World War, there was a boom in cottage building by the moderately wealthy, encouraged by better access through highway improvements made to provincial standards, better automobiles, and by motor boats acquiring gasoline engines. Properties like Fancy Free date from this period. There were boatyards in Portland between the wars. However, this period began to decline with the Depression of the 1930s. Boat building stopped, and the last steamboat operated on the canal in 1934.

Cottage building picked up again in the 1950s. By that time, road access was much improved, both to the area and to lakeside sites. People of quite modest means could afford the land and inexpensive constructions. The majority of cottages on Great Rideau Lake date from the late 1950s through 1980, and construction of boathouses peaked in the 1950s and 1960s. It has been estimated that the number of cottages on the Rideau waterway has risen from 1,000 in 1950 to 6,000 today. Previously undeveloped lakes also acquired cottages, giving a much more scattered pattern, though still concentrated on the shores of Great Rideau Lake.

The character and intensity of boating has changed over the years. The mahogany power boats of the 1920s have given way to a huge number of steel and fibreglass cruisers and powerboats of post-war times. Houseboats have become available for rental. More recently, seadoos have been introduced. There are also a few seaplanes on the larger lakes. Few boatyards survive on the canal, and those that do are often hidden behind serried ranks of white-hulled cruisers.
Some, like Len's Cove at Portland, have multi-storey racks for over-wintering boats, but smaller boats and seadoos are often kept in garages and brought with the holiday-maker on weekend trips. Unpowered craft such as canoe and kayaks have also made an appearance on the lakes.

Cottages were intended only for occasional use on summer weekends, and their waste treatment facilities were initially fairly crude. At first the pollution of a few mattered little, but the strongly increasing numbers, coupled with the trend towards extended periods of residence (9 months, or even 12 months of the year), and the making and fertilising of lawns, meant that nutrient levels in the formerly exceptionally clean water rose to such a point that water weeds and algae began to proliferate. This first became an issue in the 1970s.

Another effect of the cottage, and of the boathouse construction, has been the excavation and exposure of remains of Aboriginal sites. Of course this has also meant their partial destruction, for the most part unrecorded by archaeologists.

Some of the early cottages were elaborate and expensive structures of some architectural pretension. With rare exceptions, like the Park service property on Long Island in Great Rideau Lake, the later cottages do not share these pretensions, though collectively these give the lakes the feeling of being a playground area.

Many cottages and boathouses survive as built; however, the trend towards making them year-round residences has led to a change in character of individual cottages, sometimes amounting to complete reconstruction and the introduction of a more permanent, staid appearance.

The collective desire to reduce pollution and visual impact on the lakes has led to controls on cottages, their septic tanks, and their boathouses, and pressure to allow natural water margins to develop. The more traditional cottage, built with thought only for recreation, and careless of general environmental concerns, is thus in retreat.
Ill. #31 & #32
Traditional seasonal cottages contrast sharply with suburban-style year-round cottages and permanent homes which have sprung up along the Rideau.
2.3.9 Creating a capital city

The new union of Upper and Lower Canada required a capital city; Ottawa was chosen for this honour in 1858, taking over from Kingston, despite being a very new city. It had been incorporated as a town only in 1850, and as a city in 1855, when it had changed its name from 'Bytown'.

Fortuitously, an earlier Governor-in-Chief of British North America, the Earl of Dalhousie, had purchased the south shore of the Ottawa river immediately below the Chaudière Falls in the 1800s. Colonel By had used a creek on this land for the flight of eight locks at the start of the canal, and the eastern part for his camp, Bytown. The western part of Dalhousie's purchase had become the site for the Parliament buildings, constructed 1860.

The Parliament buildings were on a fine site, but the city itself left much to be desired. Industrialisation, railway construction and urban sprawl had created a nineteenth-century city considered ugly by the standards of the City Beautiful Movement. The canal had a functional flavour as the banks had acquired industrial and warehousing on one side, and the railway on the other, in the two miles closest to Ottawa.

The Canadian Prime Minister, Wilfred Laurier, had a vision of Ottawa becoming the 'Washington of the North'. He founded the Ottawa Improvement Commission (OIC) in 1899. Its first Superintendent of Works was Mr R. Surtees, the former City of Ottawa Engineer. His priorities included cleaning up the north bank of the canal. Warehouses, sheds, lumber yards and piles of construction material were cleared away, and by 1902 the Rideau Canal Driveway (the 'Queen Elizabeth Driveway' from 1972) was under construction to Dow's Lake. From 1900 advice on planting was being taken from the Director of the Experimental Farm.

In 1903 the landscape architect, Frederick G. Todd, was invited by the OIC to provide advice on land acquisition to develop a proper park system. Patterson Creek was purchased as Todd had recommended, and a later Report of the Federal Plan Commission on a General Plan for the Cities of Ottawa and Hull (1915) proposed several bridges across the canal to serve the expanding town, which was largely implemented too.

The next major phase of improvement to the canal environs was initiated through a meeting between William Lyon Mackenzie King and Jacques Greber, a town planner, at the International Exhibition in Paris in 1936. Greber commenced a study of Ottawa in 1937, but the war interrupted it. He resumed work in 1945, completing it in 1949. He recommended the removal of the railway alongside the canal, which was accomplished in the 1960s, following agreement with the railway company in 1959.
He also recommended the extensive areas of green belt acquisition which allowed much of the setting of canal and Rideau River to be saved for public recreation. Areas upstream as far as the Hogs Back were acquired as parks and parkways on a generous scale.

The canal has become a strong component of Ottawa's identity; the parkways, the world's longest ice-skating rink, the spectacular flight of locks below Parliament Hill are standard tourist fare. In the city centre the view from the canal is confined by the development to either side, but for the next four miles the visual corridor expands as the canal runs through the urban parks and parkways, realising Surtees's and Greber's visions of a City Beautiful. This was a great achievement for a city that started so unpropitiously; after all, Washington and Canberra were planned from the start. NCC ownership ensures that the parks and parkways adjacent to the canal continue to have protection and high levels of maintenance.
Ill. #33
This photograph of Parliament Hill, shows the first Parliament buildings before fire destroyed the entire Centre Block with the exception of the library. A steam train winds its way along the bluff and a large amount of waterfront development on the Ottawa River is present at the entrance of the Canal. Both the rail line and the development have long since disappeared. The photographer who captured this image in 1906 is unknown. NAC C-004962
Promoted as the "world's longest skating rink", the Rideau Canal provides year-round recreational opportunities.
2.3.10 Infrastructure for modern living

The Federal and Provincial governments, and the major utility companies, have sought to provide the infrastructure for twentieth-century living. One early manifestation of this was the Province taking control of certain roads in the 1920s and improving them in order to meet the demand for long-distance travel by automobile. Hence Highways 15, 16, 42 and 43 came about. At various dates, the Provincial and County roads came to be accompanied by signage, lighting, gas stations, motels, and roadside establishments generally.

At much the same time, power companies, seeking to find generating stations, installed turbines at Jones Falls and elsewhere along the Cataraqui River. More recently, power distribution needs have led to Hydro lines marching across the landscape.

Following the Second World War, Ottawa airport was established on NCC land near the Rideau River. The technical effort in providing these modern services has been considerable, though with the exception of the airport, no special design qualities have been needed or used in their provision. The process of improvement to the roads, airport and power services continues.
The landscape was dramatically altered by the arrival of the automobile. At one time, automotive service centres of one kind or another could be found in almost every Corridor village. Early examples, many often growing out a blacksmith shop, may still be found. These two examples come from Jasper and nearby Easton's Corners.
Road widening and straightening, a continuous process along the Corridor, has a very negative impact on adjacent landscapes, obscuring the defining edges and margins of landscape patterns.
2.3.11 Catering for increased leisure time

The increased time for leisure, and the ability to travel into the countryside for it, led to the third wave of cottage building; it also pushed government authorities and entrepreneurs to make provision for public recreation.

The canal authorities provide a good example of this. The recreational value of the canal came to be recognised in the 1960s. There was a high level of interest in the recreational and environmental aspects of the Canada-Ontario-Rideau-Trent-Severn (CORTS) canal system, leading after some years to the Report to the CORTS Agreement Board (1978). An early outcome of the changed perceptions of the canal was its transfer from the federal Department of Transport to Parks Canada in 1972.

The Rideau Canal in Ottawa was first opened officially to skaters in 1972 by the NCC. The length between the former railway station in the centre and the first lock at Hartwells Locks is claimed as the world's longest ice-skating rink, and the habitat of the beaver-tail.

Several lockstations have been modified for visitors since the 1960s, with nearby car-parks, paths, picnic tables, and plaques telling the history of the locks. The areas of close-mown grass have increased. Away from the canal, nature trails and campgrounds are provided by Parks Canada and other government bodies.

Many towns now boast a museum. Merrickville has one in the blockhouse, and Westport has one in an old blacksmith's shop. More generally, the level of mapping and information available to visitors through tourist bureaux, brochures in hotels, and other places frequented by visitors has improved enormously.

Commercial provision has also increased tremendously. There are six golf courses at Kingston, two near Ottawa, two at Smiths Falls, and one each at Westport and North Gower. Many horse riding establishments can now be found in the area.

In summary, recreational land uses have been increasing rapidly, and seem likely to continue to do so in the near future.
The charm of this Parks Canada lock station at Kilmarnock is not enhanced by the golf course quality of the water-edge lawns. It is difficult to understand the imposition of such grounds maintenance standards at a time of the year (autumn) when visitors are few and far between; it is also difficult to understand why this practice continues at all, given the strong criticism of this approach within Parks Canada itself.

While the grounds around the Newboro blockhouse have been roughened and re-naturalized to a degree, the lawns near the Canal remain over-manicured.
Even in the Corridor's towns and villages, visitors to the Rideau are never far from its natural qualities. The rear terrace of the Cove restaurant in Westport enjoys a spectacular vista.
2.3.12 Modernisation of dairying

The heyday of dairying in the Rideau valley lasted from the 1860s till the 1950s. At that point, profitability of the industry began to decline. A number of innovations intended to modernise the industry led to a radical shake-up of the industry from the 1960s onwards.

One of these innovations was the milk quota system. Farmers disliked this because the right to produce milk could thereby be bought and sold, and they had to throw milk away if they overproduced.

At the same time there was increasing mechanisation and the introduction of big-business methods in producing, processing and distribution. The economics of production have led to greater reliance on silage making, and new methods of baling hay, wrapped in plastic. This has meant that cattle were spending more time indoors, eating silage and hay, and less time in the fields. The farm buildings to suit the new approach to dairying consist of low metal barns, to which are attached two or three silage towers; the old raised two-bay barns have become redundant.

The making of silage and hay encouraged farmers to amalgamate fields. Fields that ceased to be grazed altogether would acquire a thin strip of regenerated scrub in the unmown areas along the boundaries by the cedar rail fences. A new pattern of fields is thus developing, with thin tree belts around the perimeter of each, forming a cellular structure like wood cells do.

Large companies began to buy up quotas in Eastern Ontario in 1970s. They also bought up the small dairies, and their pickup methods switched from churns to tankers. They would refuse to pick up the small farmers' churns. The farmers then had to find alternative outlets, and when these failed, farmers would be tempted to sell their milk quotas and retire from dairying.

Farmers that carried on might take out loans to convert their farms to the new methods of production, which required a more extensive area for silaging. They would be likely to take over other farmers' land nearby, and the typical farm size has thus increased from 100 acres supporting 40 cows, to 300 or 400 acres supporting hundreds by the end of the 1980s.

Meanwhile supermarkets developed a preference for bulk goods, and would ship in milk from Toronto rather than use local sources. The cheese making companies that had bought the milk quotas and dairies were not interested in perpetuating the local cheese factories, preferring to transport the milk to large plants usually outside the area. The cheese factories thus closed rapidly. One of the few to survive, that at Forfar, occupies a niche market by making extra-mature cheddar; it is currently experimenting with goat's cheese.
As a result of the greater efficiency of farms, more milk can be produced from less land, and since no new milk quotas have been created, large areas of land have inevitably ceased milk production. Alternative forms of farming that would occupy significant areas have not been seriously examined, though there is some small-scale farming of beef, goat's milk and sheep. Some landowners have planted former farms as private woodlands; to help supply these woodlands, the Kemptville forestry station has propagated 300 million trees since 1945 in Eastern Ontario.

Nevertheless, much land has simply been left for a few years, after which the invading scrub makes it impossible to reclaim the land, except at great cost. In the areas with poorer soil, and thus which are generally less productive, the rate of abandonment has been earlier and more dramatic over time. Some abandonment took place in the Kemptville area as early as the 1930s, and Marlborough Township was abandoned completely a little later. There is now almost no farming land on the Frontenac Axis soils.

The less-well-off farming community has needed cheaper housing to suit their new circumstances, and a significant number of inexpensive bungalows have been erected in the 1960s to the 1980s. Often the early stone and brick farmhouses have been sold to newcomers who appreciate their architectural qualities.

The abandonment of land has allowed natural regeneration to take place over extensive areas, thus creating a secondary forest, re-establishing habitats for deer, beaver and many other animals.

Wild turkeys provide an example of wildlife that has been re-introduced with great success. They died out in Eastern Ontario with the loss of forest habitat, but since land has been reverting to a more natural state their habitat has been returning. Birds began to be released in the 1960s in the Thousand Islands area. There may now be 10,000 birds in Leeds and Grenville County descended from just a few hundred.

Areas that have an inherent lack of competitiveness through poorer land, or distance from processing facilities, have been lost to agriculture, seemingly for good. Although the continuing pattern of abandonment will depend, at the local scale, on the particular circumstances of farmers, a larger pattern is developing, of areas that are still competitive remaining open, or perhaps gaining the cellular look mentioned above, and those that have lost the battle reverting to forest, though with a scatter of housing. The pattern is, in fact, much more rational than that which was imposed on the landscape by the surveyors in the 1790s to the 1820s.
Ill. #41 & #42
Cheese factories were once present on the landscape every several miles. Here are shown a modern cheese factory on the site of an earlier installation near North Gower, and only several miles away, what appears to be a former cheese factory converted for residential use.
New farming techniques, such as the development of baling for dramatically change the agricultural landscape.
2.3.13 Desire to live in rural areas

A third aspect of the post-War economic prosperity and improved roads (in addition to the third wave of cottages and increased leisure time) is that more people were able to give expression to their desire to leave the congestion and high taxes of the city and live in the country. Four groups can be distinguished, though the characteristics identified below are not watertight. The groups are: commuters, retired people, the economically disadvantaged and those on the 'information highway'.

Commuters need to be within about an hour's drive of their place of work, the largest of which is Ottawa. Stretches of the Rideau River, outside the green belt established by the NCC and up to Kars, have been invaded to a significant degree by housing, some of which near Manotick consists of mansion-style residences in several acres of grounds. Usually extensive lawns lead down to the waterfront and are regularly mown by large and expensive tractor mowers. The shoreline may have been hardened by a piled edge or solid concrete dock, which is not sympathetic to wildlife. Other commuters seek out attractive older housing within reach of Ottawa, and for them the stone houses of the early nineteenth century have a special attraction.

Retired people need not be within easy reach of Ottawa, and so have a greater flexibility in location. Some choose to purchase subdivisions in rural areas and build their own houses; some improve older houses; and some convert cottages to year-round living. Generally, the retirement dream also appears to include a lawn.

These two groups of new country-dwellers are being catered for by a voracious real estate industry. The complete development of Long Island in the 1960s was a foretaste of the development boom of the 1980s. The process continues, though at a slower pace in the 1990s, and realtors' boards are common on waterfront sites along the lower Rideau River. Those who oppose the process express fears that improvements to Highway 16 will make these same areas even more accessible, and drive the tongue of commuter development down to Kemptville and Burritts Rapids. In addition to this development, there has been a drizzle of single-dwelling private house-building spread over most of the middle and lower Rideau valley.

Some of those who are economically disadvantaged have chosen to live in the country for a variety of reasons including the cheapness of the accommodation and a preference for the outdoors. The worse-off may live in trailer parks, others in some of the older bungalow housing scattered throughout the countryside.

The last group is very different from these others except in their desire to live in a small rural community or in a remote area. These are the young professional people who find that modern telecommunications (telephones, faxes and electronic mail) enable...
them to work from home. Some run hobby farms, including horses and goats. Others prefer a small town environment, especially when they have children. Places like Perth and Merrickville have been rejuvenated by such people deciding to locate themselves there. This trend became apparent in the 1980s, and its full implications are as yet hard to predict.
Abandoned farm lands can become home to new uses of many different kinds. Some former dairy farms have simply reverted to forest. A driving range coupled to a nostalgia-inducing caboose offers a fairly low maintenance means to exploit cleared land.

Others seek to develop new forms of agriculture: there are now many tree farms (usually growing conifers) and orchards to be found along the Corridor, as here at "Kilmarnock Orchards".

Suburban housing development occupies former farmland, particularly near the larger urban centres.
Contrasting approaches to water-edge property development at Manotick, ranging from an early cottage and a 1920's house both retaining much of the natural features of their properties and shorelines, to a suburban house and lawns.
2.3.14 Desire to conserve the environment

The environmental movement of the 1960s led to an increasing consciousness on the part of the authorities that conservation was desirable. Land has been acquired by Parks Canada and by provincial government bodies, and sanctuaries have been created for wildlife and/or the enjoyment of nature, for example at Murphy's Point, and research institutes have acquired wilderness land as well. There has been reforestation, for example in the Marlborough Forest. The consequences are that significant areas have been devoted to 'nature'.

Environmental issues started to become apparent in designation and zoning practices by the municipalities from the 1970s, and many municipal Official Plans now contain reference to sensitive natural areas.

Pollution has also become an issue. Controls on the use of DDT have allowed increases in the population of birds like the osprey and the bluebird. Other controls have been placed on boathouses and septic tanks in order to protect water quality, and owners of shoreline properties encouraged to soften the edge by allowing trees and rushes to establish themselves.

There have also been moves to protect historical features and the built environment, though the level of support for this from government has not been as great. The plaques commemorating the many historic sites in the area have promoted an awareness of history, and individuals have purchased historic properties in order to renovate them, and either live there or convert for commercial use.
ILL. #50

The Rideau Corridor is fortunate to have two active watershed management agencies: the Cataraqui Region Conservation Authority and the Rideau Valley Conservation Authority. The wetlands illustrated here are conserved by the Little Cataraqui Conservation Area.
Section 3. The Cultural Landscapes of the Rideau Corridor

3.1 Introduction

Each of the generic landscape unit types is described briefly below. For four of these generic landscape types a fuller description is provided in the following section (3.2). These descriptions include a brief land use history, emphasising significant processes represented in the landscape. As well, descriptions identify significant values carried in the landscape, principal character-defining attributes (elements, practices, traditions etc. that support or carry such value), integrity assessments for the character-defining attributes, and assessments of their conservation status: relevant threats/opportunities.

The generic landscape unit types of the Corridor include the following:

1. Farmland

This is the countryside as set out by the surveyors and farmed by early settlers, though heavily modified in a number of ways since. Service centres are part of this landscape, but have taken a variety of forms, the classic being the 'corners' village. A scatter of individual houses of a variety of forms and dates is also a feature of this landscape type. There has also been abandonment more recently as this landscape unit fades toward a semi-natural state.

2. Canal landscapes

The canal landscape includes the engineered channels, and natural waterways through which it passes as well as the highly modified areas around lockstations and lock-keepers cottages constituting small nodes along the line of the canal.

3. Urban settlements

Several early settlements were set out in a gridiron pattern, including Ottawa, Portland, Burritts Rapids and the centre of Smiths Falls. Ottawa as seen from the canal is highly planned, but mostly as naturalistic parkland an accompaniment to the gridiron pattern beyond.
4. **Suburban settlement (urban hinterland)**

The various forms of suburban expansion of original urban cores in the late 19th century and 20th century constitute this generic landscape type. This type includes suburbs employing garden suburb principles in their construction as well as the later tract suburbs.

5. **Suburban shore land**

This landscape type includes the linear suburban strips along the Rideau shorelines developed in the mid to late 20th century.

6. **Cottage country**

This type includes the shores of the Upper Rideau Valley and the Cataraqui Valley, with their wooden slopes running down to the water, often including a strip of development one house deep with boathouses.

7. **Semi-natural countryside: forest and wetlands**

Virtually all the Rideau and Cataraqui valleys have been modified by human activity; in theory, it is semi-natural throughout. However some areas have become more natural than others, especially those areas abandoned after logging or the farming areas abandoned in the 1930s. Recently abandoned land simply has a few scrub plants amongst the grass, but it has begun the long progression to forest cover. Another dimension to consider is whether the 'land' is dry or wet. The drowned lands of the 1820s have become very valuable in wildlife terms, whilst the wetlands recently created by road embankments or beaver dams do not yet support natural habitats to the same degree.
Figure 2  Rideau Corridor Cultural Landscape Types

<table>
<thead>
<tr>
<th>Cultural Landscape Types (identified by visible land use transformation)</th>
<th>Use Continuing</th>
<th>Use Ongoing transformation/characteristic features and processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>farmland (including &quot;local service center&quot;, that is four corners villages)</td>
<td>• intact 19th c. field patterns (e.g. route 42 near Jaspar) • service centers intact (e.g. Forfar area); • may include isolated examples of unsympathetic spot development</td>
<td>• consolidated farms; • service centers in decline (e.g. Harlem area); • significant examples of unsympathetic spot development (e.g. trailer parks)</td>
</tr>
<tr>
<td>urban settlement</td>
<td>• planned core (e.g. Perth)</td>
<td>• redeveloped core (e.g. much of Center town, Ottawa)</td>
</tr>
<tr>
<td>suburban / settlement \ urban hinterland</td>
<td>• small lots (e.g. Long Island)</td>
<td>• large lots (e.g. south of Manotick)</td>
</tr>
<tr>
<td>cottage country</td>
<td>• cottages in nature (e.g. Fancy Free area)</td>
<td>• suburbanizing cottages</td>
</tr>
<tr>
<td>canal landscapes</td>
<td>• intact Parks Canada lockstations and land &quot;cuts&quot;, bridges, causeways</td>
<td>• upgraded canals for recreation • presentation of lock stations as historic sites</td>
</tr>
<tr>
<td>forest semi-natural country-side</td>
<td>X</td>
<td>• natural forest succession on cleared forest land; • includes land cleared for logging and/or farming</td>
</tr>
<tr>
<td>wetlands</td>
<td>X</td>
<td>• natural wetlands succession on drowned lands</td>
</tr>
</tbody>
</table>
Ill. #51 & #52
There are many 19th century barn complexes of great interest along the Rideau, highly illustrative of early farming practices.
Ill. #53
Barns often tell us about the origins of the families who built them. This unusual courtyard barn at Kilmarnock is stylistically akin to stone barns found in Scotland.
The rail fence, once a common sight for restraining livestock and defining property lines, provided opportunities for practical use of plentiful timber. Today, rail fences have become increasingly scarce as they have been replaced by cheaper barbed wire fencing.
3.2 Four Generic Rideau Corridor Cultural Landscapes

3.2.1 Introduction

Four of the generic landscape units identified in the previous section are presented in detail in the section which follows: canal landscapes, urban settlements, cottage country, and semi-natural countryside. These are explored here as they are not looked at in great detail elsewhere in the text. The development of the Rideau's farming landscapes is looked at in Section 2; the development of suburban shore land is explored in the particular case study of Long Island presented in Section 6; and suburban settlement (urban hinterland) while a factor of great importance in Ottawa and Kingston is less significant along the waterway between the two cities. The particular case of Ottawa as urban settlement is looked at in Section 6.

The purpose of these descriptions is to strengthen appreciation and understanding of readers (be they residents, visitors or officials) of the particular nature of these landscape types, their distinctive attributes and general threats to their character, in order to be able to use this understanding in the management of examples of these generic types within local municipalities or townships.
3.2.2 Canal Landscapes

Introduction

The Rideau Canal runs from Ottawa to Kingston following the courses of the Rideau River, the Cataraqui River and several of the lakes in between. Only 29 km (18 miles) of its 198 km (123 miles) length is conventionally engineered; the rest follows the course of existing lakes and rivers (and the swamps that became "drowned lands").

The canal links two urban centres, Ottawa, the current seat of Canada's parliament, and Kingston, a past, temporary capital. Although the project was initially envisioned as a simple bateau canal with a few wooden locks, when the canal was completed in 1832 the project had grown in magnitude to include 47 masonry locks and "accompanying dams". It was the first steamboat canal to be constructed anywhere and enjoyed the dubious reputation of being the most expensive military construction project in the history of the British Empire. The man whose vision and determination were responsible for this feat, Colonel John By, was never fully recognized for his work. In fact, he was recalled to Britain in disgrace shortly after the canal opened.

The story of the construction of the Rideau Canal with its tales of heroism and human sacrifice is one of the great tales of Canadian history. The construction was carried out in largely unsettled wilderness with little support for accommodating workers and supplying necessary equipment and supplies, but the project also produced some major engineering feats. The Jones Falls stone arch dam is one such example. Nine stone arch dams, the first in North America, were constructed along the Rideau (including Old Slys, Smiths Falls, Kingston Mills, and Long Island). Jones Falls was the largest dam of its time on the continent, and was only exceeded in height by a Spanish dam over a much narrower gorge.

Today, the canal flows between two urban centres through picturesque farmland and cottage country and is one of the most popular recreational waterways in the country. It is the only continuously operating 19th century canal in North America.

Overview of the Canal's history

The history of the Rideau Canal is tightly aligned with the early history of Canada. The War of 1812 made it painfully apparent that British troops were at a disadvantage to their American counterparts. Not only did troops and supplies need to be shipped from England, but the supply line by which they were transported upon arrival (St. Lawrence and Great Lakes) bordered on the fighting front. Military strategists began to plan a secure inland route even before the close of hostilities. A simple bateaux navigation system connecting the Cataraqui River, where it entered
Lake Ontario at Kingston, to the Rideau River, either through the Irish Creek branch or the Rideau Lakes headwaters, was proposed in 1814 to be completed by 1815. The peace treaty put a stop to this plan but the project was not to be shelved.

An overall plan for securing Lower and Upper Canada for the British developed by the Duke of Wellington involved a series of fortifications and a network of canals. Implementation began in the early 1820s and included improvements to the fort on St. Helen's Island in Montreal, a new fort at Isle aux Noix, a new citadel at Québec, construction of the Lachine Canal and enlargement of the Grenville Canal. The final two elements were fortifications at Kingston, and the Rideau Canal which was begun shortly after.

The construction of the Rideau Canal was a technological wonder. It was constructed through unsurveyed and sparsely settled wilderness. For the most part, the organization of the project was not based on soldier-artisans (Royal Staff Corps, Royal Sappers, and Miners) and civilian day workers as had been the practice for military projects, but by contractors. This unprecedented procedure was intended to save money and accelerate the speed of construction, a brief five years from start to finish. Difficulties of isolation, lack of building materials and illness caused by malaria and dysentery were only some of the hurdles overcome during construction. On completion, it was the first canal to handle steamboats and in Colonel By's words, the "equal of any canal system in the world" (Passfield, p. 34).

Unlike most of the canals of this period (e.g. canals in the U.K. and the U.S.A., and the Welland Canal), the Rideau was financed with public money.

The survey for the canal, completed in 1827 by Colonel By's men, provides a picture of the landscape and the sparse settlement of the region. During this early settlement period, the falls and rapids along the river provided water power for the saw mills necessary for early settlement in the bush. Travelling down the Rideau River from the future site of Ottawa, the first sign of settlement was a saw mill at Long Island. Further along, small habitations could be found at Burritts Rapids, Nicholsons Rapids and Merricks Mills. At the latter site, a small bridge had been built to connect a rough trail from Prescott, and a limestone quarry had been opened. Another settler had given his name to Maitlands Rapids where a road from Brockville crossed the river at Edmunds. The mill and house at Old Sly's provided no hint of the community of Smiths Falls which would follow only a half-century later. Roads crossed the river by means of ferries at Olivers Ferry (to Perth) and the Narrows. More saw mills could be found at Chaffeys Mills (which also had a distillery), at Davis and finally at the end of the route at Kingston Mills.

A few years later, the canal covered many of these early mills and small settlements by water. Chaffeys Mills, at the time the area's most impressive milling site, was destroyed.
The canal survey suggested a route which bypassed the more established communities in the area. Hull, established in 1800 by Philemon Wright, had grown into a sizable settlement by 1826 when the first trees were cut in Ottawa. After the War of 1812, demobilized soldiers who wished to remain in Canada, were offered land. Three communities in the area can trace their early beginnings to military settlement: Richmond, Perth and Pinhey's Point in March Township. In exploring options for the canal, surveyors briefly considered a route along the Mississippi River which would have provided easier access to Richmond and Perth. However, this option was quickly dismissed as too expensive. Community leaders in Perth, located on the Tay River not far from Big Rideau Lake, eventually took the initiative to connect their community to the Rideau Canal system after its construction.

One proposed route through Portland-on-the-Rideau, on Big Rideau Lake, caused intense land speculation. When that route was discarded in favour of the existing path, Portland was completely by-passed as a major centre although it thrived as a local centre with an industrial base with saw mills and boat building. It became a transfer point for ferry passengers heading to the early cottages before roads were built to provide direct access. A resort hotel added to its importance as a recreational centre, a role it continues to play today for cottagers and boaters.

A trip down the canal route at this time would be remarkably different from the excursions enjoyed by holiday boats today. The area now occupied by the City of Ottawa was covered with thick bush. "Dows Great Swamp" is now peaceful Dows Lake filled with paddleboats and surrounded by picnickers in summer. The swampy uninhabited area from Merricks Falls to Maitland would be unrecognizable to By's men with its many substantial properties set among a few surviving dairy farms.

Colonel By's final plan for the canal was more ambitious than designs originally proposed to accommodate 20 x 108 foot gunboats. He envisioned a canal able to take large lake steamboats (130 feet long by 40 feet wide) requiring locks 50 x 150 feet and a 10-foot-deep canal. This would require no tow paths (like Erie Canal) and increase economic benefits of the canal for trade. This type of canal was larger than most being constructed in Britain and the United States. Only the Caledonian Ship Canal which bisected Scotland comes close in size.

Unlike other major canals in Britain and even the Erie Canal in the United States, the construction of the Rideau Canal did not spawn numerous small feeder canals to link communities bypassed by the original canal. Perth was the only community to undertake a major link with the Rideau Canal by way of the Tay River. Two canals were ultimately constructed. In 1831, the Tay Navigation Company was founded and financed the first six-mile canal which opened in 1834. Through a series of five locks (90 x 20 feet and 3 1/2 feet deep, smaller than the 134 x 33 foot locks of the Rideau) it linked to the system at Port Elmsley.
Other schemes for expanding the canal network were considered and discarded. One of the few to be completed was the deepening of the South Branch permitting through navigation to the village of Kemptville.

The Rideau played an important role in commercial navigation in the 19th century. Edward Forbes Bush ("Commercial Navigation on the Rideau Canal, 1832-1861") describes the many bateaux, canoes and "Durham Boats" using the canal in the early years, but notes that the principal carriers were small, side paddle-wheel multi-purpose steamers, and unpowered (towed) barges. The steamers and barges supplied Upper Canadian wheat, flour and timber to British buyers. During this period, Rideau steamers also moved large numbers of British immigrants to the interior of the continent. The repeal of the British Corn Laws in 1846 substituted American markets for British; the opening up of the St. Lawrence to through navigation in 1848 put an end to use of the Rideau system as a trunk route serving the lower Great Lakes.

The Rideau's remaining products — mining, cheese and sawn timber — assumed greater importance in the latter half of the 19th century, as demand for wheat and flour diminished and Rideau timber stands slowly disappeared.

By the end of the 19th century, as Marsha Hay Snider notes in "Industrial Development in the Rideau Corridor", the natural resources of the Corridor had been depleted.

The timber was cut; the soils, eroded and unfertilized, lost their productivity, and primary industry no longer provided a viable means of living. The Corridor could not support the new large-scale secondary industries which were dependent on large infusions of capital, reliable power sources and convenient access to major transportation routes. The fortunes of lumbering, agriculture, manufacturing and mining, all important activities at one time, declined. With them, the need for an inexpensive carrier of bulk goods disappeared. The Rideau Canal became commercially less important than it had been.

The Rideau waterway was associated with industrialisation even before the canal was constructed. Early mills required water for their principle power source. Over the years industrial pockets grew up along the Rideau, at for example Smiths Falls and Perth (on the Tay).

The industrial area at Merrickville had a variety of industries which were greatly aided by the arrival of the canal. The canal, however, did not create the settlement at Merrickville which was already in the 1820s the most heavily settled area on the Rideau River. Unlike other early milling communities, the mills were not destroyed by the nearby locks. Canal construction decreased
shipping time from Merrickville to Montreal from twenty to five days.

The Corridor's industrial centre had moved from Merrickville to Smiths Falls by the middle of the century, aided by the latter becoming a railway centre. The canal facilitated rail construction by transporting locomotives and coal which provided transportation for coal.

Railway bridges were constructed over the canal at several points, including the Toronto-Montreal route at Kingston Mills, and the 1858 bridge for the Brockville and Ottawa Railway at Old Sly's. The railway bridge built at the Smiths Falls Detached lock before the First World War now spends much of the summer open since the railway has been abandoned, and has become a major site along the canal.

Railway stations allowed areas not touched by the canal to be directly connected to the outside world. The Chateau Laurier Hotel, across the street from the Ottawa train station, and a distinctive turn-of-the grand hotel, changed the character of the Ottawa lockstation. Rail tracks on the east side of the canal running into Ottawa are now covered by the Chateau Laurier's grand entrance.

The canal's passage through rural farming country linked it with many of the large dairy farms which grew up in the last decades of the century. Fields flowed down to the shoreline allowing cows and other livestock to drink; some dairy products (cheese and butter) were shipped to market along the canal, although most travelled by rail.

Many other changes occurred during this period as the landscape throughout the Rideau Corridor grew. Ottawa became the capital of the Province of Canada and, in 1859, the first Parliament Buildings were built on the site of the barracks which housed the troops during canal construction.

Canal operations became the responsibility of the Province of Canada in 1856, and in 1867 were transferred to the Department of Public Works. Commercial activity on the canal remained important up to 1860. During the 1860s and 1870s, revenue from the canal fell steadily as rail networks increased and the lumber industry declined.

Although many canals contemporary with the Rideau have fallen into disuse and have even been filled in over the years, the Rideau has been operated without pause. The route has become one of the prime recreational waterways in the country, flowing past some of its oldest cottages.
The Rideau's potential for recreation was anticipated in 1830 by a diarist travelling from Bytown to Kingston. His observations are of the area where the Carataqui emerges from Sand Lake:

[This area] deserves far more attention than a cursory tourist can bestow on upon it, To the admirers of beautiful natural scenery it will be found to abound with interest: nor is its peculiar formation less attractive to the genealogist or the devotee in mineralogical pursuits. And should...the Rideau Canal improve the salubrity of the climate in this place, it will soon become the fashionable resort of the sportsman, the country around abounding in game and the lakes being plentifully stocked with fish of various descriptions and hordes of water fowls.

As the recreational potential of the canal was recognized, the canal was upgraded. Some lockmasters' houses were renovated during the late 19th and early 20th centuries during a period of canal upgrading and others replaced: Hogs Back (1900), Black Rapids (1914), Long Island (1915), Upper Brewers (1896-7), Kingston Mills (1914).

By this time, the canal had no military use and the new buildings were not defensible. Instead they were designed to suit the current use of the canal. Some, such as those at Long Island were sited further from the lockstation.

The second Tay Canal, connecting Perth into the Rideau system, replaced the 1830s privately constructed effort. The second canal followed Colonel By's specifications, and was built by the Federal Department of Railways and Canals. It entered the Rideau system at Beveridges Bay and included the Lower Beveridges locks and lockmaster's house (1884).

By the late 1800s, vegetation began to reappear at the Ottawa lockstations and the current park-like setting began to develop. The city had begun to grow up behind the locks at that time.

The rivers of the Rideau system were initially exploited by early settlers for power to run their mills, and harvested again for hydro electric power. By 1887, a power house had been constructed at Old Slys to provide Smiths Falls with electricity. Other power plants were found at Merrickville (1895), and later at Long Island. The Gananoque Electric Light and Water Supply Company operates several small plants in the southern sector of the Rideau, including Kingston Mills (1913), Brewers Mills (1939) and Jones Falls (1948).

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1 The diary, edited by Edwin Welch under the title *Yankies and Loyalists: Bytown to Kingston in 1930* (quote from page 16), is attributed to Dr A.J. Christie or one of his sons.
The popularity of the Rideau system for tourists and boaters has helped sustain water levels and the locks when many other former transportation canals have been closed. Lockstations have become manicured parks with picnic facilities, paved walkways and other facilities for visitors arriving by boat, car, bicycle or on foot.

The defensive nature of the lockstation has disappeared. For example, today at Blacks Rapids, thick tree growth has obscured the views of the locks from the lockmaster's house.

More recent upgrading activities at the canal have involved character reinforcing operations such as the renovation of lockmasters' houses (e.g. at Jones Falls where the house enjoyed a period restoration) and also destructive actions such as the installation of an electrically operated lock at Smiths Falls and hydraulic steel gates at Newboro.

The Rideau waterway has provided a major attraction for people anxious to move out of the city over the last three decades. In some areas, like those close to Ottawa, this has resulted in high population growth with the creation of suburban subdivisions along the water. In the hinterland, an increasing number of lots have been subdivided and cottages converted for permanent residency. These latter have become important users of the canal systems and locks.

**Sources of significance**

The enormous task involved in constructing the Rideau Canal through largely unsettled wilderness, the great engineering feats, and the cost in human lives and to the British treasury is all well documented. Colonel By's vision for this steamship canal altered the landscape of eastern Ontario by draining wetlands, raising water levels, creating lakes and water passages, and blasting through rock cuts through the shield. Large stands of virgin forest were cleared or simply flooded and the trees were allowed to die off creating an eerie forest through which the first travellers passed. Today the remains of these drowned lands are visible around Kilmarnock and in a small number of other locations.

The suffering and loss of life to canal workers from malaria resulted in more timber being cleared. Trees and underbrush were removed in the theory that this would clean the air and hopefully prevent the disease ("mal aria", an Italian term for bad air). Although the mosquitos were not recognized as the disease carriers, this practice did eliminate some of their breeding ground. Malaria was especially a problem at Newboro where one of the two hospitals of this period was built to deal with the high number of mental illnesses. A cemetery marks the resting place of those who succumbed to malaria and the blasting accidents during the dynamiting of the Isthmus.
Part of the Rideau's legacy as a great engineering work includes the construction of several impressive dams. These were constructed in primitive wilderness conditions with little technical support, using local quarried stone. Construction efforts were accompanied with great loss of life, particularly due to dams collapsing. The 19-metre stone arch dam at Jones Falls is perhaps the outstanding engineering feature of the entire canal and remains intact 160 years later. Hogs Back Dam which holds Mooneys Bay back is another of the great Rideau dams. Not as large as Jones Falls, it was one of the most difficult dams to build. It collapsed three times during construction and has been repaired and strengthened over the years.

The lockstations of the Rideau Canal system provide the strongest link between the present and the canal built by Colonel By over 160 years ago. The dams, waste weirs and other structural components of the locks are unchanged. The job of the lockmaster itself is unchanged.

**Lockstations along the Canal**

Each lockstation along the system had its own characteristics based on the local terrain and any specific uses.

The settings of lockstations vary, given differences in topography along the canal. There are, however, certain common features. Most stations, for example, possess a lockmaster's house although few of the remaining houses were built during canal construction. The buildings at the various lockstations have evolved over time. Although few original outbuildings remain, many of the lockmasters' houses have been restored in the last two or three decades.

The flight of eight locks at the entrance to the Ottawa River was used by Colonel By as his headquarters. The entrance valley to the canal (now the Ottawa locks) was a heavily wooded hemlock ravine. It appealed to By as an easily defensible location. A beaver meadow and extensive swamp were just behind it. As a military site, it was stripped of much of its vegetation before construction to provide clear sight lines. The forests were quickly cleared and the timber sold, as the timber trade was now in full swing.

The only remaining building in Ottawa from the construction period of the canal is the "Commissariat" at lock #4 at the Ottawa locks. Built in 1827, it is a large impressive three-storey building of rough-coursed masonry. It was built as a storage depot for food and fuel rations, and subsequently used as smithy, pay office, store house and office. Today it serves as a museum operated by the Ottawa Historical Society. The Commissariat had a twin, the Royal Engineers building, on the opposite bank which was demolished in 1910.
Although Colonel By's plan for the defence of the canal called for blockhouses at each lockstation, only four were ultimately built at the key strategic points of Merrickville, The Narrows, Newboro, and Kingston Mills. Newboro and The Narrows protected the summit of the canal. Destruction of the locks here would release a torrent of water that would destroy canal works further downstream. The only time the blockhouses were occupied was during the 1837 rebellions.

Canal workers were housed in temporary log shanties, although By encouraged contractors to build a rubble stone house at each station which could later house the lockmaster. Such houses were constructed only at Black Rapids, Long Island and Kingston Mills, and none remains today.

The other lockmasters' houses, built after the canal was completed were "defensible lockmasters' houses" designed to serve the dual functions of accommodating the lockmaster and his family during peacetime, and providing defence. This building type seems to be unique to the Rideau.

After the 1837 rebellions, there was renewed concern for the protection of the canal. The military feared that American-based raiders would try to blow up works at isolated lock sites. Consequently, log guardhouses were built at Jones Falls and the White Fish dam and defensible lockmasters' houses at Old Sly's, Clowes and Nicholsons. During the 1840s, defensible lockmasters' houses were built at the 13 remaining sites lacking defence.

All of these defensible lockmasters' houses were single-storey buildings with thick rubble masonry walls and heavy timber roofs covered in tin. Most had loopholes in the walls but several had loopholes only in the heavy wooden shutters that covered their windows. They were sited to provide a covering fire for the canal structures; consequently, vegetation around lockstations would be cleared.

Today, 12 houses remain: Hartwells (1841), Burritts Rapids (1838), Nicholsons, Clowes, Kilmarnock (1840s), Old Sly's (heavily renovated in the 1960s), Smiths Falls Combined, Poonamalie (early 1840s), Chaffey's (1844-48), Davis (1840s), Jones Falls (1841) and Lower Brewers (1842). Several of those (Hartwells, Smiths Falls, Chaffey's) were clapboarded or had a second storey added during the late 19th century.

Wood was often used in lock construction, primarily as a cost-saving measure. Colonel By believed that wood was as durable as stone as long as it was kept completely under water. However, over the years, wooden elements have been replaced at 15-20 year intervals.

With the exception of the Combined lock at Smiths Falls and the Newboro and Black Rapids locks, the original lock mechanisms continue to function today.
The Canal today

The minimum width of the canal channel is 60 feet at its bottom, 80 feet at its top. The canal rises 273 feet (83 m) over the 31 locks from the Ottawa River to Upper Rideau Lake and falls 164 feet (50 m) over the 14 locks to Lake Ontario.

The Rideau Canal's most visible features are its 24 lockstations and 49 locks. Locks are generally 134 feet long and 33 feet wide (41 m x 10 m), with a minimum draft of 5.6 feet (1.7 metres). The average lift at each lock ranges from 8 metres at Smiths Falls to 2/3 metres at Kilmarnock, averaging approximately 8.5 feet (3 metres).

Threats to the integrity of the canal landscapes include:

- environmental threats to the quality of the water and the shoreline; the maintenance of the Rideau system as a recreational waterway is dependent on its reputation as a clean and healthy destination;

- government restructuring; for over one-and-a-half centuries, the Rideau locks have been maintained by government — first within the British Empire and then by Canada. Recent pressures on governments to reduce services and to introduce user-pay systems threaten the equilibrium established over decades; changes should be introduced with great care in order to avoid negative impacts on staff, users and visitors;

- concentrated summer tourism; at times, the canal is overwhelmed by summer visitors, given physical limits on its use, particularly at lockstations. Careful tourism management within the canal system is necessary to meet visitor desires while maintaining canal character.
Perth is one of the most important and appealing historic towns in Eastern Ontario. It has been a focus of conservation programmes and activity for well over 40 years; the town's heritage values are strongly and clearly expressed. Connected to the Rideau Canal by the later Tay Canal, Perth should be included in the definition of the Corridor.
Certain vistas, such as this view of Westport as seen from Foley Mountain, are well known.
The large number of stone houses found throughout the Rideau Corridor have been attributed to the number of skilled stone masons attracted to the region during the building of the Canal. Many houses, like this Merrickville example, are a storey-and-a-half, centre-hall plan with end chimneys.
One of the earliest churches on the Rideau, Christ Church in Burritts Rapids was built in 1831 in the settlement named after its founder Stephen Burritt.
Originally a major industrial centre along the Rideau, Merrickville now draws many tourists to its trendy shops and restaurants. The mills, once the centre of industrial activity, are now little more than picturesque ruins.
3.2.3 Urban Settlement

Location

The major urban settlements within the Rideau Corridor are Ottawa and Kingston at either end of the canal. The relationship between the development of Ottawa and the canal is looked at in detail in Section 6. This section deals with the urban settlement patterns of the Corridor's smaller "towns". These include: Smiths Falls with a current population of 9001, Perth (5524), Kemptville (2,336), Manotick (4,500) and Merrickville (949). The largest of the other centres which might be considered in this category is Kars with a population of 800, followed by Westport at 639, and by the once important settlements on the Rideau - Burritts Rapids, Portland and Newboro with populations well below 500.

All of these centres are located directly on the Rideau Waterway with the exception of Perth which is on the Tay Canal, a branch canal connected to the Rideau. Smiths Falls, Manotick, Merrickville, Kars, Burritts Rapids and Perth are considered to be in the northern section of the system with Westport, Newboro and Portland centrally located. Smiths Falls is approximately 75 km from Ottawa, Manotick 18 km, Perth 75 km, Merrickville 65 km, and Westport, (the most distant) 175 km.

Description

Except for Perth which was a military settlement, Portland and Kars, which were essentially involved with the forwarding business, and Newboro which was founded to serve canal construction, all of the centres mentioned were founded on mill sites - either at natural falls in the rivers such as Merrickville or where the water power resulted from the engineering of the Rideau Canal, as was the case at Manotick. Very few were in place before canal construction began in 1826; generally speaking, the pace of development was relatively slow until that time. Most smaller settlements reached their peaks in the 1860s, some declining after that for a period or continuing to progress (Smiths Falls is the outstanding example here); others stabilized until the post-WWII period (Merrickville and Manotick for example) when they were enlivened by the tourist industry, the development of the recreational aspects of the canal, and the interest in country living which once again brought a new type of settler to the area.

It is ironic that the same circumstances - improved transportation - which played a major role in the development of these centres subsequently led to their decline. The improved transportation in the 1830s, provided essentially by the Rideau Canal, facilitated the import and export of goods and encouraged settlement of the surrounding areas. It stimulated the forwarding trade and generally improved the economics of the area, encouraging development as more resources were needed to serve the expanding communities. Later,
however, it was the improvement and extension of roadways and, more importantly, the coming of the railway in the 1850s, that lead to a decline in the canal. Ease of transportation resulted in the concentration of goods and services - and employment - in the larger centres such as Ottawa which became easier to reach. The increase in routes offering cheaper and more convenient passage than the canal brought about a decline in those centres for which the canal had been the "raison d'être".

The only exception to this decline was Smiths Falls which by 1860 had become the major station on the Brockville-Ottawa railway. Its progress was further ensured with the coming of the C.P.R. in 1887. The town's demarcation as a chief divisional point to the system increased its prestige and industrial capabilities. Also, because of the favourable location relative to rail and road, Smiths Falls overcame its long-time rival, Merrickville, which the railway had bypassed. It also had considerable effect on the development of Perth. That centre, although not entirely dependent on the canal, saw limited progress after the turn of the century, its location in comparison to that of Smiths Falls not being as attractive to industrial expansion. However, progress was not continuous in either of these centres and neither developed a great deal after the turn of the century. As with the rest of the Rideau settlements, large and small, development had to wait until the post-WWII period for a revival.

Land-Use History

Preparing for Settlement

Until the late 19th century, the Rideau Corridor was very sparsely populated, the bulk of early settlement in the areas having been concentrated in the St. Lawrence River Valley. However, the more northern areas were settled in response to the demand for Loyalist land grants following the American War of Independence in 1783. Surveys of these areas bordering the Rideau, undertaken in the 1780s and 1790s, established a series of townships and imposed an overall grid pattern irrespective of the small settlements that already existed, such as Burritts Rapids and Merrickville.

The earliest of these urban settlements were essentially service centres founded by individuals aware of the potential commercial value of the water power generated by the many rapids along the length of the Rideau River system. However, while practically all urban settlements in the Corridor owed their initial existence to mill sites located directly on the Rideau waterway or on branches of it, there were a few exceptions, notably the Town of Perth. Here the site was selected by the military in the newly purchased and surveyed township of Drummond - a part of the area north of the Rideau which was being opened up to accommodate emigrants from Britain, notably the discharged military officers.
Nature of the Land

The land surrounding these mill sites varied considerably. The more northern areas served by Merrickville, Perth, Smiths Falls were in some ways more hospitable to agriculture than those farther south where outcroppings of the Cambrian Shield became more obvious, and where lumbering, potash and some mining became the prominent industries. As a result, the economy of settlements in the south depended predominately on the production of sawn lumber, shingle mills and potash; consequently, with the depletion of the forests came their gradual decline. In contrast, initially in those settlements in the agricultural belt, surrounded by wheat, sheep and dairy farms, greater priority was given to grist mills and woollen mills instead of sawmills. Broadly speaking, while this selection of the settlement sites depended largely on the availability of water power, the nature of the surrounding land dictated the path of their development.

Early Settlement

Since the early settlers concentrated on clearing the land and growing wheat, the first need was for grist mills and saw mills, the latter more essential in those parts of the Corridor where soil conditions were not compatible with farming but where the lumber trade flourished. The clustering of other trades such as blacksmithing and harness-making around the mill site was a natural development, and the settlements grew slowly as the number of settlers gradually increased. But it was not until the late 1820s that a major increase in the populations of the area occurred, largely due to the building of the Rideau Canal.

Construction of the Canal

Constructed but never put to the test of military defence, the Rideau Canal quickly became an important trading route after completion in 1832. It facilitated the shipment of lumber, earlier hampered by the number of falls and rapids on the Rideau River, and created a useful route for the forwarding trade (from Bytown, later Ottawa, to Kingston). As such, it was a major factor in the development and growth of the urban settlements in the Corridor, of continuing importance until its suppression by other transportation systems.

The construction of the canal put workers into the villages and, even more importantly, it made it possible to export the products of the local industries and to import food and clothing, etc. which served to improve the standard of living of the growing population.

The expansion in the population prompted by the canal was coupled with a massive emigration from Great Britain. Emigration was being encouraged at the time because of a country-wide depression coinciding with the return of the discharged military following the
Napoleonic war. The resulting increase in the population of the villages and the surrounding area created a market for local products as well as a demand for more services. The need arose for cabinet shops, saddlers, and harness makers, forges, food and clothing stores. Light industries such as carding, fulling and woollen mills, foundries, tanneries, asheries, shingle mills were established. While most were originally created to serve the local area, their expansion was now encouraged since the canal now made it possible to export the products.

Infrastructure

With the expansion of the settlements, the need for planned layouts became apparent, and the surveyors again applied a grid pattern over the designated areas. All were laid out in a grid with no provision for public squares, parks or civic buildings. Streets were uniform in width (the 66 feet width of the surveyors chain) except for Smiths Falls where, by accident or design, the two central intersecting streets achieved a 99-foot width.

Later changes in these original plans were necessitated by the natural landscape, as in Perth where both the Tay and Little rivers cut across the grid. Original boundary lines might be extended to incorporate additional lands as the town grew, in some instances linking up with existing farms and farmlands. If expansion intersected one of the original boundary lines of the adjacent township, as was often the case, the direction of expansion was fixed.

Despite alterations made in the original plans to accommodate large commercial or civic buildings, to provide parklands, or to accommodate mechanical services or to provide improved and wider roads, streets or alleyways, the original grid plan is still very evident in most cases. The plans, however, were usually adapted to existing conditions. The road, perhaps the original track to the mill, became the main street; the other streets worked out from the heart of the village, in most cases a mill site. In some, such as Manotick, the old mills remain but no longer constitute the heart of the town. In many places the main street, which was based on the track that led to the mill, still retains the original mix of commercial buildings and houses, all built flush with the street.

Newer shops and public buildings, such as the town hall or post office (sometimes combined), tended to move the centre of the town. This was caused in part by the location of the mills which in some cases made further development around them difficult. For example, Merrickville spans the river with the complex of mills on one side while the balance of commercial and residential buildings are on the other. This arrangement was largely due to the entrepreneurship of the founder, William Merrick, who bought up a good deal of the property across from his mills and sold it off as village lots. Manotick was somewhat the same. The village developed adjacent to the mills on the Dickinson property, although the original
beginning had been on Long Island across from Dickinson Mill. This change in the plan is evident in many of the other small towns originally dependent on the river for their commerce. Both mill and waterfront have lost their importance in the development of these towns, and the commercial centre has moved to better accommodate the residential districts which they were there to serve.

Lots, generally speaking, were quite comfortable in size, allowing side-yards wide enough for walkways. Early commercial buildings were built flush with the streets as were those residences located on the main street. Away from the central area, houses were set back to allow a small garden area in front with the larger part of the lot at the rear. Residential lots were large enough to accommodate a carriage shed, some of which served as garages. A few of these sheds remain but most have long since been supplanted by a one- or two-car garage or removed altogether. The early one-car garages generally have disappeared or remain in rather run-down condition abandoned in favour of the attached garage of the later houses.

Outbuildings of various types still remain in the back lanes or backyards of some of the smaller villages. These might include a shed, once a stable, then a garage or a woodshed; indoor plumbing has replaced most of the proverbial "privies" as well as the once all-important village pump. Modernization was also facilitated by the arrival of electricity, arriving as late as the 1920s in some areas such as Manotick.

Fencing remained largely a part of the rural countryside, not of the urban. Hedges did not replace fences except in a few areas and there was no evident demarcation between lots despite the necessary recognition of the fact that "good fences make good neighbours." Such fences as did exist were usually wood rail. Occasionally one may see remnants of an early fence or a garden gate but there did not appear to be a great deal of interest in marking off residential properties in the small centres. Larger estates on the outskirts did sometimes boast low fences of stone or the traditional rail design or even brick if the size of the estate and the wealth of the owner warranted.

Buildings in these urban centres still bear the hallmarks of the era in which they were designed, with both design and fabric denoting their age. Earliest houses were probably simple rectangular cabins of log; when replaced the same rectangular configuration was used - end gabled buildings with the entrance on the long side of the building. These include the fine stone houses of classical design with handsome transomed doors, many presumably built by the Scottish stonemasons who worked on the canal. These houses for which the Corridor is justly famous, are seen particularly in Merrickville and Perth where both stone, found either on-site or from nearby quarries, and skills of trained masons were readily available. More common, however, are those of similar design but wood framed and finished with the narrow clapboard or shiplap siding that became available when the sawmills
were established. Brick was used too, but usually for larger homes and did not come into popular use until about 1870 and then only in areas where soil conditions enabled the development of local brickyards. Such was the case in Merrickville where both red and buff bricks were produced locally; as a result, Merrickville can boast a fine collection of Queen Anne style red brick houses with contrasting trim, all belonging to the post-1870 period.

About mid-century, due to various influences from abroad, house styles changed dramatically, the narrow side of the building now being the front. This was a welcome change as it permitted the use of much narrower street frontages in developing areas. This front-gabled, one-and-a-half-storey house became the most pervasive design in urban areas and was built in frame and brick, sometimes with a full verandah. With the addition of a side wing set back from the front and faced with a verandah, the L-shaped plan was born — one that suited itself well as a combined store and residence, the wing being the residential section. Many examples are seen in the corridor towns after mid-century, either as single houses or in combination. These types are the most frequently found in the urban settlements of the Rideau Corridor, and evidence of the date of development of the various streets of the towns is visible in the design of the houses.

Early commercial buildings were generally large, square and utilitarian in appearance. They were no more than three stories high in the smaller centres and some were designed to accommodate a residence as well, either in one half of the structure or on a second floor. Elevations were usually very simple in style and detail. However, in Perth, Smiths Falls and, to some extent in Merrickville, there were early attempts on the part of owners to enhance their businesses by enhancing their buildings. Such buildings were usually of stone or brick; their architectural style with its decorative trim around doors and windows reflected their age of construction. The proliferation of decorative detail is visible around the windows of many commercial buildings, particularly those constructed in towns that expanded in the 1870s and 1880s, of which Smiths Falls is perhaps the outstanding example in the Corridor. Unfortunately, many of these once proud buildings are now vacant and in disrepair as the prosperity of the centre has faded; even in the recovery period that followed the Second World War, little use could be found for many of them. Lacking accommodation for contemporary mechanical services, they are usually more expensive to rehabilitate than to replace. Only with the comparatively recent change in outlook towards our architectural heritage, have efforts succeeded to re-use rather than replace.

Silhouettes of even the earliest towns are dominated by church spires. One of the first permanent buildings erected in either the urban centre or the countryside in early Canada was the church. Because members of various denominations helped each other in their construction, the number of churches built was somewhat out of scale with the size of the available congregations. These churches
vary in style from the simple rectangular building of stone or wood
(usually with Gothic pointed windows) to large structures with
towers and spires. Every urban settlement in the Corridor had at
least one and most had more, dating from the earliest times.

Schools were often the next of the permanent buildings, and in
urban centres apt to have been constructed after the turn of the
century and to be square, two-storey, rather formidable structures
rather than the small one-room affairs usually associated with the
early countryside. Civic buildings such as the town hall, even in
the smallest centres, were often the largest buildings in the town
and almost without exception exhibited some elements of the
dignified Neoclassical style with columns and pediments. In the
larger centres, the city hall was often combined with the
courthouse, as in Perth, the site often planned to accommodate a
market building nearby.

**Industrialization**

The increase in trade, facilitated by the building of the Rideau
Canal and aided by improved technology, encouraged the expansion of
local industries in the 1840s. Small industries, originally
established to serve local needs, now expanded to serve the export
trade. By 1848, Merrickville boasted the largest woollen mills in
Upper Canada (the McGee-Pearson foundry was producing stoves in the
late 1850s), and steam power was introduced into the large Ford and
Woods Foundry in Smiths Falls at the same time. Electricity arrived
in parts of the Corridor by the end of the century, facilitating
the mechanization of light industries as well as the introduction
of refrigeration, indoor plumbing and other household amenities.

In addition to improvements in technology, improvements in the
transportation system within the Corridor were a major factor in
the initial expansion of the local "macadamized" method of
building. More important, however, was the arrival of the railway.
The first line in the Corridor, built in the early 1850s, ran from
Brockville to Perth and when, in 1870, Smiths Falls became a
divisional point on the newly arrived C.P.R., its full effect on
the Corridor was felt. The railway eased the export and import of
good within the Corridor and also encouraged travel for business
and pleasure.

**Decline**

This same ease of travel, whether by the improved roads or by rail,
also made emigration to the larger centres more possible and more
attractive. This was further encouraged by the added incentive of
new industries (and their related employment) to concentrate in the
larger centres. Furthermore, ease of shipment of goods to and from
Montreal and Kingston tended to drive the small suppliers out of
business or at least to discourage any local growth. Commercial
traffic on the canal gave way to road and rail, often bypassing the smaller towns in the process.

In addition, a depression in the grain market in the 1860s and the depletion of the lumber stocks by the 1870s were key factors leading to a gradual decline in the prosperity of the area. As a result, most of the small towns which had flourished during the 1830s and 1840s and peeked during the following decade, levelled off in both population and prosperity. Expansion continued only in those centres, such as Smiths Falls, where their location relative to the main rail lines and other major centres attracted new industries. Few of the smaller settlements developed any new industries, and many have simply carried on to the present day in a quiet way, serving the local population.

Rise in Interest in Recreation

The post-war period with its expansion in both the population and the economy saw an increasing interest in recreational activities, as leisure time and money were more readily available. The potential of the canal as a major recreational and tourist resource was recognized, and better roads and automobiles increased access to it. With the development of the tourist industry in the Corridor came a small burst in the economy of the settlements along its route; many communities developed new light industries, cottage crafts, tea rooms, boutiques and inns, all designed to serve the tourists; arriving by river or road. In addition to expanding the economy and, in some instances, the population, many of these activities in the existing early buildings have had the fortuitous effect of preserving the heritage of the towns as well. So now, instead of the old trades being there to serve the residents, the residents are now occupying the original shops to serve the tourists.

Interest in Country Living

In addition to a new emphasis on recreation, the post-WWII period ushered in a new phase of development: a "back to the land" movement which suddenly made rural living desirable. Coupled with this was the attraction of inexpensive land, escape from high taxes, noise and confusion offered by city life – an attraction greatly enhanced if such property could be found in or near an existing small centre or along the waterfront. Improved roads and automobiles and bus services have made commuting quite feasible; as a result, several Corridor towns and villages have seen an expansion in the local population and the economy. The strain placed on the local economy in the attempt to provide the city amenities inevitably demanded by the urban refugees, despite their expressed wish to live in the country, has been alleviated to some extent by seeing existing buildings refurbished and re-occupied, small industries established, and the local shops well established.
Evaluation: Significance and Integrity

The urban settlements in the Corridor, in the retention of so much of their original fabric, exemplify both singly and as a group the economic and cultural history of an important part of the country. In the changes made to accommodate new technologies over the years, they constitute a visible history of the development of the area with its cycle of progress and decline and revitalization. They illustrate clearly the influence and importance of the Rideau Canal on the development of the centres and the surrounding countryside. Those that have changed very little, such as Merrickville and Burritts Rapids, present a strong reflection of the ambience and lifestyle of the early settlements and speak very eloquently of the hopes and aspirations of the early settlers who built them and of their confidence and faith in this expanding country.

These urban centres of the Corridor, large and small, are distinguished by the sense of human scale evident on the main streets. While they vary in size and design, their sight lines and scale have been generally retained. While this has produced a comfortable and attractive street scape, the buildings have enough variety to avoid the monotony of the current planned street scape or the strip malls. Only where one of the original buildings has vanished due to fire or demolition and been replaced by a low rise modern building does a jarring note appear. This unfortunately is very evident in the main street of Smiths Falls where infill buildings constructed after several disastrous fires are not at all compatible with the originals.

Such unfortunate juxtaposition is more evident in the commercial area of the towns than in the residential neighbourhoods. In the latter the new houses tend to be clustered together in a subdivision located on the outskirts of the original core of the town where, though often quite out-of-scale with those of the older areas, they are at least not interspersed with them. Since the older streets are not uniform either in design or fabric, it would be quite contrary to attempt to freeze the street in time (which would of course be our time) by insisting that new designs follow the old. But it is very important if the charm of these older towns is to be maintained that new structures within the old core at least retain the same sense of scale.

These centres are also unique in the degree of authenticity in terms of land use and construction. Since many buildings were replacements of crude log structures built as permanent structures, and since stone was accessible due to the geology of the area, as were trained stone masons following the completion of the canal, the settlers were able to follow the traditional building methods of their home lands. Consequently, these buildings were built to last and indeed they have, being in many cases much too difficult and expensive to demolish even if one desired to do so. The original grids of the first surveys are visible and the central
cores of the towns and villages still follow this rigid pattern. While the tendency of the town centres is to veer away from the original core - usually the mill - deviation from the grid is more evident on the outskirts of the original plan. Each urban settlement however, has definitely either retained or created a spirit or feeling, be it the peaceful mid-19th century atmosphere of the mill towns, the more sophisticated ambience of the military settlements or the railway town that Smiths Falls became - an atmosphere that still lingers on.

**Character-defining attributes**

- the existence of an original mill, its present condition and/or use not only indicating the origin of the settlement, but also the pattern of development
- the existence of early industrial buildings such as foundries
- retention of the original grid design of the streets
- size and shape of building lots conforming to the original design
- relationship to the canal and the canal buildings: existence of locks, lockstations, and/or military buildings (block houses, depots) - treatment of areas around these structures and of the canal "shoreline"
- the creation of public squares, parks and/or recreational areas
- extension of the same style of early stone houses into the surrounding rural areas assisted in creating the character of the town that serviced these areas
- the existence and location of industrial parks, shopping malls, housing subdivisions will be a clear indicator of the pattern of development that has taken place and its present character - as opposed to the original
- accessory buildings - such as old carriage sheds - possibly now serving as garages
- fences, split rail or wire
- location and design of lawns, flowers and vegetable gardens
- features of the rural landscape - trees, type, age and location, shrubs, grasses and ground covers
occupation of early urban and nearby rural buildings by successive generations of the founding family's buildings

- the quality of the original construction which has resulted in the existence of a large number of buildings retaining their original design in excellent condition

- the population's identity as expressed by the dominance of an ethnic, religious or occupational group.

**Conservation**

Paradoxically, a serious threat to these character-defining elements too often lies in the attempt to preserve them. For example, while very salutatory efforts may be made to upgrade the older buildings and make them viable for contemporary use, unsympathetic alterations and/or additions may render them incompatible with their surroundings. Happily, conservation of early street scapes is now receiving a great deal of attention on the part of local residents and heritage groups; however, success depends on the good will and cooperation of the owner and the availability of educated assistance in plans for restoration or conservation. Agencies and organizations such as Heritage Canada's Main Street Programme, the provincial LACAC and the ACO can all be of help in this area but there is little or no funding to back up the activities of these groups.

While it is unreasonable - and undesirable - to halt progress of these centres, a very real threat lies in uncontrolled or unplanned development. This applies particularly to land use; again, while it is not the intention to prevent new settlement in the towns and villages, it is important to plan such new settlement, either industrial or residential, so that at least it does not intrude on the original core. The increasing interest in country living has had a major impact on these outlying towns and villages. They have become an attractive source of cheap land for some, with the result that groups of very large houses may now surround a small village, quite out of keeping in size and scale. Furthermore, although the original intention of the owners of these out-of-scale houses was "country living", they soon demanded that the amenities of the city be brought to them. This poses a major threat to the economics of the original town or village. The fulfilment of these demands in the name of progress - and in an uncontrolled manner - has served at times to destroy the character of the area that attracted them in the first place. The only viable controls lie with planners, but more especially, with the politicians. Unfortunately, the bottom line remains - that to ensure preservation of a building, you must own it.

Until recently, the conservation movement has been concerned primarily with the built heritage, but it is now recognized that this is but a part of the overall picture which constitutes our
cultural heritage. The original approach to the conservation of buildings has been gradually enlarged to include consideration of their immediate surroundings. This approach has recently been expanded again to encompass any area which shows the influence of man i.e., the cultural landscape, and to define, evaluate and hopefully protect significant examples of it.

Ensuring the conservation of at least the cores of the urban settlements requires a commitment to improve awareness of our cultural heritage, to stimulate the appreciation of it and to provide assistance in the conservation and/or restoration of it. There must be guidance in the selection of those parts of the cultural landscape which are best preserved because of what they signify on the local or broader level. There should also be funds available to assist in this conservation, as it is intended to be for the good of all; primarily, however, it is important that those living in or near selected areas be very committed to conservation. A policing programme is not only very difficult to put in place but not always effective. Bylaws should be designed at least to control land development so that required additions or alterations in existing plans are compatible with the original and serve to add to, rather than destroy their original character.
3.2.4 Cottage Country

Location

The Rideau Corridor has become a popular spot for establishing cottages over the last century. The entire water system, with the exception of the urban areas in and around Ottawa and Kingston, has been attractive for those building second homes. However, the most popular area for cottage-building has been the lake district (principally the Rideau lakes) in the centre of the canal, the location of the earliest cottages. Other smaller lakes on the canal system have a cottage tradition and continue to support a thriving vacation industry. The lakes of the southern portion of the Rideau Canal system, less populated with summer homes though still beautiful, include Cranberry Lake, Whitefish Lake, Sand Lake, Opinicon Lake, Indian Lake, Clear Lake, and Newboro Lake. Adjacent to the canal route are many smaller lakes dotted with summer homes. Some of these are accessible to the system by boat while others are more isolated. These latter include Bass Lake, Otter Lake, and Otty Lake.

Description

The cottage country of the Rideau Corridor is similar to other cottage districts in North America, including the Muskoka area north of Toronto. Because water is the prime attraction for a cottager, the buildings are stretched out in linear fashion along shorelines and islands. Cottage properties themselves reflect the preferences of individual owners although they tend to fall into several distinct patterns, often clustered in certain regions along the Corridor.

Many cottages along the shores of Indian, Newboro and Clear lakes have a secluded character and blend into the rugged Shield landscape. The numerous islands on Newboro Lake contain many beautiful summer residences. On the Rideau Lakes in the more popular and populated cottage areas, many cottages continue to be snuggled into groves of second growth, primarily spruce and pine forests especially along Upper Rideau Lake. Lots have often become smaller as family members subdivide their valuable larger lots. Many of the newer cottages are built close together on these smaller lots on large expanses of grass with little attempt to conceal buildings in tree clusters. Some municipal policies now discourage small lots by requiring minimum property widths at shorelines.

A traditional waterfront cottage lot is one or two acres in size with a small, single-storey or storey-and-a-half frame cottage, a boathouse, and possibly an old outhouse, small guest cottage and other random outbuildings. Some cottages are set back from the water and access the shore through public or shared waterfront beaches and docks.
Land-use history

Planning for settlement

When the survey pattern of lots and concessions was implemented in the area that is now Rideau cottage country, no consideration was given to the presence of its many bodies of water, unlike the seigneurial system (the French Canadian farm settlement pattern), that related land allocation to water courses, principally rivers. Settlers arriving to take up their land allotments might discover therefore that a large portion of their 200-acre land grant was part of Big Rideau Lake.

The farmers who subsequently sold land for cottages simply carved off waterfront acreage from their lots. The early roads, for the most part, followed road allowances between the concessions and sections of amalgamated lots. They did not make provision for waterfront access. Therefore, early cottagers travelled by boat from the villages and towns along the waterfront.

Early settlement

Cottagers transformed the small communities of Westport, Newboro, Seeley's Bay, Portland, and Rideau Ferry. Those settlements, which had traditionally provided services to farmers, adapted to the needs of seasonal holiday makers. General stores sold ice cream and soft drinks, fishing tackle and provisions to seasonal residents. The more entrepreneurial grocers, as in Portland, bought barges and took a mobile store directly to the customer. Other businesses sprung up or were adapted. A carriage works established in Portland became a boat builder.

These waterfront communities provided an even more valuable service to the first cottagers. Before a road network reached their second homes, those with cottages on the mainland along with island residents relied on boat transportation. A fleet of steamers ran up and down the Rideau or made local trips to deliver passengers freight and groceries. The steamships Rideau Belle (1895) and the Rideau Queen (1900) – the grand lady of the palace fleet and last true luxury boat on the Rideau – delivered cottagers and their guests to their homes.

Timber industry

By 1870, the land in this area had been completely logged and all the virgin forests floated downstream or cut up in local saw mills. The fine stands of pine and other trees in which many cottages are now nestled are second-growth forests.

The unforeseen environmental results of the massive logging included the raising of the water table, destructive spring flooding and the droughts of the 1860s. With the trees gone there were no longer the
root systems to balance spring run-off and hold water for use later in the season. Reservoirs were constructed in the 1870s to attempt to balance water levels.

Canal construction

Although Colonel John By could not have anticipated it, perhaps the greatest long-term effect that canal construction had on the landscape was the cottage country recreational landscape of today. The canal created links between otherwise unconnected picturesque lakes. These links have provided a unique opportunity for cottagers, and those who vacation on their boats, to be part of a network of waterways which can take them as far afield as Florida.

The canal's construction was responsible for the location of shorelines and water levels, and therefore for much of the appearance of cottage country. This is true not only for the lakes and rivers that form the canal but also for many of the bodies of water many miles from the canal, since their water levels are dependent on water levels along the Rideau.

There are many vestiges of By's construction programme still visible on the landscape. The drowned lands that were flooded to moderate water levels created lakes out of swamps and rivers; the stumps of trees, both below the surface and above, are reminders of the many acres of forest that were not harvested for timber but simply flooded out in the name of construction. Cottage country is dotted by valuable wetlands, many of which are now recreational areas and wildlife sanctuaries. These wetlands were not native to the area but a direct result of the canal's irreversible impact on the landscape.

Dairy farming

While profitable dairy farming has left a distinctive mark on the landscape, the land of the Rideau Corridor is not uniformly fertile, and much of the rocky projections of the Canadian Shield make it difficult or impossible to farm. Many lots that were of little value for agriculture, became valuable for their waterfronts. Cottagers cared little about whether or not land was fertile, and areas where stands of timber had grown since the first lumbering boom were the most valued, given their privacy.

Outdoor recreation

Perhaps the earliest "vacationers" on the Rideau were the gentlemen officers of the Kingston garrison who came to the Rideau Lakes area to hunt and fish. Their leisure endeavours had little impact on the evolution of the canal as it continued to be a transportation waterway for raw materials and manufactured goods until the end of the century.
By the latter half of the 19th century, the effects of the industrial revolution were being felt in the cities of southern Ontario and northern-eastern United States. Industrial cities of the time were very unpleasant places. Pollution was uncontrolled and newly arrived immigrants lived in terrible conditions. Nature was revered and people reflected on simpler times when lives were lived close to nature. These feelings were reflected in a number of areas: the landscape painters of the Hudson River Valley, the movement to the suburbs, the popularity of the architectural pattern books of A.J. Downing and Louden, as well as in much of the literature of the time.

Industrialization also resulted in an increasingly affluent middle class. This group moved out to the suburbs and eventually began to look for ways to use their increased leisure time and disposable income.

Although the upper classes had enjoyed leisure and the wilderness of Ontario's lakes at, for example, Rice Lake and Charleston Lakes, the first area to enjoy large numbers of middle class holiday makers was the Thousand Islands in the St. Lawrence. In the 1870s, Methodist camp settlements were established and private cottage developments followed shortly afterwards. Very quickly the visitors moved up the Rideau. Small hotels and large resorts were opened and the landscape began to be altered to accommodate this new demand.

The first true resort was opened by Thomas Bartlett Kenney at Jones Falls Lockstation in 1877. Other hotels were not far behind. At Chaffeys Lock two hotels opened a decade later: Simmons in 1886 and the popular Opinicon, the largest of the Rideau resorts, in 1899. The Rideau Hotel in Newboro and the Tweedsmuir at Westport, resorts in Portland, and Coutts Hotel at Rideau Ferry, along with smaller hotels and boarding houses scattered throughout the area, competed for the growing market.

These early visitors were content with simple leisure activities. The most popular were fishing (for pike and black and small mouth bass), rowing, games of shuffleboard, badminton, and croquet, and picnicking.

By the end of the century, vacationers were looking for more permanent accommodation and the first cottages were being built on the islands and shorelines from Upper Brewers lock to Smiths Falls. Cottages began as "camps"; a tent on a platform and a stove in a small clearing on a point or island.

Few roads existed and most lots were accessible only by boat. Travellers generally made the first stage of their journey by train to Smiths Falls or other centres before boarding a steamer. Another rail line, the Brockville and Westport railway (opened 1888) transported up to 10,000 people per day. Americans continued to be attracted by the Rideau's wilderness but perhaps the largest group building the first permanent holiday settlements were local residents from Perth, Smiths Falls, Kingston and Ottawa.
Early cottages were true retreats for families from school closing to reopening in September. Builders took advantage of the privacy provided by the treed waterfront and usually nestled their efforts in the bush. Many of their large, elegant summer retreats continue to grace the shores.

A second cottage boom took place between the wars. Automobiles became increasingly common and road networks improved. By the 1920s the steamboats were decreasing in number although some ran for another 20 years.

National capital

The proximity of Canada's capital city has certainly had an impact on the development of the Rideau's cottage country. It has provided a sizeable affluent population within a one to two hour drive of the city. In addition to the permanent cottagers are the large numbers of tourists who visit the Capital region each year and travel through the canal corridor, either by car or boat.

Modern infrastructure

The modern elements of the 20th century changed Rideau cottage country. Large numbers of automobiles necessitated an increased road network and bridge building programme. This permitted cottagers to reach their properties directly without relying on rail and boat transport and helped develop many of the secondary lakes off the Rideau system.

Both the Ferry Road, one of the oldest roads in the area, and Highway 15, were much improved after the Second World War. The latter was re-paved with asphalt and some of the hills and curves removed. Many local cottage roads were "forced roads" constructed by local residents and not properly surveyed. This situation gradually changed as townships assumed control of various roads, often using grants from the provincial government.

Electricity came to the rural areas after the First World War. This modern convenience eased the lives of farmers by allowing them to benefit from modern appliances, particularly refrigeration. Cottagers were not supplied until much later. On South Elmsley's Bay Road, for example, it was not until the 1940s that electricity arrived.

Although many of the old traditional resorts have now disappeared, Kenney's Hotel and the Opinicon Hotel have survived largely intact. Short-term accommodation has been provided with motels, housekeeping cabins, and campgrounds along the major routes. Today many bed and breakfasts and "country inns", in communities or scattered in the rural areas, offer alternatives.
Increased leisure time

The greatest impact in cottage building was the post-war baby-boom era. As the Rideau Canal system began to fill up, cottage development moved out to the smaller lakes, particularly as the roads improved.

This growth in tourism has continued unabated. By the 1970s visitors were less content with seasonal retreats and began to winterize existing cottages or replace older ones with more weather resistant construction to permit winter sports of snowmobiling, ice fishing and cross-country skiing.

Many of these newer cottages and permanent homes stand in sharp contrast to the early secluded cabins in the woods. The newer models often emulate suburban tract housing with their large expanses of lawns mowed down to the waterfront. In certain areas, lot sizes have decreased as farms and older cottage lots are subdivided. In fact cottages on the Rideau alone have increased six fold since 1950; from 1,000 to 6,000. This increase has created a host of pressures on township services and on the environment. As in many popular tourist areas throughout the world, with popularity comes the risk of destroying the very resources the visitors come to cherish. In the case of the Rideau, these include the quiet wilderness, famous fishing grounds, and clear water. On the positive side, cottage development has been a boon for the local economy with very few other development opportunities.

In later years, as the automobile and improved road network increased the importance of regional centres like Smiths Falls over the local communities, many waterfront villages survived by growing increasingly dependent on tourism, while some in the inland areas with little tourist traffic have become little more than ghost towns.

With increasing leisure, cottagers and vacationers have begun to have more options with the development of golf courses, picnic areas, nature trails and other elements of the recreation industry. At this time, fortunately, the area has escaped the arrival of theme parks or the other forms of gratuitous entertainment unrelated to the area's qualities.

Movement to rural areas

There has also been a group of people who have gone further, transforming former vacation land into year-round residences. Their requirements for comfortable homes have meant that many early cottages are "improved" beyond recognition or simply replaced with suburban-style houses.
Environmental conservation

The rate of seemingly uncontrolled development since the 1950s all across North America has resulted in a backlash from many people concerned with conservation of the natural and cultural environment. This trend has gained force and increased attention with the "Green Movement" and the recent expression of world-wide concern for the future of Planet Earth.

In cottage country this has sparked debates on the environmental impact of cottage development linked specifically to boathouses, septic tanks, dock construction, shoreline treatment and water quality.

Increased awareness has created interest in the historic landscape and in the older buildings of the area. The charm of the early cottages has been recognized by some, although most inventory and designation programmes have been focussed on the better-known stone farm houses and village buildings.
Traditionally cottages were set back from the water's edge on lots covered with mature trees.
The Olive was one of a dozen dual purpose steamboats designed to carry both passengers and freight on the Rideau. Built in Smiths Falls, it was one of many steamers and barges built in communities along the length of the Rideau Corridor. Here is shown a steamer built in Smiths Falls. This photograph, taken by William James Topley (circa 1880), shows the steamer in Manotick. NAC PA-008808
Evaluation (significance and integrity)

The water wonderland of Rideau cottage country is not unique in North America. However, it is a good example of an important North American approach to recreation. The century-old tradition of going to the "camp" or cottage is unique to North America. It represents a romantic impulse to maintain the freedom and self sufficiency of the frontier era from which we are only a few generations removed. The early cottagers at the turn of the century were perhaps recreating their parents' or grandparents' experiences in the bush.

The buildings and boathouses themselves possess their own distinct characteristics, although they may not be significant in stylistic terms. On traditional cottage sites, for example, all the buildings may share common design elements, materials, and colour schemes. This is especially evident in boathouses which match the main building several hundred metres away. Many builders, rather than making a strong statement with their house, attempted to integrate it into the landscape as much as possible.

Character-defining attributes

- The location of the earliest cottages had little relationship to road networks, original survey patterns and lot allocations because cottagers were interested in waterfront proximity.

- Cottage complexes include a frame cottage and usually a boathouse and a guest cottage with similar stylistic features, an outhouse (a reminder of pre-septic system days), various other outbuildings such as a garage, and a dock of some sort.

- Cottages generally reflect the individual preferences of their owners and buildings. A "typical" cottage might be frame storey-and-a-half, gable-roof building, with a screen porch oriented to the water and not the road behind.

- Early cottages were constructed in a clearing in the bush and maintained the privacy and atmosphere of a treed landscape. Tree types are predominantly spruce and pine with some hardwoods. Many buildings are so successfully camouflaged that they can be picked out only with difficulty from the water.

- The shoreline of the Rideau system has few sandy beaches. Most cottage waterfronts are marked with the projecting stones that lie so close to the surface in this pre-Cambrian shield landscape. Natural waterfront vegetation softens the shoreline.

- Some newer cottages and re-landscaped older ones reflect suburban designs and settings with large expanses of green lawn and hard shorelines with little or no vegetation and artificial stone walls.
Conservation (threats, support, guiding principles)

- Threats to the Integrity of the Landscape Unit Include:
  - Continual subdivision into increasingly smaller lots and resultant increasing density along the water-front;
  - Large "subdivision-style" cottages and permanent homes with little or no trees and green expansive lawns;
  - Inconsistent and conflicting township policies on development causing uneven development along the Rideau waterfront;
  - Threats to the natural environment caused by over-use (shoreline erosion due to boat wakes, questionable water quality caused by out-dated septic systems);
  - Lack of maintenance to the older cottages and their replacement by larger cottages.

- Support for the Integrity of the Landscape Unit May Come From:
  - Associations of cottage-owners (e.g. Rideau Lakes Association, certainly one of the oldest cottage associations in the country)
  - Tourist and development groups (e.g. Leeds 2000)
  - Collaboration and support between all groups and municipalities involved in regulations and permits (the collaboration among a number of Ontario Government Ministries begun in 1994 for permit inspection is a positive step in this direction)

- Guiding Principles for Long-Term Development:
  - As with many tourist-based industries, one of the largest threats is over-use and the destruction of the very resource tourists are attracted to. The Rideau Corridor is prime cottage country area and an important tourist attraction; although its use can be expanded through careful planning, the Corridor should not be allowed to become over-developed.
  - Development must respect the existing landscape, both natural and built and be on a scale to permit the picturesque quality of the cottage country to be maintained.
Originally opened in 1899 as the private American-owned resort, Idylwilde, the Opinicon's grounds extend up beyond Chaffey's Locks.
3.2.5 Semi-natural countryside: forest and wetlands

The ecological landscapes of the Rideau Corridor have been shaped by dynamic, interactive processes which have resulted in significant changes since the last ice age. The earliest deglaciations occurred around 12,000 years ago, and although parts of the Corridor were covered by the Champlain Sea, a treeless herb-tundra prevailed until about 10,000 years ago (Richie 1987). The pollen record does not provide a good record of the flora which composed the herb-tundra, but there is evidence of sedges, grasses, dwarf birches and ericaceous shrubs. As growing conditions changed, the herb-tundra was succeeded by a spruce and poplar forest that lasted until about 1,000 years ago, then by a jack pine and white birch forest that lasted until 8,000 years ago, and by a forest of white pine that lasted until about 7,000 years ago. A forest of hemlock, birch, oak and maple was then established which lasted until about 4,500 years ago. For some reason, much of the hemlock disappeared at this time, although it had been steadily re-colonizing the area (Hall 1993, Fulton 1987).

The forests that the first Europeans encountered were largely established about 3,000 years ago. From then until discovery, many dynamic interactions would have occurred within these forests, but the first European explorers would have been faced with vast tracts of mixed forests. Pollen records indicate that they were mainly composed of sugar maple, beech, birch, and hemlock. Pine and poplar were also numerous, but not in as significant numbers as the other trees (Webb 1988). These forests were able to become old-growth forests, because they were free of anthropogenic influences.

The landscape at the time of European contact would not have been continuous closed forest. Wetlands would have interrupted the landscape, and the presence of poplars, an invader of clearings, in the pollen record, suggests that upland clearings were present. It appears that the Corridor was not inhabited extensively by the native Algonkian and Iroquoian groups who were present in Eastern Ontario, but was used primarily for foraging trips (Day and Trigger 1978, Jamieson 1990). This suggests that most clearings or gaps were caused by natural phenomena, such as windstorms, fires, beaver flooding, and natural tree mortality. Small gaps would have been created by the death of large old trees, whereas larger gaps (some exceeding 1,000s of hectares) could have been caused by windstorms or fire (Foster 1988). The dominance of deciduous trees meant that forest would not have been as significant at shaping the landscape as in Northern Ontario, but fires could still have made an impact in the spring before leaf set, when the forest is more flammable. Lormier (1989) estimates that these disturbances created an old-growth mosaic of age classes consisting of about 12% saplings, 18% young pole trees, 24% mature trees, and 46% large trees. These old trees could attain ages of over 300 years, and diameters of up to 2 metres. A proportion of these trees would have been in an advanced state of decay, resulting in snags and fallen logs which would have made walking difficult. The dominance of trees in monopolizing the sunlight would have resulted in patchy or sparse
ground vegetation. This is corroborated by accounts of early canal builders, who found insufficient forage for draft animals (Passfield 1982).

Many of the historic descriptions of the forests noted the thick underbrush, usually in forbidding terms such as "deep and impenetrable" (Passfield 1982). It is likely that the forest edge provoked these comments. At the edge, the lack of an overstory canopy would allow ground vegetation, shrubs, and medium-sized trees access to sunlight. Plant competition for sunlight would be high at the edge, culminating in the production of a thick tangle of vines, barbed shrubs, and other vegetation, much as it would today. However, this thick undergrowth would not have persisted much further past the edge of the canal. This "heart of darkness" view was also shared by Europeans visiting the forests of Africa, where the thick forest edge was rarely traversed to reveal the relatively clear forest beyond.

The pattern of tree species assemblages would have been influenced by site quality. Just as they do today, the pines would have been common on ridge tops; the richer bottom lands would have been dominated by sugar maple, hemlock, yellow birch, beech, and oak, whereas black ash, red maple, black spruce and cedars would have been common on the swamplier lands. On a larger scale, the Rideau Corridor crosses several physiographic regions which would have also influenced the forest cover. For example, pines and hemlocks would have been more prevalent upon the Precambrian shield, as was noted by early surveyors (Keddy 1994). Sugar maple was also important here, reflecting the diversity of habitats on the shield.

There are no remnant old-growth forests left in the Rideau Corridor. There are numerous trees that have approached similar ages and sizes of the large trees present before the 1800s. Some of these can be found bordering the Rideau Lakes, at Murphy's Point, Chaffey's Locks, Jones Falls, Joe's Point and Long Island. However, the presence of a few old trees does not make an old-growth forest. Harris (1984) estimates that it takes from between 175 to 250 years for these forests to develop. The only recognized old-growth forest in Eastern Ontario is Shaw Woods nature preserve in Lanark County (Dugal 1980).

Much of the hardwood forests in the Corridor today are made up of even-aged second-growth stands, 60 to 80 years old. These forests are concentrated in the central section of the Corridor, in an area identified by Ecologistics (1992) as the "Cataraqui and Rideau Lakes". These forests have been left largely unaltered because the land is unsuitable for farming, and its isolation and rugged geography have, until recently, acted as a deterrent to development. Like old-growth forests, modern even-aged mixed forests utilize almost 100% crown canopy. The main difference is that the trees making up the canopy of a modern forest are similar in age and size; smaller trees would be present, but they would not make up the canopy. This would be more evident when looking down from above, where the canopy would appear as a relatively smooth
green carpet. In contrast, the canopy of an old-growth forest would be more irregular, with its greater mixture of age classes making up the overstory.

The historic accounts made much mention of the wetlands encountered by the early canal builders. As today, there was not a universal system of wetland classification back then, and it is difficult to interpret early explorers' impressions of the wetlands. For example, historic references to cranberry marshes are unusual as cranberries are predominately a bog plant. Nevertheless, it is likely that all four wetland categories (bog, swamp, fen and marsh) recognized in Ontario today, were present at that time. For example, Great Dows Swamp was probably a cedar swamp, the beaver meadow described at Hogs Back (Passfield 1982) was probably a marsh, and the Great Cranberry Bog near Brewers Mills was likely a bog. It is likely that bogs and fens were more prevalent then they are today because they take many years to develop. Bogs were common in the Ottawa region because there are numerous remnants of these long-lived wetlands still present. Marshes were probably less common in the Ottawa region as revealed by the lack of cattail pollen in the pre-canal pollen record (Mott and Camfield 1969). However, the water landscape was always shifting with rapids, waterfalls, periodic flooding, and the creation of new channels, and this would contribute to the formation of the younger wetland forms: marshes and swamps.

Due to the extensive flooding during canal construction, most of the original wetlands were lost. Bogs and fens require more than 170 years to develop, and therefore the presence of these within the Corridor would indicate unaltered wetlands. Isolated examples of these wetland types, such as Hebert Bog which eventually drains into Lake Opinicon, can only be found adjacent to the Corridor. By comparison, marshes and swamps and relatively short-lived wetlands are usually created by flooding. The natural flooding events that occurred prior to canal construction would have created similar wetlands such as those created by the artificial flooding from canal construction. In other words, a cattail marsh or treed swamp of today could have looked similar to one of thousands of years ago.
All along the waterway, the landscaping practice of creating hard-edged suburban shorelines, contrasts sharply with natural shoreline vegetation.
Section 4. Corridor Cultural Landscapes: Conservation Status

4.1 Introduction

This section of the study attempts to document the conservation status of the Corridor's cultural landscapes by looking at both the negatives (or threats) which menace the Corridor and the positives (or opportunities) in place to strengthen the protection. This analysis is placed in the context of efforts to envision several scenarios for future development along the Corridor.

4.2 Threats to the Corridor's cultural landscapes

The threats to the Corridor's cultural and natural landscapes are fairly well known. These have been documented in countless studies of the Corridor over the last several decades. It is worth reviewing these from the varying perspectives effected by different groups associated with the Rideau.

Parks Canada's management plan (Working Towards a Shared Future: A Management Plan for the Rideau Canal) highlights many of the problem areas and challenges perceived within Parks Canada in improving care for the Corridor's landscapes:

...throughout the 1960s and '70s, the development of the Canal's shore land for cottages, homes and marinas took place at an accelerated rate. At the same time, the Canal became a busy place. Boating use increased yearly and boats became larger, faster and noisier. Canal lockstations, which for years were quiet, out-of-the-way places, became popular among residents, tourists and boaters. Small villages such as Portland and Merrickville prospered from their recreational and heritage character. While the growth in residential development contributes significantly to the economic well-being of the area, it also presents a tremendous challenge for the future.

Where once there were miles of undeveloped forested and agricultural land dotted with a few farms and cottages, today there are hundreds of cottages and homes. The historic character of the village rural areas and lockstations of the Rideau is threatened by new development which is often not sympathetic to the surrounding environment. Dredging, filling and cottage construction along natural shorelines and wetlands has resulted in a loss of fish and wild-life habitat and the scenic beauty of the Canal. Water quality had been affected by development and use including municipal sewage discharge, grey water from boats and from agricultural run-off.

The management plan also describes the greatest challenge facing Parks Canada in managing a canal for through navigation, while preserving its historic fabric and protecting the natural environment - the need to work in partnership with many others, at all levels.
The Rideau Canal has a watershed of approximately 4,700 square kilometres and traverses 4 counties, 4 cities, 3 towns, 24 townships, 3 villages, 7 hamlets and 1 regional municipality. Active within the corridor are numerous organisations and thousands of residents.

The team survey also permitted good contact with the problem areas and difficulties perceived by area residents and visitors. The following problem areas were identified during public meetings:

1. **Lack of coordination among various groups involved in Rideau Corridor affairs.**

   - Concerns here are both logistical (reflecting the large number of entities involved) and attitudinal (reflecting different priorities of Rideau groups). There are no built-in mechanisms to ensure that decision-making will reflect the concerns of all groups and citizens along the Rideau Corridor. While the two conservation authorities include representation from all townships in their domains, and work closely with all levels of government, there are no guarantees that all of the views on any particular issues will be presented or considered.

2. **Threats to water quality in the region.**

   - Residents concerned with increasing algal bloom near their properties focussed on the deterioration in water quality caused by increasing numbers of water-side residents, and inadequate provisions for sewage treatment for Rideau cottages and settlements and untreated dumping by boats.

3. **Threats to the area's natural habitats and ecological systems.**

   - Many residents expressed concern about the loss of wildlife from excessive hunting or fishing; these concerns were also related to the increasing development of Rideau shoreline lands, shrinking the land available to support wildlife. Residents recognized inherent conflicts between what they wanted to preserve (land and waterways for recreational use) and what they wanted to do (hunt, fish, boat).

4. **Perceived threats to recreational use of the Canal.**

   - Some of those present at meetings raised concerns about the level of Parks Canada's commitment to protection of the Canal, given shrinking budgets and new circumstances in government pushing responsibility down to the local level and promoting "user pay" philosophies. Boaters were concerned that increased fees would reduce possibilities for canal
usage. Parks Canada staff felt that reduced services would inevitably have a negative impact on employment, and were evidently distrustful of management's good will.

Others were concerned over the impact of new recreational vehicles on the waterways and on future recreational use—the noise, speed and danger of the motorized "seadoos" were often cited, as were the destructive impact on adjacent shorelines of the wash from fast boats.

5. **Excessive and unsympathetic forms of property development.**

- Most concerns focussed on the perceived unchecked spread of suburban-style development along Rideau shorelines; others were concerned for the quality of road-side development near established settlements, as commercial strips and centres leap-frogged over each other occupying agricultural lands. Many were concerned that objectionable developments represented the triumph of short-term financial planning and could easily jeopardize long-term development potential.

6. **Transformation of cottages for permanent residential use.**

- Many residents and others commented on the impact of the growing tendency to turn cottages into permanent residences. While noting that such transformations were usually accompanied by substantial improvements to structures, their comments focussed attention on the suburbanization of associated properties—the proliferation of green lawns rolling down to hard-edged shorelines—and the consequences for the area's natural qualities and habitats.

7. **Excessive and uncoordinated regulation.**

- Many residents pointed out that the policies of various departments of government (particularly within the province) contradicted each other (e.g. farming policies which destroyed the area's cultural landscapes). Others deplored what was described as "too much regulation" in looking after their properties; it was noted that increasing setback and lot occupancy regulations could reduce property values.

8. **Lack of appreciation of heritage.**

- Many of the comments suggested a minimal appreciation of heritage elements or patterns in the landscape. Many seemed unaware that these values were perceived by others to be of equal importance for the Corridor's future development as were its natural qualities.

- Many residents and officials noted that one of the most important factors changing the character of the Corridor's cultural landscape was agricultural policy which was promoting abandonment of large numbers of the area's farms, and increasing the size and mechanization of those that remain, and replacing traditional farm management practices.

It is worth noting that most of the points made by residents, officials and visitors in public meetings do not touch the issue of cultural landscapes directly, and also that some were contradictory in nature.

In reviewing the above problem areas identified by residents, the team's survey work suggested that these problems reflected a number of larger concerns:

- inadequate understanding of the benefits of a "cultural landscape" approach;

- approaches to protect environmental qualities not integrated with measures to protect cultural landscape qualities; often the former have a negative impact on the latter;

- inadequate conservation mechanisms in local and provincial planning procedures for cultural landscape protection.

The former two concerns are attitudinal, the latter technical. Ultimately, however, the ineffectiveness of technical measures also depends on attitudinal predispositions.
Rural farmlands on one side of the highway south of Long Island contrast with a cluster of oversized suburban houses.
The siting and scale of this new structure, outside Smiths Falls on the Jasper Road, are questionable given the qualities of the landscape on which it is planted. Examples such as these bring into question the effectiveness of the Township's (in this case Kitley's) Official Plan.
Contrasting approaches to house improvement and maintenance is found in Kars. Improvements to an early gable-fronted Ontario cottage in order to increase second floor space and add an external aluminum skin detract strongly from the qualities of its neighbour, one of the finest brick houses in the Corridor.
Easton's Corners is one of the most fascinating villages in the Corridor. Its structures recall earlier prosperity, and its landscape and townscape features vividly reflect patterns imposed by agricultural use and by early attempts at urbanization: streets laid out in initial surveys which have become little more than lanes; village streams captured and managed by sets of culverts; and village-edge barns and sheds flanking fields of corn.
Once busy four corners hamlets like Freelands are slowly losing their identity as key buildings such as this former school are gradually being surrounded by a re-emerging untended natural landscape. A frame house has been converted for storage.
Ill. #73
Another semi-abandoned 19th century wood frame house can be found near Freelands. The land around the house enjoys the same untended character as the house. The house appears to be used for storage of goods (witness the new roof). However, without a permanent tenant, houses like this will soon be lost to the Corridor
The Little Cataraqui Conservation Area houses the headquarters of the Cataraqui Region Conservation Authority. The conservation area's conifer plantings and adjacent landscape treatments demonstrate how abandoned lands may be improved from a natural perspective. These improvements come, however, at the expense of the traces of the farm that was once present on this site.
4.3 Opportunity analysis of the Corridor's cultural landscapes

It is worth balancing the problems and concerns presented in the last section with a similar analysis of the opportunities which exist within the Corridor for bringing improved care to cultural landscapes.

The team's various surveys of residents, visitors and officials brought forward a number of perceived opportunities:

- positive attitudes among residents and visitors: recognition of the need for managed development; recognition of the inter-relatedness of Rideau activities;
- many good examples of well-managed landscape units of both cultural and heritage values;
- the many educational initiatives in place (e.g. the slide show developed by Lindsay Penney for MNR and Parks Canada) promoting more sensitive treatment of Rideau lands;
- the extensive formal and informal communication networks linking those with an interest in the welfare of the Rideau Corridor. Indeed, these various opportunities together compose a framework with great potential to improve the care of the Corridor's cultural landscape.

The main elements of the framework in place capable of improving care for Rideau Corridor cultural landscapes are worth summarizing:

1. The strong and continuing leadership role played by Parks Canada.

- Even though its direct responsibility is limited to the Canal Corridor and the associated lockstations which it administers, Parks Canada has encouraged a series of initiatives aimed at increasing awareness of the Corridor's landscapes and at encouraging the active participation of partners in their protection. This commitment is exemplified in the management plan adopted by the Parks Canada for the Canal in 1994. The document (Working Towards a Shared Future: Management Plan for the Rideau Canal) notes that:

"The time is right for building partnerships on the Rideau. The preparation of this plan, conservation strategies by the two conservation authorities, revision of Official plans by most Canal Corridor municipalities, and a growing environmental awareness among Canadians provides the opportunity to work together and lay the foundation for achieving our shared vision". 
It is worth recognizing the Mission of Parks Canada and its related Vision Statement for the Canal as defining an explicit framework for shared action in caring for the Canal and related lands.

Mission Statement for the Canal

"We work in co-operation with others to protect the Rideau Canal as a 19th century operating Canal and to foster an understanding of its national and international heritage value among Corridor residents, visitors and all Canadians."

Rideau Canal Vision by the Year 2000

- The Rideau Canal is managed in a manner which fully recognizes its status as a nationally significant 19th century engineering achievement contributing towards the preservation and presentation of Canadian and global heritage.

- The Canal's operating tradition as a functional navigable waterway is maintained.

- The Rideau Canal Corridor is internationally recognized as a model of sustainable use, balancing protection, recreation and development.

  Building on tradition of co-operation, residents, municipalities, other government agencies, businesses, visitors and Parks Canada staff work in harmony towards a common future. New ways to support growth and provide a range of quality educational, recreational and tourism experiences while maintaining the heritage values of the Canal are carried out.

- The Rideau Canal Corridor is managed as an ecosystem, resulting in a clean, usable system.

  Through the co-operative actions of governments and individuals, Canal waters are suitable for activities such as fishing and swimming. Wetlands and other natural areas are protected, and fish and wildlife resources are managed to ensure their long term integrity.

- The diversity of the Canal Corridor's cultural landscapes are protected and enhanced through wise land use and development decisions.
Decisions on land use and protection are based on sound cooperative research and information to ensure development along the Canal Corridor takes place in a manner which respects the heritage values and the ecological health of the Canal Corridor.

The Rideau Canal is regarded as a valuable tourism and recreation resource contributing substantially to the economy of eastern Ontario.

The Rideau Canal is recognized and promoted as a component of the national and international cultural tourism industry.

The Canal is an essential link in an integrated network of navigable inland waterways extending over a vast portion of North eastern North America.

A variety of recreational activities - from boating and fishing to hiking and picnicking - are enjoyed by residents and visitors. The Canal Corridor partners work together to provide quality services on Canal lands and throughout the Canal Corridor to accommodate compatible recreational opportunities in a safe environment.

People of all ages experience the Canal's unique learning opportunities through viewing and participating in activities along this 19th century operating canal.

Museums, innovative interpretive programs, special community events and other media along the Canal and within Canal Corridor communities help residents and visitors understand and respect the link between the Canal's natural and cultural environments - past, present and future - and encourage them to share in the responsibility of protecting its future.

Canal staff are proud of their stewardship role and display leadership through their actions.

Residents and visitors are proud of the Rideau Canal Corridor - proud of the strong heritage flavour found within communities at Canal lockstations and throughout the Canal Corridor, proud of its national importance and proud of their own accomplishments in ensuring a healthy environment is passed on to their children."
The organisation's leadership should be understood to reflect high levels of commitment and capacity in all sectors of the organisation from the Regional Office in Cornwall, to the field office in Smiths Falls, to the historians and researchers in the Hull headquarters of the organisation.

2. **The high profile enjoyed by the Rideau Canal in the region.**

The wealth of the Rideau Canal is of great consequence to those who depend upon it economically (tourism, resort and boating operators) and to the many thousands who live along or within reach of its shore, and use it for recreation throughout the year. Threats to its qualities are quickly noted and taken up publicly.

Tourism associations, the hundreds of private groups devoted to enjoyment, use and protection of the canal and related facilities, and the media all ensure that the Rideau and its welfare are never far from the public mind.

The challenge here is to link the very present concern for the economic vitality of the Rideau with the future of its cultural landscapes.

3. **High levels of public interest in the natural heritage of the Rideau Corridor.**

There are many committed citizens within the region (both residents and visitors) and groups actively volunteering to protect different aspects of the region's natural heritage. It has not proven difficult in other areas of North America for cultural landscape defenders to make common cause with natural heritage groups and individuals in defense of a region's cultural landscapes. A number of groups, in particular, Friends of the Rideau, have made strong efforts to link the areas's cultural landscapes to its natural values.

4. **Existing initiatives which could support efforts to strengthen concern for the Corridor's cultural landscapes.**

There are many modest initiatives in place among different interests, all with potential to feed into efforts to improve care for the Rideau's cultural landscape. One excellent example discovered by the study were efforts proposed by the Grenville County Agricultural Committee to produce a rural tourism brochure on the history and evolution of the area's barns.

Taking advantage of such opportunities requires strong efforts to gain information about such initiatives, and where possible to link or integrate these.
5. **Existing infrastructure for land management along the Corridor.**

In spite of their current uncertain futures and challenging budget cuts, the Conservation Authorities offer a well established framework for review and analysis of decisions affecting land in the Corridor. Planners on Conservation Authority staffs are knowledgeable about cultural landscapes; their experiences in piloting decisions through the Corridor's many overlapping jurisdictions provide an essential base for effective cultural landscape management.

It may not be practical at this difficult moment in Conservation Authority history to propose adding to the workloads of existing staff, but in the long term, the benefits of integrated approaches to management of all Corridor lands suggest the value of close liaison with Conservation Authority staff.

Some initiatives in recent years have been taken to increase the efficiency of permit application reviews, and the process developed could also benefit discussion of impacts, positive or negative, of proposed developments on cultural landscape values. At present, the Rideau Waterfront Development Review Team provides Corridor residents with a one-stop shopping approach to permit applications, linking responses to Ontario's Ministry of Natural Resources, Parks Canada and the pertinent Conservation Authority.
4.4 Alternative futures

A number of possible future development scenarios for the Rideau Corridor may be envisioned. Some are optimistic: oriented toward a strengthening of environmental protection, or toward visions of improved cooperation among Rideau landowners and land stewards. Some appear more realistic, simply extrapolating existing trends, both negative and positive, to present a mixed view of the future. It is worth looking at these in turn, before finalizing recommendations for improving cultural landscape protection along the Corridor, since they provide a range of possible contexts within which problems and opportunities must be judged.

4.4.1 Improved environmental protection

Let's look first at scenarios based on improved protection of the area's natural qualities.

Concern for deterioration of the natural environment of shoreline properties along the Rideau and elsewhere in North America has provoked a variety of responses intended to address these difficulties. Affected governments have proposed model guidelines and planning regulations intended to control negative aspects of shoreline property development and management. Municipalities have begun to modify their planning instruments to take these factors into account. Shoreline property owners have banded together in public interest advocacy groups to facilitate the provision of good advice and best practice for all. Through these efforts and others, it has become possible to recognize the existence of a growing body of conventional wisdom surrounding environmentally-sensitive approaches to shoreline management and development.

*Living Near the Water: Environmental Design for Shoreline Properties* published in 1995 with support from Parks Canada in order to offer general advice for Ontario owners of shoreline properties was developed using the Rideau Canal Corridor as a basis for its recommendations. This publication was developed from a university study carried out by two University of Guelph students, Yam Sakkal and Nel Grond, in 1992. This publication is a good example of the kind of sound, environmentally friendly advice now available to waterfront owners.

Generally speaking, the applicable principles of contemporary approaches to environmentally sensitive shoreline management and development which may be found in *Living Near the Water* and in similar publications may be summarized as follows:

- emphasis on naturalistic design:
  
  use of natural communities of trees, shrubs and herbs to create a shoreline "garden" in the foreground of houses near shorelines; maintenance and environmental problems are reduced, and rural landscape character maintained and reinforced;
• use of protective norms to protect natural qualities:
  density and set-back standards appropriate to minimize possible contamination of water by household waste products;

• minimalist approaches to development planning:
  use of new planning models to protect cultural landscape character and natural communities. A favoured approach is that of "clustering" residential houses or commercial units together to minimize their impact on existing terrains;

• minimal destruction of existing vegetation:
  minimizing clearance of forest, shrubs, vegetation in developing new houses and related pathway systems;

• discreet placement of recreational spaces and lawns:
  this usually implies both natural screening of such spaces and their location at substantial distances from water edges;

• maintaining existing character of landscape spaces:
  this implies, for example, where farms have been abandoned, replacing farm lawns and fields with low-maintenance meadow grasses and managing these spaces to maintain their open nature, rather than allowing these to be reclaimed by forest cover. It also implies maintaining the natural fencerows or hedgerows which have evolved over time to separate farm fields.

There is growing evidence that communities and landowners are increasingly sympathetic to the approaches described above, and prepared to commit themselves to these approaches.

Conservation authorities have strategies setting out how they will achieve their environmental objectives; provincial ministries have legislative acts, policies, regulations, and guidelines; and naturalists groups carry out environmental education. There are numerous documents that have been created with ecological preservation in mind. For example, all new Official Plans must express their conformity with provincial policies such as the wetland planning policy. Also, the comprehensive policies leading from deliberations of the Commission on Planning and Development Reform will have significant impacts on planning in Ontario and environmental protection.

This considerable public and private commitment to environmental protection suggests that the natural habitat within the Rideau Corridor will not be lost, and may even be expanded. However, the current climate of budget cutbacks means that many of the public agencies mandated to protect the environment will be restricted in their ability to carry out their work.
In a recent report, Riley and Mohr (1994) discuss current trends of landscape changes in Southern Ontario. The report allows detailed examination of pertinent trends including the expansion of forest lands onto abandoned farmland, increased urbanization of rural areas, increased habitat creation for generalist mammals and birds such as deer and starlings, and more intensive farming on remaining farmland. These broad changes apply to the Rideau Corridor as well. Will these trends continue for the next 25 years?

All of this speculation is based on the human factor; the natural world, by comparison is relatively easy to predict. If current cultural conditions remain unchanged then the following ecological descriptions apply:

- second-growth forests - these forests situated largely in the middle of the Corridor will appear much as they do today, although there will be some expansion onto abandoned property. Because of a lack of predators, white-tail deer will continue to maintain their very high population levels and, as a result, will continue to be an important factor in forest stand composition;

- abandoned farmland - the general mode of abandoned farmland succession is from weedy field, to scrubland, and then to forest. The transition between these vegetation types is not distinct, but rather a general overlap to a point where all three types can be present. Also, depending on the quality of the site, the speed of succession to immature forest can vary considerably from 50 to 200 years or longer. The abandoned farmstead on Beaupre Island in Cranberry Lake gives some indication as to what 25 years of field succession can look like;

- wetlands - assuming that nutrient input into the waterways remains at current levels, the marsh and open-water wetlands will expand and begin to close off significant portions of the Rideau Waterway. Also, flooding from beaver activity will create new areas of swamp, as forests are flooded, and new areas of marsh, as fields are flooded;

- developed lands - depending on the age of construction, these areas will become more forested as owners plant trees. The sylvan difference between an older centre and a newly developed one can be seen while flying over Kingston. From a distance, the City of Kingston can be located by the odd highrise or church steeple protruding from the tree canopy. In contrast, adjacent Kingston Township, which has grown considerably in the last 25 years, appears as an open landscape of dwellings;

- farmland - assuming economic viability, these areas will not change.
There are, however, some dangers for cultural landscape protection in situations where the principles described above are imperfectly understood, and improperly applied. Many examples may be found in relation to the Rideau Corridor landscape. The planting of coniferous forests on the farmlands now occupied by the headquarters of the Carataqui Conservation Authority is a good example of how the sixth principle above ("managing existing character of landscape spaces") can be overlooked in protecting natural values. Of perhaps more worry are the proposals contained within Visions of the Future: Land Use Development Scenarios for the Rideau Canal Shoreline (Ecologistics Limited) prepared in 1992 for the Ontario Region Office of Environment Canada, and itself based upon the approach to landscape conservation contained within Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development (Lincoln Institute of Land Policy and the Environmental Law Foundation, 1990). While the Connecticut River Valley document pays scrupulous attention to balancing concern for cultural and natural values, the proposals of the Ecologistics document often overlook existing cultural attributes and imprints on the landscape. The three-dimensional scenarios they present often overlook or trivialize surviving cultural landscape aspects. Moreover, more fundamentally, the use of "clustering" to contain all new development is a concept alien to traditional development patterns along the Rideau; its blanket imposition over the landscape obliterates earlier patterns of importance to the Corridor's overall legibility and may not be an appropriate planning direction in many circumstances.

4.4.2 Improved management approaches

The management plan adopted by Parks Canada for the Rideau Canal ("Working Towards a Shared Future: A Management Plan for the Rideau Canal", Ontario Region, Environment Canada, 1994) also looks closely at a set of visions for the Corridor's future. The management plan's recommendations are based on analysis of the natural and cultural resources associated not just with the Canal but with the entire Corridor, and focus on the need for improved cooperation among all those with a stake in the Corridor's future, in development planning and lands management.

The Plan's "visions for tomorrow" include the following general prescriptions:

• with respect to "ensuring a healthy environment":

"The natural environment of the Rideau Canal Corridor is highly valued, respected and managed through co-operative efforts and individual stewardship. The Canal Corridor is widely regarded as a model of effective co-operative management that balances protection and sustainable use.

Assessing the local and cumulative impact of all development and agricultural and recreational activities is standard practice.
Environmental indicators are established as a means of determining ecosystem health. Wildlife habitats and areas of natural and scientific interest are known and protected. All sources of water pollution are under control. Perceived changes in water quality are reversed. Environmentally aware residents ensure the protection of the natural environment."

- with respect to "protecting a symbol of Canada's identity":

"The Rideau Canal is fully recognized as a symbol of Canada's identity. The tradition of an operating canal, with its associated skills and activities involved in navigation, operation and use are maintained as essential to illustrating the Rideau's national historic significance and ensuring historic integrity as a 19th century Operating Canal.

The historic integrity and appearance of the Canal's engineering works and buildings are assured through ongoing maintenance, preservation and when necessary restoration. The location and significance of archaeological resources on Canal lands and on the bed of the Canal are better understood and measures are in place to protect them. Landscaping of Canal lockstations respects and complements the values of the site's cultural and natural resources. As well, protection of natural resources on Canal lands is integrated with all aspects of site management. Through first hand experiences, Corridor residents and visitors gain a better understanding of the relationship between humans and the natural environment and are able to make better heritage protection decisions.

The management of Canal lands, waters and the bed of the Canal is a model of successful conservation achieving a balance between resource protection and appropriate public, commercial and private activities. These resources are managed as an integral component of larger ecosystems contributing to the protection of natural areas in the Rideau Canal Corridor. Adjacent land uses complement Canal lands and waters.

The cultural landscapes of the Rideau Canal Corridor are recognized as a valuable asset, contributing to the heritage value of the Rideau Canal and the quality of life of Corridor residents and visitors. Corridor residents, developers, municipalities and government agencies are working together to protect the heritage character. This commitment is demonstrated through private restoration, stewardship, land trusts, municipal heritage designations and development that is in harmony with the Canal Corridor's heritage resources and character. Through these efforts, the distinct cultural landscape of the Rideau Canal Corridor is protected and enhanced.

Municipal Official Plan policies and designations, and community based conservation efforts play an important role in protecting undeveloped natural and agricultural lands, historic structures and significant cultural landscapes. Corridor residents and
developers are provided with the information and technical assistance necessary to develop and manage their lands in an environmentally and culturally sensitive manner."

• with respect to "fostering sustainable use":

"The Rideau Canal Corridor is widely recognized as an international heritage resource - cultural and natural - offering a wide variety of year round high quality educational, recreational, and tourism experiences. Residents, visitors, the private sector and all levels of government recognize their individual and collective responsibilities in ensuring the natural and cultural integrity of the Canal Corridor. Tourism operators, tourism organisations, government agencies, and municipalities are working together to develop and promote the Canal Corridor in a coordinated manner to target groups. The international tourism potential of the Rideau Canal is recognized. The Canal is promoted as part of a unique heritage tourism experience within the networks of North American navigable canals and waterways. Decisions on sustainable tourism and recreation are based on sound information obtained through individual and cooperative studies. A variety of safe and enjoyable activities allow users to experience and learn about the Canal's heritage in a sustainable manner. Measures are in place to restrict unacceptable activities.

Through communication, both by the tangible example expressed by the physical setting and by the services offered, individual groups, organisations, communities, business, industry and governments better understand the heritage value of the Canal Corridor and the importance of environmental stewardship. They take action to ensure a sustainable future for the Canal Corridor. The educational potential of the Canal Corridor is fully developed as an integrated package for educational groups, residents, special interest groups and visitors. Canal lockstations, provincial parks, conservation areas and museums offer a wide variety of opportunities for visitors to learn about the Canal Corridor's natural and cultural history."
4.4.3 Extrapolation of present trends

Extrapolation of present trends suggests a number of influences, both positive and negative, on the character of the Rideau Corridor landscape in the decade to come.

- Total farmland will eventually be half what it was in 1970, as large areas of abandoned land regenerate, especially in areas of poorer land, leaving the main farming areas along the middle and lower Rideau valley. Pioneer and woodland edge species will encourage wildlife to return in even stronger ways than at present.

- The only small farms to survive will be those of back-to-the-land advocates and those of farmers who manage to establish a particular niche (e.g., those with specialised goods, "extra old" cheese, sheep and goat farms). Otherwise farms will average 400 or more acres, and will be primarily prairies for hay and silage crops. Herds will increase in size, but will spend more than half the year indoors. Old houses will be owned by professional people, and farmers will live in modern single-storey houses alongside low steel-framed barns with silage towers attached. Cedar rail fences will disappear, as will all barns, unless the incomers choose to keep them for aesthetic or heritage conservation reasons.

- New activities in the new woods: forestry potential will expand, but the land available will not expand as fast because of inertia and time-lag in land acquisition, this leaves recreational uses the main beneficiary; wildlife watching and trails, horse riding, the potential for shooting will increase though those who so recreationally will reduce for moral reasons, paintball games, recreational flying and microlight flying will require airstrips, golf courses will open up, particularly around the abandoned land nearer large settlements.

- Houses and cottages: increasing cost of servicing remote year-round properties, especially in winter, will only slow the trend towards such conversion. More monster houses along the Rideau and Carataqui within commuting range of Ottawa and Kingston can be expected. Owners will be immune to conservation arguments, and will continue to insist on open sweeps of grass down to the water, making such houses very visible from the river. They will have docks and large boats moored at them. Mowing will be by motorised rotary mowers, leaving the planting patterns very simple.

- Also retirement homes further out, while less opulent, will be similarly resistant to conservation arguments. These will be more persuasive with owners of cottages. Cottages will not increase as much as recently, and new ones will be set back from the water edge. A fringe of vegetation, including thin screens of trees, will reduce the visual and ecological impact of the
houses. The docks will be floating. Older timber boathouses will tend to disappear.

- Policies by municipalities, and the desire of young professionals to be part of a community whilst still seeking quality of life, will cause a renaissance of some of the older historic settlements on either side of the canal between Long Island and the Brewer's Locks. Prices will rise, the older houses and business properties will be restored (not always very sympathetically) and added to, and services and shops will grow modestly. Pressures for infill and subdivision will come apace.

- Such settlements will begin to elect politicians drawn from these professional classes who will be more concerned with quality of life issues.

- Summary: a new landscape pattern, of contrasting agricultural and wooded character. Little water frontage will not be accompanied by houses (near the towns) and cottages (in remoter areas), though the impact per dwelling of the latter will decline. Historic settlements will revive, and fewer isolated new houses will be built.

4.4.4 Conclusion

Members of the study team felt ill-qualified to predict the future; however, we felt more comfortable in working generally within the more realistic scenario envisioned in Section 4.4.3 above. The recommendations that follow in Section 5 are not therefore based on the optimistic scenarios painted in Sections 4.4.2 or 4.4.1 - rather these scenarios are used to help define goals which recommendations may assist in reaching. Hence the recommendations which follow are meant to build a protective strategy for the area's cultural landscapes from the ground up.
Section 5. Managing the Rideau Corridor: Recommended Principles, Guidelines and Practices

5.1 Introduction

This section of the study proposes management strategies intended to improve care accorded the Corridor's cultural landscape in two ways. A set of model Guidelines intended for use in conjunction with Township Official Plans to identify and manage cultural landscapes is proposed in Section 5.2. As well, based on the analysis of existing conditions carried out in Section 4, a set of recommended priorities and actions are proposed in Section 5.3.

This introduction to Section 5 explores the Corridor's cultural landscape significance in a national context.
5.1.1 Defining the Corridor's cultural significance in a national context

Introduction

The mandate of the study team included efforts to define the cultural significance of the Corridor cultural landscape in the context of other cultural landscapes of national significance.

Study and inventory of significant cultural landscapes is in its infancy in Canada, and while some effort was made to collect materials and articles documenting important cultural landscapes, the team had no opportunity to carry out systematic analysis of landscapes across the country. Perhaps the first serious effort to provide an overview of the country's cultural landscapes is Susan Buggey's "Cultural Landscape Development in Canada", published in UNESCO/Gustav Fisher's "Cultural Landscapes of Universal Value", edited by von Droste, Plachter and Rössler in 1995. Ms. Buggey's overview is necessarily selective in the examples brought forward. Among important continuing landscapes in Canada, the article documents the Tipperary Creek Valley and adjacent uplands near Saskatoon (a landscape illustrating over 6000 years of native occupation), the Côte-de-Beaupré region of French Canada (an example of traditional St. Lawrence River agricultural settlement), the community of Gardenton, Manitoba, (an example of prairie settlement whose patterns are illustrative of the traditions of Ukrainian immigrants to Canada), the generic landscapes of East Coast fishing villages, and the Gold Rush mining landscapes of the Yukon. The article also mentions the Rideau Canal Corridor as a cultural landscape of exceptional significance illustrating both the ingenuity of the Canal's builders and the adjacent settlement patterns associated with the Canal's development.

In attempting to assess the significance of the Rideau Canal Corridor cultural landscapes, it is also worth looking first at the significance of the Canal itself. An overview of canal building first in England and Scotland provides useful background for examining the development of Canadian and American canals, and ultimately the Rideau.

The Rideau Canal in the context of canal building

Early canals in England and Scotland were essentially barge or boat canals - ship canals were larger and came later. For the earlier canals, horse traction was the common means of propulsion; movement took place at a rate of about three miles per hour. Self-propelled steam-powered barges and steam towage did, however, come into use reasonably early.
The oldest artificial canal in Britain is believed to be the Foss Dyke canal, a relic of the Roman occupation; in the Middle Ages waterways were essentially deepened rivers made navigable, for example between Lincoln and Trent.

Spectacular growth of canals, however, occurred in the late 18th and early 19th centuries. By about 1750 many rivers had been improved but the birth of the Industrial Revolution, the growing population, the bad roads, the need to transport coal cheaply and efficiently and then to transport products of the manufacturers made exploitation of the waterways inevitable.

The first of the modern canals was the Bridgewater, built by the Duke of Bridgewater to reduce the cost of transporting coal from his mines to a manufacturing centre (Worsley to Manchester). The engineer who suggested the idea and implemented it was James Brindley (1716-72) - a self-taught genius. The canal took two years to build, was 4 1/2 feet deep, ten miles long with no locks. Barges were horse drawn and the canal at one point tunnelled through a fifty foot hill. The canal included aqueducts and bridges over roads and a navigable river. One aqueduct was 38 feet above the river, 600 feet long and 36 feet wide.

The obvious economic benefits of canals enabled canal companies to sell stock, which sparked a speculative boom in canals. Many investors were robbed; some canals failed but others serving busy districts made huge profits, particularly in the mining and industrial districts of the North and the Midlands and those connected with the Thames.

The canals were either arterial (connecting two river basins) or lateral, i.e. running parallel to rivers. Many examples of canalised rivers made navigable by locks, embanking, dredging and weirs etc. may also be found.

Canals grew haphazardly in dimensions and there appears to have been little attempt to standardize lock widths. Some of the engineering feats were quite remarkable. A tunnel designed by Brindley on the Trent and Mersey was 1 2/3 miles long and was finished in 1777. Telford, another engineering genius, designed in the 1870's the Barton Swing Aqueduct which carried the Bridgewater canal over the Manchester Ship Canal. It was 234 feet long, 18 feet wide and 6 feet deep and swung, full of water, on a central pier.

As canals grew in number, so did the number of toll houses, warehouses, maintenance yards, cottages, pubs, etc., along their lengths, many of these, along with the aqueducts and bridges, being of great architectural beauty and interest.

Between 1758 and 1807, 165 canal acts were passed. Main rivers had been improved and joined, and locks carried canals over the central backbone of the North; by 1830 England, south of York was covered by a network of improved rivers and canals. The boom, however, was virtually ended in 1838 with the completion of the London to
Birmingham Railway. The railway challenged both the waterways and the roads. Railways were cheaper than the canals; canals in many cases were proving to be too narrow, too slow, too costly and time consuming and too often in the wrong places to be commercially viable. The railways, moreover, speeded their demise by buying them out and letting them stagnate or pass out of use. No new capital was engendered, and the railway boom replaced the canal boom. There were 40 miles of railroad in the U.K. in 1825, 293 miles in 1835 and 6,621 miles in 1850.

Over the ensuing years, canals continued to decline in importance with a few major exceptions; ship canals of course continued to be of great importance. Usage grew in wartime but this was transient. In 1946, an Inland Waterways Association was formed to restore, retain and develop British waterways and to focus on developing amenities such as attractive landscapes, tourism, holidays afloat, fishing, conservation of wild life, land drainage etc. In 1948, the UK Government took over all canals owned by the railway companies; this amounted to approximately some 2000 miles of canals, virtually the whole of the canal system.

Water transportation was the primary means of travel for trade and settlement during the early years in the North American colonies. The early explorers followed river and lake routes into the interior and these routes were followed in turn by colonists. With the success of European canals as models, visionaries were quick to proclaim the advantages of eliminating expensive and awkward overland portages in favour of a continuous navigable waterway from the Atlantic to Lake Superior.

The great era of American canal construction lasted from the 1780s to the 1840s. By 1790, over 30 canal corporations had been founded in 8 of the original 13 states. Construction during this period was slow due to shortages of money and labour. By 1815, only 100 miles of canals had been built. But the boom started by the building of the Erie Canal resulted in 1,277 miles being constructed by 1830 and up to 3,326 a decade later. Economic depression and, later, the rise of rail transportation caused the end of major construction projects, although today the New York barge canal and the St. Lawrence Seaway system remain important navigational systems.

The process of canal building, begun in Canada by the opening of the Sault Ste. Marie Canal joining Lakes Huron and Superior, was not effectively completed until 1959 with the opening of the St. Lawrence Seaway, a joint Canadian-American venture stretching 2342 miles from the Atlantic Ocean to Duluth on Lake Superior.

The Rideau's significance as a canal within this historical perspective lies in several areas:

- the Rideau was designed to provide a secure path from Kingston to the Ottawa River in the event of hostilities with the Americans;
• the Rideau was the first canal designed for use by steamships;

• the Rideau is best noted for its engineering accomplishments. The canal is an engineered waterway built through 202 km of wilderness along two river systems, that of the Rideau and the Cataraqui; navigability was achieved through a range of technological accomplishments and innovations: over 20 km of canal cuts, linking water courses; the building of 47 masonry locks; and the building of numerous dams to support the slack water system, including the stone-arch dam at Jones Falls, the largest in North America at the time.

While conceived as a defensive measure, and built for trade, by the mid-19th century, the canal's commercial function was in rapid decline and it began to attract those interested in leisure and recreational boating. That the canal has maintained its original routing and most of its original structures and engineered features is a tribute to continuity of use of its waterways.

Comparative Analysis of Canadian Corridor Cultural Landscapes

The original CORTS studies and subsequent studies by Ontario's Ministry of Culture and Recreation (notably, "Heritage Studies of the Rideau-Quinté-Trent-Severn Waterway") permit some comparison of Ontario's Canal Corridor landscapes. This latter study notes that the Rideau, given its construction in one period and the high integrity of surviving components, is of greater significance than the other nearby canals which have been built over a longer period of time and which have endured significant modification.

Comparisons may also be envisaged with other Canadian transportation corridors. Examples could include corridors associated with the Trent-Severn Waterway (as already suggested), the Welland Canal, and the Grand River Corridor (all in Ontario), the Lachine Canal (in Quebec), the various rail corridors, principally the east-west lines, the Crowsnest Pass (in Alberta) and the Chilkoot Trail (in the Yukon) to name but a few of the best known. Comparative analysis would need to examine the extent to which the corridor was the instrument of economic growth and development in a region, and influenced the form and nature of such growth. Analysis would also need to look at the extent to which the transport route within the corridor (be it canal, waterway, rail or road), associated settlement nodes and associated hinterlands (be these "natural", or transformed for agricultural, industrial or resource exploitation) were intact and expressive of the main values of these corridors.

This report has not involved such analysis, but it is clear, given the continuing clarity of the relationships between the Rideau Corridor's cultural and natural features, the degree to which the Waterway and adjacent lands continues to express the aspirations of
its builders and later users, the tightly woven fabric of settlement nodes, and developed lands adjacent the waterway, and the high degree of integrity of the Corridor's significant character-defining attributes that the Rideau Corridor is one of Canada's most important historic transportation corridors.

Heritage significance of the Rideau Canal Corridor

Given the general paucity of comparative data, arguments in favour of the national significance of the Rideau Corridor's cultural landscape, however, would appear best made in absolute terms. These arguments would recognize the Rideau Corridor's significance to reside in several areas. While at times it is difficult to dissociate the canal from the Corridor, arguments made for the Corridor's significance include those made for the canal.

The canal's importance may be understood in several ways:

- as an exceptional illustration of engineering and technological ingenuity in its era, both in the quality of its conception, and in its rapid execution;
- as a remarkable achievement in engineering history, being the largest single public works expenditure in the history of the British Empire at the time of its construction;

The Corridor's importance may be understood in:

- the degree to which it was a key factor in helping to build Upper Canada and Canada: the impetus given to the construction of the city which was to become Canada's capital, Ottawa, only 30 years after construction of the Canal; the link thus made between a former capital (Kingston) and the new capital; and its contribution to opening up the Great Lakes;
- the degree to which it illustrates the patterns of settlement and agriculture brought to Upper Canada by the United Empire Loyalists and their successors;
- the unique fusion of cultural and natural features along the Corridor, including its urban and rural landscapes, wetlands, regenerating woodlands and shorelands.

Significance assessment would also need to take into account the exceptional integrity of the Canal, (whose use has never been interrupted), and its associated landscapes. The foresight of its builders provided flexibility in Canal operations such that the Canal has been able to endure several transitions in use, including the most recent to recreational purpose, without significant alteration of fabric or operations. While suburban development south of Ottawa along the Rideau has dramatically diminished the
integrity of the canal setting in this area, for the most part, the
cultural landscapes along the canal continue to provide explicit
testimony to the character of the natural surroundings that
preceded its construction, and to the successive, overlapping
layers of settlement (agricultural, commercial, industrial,
residential) that accompanied its use.
19th century villages like Perth Road Village have been enabled to retain most of their structures and the integrity of their layout, given the building of a modern by-pass around the town. Other towns, like Newboro, have lost some of their qualities where main roads have been widened to accommodate through traffic. Loughborough Township lies outside the Corridor defined for this study since it does not touch the Rideau/Cataract waterways directly. Persuasive arguments for its inclusion in the Corridor may be made given the passage of the Perth Road through it, linking two important Corridor communities.
Out-of-the-way corners of the Corridor, like McGuigan's Cemetery, are important components of the cultural landscape.
5.2. Model guidelines for cultural landscape conservation in the Rideau Canal Corridor

5.2.1 Introduction

The following Guidelines are meant to assist officials and planners working within Townships along the Rideau Corridor to identify and protect the region's important cultural landscapes and related attributes.

The Guidelines are organized to lead readers through the subject in a logical sequence:

- why a cultural landscape approach?
  - what is a cultural landscape?
  - what are the benefits of a cultural landscape approach?
  - what does a cultural landscape approach involve?
  - growing interest in a cultural landscape approach
  - putting a cultural landscape approach into practice
  - using the results of cultural landscape assessment
  - a how-to approach to cultural landscape assessment
  - carrying out the cultural landscape assessment
  - effectively managing Rideau Corridor cultural landscape
  - notes on urban settlement landscape units

The Guidelines are meant to be employed within an enabling framework provided by a Township's Official Plan. In almost all cases Rideau Corridor Townships would need to strengthen provisions within their Official Plans for cultural landscape identification and protection in order to be able to effectively implement the Guidelines.
The Rideau Corridor brings together a remarkable intermingling of cultural and natural features, as here near Kilmarnock.
5.2.2 Why a cultural landscape approach?

The Rideau Canal and its surrounding lands have long been recognized as of exceptional interest. Residents cherish the region's special quality of life; visitors seek out the region's unique waterways and villages for recreational purposes; students interested in heritage explore the hundreds of individual destinations along one of the most outstanding historic sites in all of Canada. A cultural landscape approach can protect the special qualities that attract residents, visitors and tourists alike.

In recent years, planners at municipal, provincial and federal levels and Rideau Corridor residents have begun to recognize the practical advantages of managing the Rideau Canal Corridor as a "cultural landscape".

The following section explores the nature of a cultural landscape approach and its application in managing a region of strong heritage character, such as the Rideau Canal Corridor.

What is a cultural landscape?

The recent growth of interest in cultural landscapes among those responsible for managing territory has brought the attention of planners and administrators to what was previously a term of academic interest.

A number of conservation agencies at international and national levels have made recent attempts to clarify the meaning of "cultural landscape" for use in planning.

UNESCO's World Heritage Committee views cultural landscapes as reflecting the "combined works of nature and of man". The Committee, whose recent studies have spearheaded the development of international policies for cultural landscapes over the last several years, defines three broad categories of cultural landscape:

1. the "clearly defined landscape designed and created intentionally by man", including historic gardens and parklands;
2. the "organically evolved landscape" (including "relict" (or fossil) landscapes", whose development ended in the past, and "continuing landscapes" where "the evolutionary process is still in progress"); and
3. "associative cultural landscapes", given importance by the strength of "religious, artistic or cultural associations" with their natural attributes.
"Cultural heritage landscapes" are defined within the 1995 Ontario Planning Act as landscapes which have been "altered through human activity and have been identified as important to the community". The Implementation Guidelines associated with the Act roughly parallel the World Heritage categories in drawing distinctions between "evolving landscapes", "historically designed landscapes" and "sacred landscapes".

Parks Canada defines a cultural landscape as "any geographical area that has been modified, influenced or given special cultural meaning by people."

Most of the landscape of the Rideau Corridor could be described as consisting of "continuing landscapes", given the preponderance of agricultural use; however, the engineered landscapes associated with the Canal itself may be understood as designed landscapes.

In recent years, use of "cultural landscape" has extended beyond exploration of the particular nature of the terrains described by the term, to include association with a holistic philosophy of land management.

What are the benefits of a cultural landscape approach?

The various definitions of cultural landscape highlight a number of the key elements inherent in a cultural landscape approach's ability to help us better manage the territory around us.

• **fresh approach**
  
The approach offers a new way of looking at familiar things, one which clarifies important qualities and relationships in a manner which can tangibly enter into discussions concerning their better care and management.

• **integrated approach**
  
The definitions of "cultural landscape" - all are concerned with the interaction between human beings and nature - demonstrate that natural qualities and cultural qualities need to be considered together in planning a region's future. The qualities and needs of natural resources should be integrated with the values and needs of cultural heritage resources in defining strategies appropriate for the care of both.

• **systemic approach**
  
A cultural landscape approach asks that landscape attributes be considered in the perspective of the landscape system to which they belong. Hence this approach goes beyond
preoccupation with lists of important places or features, to concern for the health of the overall context or system in which these are situated. This "holistic" approach offers those working with cultural landscapes a framework analogous to the use of ecosystem planning (for care of environmental resources), for the protection/care of cultural resources.

- **approach concerned with dynamic qualities**

Most heritage conservation and management systems focus on the identification and protection of sites or structures of static qualities, (e.g. a building or structure). A cultural landscape approach demands equal appreciation of the value and nature of the dynamic qualities of such landscapes. Hence cultural landscape conservation must focus as much on protection of associated features or patterns, as on the practices necessary to sustain use.

- **effective management framework**

A cultural landscape approach provides a management framework within which significant landscape attributes may be identified, their qualities and integrity analyzed and appropriate treatment suggested. It also permits rapid identification of the most significant threats to values and character. And, finally, the approach provides an integrating framework for action; it can help tie together existing initiatives and programmes at different levels of concern and responsibility, and dramatically increase the effectiveness of each.

- **sustainable approach**

A cultural landscape approach is concerned with managing the cultural resources which make it up in order to ensure both their long-term use and survival. The approach seeks to guide change and development in directions which respect, maintain and build upon the qualities of existing resources.

What does a cultural landscape approach involve?

It is also helpful to highlight a number of the key characteristics of a cultural landscape approach, useful in attempting to apply the approach.

- **no distinction between rural/urban**

Cultural landscapes are concerned with more than the manipulation of "green" or plant material; hence, cultural landscapes may include city neighbourhoods, rural hamlets, agricultural fieldscapes, water-side settlements, and
forests and wetlands, whose existence has been influenced by human activity;

- **can be applied at all scales**

Cultural landscapes may be understood to exist at a variety of scales, depending upon the interests and perceptions of those involved; the farming landscape of southern Ontario, set within its pioneer grid of lots and concessions, may be described (legitimately) as a cultural landscape; however a single residential block of the village of Merrickville, its 19th century residences and drive sheds intact on their original lots, may also be described as cultural landscape. Meaningful analysis of cultural landscapes requires a clear indication of the scale of the assessment being carried out;

- **boundaries difficult to establish**

Since regions are usually characterized by several layers of landscape phases whose boundaries are not fully coincident, identification of clearly defined terrain boundaries is difficult. As well, the boundaries of a specific cultural landscape unit depend, as above, on the scale of interest and investigation. They may also vary on the basis of the framework used for perception: is the perceptual framework physical, seeking containment within cleared space, or between enclosing landscape features such as ridges? Or is the framework associative, linked to thematic links amongst strands of a region's land-use history?

More than with conservation efforts focused on single properties, cultural landscape conservation efforts demand cross-boundary cooperation.

**Growing interest in a cultural landscape approach**

The tendencies to give greater prominence to a cultural landscape approach are evident in many jurisdictions.

The Ontario Planning Act of March, 1995 includes cultural heritage landscapes as a significant category among the three types of cultural resources it defines and treats. The Implementation Guidelines and the Cultural Technical Manual which accompany it give some guidance to planners and others in implementing provisions of the Act, and in better understanding and defining Ontario cultural landscapes.

At the Federal level, the Historic Sites and Monuments Board of Canada has recently developed criteria to commemorate "Rural Historic Districts" of national significance. Generally, these criteria focus attention on landscape types which recall the UNESCO's World Heritage Committee's "continuing" landscapes.
As well, the National Capital Commission has begun to use a cultural landscapes framework to better define and manage rural domains in its care.

Putting a cultural landscape approach into practice

Local governments or jurisdictions interested in gaining the advantages of a cultural landscape approach need to devote their attention to two primary concerns:

1. methods of assessment of cultural landscapes;

2. appropriate strategies for management (protection, development, and presentation) of cultural landscapes.

The next section attempts to delineate processes by which these objectives may be fostered.
The lock station at Chaffey's is an example of a site where the protection afforded Parks Canada's lands and structures could usefully be extended to adjacent properties and structures in private hands, including for example the stand of boat houses lining the Canal channel, the Opinicon Lodge, and the former mill building now converted to a summer residence.
Ill. #80
Early settlers used water power for their saw and grist mills, and later industrialists built factories on the rivers. With the advent of hydro electricity, small plants began to supply local populations with electrical power.
5.2.3 Using the results of cultural landscape assessment

It is important to understand how cultural landscape assessment can be used in local planning, in order to ensure that the assessment process produces results useful for sound land management.

A cultural landscape assessment process should result in recommendations concerning both particular sites of high cultural landscape significance, and also important landscape attributes related to the character of the region as a whole.

At the same time, it should be understood that the imprint on a region of the many significant impulses that have transformed its landscape over time may extend beyond the region's boundaries.

The ability to protect and enhance the character of a particular region depends very much on the ability of planners to develop a "total approach" to its qualities. Focusing only on landscape areas of special significance can unnecessarily isolate these from the region's principal developmental processes, compromise their true market worth and build resentment in landowners who fear being subject to special restrictions; at the same time, properties not defined as having special significance can be perceived by developers as having no heritage value and can become prime targets for uncontrolled development. With time, unless a balanced approach is adopted, areas of special significance can become islands of high interest isolated from each other in a sea of mediocre, degraded and illegible landscapes, and the over-riding sense of the region lost.

This is not to suggest that a region should be frozen in time, and all development resisted; rather it is to suggest that the overall character of a region resides in a host of interrelated features, patterns and land-use practices and that all of these should be taken into account in regional planning, and in guiding owners toward appropriate approaches for development of their properties.

Cultural landscape assessment involves giving attention then to concerns in two primary areas:

1. Recommendations for identification and treatment of sensitive areas

Assessment should result in an understanding of which particular landscape units are of most intrinsic importance to the region: which make the strongest contribution to defining and articulating the region's overall landscape character.
The assessment process should result in the following:

- identification of sensitive landscape areas requiring special consideration in land management and development;

- identification of the particular qualities of these sensitive areas which reflect their overall "characters";

- identification of the particular features, patterns and land-use practices which help define and support the character of an area.

Once these sensitive areas have been identified and their qualities and supporting attributes described, they may be included within a Township's Official Plan. By this means, planning review will take into account the impact of proposed changes on these areas.

Some Township Official Plans (such as that for Bedford Township) already provide for identification of "sensitive areas" of "historic and cultural" values. Other townships may need to alter their Official Plans to make similar response possible.

2. **Recommendations for identification and treatment of landscape features, patterns and practices unrelated to sensitive areas**

Many landscape features, patterns and practices may be located beyond the boundaries of particular identified sensitive areas, but nevertheless make important contributions to the overall character of a Township or a County.

An example could be an abandoned railway bridge; such a bridge, evaluated on its own merits, might seem to have little heritage value and not to warrant particular conservation efforts; seen, however, as part of a larger railway system whose building was an important strand in 19th c. local development, it may be understood to merit greater attention and care.

The cultural landscape assessment process should also therefore result in a cataloguing and mapping of significant landscape features, patterns and practices belonging to all of a region's principal landscape developmental phases.
The lockmaster's house at Poonamalie (1840-41) originally served the dual function of housing the lockmaster's family and providing a military structure in times of war. Little visible evidence remains of the defensive nature of the building. A clapboard second storey was added at the turn-of-the-century to the single-storey stone building and the defensive loopholes were filled in. As a result, the building took on a domestic appearance much as shown in this single-purpose lockmaster's house at Edmunds.
5.2.4 A how-to approach to cultural landscape assessment

In order to produce the desired results defined above, generally, cultural landscape assessment in a particular region should follow the steps suggested below:

1. Identify the broad transformational impulses (or developmental themes) which have characterized the growth of the region.

   - While it is tempting to begin assessment with fieldwork, a preliminary scan of a region's history can provide a valuable reference framework within which to place attributes which can be examined during later field visits.

   - This report identifies the following transformational impulses as the most significant for the Rideau corridor as a whole:

     - **natural forces**: the cumulative impact of all natural forces on the landscape immediately prior to arrival of the first settlers approximately 10,000 years ago;

     - **aboriginal occupation**: use of the area's waterways for trading and seasonal hunting and fishing; minimal impact on the landscape;

     - **preparation for settlement**: the imposition of a surveyor's grid on the landscape, establishing theoretical transportation lines and potential settlement nodes where these intersected waterways; early efforts at clearance for settlements;

     - **early settlement**: translation of the surveyor's grids into physical reality; establishment of milling communities to serve settlers;

     - **demand for timber**: clearance of the Rideau Lakes and Cataraqui Valley of timber (principally white pine for commercial purposes);

     - **defence of the colony**: building of the Rideau Canal to provide a water link between Kingston and the Ottawa River; substantial impact on water levels and water-side uses within the Corridor;
These essentially chronological impulses are not necessarily present in every Township and certainly not to the same degree. They provide, however, a useful starting point for asking within a Township which impulses may have had a significant impact on development of its landscape character.
Nor should the above be regarded as an all-inclusive list; it may need to be modified or adapted to the particular developmental history of a Township. Many sub-themes may need to be identified to help locate and understand a region's important landscape attributes.

Other themes or sub-themes pertinent within the Rideau Corridor could include:

- development of transportation networks, particularly road and rail;
- development of educational systems and local schools;
- development of power grids and related power generating stations.
2. Plot these impulses against time.

- Plot each transforming impulse on a graph against the period of time during which it has played a role in shaping the landscape. This graph should enable a number of clear conclusions to be drawn about development in the region:
  
  - those impulses or themes continuing in the present should be evident; (e.g. dairy-farming);
  
  - these impulses which are no longer significant shaping forces should also be evident (e.g. milling);
  
  - those impulses which have had long and continuing influence should also be evident (e.g. canal use);
  
  - this data may also begin to suggest which of the various transformational impulses are the most important, or dominant in defining the region's character; in addition, they will help provide a clearer sense of the possible themes to which visible attributes may be linked. They will also help clarify the number of layers of land-use practice which may be expected to exist at specific places within the region, and the relationship between them.
Farming and cattle have been continuing themes over time throughout the Rideau Corridor.
3. Map the geographic terrains shaped or altered by the transformational phases identified.

- In some cases, it will be possible to identify specific, well-defined terrains and to associate these with a particular impulse or phase of development (e.g. canal use can be linked to lock stations, and the engineered waterway and its banks). In other cases, the terrain associated with the particular development impulse may be more difficult to limit to the region (e.g. early settlement patterns, based on military surveys), or to define (e.g. the transportation system and service stations developed to serve early motor vehicles).

- It is important to think of the full system of attributes which may be linked to a particular development phase. The carding of wool in Merrickville, for example, would be represented not solely by the remains of the mills in which the activity took place, but by the farms which supplied wool, the transport systems which delivered the material to the mills and the finished product to consumers or merchants, the mills themselves and the waterways which drove the mills;

- Obviously elements of one landscape system may overlap or use elements developed within other systems. Nevertheless, it is important to keep the full system of any one landscape development theme in mind in order to be able to see the importance of landscape features relative to the system of which they are a part.
4. Identify the region's basic landscape character.

It is useful, as detailed explorations of the nature of various landscape development phases and related attributes proceed, to be able to define the dominant landscape character or type of the region being looked at. This can help planners clarify priorities in confronting difficult decisions about what to retain or abandon.

The Rideau Corridor study which accompanies this report identified a number of distinctive landscape types present within the Corridor. These types, described below, are actively "continuing" in the landscape at the present time. They may be regarded as "generic" in the context of the Corridor, although not all are likely to be present to any significant extent in any one Township. These include:

- **canal landscapes** - those associated with the creation of the canal; includes nodes at the lockstations and linear ranges between;

- **farmland** - those associated with the use of cleared land for farming; principally, dairy farming;

- "**cottage country"** - the development of linear recreational strips of cottages adjacent water-edges along lakes and rivers of the Corridor;

- **urban settlement** - the developed cores of the major towns and villages within the Corridor;

- **suburban settlement** - two sub-types: urban hinterland (the relatively modern residential, commercial and industrial development around developed urban cores); and shoreland (linear residential suburban development expanding out of various urban cores along waterways of the Corridor);

- **forest** - forest cover present in the Corridor; includes planted forests and forests reclaiming abandoned farmland;

- **wetlands** - wetlands adjacent waterways resulting from changes in water levels along the Corridor.

These types are useful at a macro level in assessing the Corridor as a whole. While they may need refinement or adaptation to be helpful at the scale of a particular Township, they may be useful in focusing attention on the principal essence of the landscape character of a region. For example, at the scale of the Corridor, a "farming landscape" unit may include the "four corner" settlements, usually now in decline, that once functioned as basic service centres for the farming activity.
5. Identify the attributes which can be associated with the various phases of landscape development.

- The various transformational impulses or developmental phases of landscape development may be recognized through the attributes which characterize them. These elements may take several forms:

  - some may be "features": physical modification to the landscape - structures such as houses, barns, fences, docks, bridges; and landscape reworking - railbeds, ploughed fields, surfaced roads etc.
  
  - some may be "patterns": transportation networks, land tenure systems, location grids or patterns for school, houses, cheese factories or other building uses etc.

  - some may be "land-use practices": including land cultivation practices (crop rotation, planting, fertilisation, clearing etc.), forest management and exploitation, mineral extraction and mining etc.

- Features identified should be seen within the context of patterns that they help compose within the landscape: a road is part of a transportation network; a lime pit or a hop house on a farm should be seen as ancillary structures supporting farm productivity.
6. Assess the integrity of each of the various landscape attributes.

- It is necessary with respect to each of the attributes identified to investigate its general condition and the degree to which its messages are legible, or could be made legible: to what degree are the attributes associated with the landscape phase still intact or present? To what degree could they be recovered or strengthened?

- Integrity assessment involves looking at the degree to which the significant cultural landscape values identified for a region (as represented in its various landscape phases) can be perceived as present in the landscape. It involves assessment of the wholeness or completeness of the attributes which carry these values; it also involves assessment of the realness (or genuineness) of their expression and the essential truth of the messages carried by these attributes.

- For cultural landscapes, integrity has much to do with the legibility or readability of the significant traits in the landscape.

- Integrity is difficult to assess in the abstract for a particular cultural landscape. It is generally necessary to pose the integrity question with respect to each of a landscape's significant attributes:
  - what is the degree of integrity of the identified landscape features (both in material and design)?
  - what is the degree of integrity associated with various landscape patterns (again, both in material and design)?
  - what is the degree of integrity associated with various land-use practices (here the focus needs to be traditions of land use and management)?
7. **Assess threats and opportunities in the environment of the attributes.**

- Integrity analysis can give us a snapshot of the state of the attributes under review: their general condition, their general legibility in carrying significant messages. It is also important to look at the forces in the environment surrounding the attributes and to determine their potential negative and positive impacts on the attributes. Forces with the potential for negative impact are generally described as **threats** by planners; forces with the potential for positive impact or support are called generally called **opportunities**.

- It is important to make a list of threats and opportunities which might affect the attributes, to assess the likelihood of threats and/or opportunities being realised, and to assess the nature of potential impacts associated with threats/opportunities should these arise. Threats and opportunities can then be ranked from the point of view of their importance for the attributes, and this importance taken into account in planning treatment for the attributes.

- In a sense, this phase of analysis involves "risk assessment" for threats, and possible "benefit assessment" for opportunities.
8. Identify appropriate treatment/management strategies suggested by integrity analysis.

- The integrity assessments carried out in step 6, and the threats/opportunities assessment in step 7 for the various attributes of the region's landscape phases suggest needed emphases in treatment or management strategies for the longer-term care of these attributes. Strategies responding to integrity assessments are essentially curative, focused on providing care to the attribute itself; strategies responding to threats/opportunities analysis are essentially "preventive", focused on the environment within which the attribute exists.

- It is important in reviewing recommended treatment or management strategies to distinguish between landscape phases which have ended, and those that are continuing.

The range of desirable "curative" treatments for attributes supporting landscape phases which are over will likely be fairly limited: inventory, recording, mapping, commemoration, maintaining, sheltering, reinforcement or stabilisation: essentially various forms of documentation and protection of features, patterns and/or the messages they carry. More intensive activities such as restoration, or reconstruction will likely only be feasible for attributes belonging to already completed landscape phases of the very highest significance.

The range of "curative" options for attributes characterizing continuing landscape phases will be greater than that for landscape phases which have ended; it will include those options already mentioned but also strategies such as repair, recovery, reinstatement, rehabilitation, restoration, rebuilding or reconstruction; interpretation: all various forms of renewal.

- Threat/opportunity assessments help define the focus of needed strategies for altering conditions in the environment surrounding the attribute - removing negative conditions, or reinforcing positive conditions.

- The following tables give some rough guidance in attempting first to illustrate the range of appropriate strategies for treatment of cultural landscape attributes, and secondly, to identify the general course of appropriate strategies/treatments for attributes related to both "life complete" and "life continuing" landscape phases.
Fig. 3 APPROPRIATE STRATEGIES FOR TREATMENT OF CULTURAL LANDSCAPE ATTRIBUTES

landscape phases (life complete)
- inventory
- recording
- mapping
- commemoration
- maintaining
- sheltering
- reinforcement

landscape phases (continuing)
- stabilisation
- interpretation
- repair
- recovery
- reinstatement
- restoration
- rehabilitation
- rebuilding
- reconstruction
Fig. 4 LANDSCAPE PHASES (LIFE COMPLETE)

- **Attribute Assessment**
  - **Integrity**
    - **Assessment**
      - High risk
        - Threats/curative approach
        - Preventive strategy
      - Low risk
        - Stabilize/stabilize
        - Commemorate
  - **Poor Repair**
    - Legible/incomplete
      - Low risk
        - Maintain/reduce risk
      - High risk
        - Adapt/condition
  - **Features**
    - Legible/adequate condition
      - Low risk
        - Adapt/new use
    - Intact
      - Maintain/adaptive condition
      - Adapt/new use
  - **Land-Use Practices**
    - ---
Fig. 5  LANDSCAPE PHASES  (LIFE CONTINUING)

<table>
<thead>
<tr>
<th>Threats/ Opportunities</th>
<th>Curative Preventive Treatment/Strategy</th>
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<tr>
<td>Attribute Assessment</td>
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<td>High Risk</td>
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<td>Poor Repair</td>
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<td>High Risk</td>
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<tr>
<td>Illegible/ Incomplete</td>
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<td>Low Risk</td>
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<td>Patterns</td>
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<td>Legible/ Adequate</td>
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<td>Condition</td>
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<td>Destructive/ Unsustainable</td>
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<td>Land-Use Practices</td>
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<td>Low Risk</td>
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<td>High Risk</td>
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<td>Low Risk</td>
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• It is important that cultural landscape assessment is carried forward from previous steps during which an understanding and appreciation of landscape qualities is established, to this step, which defines guidelines for appropriate managerial response to the nature of those qualities. Too often, responsibility for the definition of the qualities of a place is separated from responsibility for appropriate care, with the result that adopted strategies or actions seem largely unrelated to the values of the cultural resources examined.

• This step will not result in specific recommendations for treatment of attributes; it should, however, suggest a preferred orientation for appropriate treatments or strategies.
Next step: Prepare a character statement for the municipal unit or township

- It is important that the results of the analysis carried out in the preceding steps are organized and presented in a fashion which will help guide decision-making. The vehicle of the "character-statement" is well-suited to this task for cultural landscapes. Ultimately, the cultural landscape character statement prepared for a region should be attached to or linked to local planning documents and processes (including the Official Plan, or local bylaws and planning review processes).

- The character statement should organize the results of the various assessments carried out in the previous steps in tangible ways to allow those to be referred to in planning and decision-making.

The character statement prepared for each landscape region should include:

- identification of the dominant cultural landscape character of the particular region (Township, County, Municipality etc.);

- identification of landscape areas of high significance ("sensitive areas") deserving special care in planning review, and related attributes;

- identification of the various landscape phases contributing to the overall character of the region;

- identification of significant attributes: features, patterns, land-use patterns associated with these landscape phases, and with identified areas of high significance;

- integrity assessments for various attributes identified;

- suggested guidelines for future appropriate treatments/management strategies for attributes identified.

This information should be treated graphically. Landscape development plans should be plotted in table format; landscape areas of high significance and important attributes should be mapped for ease of reference.
5.2.5 Carrying out the cultural landscape assessment

Those charged with cultural landscape assessment for Townships, Municipalities or sub-regions of the Rideau Canal Corridor are very fortunate. An extraordinary amount of high-quality primary research has already been compiled for the Canal, and adjacent communities. It would be difficult to find a National Historic Site for which there exists a more extensive collection of research materials. Primary sources include Ottawa (Parks Canada Head Office), Smiths Falls (Rideau Canal Historic Site headquarters) and Cornwall (Parks Canada Ontario Regional Office). Moreover, many Rideau Townships are served by well-written and thoroughly researched community histories, such as those prepared for South Elmsley, Smiths Falls, and Bastard and South Burgess. Historian Larry Turner produced several histories for the Rideau (with John Visser), Perth, Merrickville and early Rideau "camps" before his recent untimely death.

Rideau Corridor Townships and municipalities also appear abundantly blessed with individuals and groups interested to respond to the challenge offered by the region's cultural landscapes.

The possibilities for detective work offered by field visits are endless, fascinating and difficult to resist. But the ability to distinguish the elements of the various palimpsests which compose a contemporary landscape is not easy to develop. Meaningful exploration may require the involvement of many disciplines: the cultural geographer, the historian, the archaeologist, the ethnologist, the landscape architect. Effective interpretation of landscape features may require access to special tools, and significant degrees of experience in similar sites. The use of aerial flyovers employing special cameras may reveal patterns not visible to the naked eye at ground level; raking light (early morning or late afternoon conditions) or the use of special filters can indicate the patterns of earlier plantings or lost fence-lines. Experience is necessary too to fully profit from the observations made and to ensure "recognition" of what is seen.

Most importantly, however, fieldwork needs a reference framework to work within. The purpose of the background research phase of cultural landscape investigation is to identify those significant developmental themes which have helped shape a specific region. Once identified, these can suggest a range of possible expressions, features or patterns which may be present, on the basis of the impact of similar developmental impulses elsewhere. With this palette of possible attributes in hand for each major theme in an area, the fieldwork detective is in a much better position to draw informed conclusions about the nature of what is present in the landscape.

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5.2.6 Effective management of Rideau Corridor cultural landscapes

The Ontario Planning Act of March 1995 has done much to promote a forward-looking treatment of cultural landscapes. Two of the Policy Statements accompanying the Act are of particular relevance here:

- Policy B13 notes that "Policies and decisions regarding development and infrastructure should conserve significant landscapes, vistas and ridge lines;"

- Policy B14 states that "Policies and decisions regarding development and infrastructure should conserve significant cultural heritage landscapes and built heritage resources."

While some Rideau Corridor townships have already incorporated general heritage conservation policies within their Official Plans, the Planning Act requires explicit policies for treatment of cultural heritage resources to be developed within such plans, and that adequate data be in place to identify and care for particularly significant landscape areas. Further attention is given to the opportunities offered by the Ontario Planning Act framework in Section 6.3.

Municipalities or Townships interested in improving the care they bring to the cultural landscapes within their boundaries will also benefit from giving attention to the key generic elements of effective management strategies for cultural landscapes.

The suggestions which follow are built around the assumption that effective management strategies for cultural landscapes will seek to guide change, not to freeze the landscapes in any particular state. Given their dynamic nature, any attempt to freeze these landscapes would quickly result in their decline; indeed, our present conservation efforts can be understood as contemporary recognition of past efforts of others to improve their landscapes to achieve their most appropriate or effective use within earlier political, social and economic frameworks.

Effective management strategies for cultural landscapes along the Rideau require a number of elements:

1. understanding both the qualities of these landscapes and the processes which maintain or have created these qualities within the landscape. The increased awareness of the attributes of a farming landscape which will result from the investigative work described above may help identify particularly significant landscape areas; but it will also promote understanding of the relation between the long term vitality of that farming landscape and the particular conditions fostering or promoting farming.
2. ensuring that the particular values or qualities of a region's cultural landscapes are placed up front in the planning process. Too often, those interested in protecting cultural landscape qualities are involved in rear-guard actions. These actions do not necessarily endear cultural landscape advocates to those in the development community who perceive such attacks as changing the rules of the game part way through the development application process; nor do they help the cultural landscape "cause", which is eventually associated - unreasonably - with those who would stop progress and "freeze" a community as it is;

3. ensuring that the protection of the values of cultural landscapes in community or regional planning is placed at the same level as other legitimate development objectives for any project or property. This approach ensures that the interests of those concerned with maintaining the character of important landscapes are integrated with the interests of those fostering other important community objectives: housing, transport, health, education, agricultural production, employment etc., and not seen to be in conflict with these.

4. integrating efforts to conserve cultural landscapes closely with efforts to conserve natural landscapes and their distinctive features; both fields are concerned directly with the sensible management of land to protect important values; both are concerned to define and use approaches that are sustainable in nature; both are seeking to define and maintain an appropriate balance between the conservation of landscape values and development. Much is to be gained from fostering a shared approach to landscape management for the Corridor among environmental conservation advocates, and those interested in cultural landscape conservation.

5. ensuring community involvement in evaluation of cultural landscape significance and appropriate treatment. The investigative work carried out to define a Township's cultural landscape should draw upon local expertise; the fieldwork component of research can offer significant recreational learning opportunities to troops of Boy Scouts and Girl Guides, to the members of a local history society or just to ad-hoc groups of interested citizens. LACACS have been encouraged, in working with a to-be-revised Ontario Heritage Act to broaden their perspectives to include cultural landscapes. The greater the involvement of citizens in the preparation of such studies, the greater their interest in the results, and the greater sense of ownership for the special qualities of the lands they inhabit and work.
residents possess an instinctive interest in the history and transforming uses of their own lands; once equipped with some of the tools and insights necessary to decipher the landscape, their enthusiasm for exploration is difficult to contain, their local expertise grows rapidly and they soon become the most vigilant defenders of local cultural landscape values.

6. ensuring ongoing sharing of results of cultural landscape assessment processes by all those involved. Those who acquire understanding of the nature and evolution of an area's cultural landscapes have something which is of immense interest to visitors and residents alike; a series of illustrated public talks or walking/driving tours can both spread this acquired understanding and invite new participants to aid in the process;

the public school system offers an excellent opportunity to bring this understanding to an area's young citizens and future leaders; contemporary school curricula (geography; visual arts) encourage exploration of neighbourhoods and the countryside. While teachers generally have insufficient time to prepare the lesson plan kits necessary to underpin such expeditions, LACACS and Historical Societies can easily translate survey information into forms usable in a classroom;

once survey work is complete enough to provide a clear overview of an area's cultural landscapes, attention should be given to publishing data acquired. Modest reports can serve both to continue to increase awareness but also to aid residents, officials, and investors in obtaining a clear view of what is important to protect and respect in continuing development.

Ultimately, the Guidelines proposed above can only be effective if they can be incorporated within the framework provided by a Township's Official Plan. This requires commitment on the part of responsible officials to identify significant cultural landscapes and to ensure that the Official Plan provides necessary measures for their protection.
Notes on urban settlement landscape units

Given the large number of "urban" cultural landscapes within the Corridor, a set of urban-specific questions are presented below to adapt this Section's Guidelines to municipal and urban contexts.

Identification

Clearly identify the parameters of the area selected:
- the entire village?
- a single street - one or both sides?
- an entire block?
- a group of landscaped buildings?
- a garden or park complex?
- an industrial or residential complex?
- other?

Reason(s) for selection

What does this unit represent:
- a significant period in the historical development of the community? Fig. 1, listing "Impulses and Processes" in the historical development of the Rideau Waterway may be a useful reference);
- an aesthetically pleasing area possibly unique within a larger complex?
- a significant example of building or manufacturing technology?
- an outstanding or particularly placing example of an architectural style or the work of a particular architect?
- an area connected by context with a person or event of significance to the community?

Description of the selected unit

This description must include a physical description of the unit but even more importantly it must include as detailed a history as possible. Only with the latter will it be possible to clarify in what way the unit meets the criteria for which it was selected. Fig. 1 listing "Impulses and Processes" in the historical development of the Rideau Waterway may be a useful reference in assessing the historical significance of the unit; local histories of most urban settlements are now available, some of which are listed in the attached bibliography; books on architectural history will give guidance on the evolution of styles and importance of the architects; early and current street plans may be found in municipal offices and the local library, registry office and the provincial archives are other important resources in completing unit histories.
Character Defining Attributes

Attributes which assist in defining character might include:
- the extent and quality of restoration and/or adaptation of original buildings;
- the existence, condition and present use of early industrial buildings such as foundries, mills or factories;
- the predominance of any one type of industrial or commercial building;
- street plan - possible evidence of the original grid design;
- location of buildings on their sites: flush with the street, set back, landscaped
- the existence and location of industrial parks, shopping malls, housing subdivisions - this will be a clear indication of the pattern of development that has taken place and may be a strong indication of a change in character from past to present;
- the population identity as expressed by the dominance of an ethnic, religious or occupational group;
- the occupation of sites, either residential or commercial by successive generations of the founding families
- the existence of accessory buildings, such as garages or tool sheds;
- landscape features such as fences, garden gates, ornaments, etc.

Evaluation and Integrity

Cultural landscape units are, in actuality, visual history. In their evaluation then it is important to assess just what they are saying and to what extent they define the character of the community. An important element in this assessment lies with the perceived integrity or authenticity of the defining units, of the street plan and the quality of any restoration or adaptation that may have taken place.

Conservation

Threats:
- abandonment due to the fact that no viable use can be found for the structure
- restoration or adaptation that is poorly planned and/or executed;
- lack of interest by the owner of the site or the unit;
- acquisition of the property for uses which dictate the demolition of existing structures
- erection of buildings or developments nearby which are out of scale and context with the originals, thereby destroying both the appearance and the original ambience of the area;
- lack of guidance in restoration/adaptation of buildings;
- lack of funding to support or finance conservation efforts.
Aids

- local preservation societies such as the LACAC (Local Architectural Conservation Advisory Committee), a provincial organization provides guidance in the designation of buildings and sites and offering some financial incentives or assistance for preservation maintenance of their heritage aspects. The Architectural Conservancy of Ontario (ACO) offers assessment of both the history and structure of selected buildings with the recommendations for repair or restoration of selected buildings;
- help from the above-noted and local groups in the form of advice and moral support in the persuasion of those in control i.e. - owners, politicians and developers.

Guiding principles for long term preservation

- prepare and maintain an inventory of sites, buildings and landscapes so that threats can be countered immediately - avoid operating on a crisis basis;
- prepare documentation carefully and thoroughly providing reasonable arguments against current threats. Such documentation must emphasize the quality of the unit and what it means - not just that it is attractive;
- public relations programs are important to educate and interest residents in the heritage of the area to ensure support in times of need, to be aware of up-coming threats and to enlist the assistance of local planners and politicians.
5.3 Recommendations

5.3.1 Introduction

The recommendations which follow acknowledge the various problems/threats to the character of the Corridor's cultural landscapes identified during the study, and equally the opportunities revealed for their care. Recommendations are framed within a comprehensive assessment of trends likely to affect Corridor landscapes and the ability of those concerned with these qualities to affect policy and practice.

5.3.2 Ensuring absolute protection for important cultural landscapes

Maps of the Rideau Corridor reveal discrepancies in the treatment accorded areas of natural value and areas of cultural value. The maps portray many lands set aside as natural land reserves: provincial parks, conservation areas, Township environmental protection areas and others. On the cultural side, only the sections of the Rideau Canal administered by Parks Canada can be considered to have comparable protection for lands of cultural heritage value. No indicator could provide a more telling illustration of the different attitudes buttressing natural and cultural heritage protection along the Rideau Corridor, (and indeed in Ontario in general) than this.

Examination of measures within the Corridor Township Official Plans to protect its cultural landscapes confirms the lesser degree of protection afforded such landscapes. As noted in Section 4.2, while a number of Official Plans provide for identification and protection of cultural landscapes, the use of the ubiquitous "wherever possible" to qualify measures provided, significantly limits any protection offered.

The reticence to confer protection equivalent to that given natural landscapes on cultural landscapes is a critical issue. Without the commitment of responsible officials (and behind them, the region's citizens) to provide equivalent care, cultural landscapes will be subject to arbitrary inclusion in protective actions and their qualities at risk in the face of any and all proposed developments.

The Planning Act of 1995 provides a framework for protecting areas of cultural landscape interest to a degree comparable to that afforded areas of natural or environmental interest. Improving the prospects for the Corridor's cultural landscape requires a commitment by Township officials to recognize cultural landscape protection as an important issue, and to use the planning mechanisms now available.
Informal contacts with planning officials in Rideau Corridor townships suggest that improving protection for cultural landscapes is, however, a very low priority in municipal agendas. Planners working for the Conservation Authorities are sympathetic to the importance of the area's cultural landscapes but are unable to provide protection not provided for in law. A concentrated thrust of activity - through public symposia, exhibitions, lecture series etc. spread over several years - to promote the Corridor's cultural landscapes would appear necessary to create a more positive climate for protection. Involvement of area citizens in exploration and identification of cultural landscapes in their townships, as foreseen in implementation of the Guidelines (Section 5.2) would also help build the positive climate necessary to improve protection of these landscapes.

5.3.3 Balancing concern for natural and cultural values

One of the keys to improving care for the Rideau Corridor's cultural landscape is altering current perceptions about the relationship between cultural and natural values in the landscape, and by finding ways to translate necessary attitudinal changes into appropriate mechanisms for landscape planning and decision-making.

The various definitions currently in use for cultural landscapes all focus on the interplay between humans and their environment as the critical feature in the make-up of such landscapes.

Accordingly, strategies to improve the care of cultural landscapes in general, and those of the Rideau Corridor in particular, must seek to balance concern for both their natural and cultural values.

This is not easy to do given difficulties which exist in both fields in developing objective methodologies for defining their qualities and appropriate care. These difficulties are multiplied many times over when efforts are made to define approaches or strategies suitable to meet objectives in both areas at the same time.

It is worth looking in some detail at the difficulties experienced in making objective assessments for Corridor landscapes in both natural and cultural areas.

1. Natural heritage perspectives

Assessment of the effectiveness of proposed approaches to management of Rideau Corridor landscapes from a natural heritage point of view involves measuring their impact on the ecological integrity of affected terrains: their ecological "success" or "failure".
However, the concept of an ecological success or failure is relatively arbitrary and cannot easily be applied objectively to the Rideau Corridor. Some might consider the natural recolonization of the abandoned farm field at Poonamalie an ecological success. Some might feel success too generous a word in light of the old-growth forest that was removed to make this farm field, while even others might feel it redundant to label a naturally occurring process a success. Ecological success or failure can also be argued from an evolutionary standpoint, where success is equated with survival. In this sense, success would apply to those species that have adapted well to humans such as the red fox, coyote, and raccoon. An example of a failure would apply to the drastically shrinking numbers of cerulean warblers, which currently maintain a noted remnant population around Lake Opinicon. Also, ecosystems and associated successes and failures, rarely recognize artificial borders, such as those defining the Rideau Corridor. For example, the factors that created the endangered species status for Golden Eagles cannot be solely blamed on changes that have occurred in the Corridor.

Scale is also relevant in defining an ecological success or failure. A small scale failure might apply to the eroding riverbanks of Nicolls Island, whereas a small scale success might be applied if the duck blinds at Bacchus Marsh were abandoned. Success on a more moderate scale might apply to the survival of the rare pitch pine at Rock Dunder, to the establishment of the Merrickville Game sanctuary, or to the recent purchase and subsequent protection of the portions of Lake Opinicon shoreline by the Queen's University Biology Station. Failure on a more moderate scale might apply to the past use of the Rideau and Cataraqui rivers as landfill sites by Smiths Falls and Kingston. On a large scale, success might apply to the extensive reforestation that has occurred over the central part of the Corridor. A large scale ecological failure could apply to the extensive urbanization that has occurred between Ottawa and Merrickville. (It should be noted that the proponents of cultural landscape might dispute use of these terms for the reforestation and urbanization processes described).

High biodiversity is usually assigned a positive value, and it is higher with the Rideau Corridor today than it was prior to the 1800s. The extensive tracts of old-growth forests present at that time were somewhat homogenous and therefore contained a limited number of species. However, as a result of anthropogenic activity within the Corridor, many more habitats and associated species are now present. However, the biodiversity created in the last 200 years is not necessarily an ecological success because it resulted in the extirpation and extinction of many endemic species and the introduction of many non-native species.
The labelling of species as "non-native" usually has a negative connotation, especially when introduced species such as purple loosestrife, Eurasian milfoil, quackgrass, and zebra mussels conflict with cultural uses of the landscape. However, many non-native species have become assimilated into the landscape, to the point where few people would be aware of their lineage. For example, as much as 40% of the grass species present today were introduced. As many writers concerned with cultural landscape have pointed out, the concept of "natural" is anachronistic due to the pervasive influence of humans. This is best illustrated with the loggerhead shrike. This bird was not present here in the early 1800s, but moved into the area as forests were cleared. It thrived on the earlier farmsteads, but as farming practices changed, its numbers declined. It is now on the endangered species list, and considerable effort is expended over its welfare. Does a similar fate await purple loosestrife in 200 years?

2. Cultural heritage perspectives

Equally, it is difficult to win agreement over the identification of significant cultural landscape attributes or patterns along the Rideau Corridor. Some see the Corridor as dominated by the Canal and wish to support actions strengthening understanding of the engineering accomplishments of Colonel By and his engineers; others suggest that the Canal itself had little impact on development of the Corridor (but for the impetus given to development of Ottawa), given that the settlements and farmlands adjacent the Canal are not substantially different than those to be found throughout any part of Eastern Ontario. Indeed, others wish to emphasize the role of the Canal in destroying the significant national habitats present at the end of the 18th century.

Others may debate the relative worth of the various layers of occupation which have claimed sections of the Corridor, and then in turn been subject to development overlays themselves. Some may prefer to give weight to surviving evidence of early settlements, for example, including early grain and saw mills and millraces; others may give weight to patterns and attributes associated with growing industrialization along the Corridor, such as the woollen mills of Merrickville; others may focus on the remnants of the various transportation networks which have spurred development in the area, including the railway systems now largely abandoned; and yet others may focus on aspects of recreational development along the Rideau/Cataraqui shorelines.

In most cases, it is neither possible nor desirable to suggest any one strand of the Corridor's landscape development to be more important than another. Our
perceptions of cultural heritage worth are highly subjective, qualified by our own cultural circumstances and biases; moreover, these impressions inevitably change with time: today's out-of-favour landscapes may be understood tomorrow as "remarkable illustrations" of historical trends we have yet to define or appreciate. Our efforts are best directed to understanding the complex nature of our inherited palimpsests and to ensure maximum legibility of the layered mosaics associated with them. Where judgements and/or choices appear necessary, it is important to employ planning mechanisms which will ensure that these reflect consensus among the community of those affected, and therefore to the greatest extent possible, shared perceptions within that community.

Recognizing cultural landscapes as reflections of successions of land-transforming impulses also improves our ability to distinguish those development processes which may maintain the integrity of the existing landscape while adding new layers of meaning from those which are needlessly destructive of earlier patterns.

3. **Bringing cultural and natural heritage perspectives together**

Contemporary judgements about appropriate treatment or development of Rideau Corridor landscapes often favour natural values over cultural, or vice-versa. Often the arguments supporting proposals are based on myth, ignorance or exaggerated claims.

It is important that efforts to prescribe for the Corridor's landscape are based on an appreciation and understanding of the extent to which human activity and the natural environment inter-relate.

For example, the Rideau wetlands that we attempt to save today, in order to preserve the habitats they offer to countless varieties of plants, and fresh-water inhabitants, are neither "original" nor fully "natural"; they result in their present form from the flooding of lands adjacent the waterways during the building of the Canal. Nor are the forests and meadows we struggle to preserve in the face of unplanned development a part of the "original" landscape; they are likely to result from decisions in the last five to eight decades to abandon farms or previously cleared land. Equally, contemporary approaches to significant "cottage country" landscapes along shorelines frequently harm natural habitats and bring about a deterioration in water quality. As well, the use of modern fertilisers on our valued farming landscapes results ultimately in the leaching of injurious chemicals into the water supply.

It is useful to look at these relationships in the context of a number of specific phases of Rideau development.
The village of Burritt's Rapids, its nearby lock station, and the remains of Andrewsville deserve to be treated as an ensemble in their own right and a landscape of particular importance.
Natural features, such as this group of wild iris, are an important natural component of the cultural landscape.
During the construction of the Canal, massive forests were cleared. This bush near Smiths Falls was illustrated by James Pattison Cockburn (circa 1830). The watercolour, along with contemporary written accounts describe forests of massive towering trees that blocked the penetration of sunlight. The French Canadian labourer in the foreground may be identified by his distinctive hat. NAC C-012607
• Canal Construction

The construction of the Canal, while an event of enormous consequence for the history of the region, may also be understood as the single most profound disturbance to the Corridor's ecology.

The engineering works which created the Canal opened up a waterway transport system of great significance, and one recognized by the international community as having potential for inclusion on the World Heritage List. Yet its construction involved the loss of much pristine forest and wetland habitat; while it improved access for farmers and loggers, it was the single biggest polluting event of the Rideau waterways. It caused the replacement of many habitats, such as the flooding of Dow's Swamp to make Dow's Lake, the flooding of Great Cranberry Bog to make Cranberry Lake, and the flooding of certain lowlands to make Easton, Smiths Falls, Merrickville and Tay marshes.

There were rare individuals in the early 1800s who espoused ecological visions similar to those of today's environmentalists, but the prevailing attitude at the time was not as generous. For example, many immigrant farmers held that all hawks and owls were a menace and should be dispatched on site (McIlwraith 1894). This practice, which was common in the 1800s, prevailed as recently as the 1960s. This attitude also extended to the vigorous clearing of land and draining of the wetlands, where many of the historic accounts describe the forests and swamps in negative terms. These attitudes were (understandably) based on the limited environmental knowledge available at that time.

• Forestry

Forestry in the Corridor began in earnest once canal construction was underway. Early timber extraction was dominated by high-grading, a process where only the largest trees were taken. To allow access to larger trees, many of the smaller trees would be felled and left on the ground. This created large amounts of slash (felled trees and limbs) which meant that these lands were more vulnerable to fire. A large fire in 1870 affected Darling, Pakenham, Lanark, Ramsay and Montague townships, and Carleton County (Keddy 1994). Forests were also burned to make potash, such as occurred in the Perth area (McCalla 1987).

By the late 1800s, most of the valuable timber had been removed from the Corridor. Fires and timber removal would have resulted in much soil erosion and siltation which was
noted by Christie (1993) in lake sediment records. The clearing of the forests was so thorough that little but a few ruined logging camps remain on the landscape to mark this phase of the Corridor's development.

• Urbanization and suburbanization

Development along the Rideau Corridor was largely concentrated in a number of villages and hamlets until the 1950s. These historic settlements constitute important nodes within the cultural landscape, and are key attractions for tourists. However, their expansion increases the need for roads, pits, quarries for building materials, landfills, and hydro-electric corridors. The main impacts of increasing urbanization are habitat loss. As well, many residents living alone along the Rideau River have turned cottages into year-round homes; they have often replaced their natural shoreline with sterile materials such as concrete or stone. The habitat loss associated with urbanisation and the suburbanization of cottage country is long term and therefore much more severe than habitat losses associated with forestry or farming.

Urbanization and suburbanization have posed sewage treatment problems along the Rideau waterways; these are especially evident north of Merrickville. In the past, many communities have dumped their sewage and industrial effluent directly into the Rideau waterways. For example, the defunct tanneries in Kingston and Perth are well known for the toxic materials pumped into the Carataqui and Tay rivers respectively. A current problem is seepage from poorly operating septic systems of older shoreline dwellings into the water system.

• Farming

The main ecological impact associated with farming has been habitat loss of forests and draining of wetlands. Also, slash and burn techniques employed to clear land caused much soil erosion and siltation. Early farms were largely self sufficient and more diversified than modern farms. Planting short season varieties of many modern cash crops was not feasible in the past; hence farmers earned cash through production of beef, dairy poultry and hogs. Prior to mechanisation, it was also necessary to set aside a portion of the harvest for draft animals. Because fertilizers did not become readily available until after WWII, early farmers needed to rotate crops and use animal manure to maintain good soil nutrient levels. These techniques would have had minimal impact on stream and ground water quality. Farming activity peaked in the 1890s
when approximately 70% of the Corridor was being farmed. This coincided with a low ebb in game populations as a result of over-hunting by farmers supplementing their diet, and the habitat loss caused by this farming peak. Since then, there has been a slow and continuing trend away from diversified operations, a significant reduction in farming activity. The semi-forested corridor that motorists and boaters move through today obscures the extent of the earlier farming operations.

In developing recommended approaches for the care of the Rideau Corridor's landscapes, it is evident that management and development strategies must develop ways to deal with cultural and natural values together. Assessment systems which result in separate lists of important cultural areas and important natural areas, or Official Plans which prescribe (separately) for sensitive environmental and landscape areas are not sufficient for the purpose. New evaluation and impact assessment methods are required in order to ensure an appropriate balancing of concern for cultural and heritage values in Corridor assessment.

It is not easy to identify mechanisms which can be borrowed or adapted for this purpose; very few proven approaches, if any, exist. Even the World Heritage Convention which places properties of exceptional universal cultural or natural value on the World Heritage List has not developed integrated mechanisms for such assessments. The advisory groups in two areas (cultural heritage – ICOMOS; Natural Heritage – IUCN) work separately; assessment of cultural landscapes in recognition of the perceived defining primacy of the cultural imprint on the natural environment is assigned to ICOMOS.

Significant innovation is required here to develop tools which balance these concerns; without the fruits of such innovation, treatment of the Rideau Corridor's cultural and natural heritage qualities will remain somewhat happenstance.
Carefully planned development may be a boom for many communities but the need for increased services such as landfill sites must not be forgotten.
5.3.4 **Principles guiding formulation of recommendations**

A number of principles have guided the formulation of those recommendations which follow.

1. **Importance of providing process tools**

The survival of the character of the Corridor's cultural landscapes would be best served by measures which equipped Township administrative units with the ability to identify and meaningfully describe all cultural landscapes within their boundaries, rather the provision of a "best of the Rideau" list of landscapes across the Corridor. Section 5.2 of the report is meant to provide model guidelines for use by Township officials and planners in the identification and care of cultural landscapes within their boundaries.

2. **Grass-roots approach**

Priority should be given to grass-roots approaches which increase public understanding and involvement in efforts to improve the protection of the Corridor's cultural landscapes.

3. **Need to improve accessibility of cultural landscape approach**

Efforts to promote a "cultural landscapes" approach within the mind of the public are not likely to be productive without improving the accessibility of the language used in communicating the concept. While the phrase "cultural landscape" may communicate well to experts involved in the field, it failed to win significant response from the Rideau Corridor public; unlike phrases in environmental conservation such as "ecosystem protection" which have gained a measure of popular acceptance and recognition, it is not immediately clear what "cultural landscapes" are all about. It may be of some value to consider adopting similar phrases, such as "historic landscape" or "rural landscape", even though these do not reflect accurately the full range of concepts associated with a cultural landscape approach.

Alternatively, it might be of greater value to give attention to the ideas that lie behind the approach: a new way of managing territories – sustainable, holistic, integrated, contextual – in order to retain their character, in developing more appealing and meaningful language for this concept.
4. Recognition of economic forces and policies as key shaping factors in contemporary landscape management.

The dominant forces threatening the integrity and character of the region's cultural landscapes are primarily linked to the forces governing economic use of the region (rather than development control issues); to date, successive economic forces have altered the landscape without significant loss to its integrity or to the legibility of its key messages, in most parts of the Corridor. The challenge is to guide current and future economic forces to forms of expression which do not abuse or obliterate significant surviving forms present in the landscape.

5. Integration of cultural and natural

It is important to demonstrate the degree to which efforts to improve the conservation of the region's environmental qualities and its cultural landscape qualities may be integrated; this is worth emphasizing given the number of instances in public meetings and interviews when individuals expressed resistance to a cultural landscape approach for fear that it imperilled environmental initiatives. This positive approach was a strong theme in the Parks Canada/MNR Lindsay Penney slide shows which have successfully raised interest in shore-line conservation measures for cottagers and boaters.

6. Multi-level approach

It is important to develop recommendations for action at all levels. While Section 7 provides model Guidelines for immediate application within individual townships, it is important that complementary integrated recommendations at regional, provincial and federal levels also be examined.

7. Promotion of understanding and appreciation

The conservation of the Rideau Corridor's special qualities will result not from dramatic or radical action in any one quarter, but from the cumulative impact of hundreds of small actions building together over time; achieving this impact requires that these actions be founded in a deep and shared understanding of, and respect for, these qualities. This further suggests the necessity for long-term approaches which have a broad educational component.
The construction of large houses and the clearing of the grounds can have a strong impact on the landscape of a heritage route of the quality and sensitivity as that linking Burritts Rapids and Merrickville.
5.3.5 Summary recommendations

The following recommendations range over a number of important subject areas and have been grouped accordingly.

A. Organisational

1. Strengthen the Corridor's identity.

The Corridor does not have a clear sense of identity shared by all residents and users. It is not clear to most how precisely the Corridor is bounded, or what lands or places are contained within it. Most residents are as likely to identify with parallel sources of identity (e.g. Lanark or Eastern Ontario) as with the Rideau.

Efforts to strengthen respect and care for the area's cultural landscapes would benefit strongly from the sense that individual efforts in different corners of the region were contributing to the building of a strong whole.

Means to achieve this objective could be discussed within the organisational frameworks proposed above; but at minimum, improvements could be obtained here by harmonizing the promotional efforts of the area's various tourism associations, Parks Canada, and other groups like the Friends of the Rideau.

2. Strengthen public appreciation for and sensitivity to the fate of the Corridor's cultural landscapes.

Apart from the strong interest shown by a number of area residents, groups and agencies in the areas cultural landscapes, the future of these landscapes and their value is not an issue of high priority in local discussions. To raise the profile of the issue of these landscapes and their treatment, it seems that a concerted public relations campaign will be necessary. Such a campaign could be planned by those concerned informally with the Corridor's cultural landscapes to bring greater appreciation of the area's landscapes qualities, and the nature of the damage to the area's identity and economic prospects when these landscapes are lost or obscured. This campaign could involve a continuing series of events: lectures, organized tours, colloquia (the Waterloo, Carleton and University of Montreal conservation programmes all take a keen interest in cultural landscapes and would be pleased to participate in organizing events celebrating the Rideau and exploring improved mechanisms of management), publications, artistic or photographic competitions. Local primary and secondary school teachers could also be asked to involve their students in study projects in specific areas of the Corridor, on themes important to its development.
Such a campaign might be most profitably built around an issue (a particular cultural landscape at risk, or the possibility of a World Heritage nomination).

3. Explore the feasibility of establishing a coordinating commission which brings together decision-making authorities.

A coordinating commission would initially encourage improved exchange of information on objectives and programmes affecting the region's cultural landscapes, and highlight opportunities for integrated effort among agencies, particularly in the area of development control. The existence of the two Conservation authorities, themselves integrating the region's townships, offers an excellent opportunity to do this without setting up new, unnecessary and expensive organisational structures. It also offers an opportunity to ensure long-term integration of measures for protection of both cultural and natural resources along the Corridor.

Government representatives at provincial and federal levels could be invited to join such a commission. It would be worth exploring the degree to which the Friends of the Rideau could provide an umbrella or forum for the coordination work.

Please note that the emphasis here is on coordination; this is not a proposal to create a management commission. Suspicion of government would hamper any effort to set up what would be perceived as an extra level of government. Over time, if a coordinating commission proved useful, it might be feasible, with the support of the involved agencies, to extend its powers into some areas of decision-making.

4. Explore the feasibility of launching a Heritage Canada type "Heritage Regions" project in the area.

Such projects meet many of the area's current needs: they would help integrate and give common focus to many of the disparate organisations and objectives already in place; they provide a tested means to build image and identity within a region for the benefit of the citizens and visitors; they provide a means to mobilize community members and provide constructive avenues for their energies and interests; they result in a means to build integrated grass-roots support for strong programmes of protection for the area's qualities; they also generate a dynamic and flexible framework for informal response to particular problems as these arise; they result in the uncovering and bringing together of knowledge and expertise relevant to an area's problems; and finally they can bring sustainable economic activity to regions in tune with needs and the region's character.
The achievements of such programmes are primarily "soft", and not initially highly visible. They require long-term commitment to programmes, building community support and patience for the fruits of change to become visible. Programmes are usually facilitated by one or more individuals prepared to play a coordination role within a region for a three-to-five year period; programmes also require demonstrated commitment on the part of all agencies or municipalities at project outset. Heritage Canada's experiences with a dozen such projects across Canada have demonstrated that these can provide cost-effective means to revitalize a region's identity and well-being and to strengthen its economic base.

Alternatively, if funds are not available to support Heritage Canada's participation, support might be sought from agencies and groups within the region to launch an informal project of similar goals and structure.

5. **Strengthen appreciation of tourism value of the Rideau Corridor cultural landscapes and integrate within tourism infrastructures.**

Tourism is well established along the Rideau Corridor. Many operators, owners and entrepreneurs are involved in promotion and delivery of tourism services; many tourism groups and organisations at all levels actively promote the area's tourism assets and seek to improve the satisfaction of visitors in tangible ways. At present, however, heritage tourism is not well developed along the Rideau Corridor. A form of "destination tourism" is practised on the qualities of a small number of places. An approach to heritage tourism in the area built around the area's cultural landscapes would increase interest and promote exploration (and the consequent need for support services) throughout every corner of the Corridor. It would also take pressure off some of the area's potentially over-exploited tourism destinations.

6. **Increase efforts to present and interpret the Corridor's landscapes by developing relevant itineraries for visitors.**

The region's various tourism associations and groups could improve the presentation and interpretation of the area's cultural landscapes in a number of pragmatic ways. One way would be to develop visitor itineraries or routes built around particular thematically-linked attributes important in telling the story of these landscapes. Development of such itineraries increases general visitor and resident awareness of the cultural landscapes they are moving through, but also increases appreciation of the contribution made by special attributes to larger themes.
These itineraries should be defined in ways which reflect perceptible cultural landscape patterns rather than just collections of "objects" or structures in the landscape, to the greatest degree possible. For example, a theme which readily suggests itself to knowledgeable Corridor residents is the many early stone cottages of the region. These houses are best portrayed within a cultural landscape perspective by planning the tourist itinerary around the theme of the early settlement routes. In a cultural landscape context, it is the route pushed through wilderness that is significant as reflective of the needs and ambitions of the early settlers; the houses are important as illustrations of settlement made possible by the route rather than just as examples of architecture.

This approach has already been developed at some sites with respect to the Corridor's natural qualities, for example, in the interpretive panels adjacent the Manotick Mill.

Many similar themes may be articulated; a selection are illustrated below:

- milling along the Corridor; (this could be illustrated through presentation of the sites of early mills drowned by the canal works; surviving early mills; the evolution from saw mills and grist mills for local use to industrial mills as in Merrickville; the many communities retaining mills in their name, e.g. Oxford Mills);

- the development of farming along the Corridor; (this could be illustrated through the presentation of barn types and what they say about changes in farming; the use of fences, hedges and tree lines to separate and define fields; evidence of different agricultural practices at different seasons of the year; the many large 19th c. farm houses showing the relative prosperity of the Corridor farms in the last century; local collection and distribution centres, e.g. the cheese factories);

- the development of automotive servicing along the Corridor; (this may seem like an obscure theme, but exploration of the Corridor's villages suggests the degree to which even small hamlets once possessed an all-purpose automotive supply and repair center. These may have come into existence as much to maintain farm machinery as for motorists; many early vestiges of the automotive centers are still in place, indeed often still serving similar functions);

- development of railway transportation along the Corridor (as illustrated in surviving stations, freight sheds and ancillary buildings, place names (the many Station Roads without a station), the many railway embankments, cuts and
bridges which support train traffic, and the miscellaneous clutter of the rails: telegraph poles and lines, water towers, signal boxes etc.);

- development of community services along the Corridor (as illustrated in the region’s surviving churches, the many church and roadside cemeteries, the many surviving rural school houses found at four corners settlements etc.).

Many other themes could be similarly described (industrial development, mercantile development, hydro-electrical development etc.) and attributes illustrating those identified to serve as the basis for developing thematically-based itineraries.

In association with the building and use of the Canal itself, similarly a number of pertinent themes may be developed. These would include:

- the Canal as a defensive feature in the landscape (including defensible lock masters' houses, routing features);
- the Canal as a series of engineering works (including canal cuts, stone arch dams etc.);
- the Canal as home to a burgeoning resort industry (including early resorts, boat yards and surviving transport boats).

Many of the itineraries presented above could be developed as sub-themes; e.g farming could be presented as barns, as cheese factories, as fences, as farm houses, as four corner settlements servicing farms. The pioneering work carried out by the staff of the Historical Planning and Research Branch, Ontario Ministry of Culture and Recreation in their 1981 Heritage Studies on the Rideau-Quinte-Trent-Severn Waterway serves as an excellent base from which to develop relevant thematic properties.

7. Increase opportunities for existing public interest groups to mobilize themselves around the cause of the Corridor's cultural landscapes.

The possibility of improvements to the Ontario Heritage Act has been deferred yet again by the Ontario government during the course of this study. This deferral also puts on hold indefinitely efforts to broaden the focus and responsibility of the LACACS (or municipal heritage advisory bodies). LACACS themselves, however, have in many cases already begun informally to move from "architectural conservation" to involvement with many related contextual issues. LACACS would likely welcome encouragement to examine, on a local level, in
the context of the new Planning Act, ways in which they could become involved with the inventory and evaluation of cultural landscapes.

Many other groups share similar interests and could profit from similar encouragement. To be effective, such encouragement needs to take pragmatic form and offer project opportunities to groups to carry out survey or research work.

8. Develop a World Heritage List nomination dossier for the Rideau Canal Corridor.

The comparative study of world canals carried out by the TICCIH (The International Committee for the Conservation of Industrial Heritage) working group on canals for ICOMOS (The International Council on Monuments and Sites), in the context of the World Heritage Convention, treats the Rideau Canal as at least a marginal candidate for inclusion on the World Heritage List. These views are contained within a joint publication of ICOMOS and TICCIH called "The International Canal Monuments" (1996).

The study, carried out in the context of efforts to assess the suitability of canals around the world for inclusion on the World Heritage List, attempts to "score" and rank the best known candidates. The document was based in part on discussions held in September, 1994 during an international experts meeting held under the auspices of Parks Canada at Chaffeys Lock along the Rideau Canal.

The 1994 Heritage Canals Document prepared for the meeting examined the potential significance of canals under technological, economic, social, and landscape factors. These included:

A TECHNOLOGY

Canals can serve a variety of purposes: irrigation, navigation, water-power, flood mitigation, land-drainage, defence, and water-supply. The following are the areas of technology which may be of significance:

1 The line and waterproofing of the water channel;

2 The engineering structures of the line with reference to comparative structural features in other areas of architecture and technology;

3 The development of the sophistication of constructional methods;

4 The transfer of technologies.
**B ECONOMY**

Canals contribute to the economy in a variety of ways, e.g. in terms of economic development and the conveyance of goods and people. Canals were the first effective man-made carriers of heavy bulk cargoes. Canals are of continuing economic and recreational use. The following factors are important:

1. Nation building;
2. Agricultural development;
3. Industrial development;
4. Generation of wealth;
5. Development of engineering skills applied to other areas and industries.

**C SOCIAL FACTORS**

The building of canals had social consequences:

1. The redistribution of wealth, with social and cultural results;
2. The movement of people and the interaction of cultural groups.

**D LANDSCAPES**

Such large-scale engineering works had an impact on the natural landscape. There was also the generation of new industrial settlement patterns from rural dispersed populations to the creation of urban nuclei.

The 1996 ICOMOS/TICCIH study applied this framework to the criteria described in the Operational Guidelines for the Implementation of the World Heritage Convention for inscription of cultural heritage sites of "exceptional universal value", and adapted the later to provide an evaluative framework for looking at the canals treated in the study. Canals were examined under four criteria; could they be understood:

1. To be a masterpiece of creative genius?
2. To have exerted great influence on the development of technological importance?
3. To be an outstanding example of structures or features which illustrate significant stages in human history?
4. To be directly associated with economic or social
developments of outstanding universal significance?

Sites were awarded points under the above categories in the following manner:

- 1 point - site judged to be of some international importance
- 2 points - site judged to be of great international importance
- 3 points - site judged to be of outstanding international importance

The Rideau figures twice in the document.

The Jones Falls Dam is evaluated as a "dam", (a particular feature of the canal's construction). Scoring 1(2), 2(2) and 3(3) within the framework for a total of 7 points, the following description of the dam is provided.

The Rideau Canal was a canalized waterway consisting largely of channels linking a series of lakes artificially created and heightened by the construction of some 52 dams and embankments in the Canadian wilderness. The highest is at Jones Falls, located 43 km north of Kingston, at the junction of Sand and Whitefish lakes, where a 2.5 km long set of rapids fell 18 m, the largest drop between Ottawa and Kingston. The dam rises 19 m from a narrow rocky ravine and was double the height of any other dam existing in North America at that time. The dam measures 107 m along its crest, which curves to a radius of 53.4 m and is arched in plan and concave in profile, thus giving the appearance of a true arched dam. The ratio of base width to height of 0.44 falls short of the minimum accepted ratio for a gravity dam and may explain why the Royal Engineers strengthened its upstream side with a considerable earth bank extending beyond the clay-puddle core. The dam survives in very good condition and is maintained by Parks Canada.

The Rideau Canal is evaluated as a complete entity under "technologically significant canals." Scoring 1(2), 2(2), 3(3) and 4(2) within the framework for a total of 9, the following description is provided:

This was one of the first canals designed specifically for steam-powered ships. It was built in 1826-32 as a military supply route by the British Corps of Royal Engineers and so it is an important example of intercontinental technology transfer. It runs over 202 km from Kingston to Ottawa. There are 47 large masonry locks and 52 dams and embankments. A series of stone-arch dams, including the large one at Jones Falls (the first large stone-arch dam in North America), created the series of lakes used to form the waterway. Now a National Park and a popular
recreational waterway, it is particularly important in international terms because it is the only canal dating from the great North American canal-building era of the early 19th century that remains operational along its original line with most of its original structures intact.

The views contained in the study do appear to reflect a European bias in analysis, in the weight given technological innovation in canal building. The arguments for the Rideau Canal as a significant factor in nation-building are undeniable, but there appears little room in the ICOMOS/TICCIH criteria for such values. Given the research groundwork already laid for the Rideau Canal's development in this country, it seems reasonable that arguments for its inclusion could yet be strengthened over those made by ICOMOS/TICCIH.

In any event, it may be more appropriate to give consideration to a World Heritage nomination of the Corridor: the canal and its associated cultural landscapes. Given the high degree of integrity of the landscape and its ability to portray developmental themes important in the growth of this part of North America, very strong arguments can be made for developing a World heritage nomination for the Rideau Canal Corridor.

The value of making such an effort lies much less in the goal of attaining a place on the List than in the accompanying process of discussion and analysis within the Corridor's constituent communities and residents. Efforts to develop a World Heritage nomination should result in wide-ranging local exchanges and discussions concerning the nature and value of the Corridor landscapes. Clarifying the "exceptional universal value" of the landscape within an international perspective should also help citizens articulate its values in ways meaningful in local landscape planning and management. The heightened awareness of landscape qualities resulting from such discussions would be a permanent legacy of great value for future decision-makers.
9. Identify an immediate responsibility focus for promoting the cause of the Corridor's cultural landscapes.

Until such time as a coordinating commission or other vehicle could be created to better manage the Corridor's cultural landscapes, it is important that those interested in the issues studied by this report are able to work through a single individual or group prepared to take responsibility for the necessary coordination or promotion of relevant initiatives. Informally, Parks Canada officials in Cornwall and Smiths Falls have often played this role in the past. While they may be prepared to continue, it is also important to build strong support outside government for such initiatives, and to provide a framework for such efforts. Creation of a public advocacy group in the region might be a useful way to provide the necessary short term support, and to ensure continuity of dialogue.
Ill. #92
This milling stone found lining a parking lot near the Rideau Valley Conservation Authority, is a reminder of earlier land use practices and patterns.
In a number of spots along the Corridor, it might be useful to consider extending the "historic site" treatment of Parks Canada's lock stations to adjacent private properties whose contribution to the integrity of the landscape unit is exceptionally high, as here at Nicholson's Locks.
Oxford Mills in Oxford-on-the-Rideau is one of the most charming Rideau villages. Bypassed by major traffic routes, its many structures and village layout have preserved their ability to evoke earlier patterns of living and land use. Every effort should be made to document the special qualities of this village and to ensure their survival in future.
B. Policy and Legislation

1. Ensure examples of best practice are provided by agencies directly promoting policies for improving management of Corridor lands.

The principal agency involved with management of significant Corridor lands is Parks Canada. Parks Canada's policies for the Canal are implemented through its Management Plan, last renewed in 1994. The Agency's commitment to the Corridor is evident in the long sequence of studies and initiatives meant to foster increased cooperation in improving protection of the Corridor's qualities. Not surprisingly, given its mandate, Parks Canada's policies for protection and management of the Rideau Canal and associated lands in their ownership are clear and exemplary.

However, Parks Canada could improve the example it provides to area residents in one important area. Parks Canada's over-manicured lawns and spartan water-edge treatments may simplify provision of recreational spaces for tourists but they fly in the face of recommended good practice in the Corridor, concerned with re-naturalizing of waterfronts. Parks Canada should make some effort to retire most of its grass-cutting machines, and to set a standard for environmentally-sensitive water-edge treatment. Sensitive water-edge treatments could also become the focus of Parks Canada's interpretive efforts.

2. Encourage development policies in provincial and federal agencies concerned with the Rideau which are sensitive to the value of its cultural landscapes.

Other provincial policies and practices can impinge negatively on the character of the Corridor. At least five provincial agencies and three federal agencies also have an impact on the area's cultural landscapes. It is important, if the overall objectives which lie behind this study are to be achieved, that each of these agencies make a public and explicit commitment in its policies to respect the cultural landscapes of the Rideau Corridor.

Given the agricultural nature of the Rideau Corridor, the agency whose decisions have the strongest impact on the nature of the region's cultural landscapes is the Ontario Ministry of Agriculture and Food. It is clear that their perspectives - which are province-wide - and focused on economies of scale (that is, increasing farm size) - are the largest single factor today eroding the integrity of the area's cultural landscapes. Limited dairy production quotas, the move away from dairy farming in this region of the province, farm amalgamation - all these serve the current objectives of the Ministry of Agriculture and Food, and all foster farm abandonment which is having a radical impact on
the character of the Rideau landscape. Given the objectives described appear to serve the economic interests of the people of Ontario, it appears unlikely these would be abandoned simply to preserve the "character" of a traditional farming landscape. Moreover, many natural heritage advocates would argue that abandonment in the long run improves habitat quality for the area's various flora and fauna. What could be argued, however, is that agricultural policies have not been implemented in a planning context which considers possible alternative means to meet these objectives along the Rideau, without harm to the character of the area's farming landscape.

Road improvement activities presumably within the control of Ontario's Ministry of Transport can have a very negative impact on the quality of the Corridor's transport routes. These activities are carried on generally in the name of efficiency; roads are straightened, widened and strengthened regularly to improve traffic flows, speed and safety. Sensitivity to the ability of the Corridor's early roads and associated landforms to tell the story of early settlement in the region is rarely, if ever, a condition applied to decisions concerning road development needs.

The impact of road widening on the legibility of the areas cultural landscapes should not be minimized. Modern contractors use machines which can "peel" the surface adjacent roads in twelve foot swathes; traces of tree lines, fence or hedge rows all disappear entirely. The Rideau Ferry Bridge provides an example of how an engineered traffic solution can improve the ability to accommodate traffic flow, while sacrificing much of the legibility of this formerly important Rideau crossing. Equally, road-widening schemes in towns like Newboro have resulted in partial loss of their integrity and qualities.

3. Use of the revised Ontario Planning Act.

The Planning Act of March 1995 offers substantial opportunities to improve the care of the province's "cultural heritage landscapes". These are recognized explicitly for the first time as heritage resources. Definitions and Implementation Guidelines are already in place; a Cultural Technical Manual guiding potential users has been developed.

It will be important as the Act begins to be used to make efforts to harmonize its language use and conceptual basis with similar frameworks being developed at the federal level by the Historic Sites and Monuments Board of Canada. At the moment, the latter offers evaluation criteria, definitions and working methodologies which are somewhat different (though not incompatible) from those used in the Planning Act.
The Planning Act is meant to provide a framework as well for updating of local Official Plans. At present, only the Ottawa-Carleton Regional Official Plan seems to have adopted the language and concepts espoused in the Act. It is to be hoped that other townships and municipalities will soon follow suit.

4. **Strengthen framework for initiation of land trusts**

Ontario has considerable experience with the establishment of land trusts to protect natural landscapes. The use of such trusts along the Rideau to protect cultural landscapes appears to offer many advantages, in specific circumstances. The full potential value of this tool for the Rideau requires its full exploration in the local context. The experiences of the Rideau Trust in seeking to preserve significant Rideau lands should be looked at closely.

5. **Implement provisions of the Planning Act which would protect archaeological resources within municipal control**

Prehistoric archaeological sites along the Rideau Corridor coincide generally with environmentally significant areas and unique natural features. They are not located at random across the landscape. In particular resource-rich areas, such as wetlands, rapids and embouchures were selected for prehistoric settlement because of the environmental diversity they offered. Any development within 100 metres of the current waterline should be considered to have high potential for the discovery of prehistoric archaeological sites.

Municipalities have the capacity to protect against the destruction of archaeological resources within their jurisdiction through the application of the Planning Act. The provisions of the Act should be applied in ways which will ensure development within and adjacent to the Corridor does not have a negative impact on archaeological sites.

The discovery of a single artifact may indicate the presence of significant archaeological sites (or be significant in itself). Any such discoveries should be reported to Parks Canada or the Ontario Ministry of Culture, Tourism and Recreation.
C. Planning and Design

1. Develop Guidelines for use in working with cultural landscapes at the municipal level.

Section 5.2 of this report presents a set of working guidelines intended to assist townships in the identification and better management of the cultural landscapes in their care. These efforts need to be located within Official Plan formulations which explicitly recognize the need to protect cultural landscapes and their qualities. It would be useful to make this, or similar efforts, readily available within townships for elected officials, for planners and for interested citizens.

2. Promote greater awareness of the qualities of cultural landscapes and appropriate treatment among those involved with environmental and natural area conservation.

A number of design approaches favourable to improving the conservation of the Corridor's natural qualities are being promoted in recent handbooks. In some cases, these can be understood to threaten the cultural landscape qualities of a place, by seeking to "naturalize" terrains, at the expense of their cultural values and by promoting forms of development (e.g. clustering of houses) alien to traditional patterns of local land use. It is important that development Guideline documents used along the Rideau Corridor balance concern for the area's natural qualities and its cultural qualities.

3. Develop integrated documentation centre and management system for the Parks Canada Rideau Corridor research materials.

Though the Rideau Canal and nearby lands appear to have been the subject of more studies than any single Canadian historic site, gaining access to the supporting research materials is difficult. The materials are physically dispersed and may be found primarily in Ottawa, in Smiths Falls, and in Cornwall. There is however no "one-stop shopping centre" which would permit researchers or citizens to know where and how access to materials may be gained. This has proved extraordinarily frustrating and time-consuming in the course of carrying out this project; this frustration is multiplied many times over for individuals without the time necessary to commit to explorations of these resources.

The first step in improving the situation would be development of an integrated computerized data-base locating and describing available records and references.
4. Improve availability of Rideau Corridor cultural landscapes resource materials.

The Manotick Resource Centre illustrates the utility and worth of resource centres gathering together relevant information on environmental protection. This resource centre and/or others in the store-front Cottage Owners' Association outlets on the various lakes could be used to provide advice and background materials on cultural landscapes on the Rideau.

Again, by working within existing frameworks, cost efficiencies are gained and cultural landscape and natural environment objectives and programmes are integrated.

5. Test innovative methods for cultural landscape inventory and management.

There are a great number of new ideas being tried out in other jurisdictions which could well be applied to the Rideau. These should perhaps be developed and tested initially as pilot projects.

- the government of Denmark has begun to develop atlases for the entire country which document the significant attributes of urban cultural landscapes, including vistas and linkages. These are conceived not just as a heritage tool, but as a general planning tool which gives due prominence to ways of describing urban architectural values and qualities along with other more traditional atlas data. The Intersave system as it is called is being actively promoted by the government of Denmark for use in contexts outside the country.

- the government of Sweden has developed an emergency "rapid response" mechanism to developmental control issues affecting cultural landscapes throughout the country. When urgent needs for assessment or decision-making arrive, individuals or teams equipped with a carefully developed quick analysis methodology are sent into the field to carry out an analysis of landscape values and attributes critical to the assessment of the development proposal within a couple of days. This does not replace the need to develop comprehensive inventories or assessments, but indicate what can be done when such inventories are not in place or master plans are silent on issues.

- planning and university officials in Norway are developing innovative integrated approaches to cultural landscape identification and management in test regions of the country where local cultural landscapes are perceived to be of great importance. "Maintenance and Conservation of the Cultural Landscape in Sognog Fiordane, Norway", 262
written by Ingvild Austad provides planning officials with a straightforward and well-illustrated set of Guidelines for their particular regions. The characteristic features, patterns and land-use practices as these have evolved over time are described; description pays as much attention to natural qualities as to cultural qualities and forms in the landscape. The descriptive materials and inventories in the book provide a basis for developing land use and conservation planning policies sensitive to these qualities, and preliminary indications of how best to orient local planning exercises is provided. Finally, the book highlights future research needs to continue to improve understanding of the area's evolving cultural landscapes. The approach is practical, and provides a very useful "how-to" reference for municipal or county jurisdictions interested to embark on similar projects.
Parks Canada interpretative panels at the Manotick Mill illustrates the dilemmas of water management along the Rideau. There seems no reason why similar attention could not be given to interpreting the qualities and management dilemmas associated with the Rideau Corridor's cultural landscape.
Section 6. Notes for Developing Cultural Landscape Conservation Guidelines for Rideau Corridor Townships and Municipalities

6.1 Introduction

This section of the study looks in some detail at the tools available within particular townships or municipalities to identify and manage their cultural landscapes. A number of particular landscape units (both representative, and unique) along the Corridor are described (e.g. Ottawa, Forfar farming landscape, Merrickville, Long Island, and South Elmsley Township) to provide examples of how such descriptions could be developed for other Corridor cultural landscapes, and to indicate key character attributes and conservation challenges.

The discussion for each township is also accompanied with a map which briefly annotates several significant cultural landscapes on its terrain. These maps are not meant to contain or list all significant cultural landscapes in a township, but simply to highlight a selection which deserve special care in future planning. Townships are presented as they existed during the period of the study team's field work, in the summer of 1994, prior to the changes introduced by Ontario's Bill 26 The Saving and Restructuring Act. This Act has led to some restructured entities within the Corridor, including Kingston (City) and South Frontenac in Frontenac County; Rideau Lakes in Leeds and Grenville County; and Bathurst, North Burgess, South Sherbrooke, Drummondville, and South Elmsley in Lanark County.

That very particular planning tool used by the municipality or township - the official plan - is looked at in detail as a means of assessing the interest and capacity of local authorities to identify and provide for cultural landscape qualities within their townships. Official plans reviewed were those most recently available in the offices of the Cataraqui Region Conservation Authority and the Rideau Valley Conservation Authority in September 1997.

Finally, this section integrates material from a current draft "Guide for developing cultural heritage conservation policies in municipal official plans" prepared in November 1997 for the Ontario Ministry of Citizenship, Culture and Recreation. This material is intended to assist those involved in preparation of the next generation of municipal official plans (or simply in adapting existing official plans) to care for cultural heritage in general and, in particular, "cultural heritage landscapes."
6.2 Notes for Corridor Townships and Municipalities

6.2.1 Ottawa-Carleton Region

Cultural Landscape Notes: Ottawa

Development of Bytown

The founding and later development of the nation's capital, Ottawa, is inextricably linked to the building of the Rideau Canal.

Prior to the decision in 1826 to construct a military transport system between the Ottawa River and Lake Ontario along the Rideau and Cataraqui river systems, the area surrounding Ottawa was only sparsely settled. Philemon Wright had established a settlement at Wrightstown (modern-day Hull) principally providing support for Wright's lumbering initiatives, on the north bank of the Ottawa River. Individual farms had been carved out of the heavy forest on the south side of the river, by Bradish Billings in 1812 (the Billing's Estate), and by Nicholas Sparks in 1817 close to the centre of modern-day Ottawa. While the British authorities had encouraged discharged military officers and enlisted men to settle in areas inland from the St. Lawrence River following the War of 1812, the settlements established in Perth in 1815 and in Richmond in 1818 were the only substantial evidence of these efforts by the time of Colonel By's arrival. The military establishment at Richmond had been linked by road to the Ottawa River, and a small settlement (Richmond Landing) was established near Chaudière Falls prior to By's arrival.

Lord Dalhousie, Governor-in-Chief of British North America, anticipating the Rideau-Cataraqui project, had purchased 400 acres of land fronting the Ottawa River between the Rideau River and the Chaudière Falls in 1823. This land was turned over to Colonel By on his arrival in 1826. The land was bisected by "Entrance Valley", ultimately selected to hold the entrance to the planned canal. By surveyed Dalhousie's holdings, and laid out lots in Upper Bytown on the western side of "Entrance Valley" and in Lower Bytown on its eastern side. The twin villages, known collectively as Bytown, grew rapidly as the designated headquarters for By's efforts to build the new canal.

To support the provisioning of those involved with the Canal and the supplies necessary for its building, By quickly undertook a number of major works. A series of bridges was built to link the islands of the Chaudière Falls in order to facilitate movement of supplies to Bytown from Wright's already established village on the north shore of the Ottawa River. Sappers Bridge was built to link the two Bytown villages over the anticipated canal cut in 1827; this bridge, which linked Rideau and Wellington streets, survived until 1912. Two large stone warehouses were built in 1827 flanking the flight of eight locks comprising the Ottawa River entrance to the Rideau system: a Commissariat store to the west side of the

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Canal, and an Ordnance store for the Royal Engineers on the east side. Three stone barracks buildings were also built in 1827 on Barracks Hill (site of the present-day Parliament Buildings), the height of land to the west of the Canal, to house the project's military personnel. Two civilian barracks to house construction workers were also built in 1827, at the corner of William and Rideau streets in Lower Town. As well, again in the same year, four log buildings intended to house various personnel and activities of the Royal Engineers were also built at the corner of Rideau and Sussex streets. The Royal Ordnance Hospital, a stone building of two storeys, was also erected in late 1827 on Barracks Hill; it was demolished in 1874 to make way for Mackenzie's addition to the original West Block Buildings of 1865.

Although initially lots were taken up more quickly in Upper Bytown, once the swampy conditions of Lower Bytown had been improved by drainage, the latter grew more quickly. At the end of 1828, Lower Bytown contained five or six times as many dwellings and residents as Upper Bytown on the west side of the Canal. Colonel By himself built a house, later destroyed by fire, on the east side of the Canal opposite the barracks on Barracks Hill, on Colonel's Hill (now called Major's Hill for By's successor, Major Bolton).

Following completion of the Canal, Bytown's growth over the next several decades was both constrained and stimulated by a number of key factors.

The hold maintained by the military on Lord Dalhousie's original land purchase, through the leasing (rather than the sale) of lots to individuals, inhibited both the growth and the quality of investment of those holding leases. The decision in the face of the high costs of the Rideau Canal construction not to fortify Bytown (but rather to strengthen fortifications at Kingston) diminished the importance of Bytown as a military post. While the military installations continued in use until the 1856 transfer of the Rideau Canal to the United Provinces of Canada, for the most part they served as staging posts for contingents of men assigned elsewhere.

The continued strengthening of the timber trade following the completion of the Canal, and the support provided both to the agricultural settlements flanking the Rideau and to the forwarding trade, provided the major basis for the community's growth until 1858 when Queen Victoria declared Bytown to be the capital of the United Provinces of Canada.

While Ottawa's development involved successive shifts in focus, from that of Canal headquarters to supporting the timber industry (concerned with supplying those involved in cutting and shipping timber along the Ottawa), to the milling of lumber (focused on exploiting the water power of the Chaudière Falls), and finally to national capital, the imprint given the settlement in the early years of canal construction is still in place. This imprint is manifest much more in the organisational patterns imposed on the
land than in By's building works. John Taylor notes in Ottawa, an Illustrated History that

[the] needs of canal and defence, combined with the social philosophy of Dalhousie and By, produced a town of curious proportions. Indeed, they produced two towns, separated by nearly a mile of rough trail.

However, the differences between the commercial character of Lower Bytown (today's Market district) and Upper Bytown, home to most of Bytown's early anglo-Protestant gentry, remain clearly legible today, even though the construction of commercial high rises in the latter has destroyed much of its special character in the blocks closest to Wellington Street.

Development of a capital city

The presence of the Canal influenced early planning decisions and practices as Ottawa developed. The right-of-way established by the Canal provided an avenue useful both from utilitarian and symbolic points of view. With the growth of rail traffic in the second half of the 19th century, the Canal Corridor was quickly appropriated as providing a ready-made avenue to the heart of the city. Canadian National tracks, though removed in the 1960s, ran along the eastern side of the Canal (Mann Street to Rideau Street) for 80 years. During the early part of this century, the various agencies entrusted with strengthening Ottawa's civic identity as a national capital also appreciated the canal right of way, but used it more positively as a park-like spine along which significant public improvements could be planned and added.

It may also be suggested that the administrative institutions of early Bytown find their echo in this century's para-municipal institutions (e.g. the NCC) in their concern to look beyond immediate municipal interests.

Given Lord Dalhousie's early acquisition of the land necessary to support building the Canal, (a pre-emptive strike against the kind of land speculation that soured the prospect of a Richmond Landing connection to the Canal), and the full financial responsibility assumed by the British government, the Ordnance Department acted alone in defence of the public good. (Bytown became a town in 1850, and a fully incorporated city in 1855). The early commitment of the Ordnance Department to orderly and effective planning for the broader public good may be seen reflected in the concerns successively of the Ottawa Improvement Commission (1899), the Federal District Commission (1927) and the National Capital Commission (1950s) in promoting a larger, more public-spirited development vision, appropriate for a nation's capital.

By's Ordnance Department was not always appreciated by citizens (for its insistence on land leasing), just as Ottawa's civic administration has not always appreciated the need to protect and
enhance the qualities of a national capital; Taylor makes this point eloquently in describing the NCC's unsuccessful attempts to limit commercial building heights in Centretown in the 1960s and 1970s.

The early interest of the Ordnance Department in promoting a settlement of quality may be seen in the designation of public land reserves to the east and west of the Canal (Barracks Hill and Colonel's Hill respectively, now Parliament Hill and Major's Hill Park) which defined the public character of the core of today's capital. The allocation of 99-foot road allowances (33' from the government lands, 66' from Nicholas Sparks' land) along modern-day Rideau and Wellington streets, 50% wider than other streets laid out in the fledgling community, ensured their development as main east-west thoroughfares.

The continuing presence of the meandering ribbon of the Canal, and later appreciation of its recreational qualities, undoubtedly inspired many subsequent civic developments within the city. The Exhibition Grounds established adjacent to the Canal in the 1870s were intended to provide a continuing showcase for the best of the region's agricultural practices. The recently refurbished Cattle Palace built on this site in 1898 to epitomise the national and international importance of the annual fair, is the last remaining Canadian example of this form of agricultural pavilion. The Central Experimental Farm, established in 1886 also adjacent the Canal, exemplifies the commitment of the Federal government to scientific agricultural research but stands also as an invaluable 1,000 acre tract of picturesque farmland and buildings in the centre of a modern capital. The farm also embodies the goal of presenting significant national themes to Canadians within the setting of the capital. Educational institutions, such as the University of Ottawa and Carleton University, also flank the canal but at different points along its length. Jacques Greber's 1950 "Plan for the National Capital", a proposal to create a green belt around Ottawa, appears inspired by the linear corridor surrounding the Canal and integrates the Canal Corridor which bisects it, at Black's Rapids. The subsequent formal development of a National Capital Greenbelt is firmly hinged around the Rideau Corridor and its adjacent farmlands.

The character of the Canal altered too, to accommodate the shift from commercial function to recreational. Dows Great Swamp has become Dows Lake today replete with restaurants and boating facilities. The turning basin and its attendant wharves and warehouses set just above the flight of eight locks in Entrance Valley have disappeared, as has the Upper Town Market, later the Ottawa City Hall, built adjacent to the turning basin. The industrial character of the late-19th-century Canal with its rail lines and warehouses has given way today to jogging paths and scenic drives.

The turn-of-the-century seemed to bring new confidence to Ottawa and its citizens. New planning visions addressed a range of issues,
from relieving the clutter and congestion of the many rail and canal crossings to enhancing Ottawa as a symbol of the country. Landscape architect Frederick Todd's recommendations of 1903 conceived of the Rideau Corridor as a linear park and included suggestions to enhance its park-like quality, including the acquisition of Patterson Creek. The Ottawa Improvement Commission (OIC), established by Wilfred Laurier in 1899, focused much of its attention on replacing the commercial and industrial activity on the banks of the Rideau with ceremonial drives, such as the Rideau Canal Driveway of 1902 (today's Queen Elizabeth Driveway).

Greber's 1950 plan also recommended the acquisition of parklands adjacent the Rideau Canal. These recommendations were largely fulfilled in the addition of parklands and green space near Hog's Back.

Many of those turn-of-the-century visions have been realized. Today, the Canal is the recreational centrepiece for many residents' activities and most tourist visits. Visitors experience the Canal as an unparalleled landscape experience in winter or summer: an entrancing waterway set within a beautifully landscaped park leading visitors to a dramatic visual climax in the Gothic towers of the Parliament Buildings. While far from its utilitarian beginnings, the Canal's continued use and upkeep has allowed its slow transformation to that of civic playground (claimed in winter as the world's longest skating rink) and the assumption of its prominent place among the city's attractions.

Character-defining attributes

While the engineering structures created by Colonel By remain largely intact, most of the early structures put in place to support the canal-building operation have gone. Only the Commissariat Store of 1827 remains as a witness to By's original intentions.

However, the principal elements of Colonel John By's original scheme for a canal headquarters are still legible in the layout of central Ottawa streets and spaces, and in the distinct identities of the mid-19th-century market district and its commercial vernacular, and in the late-Victorian aspirations of many of the buildings of today's Centretown.

Other elements of that scheme still reflect important activities and choices made in this early stage: stone mason Thomas McKay's millworks at the mouth of the Rideau River gave rise to New Edinburgh; the LeBreton flats at the bottom of Booth Street recall Captain John LeBreton's unsuccessful land speculations around Richmond Landing.

Colonel By may not have visualized his modest frontier town as a future capital, but his civic vision provided the canvas upon which Queen Victoria and her advisors could see beyond what Taylor has
called the "tawdry" buildings of the first generation, to the potential of the embryonic settlement to become a nation's capital.

**Conservation status and measures**

The special qualities of the Rideau Canal and its associated landscape features are under threat today within the Ottawa-Carleton Region. Development plans for the Capital Region, based upon population projections appropriate in the 1950s, have been outstripped by recent developments. Population growth has pushed suburban development beyond the Greenbelt with negative consequences for the Corridor's shorelines down to Manotick, and threatened spaces within the Greenbelt itself. The spatial patterns laid down by By and the Ordnance Department, are threatened by modern commercial developments which both trivialise and ignore the distinctive characters of Centretown and the Market.

The framework provided by Colonel By and his colleagues allowed a capital city to be created out of Bytown's modest vernacular buildings and structures. This framework also allowed the industrial character of the city in the late-19th century to be replaced by attractive park schemes and landscaping. Retention of this framework and associated elements is critical to efforts to retain the character of modern-day Ottawa, and to retain its symbolic values as a capital for the citizens of Canada. What Colonel By created and his successors have added to must be maintained in its entirety if Ottawa is to retain its significance for municipal residents and all Canadians.

The existence of the Greenbelt has caused a false sense of security for some; the scale of the original enterprise has suggested to many that the loss of a farm here or a vista there will have no appreciable effect on the whole. Nothing could be further from the truth; the piece-meal diminution of planning measures that have provided Ottawa with a civic plan today unparalleled on this continent should be resisted at all costs.

Among the attributes important to protect:

- the distinct mid-19th century commercial vernacular of the Market area which harkens back to the original functions assumed by Lower Bytown as early as 1827;

- the distinct Victorian character of what was first called Upper Bytown, developed fully only after the decision to build the Parliament Buildings on Barracks Hill; this character has been badly eroded by the indiscriminate erection of commercial highrises in the blocks adjacent to Wellington Street in the last 20 years; every effort should be made to retain surviving buildings from this period and to limit the heights of new structures near Parliament Hill.
• the Canal itself with its associated engineering works, lockstations, embankments, weirs, dams etc. including the Commissariat Building of 1827; particular attention should be given to retaining the substantially unaltered views in and out of "Entrance Valley", echoing views familiar to Colonel By and his colleagues in upon completion of the Canal;

• street patterns and characteristics provided during the early planning of Bytown in 1827, including the greater "ceremonial" widths of Rideau and Wellington streets;

• the characteristic layout and buildings of the Central Experimental Farm, in their entirety, and the integrity of their connection to the Rideau Canal near Dows Lake. The Historic Sites and Monuments Board's recommendation for the Central Experimental Farm describes the site as "a cultural landscape of national historic and architectural significance" and notes that

the more than 1,000 acre farm in the heart of the Nation's Capital reflects the 19th century philosophy of agriculture and carefully integrates and administrative core and a range of other buildings with an arboretum, ornamental gardens, display beds and experimental fields in a picturesque composition. Further, since its establishment in 1886, the Central Experimental Farm has made significant scientific contributions to agriculture in Canada by uniting scientific experimentation with practical verification, as exemplified by the development of the hardy strains of wheat that were so influential in expanding western Canadian agriculture. Beyond that, a rare example of a farm within a city, the Central Experimental Farm has become a symbol of the central role agriculture has played in this century.

The HSMBC's statement also notes in particular that the CEF's siting along the Rideau Canal and Dows Lake, together with the establishment of the [65 acre] arboretum on the bluff above the water, is a quintessentially picturesque approach to landscape design.

Any effort to diminish the lands of the Central Experimental Farm or to impact the presently unimpeded views in and out of it would irreparably diminish the character of the Farm, but also the Rideau Canal Corridor with which it is strongly linked physically and symbolically;

• the qualities of the National Capital Greenbelt, bisected and anchored by the Rideau Canal Corridor, and whose form and extent were inspired by the beneficial qualities of the Rideau Corridor, need protection if they are to endure. Threatened also by the piece-meal attrition of "marginal" farms and lots, the Greenbelt is no less in need of affirmation of its qualities than the Central Experimental Farm, and very much in
need of measure to identify and protect its particular attributes, including significant vistas and view lines in and out of the city. The Greenbelt Master Plan, produced by the NCC in 1996, is an exceptional planning tool whose recommendations should be embraced by all to ensure the survival of the qualities of the Greenbelt and the Rideau Corridor which passes through it at Black's Rapids.
Official Plan Notes for the Regional Municipality of Ottawa-Carleton

The Official Plan of the Regional Municipality of Ottawa-Carleton was adopted on July 9, 1997. It is worth looking at closely given the attention paid to cultural landscapes issues, and its use of the framework offered by the Planning Act of March 1995. It has also been suggested that it may become a model in years to come for the development of Official Plans along the Corridor.

Early in the document, commitment to "protect heritage resources" is expressed as an explicit goal of the Official Plan. In this area, the Plan's objectives more particularly are to contribute to the conservation of cultural heritage resources including archaeological resources, buildings and structural remains of historic, prehistoric, architectural and contextual values and cultural heritage landscapes and districts.

The Official Plan goes on to note that the history of Ottawa-Carleton is recorded in its existing land use, heritage buildings, landscapes and cultural artifacts located within and on the land. The siting and design of new development - buildings, subdivisions, communities, infrastructures - should not obliterate these signs of history, but should maintain a sense of continuity in the lives of the region's residents, for future residents and for the many thousands of visitors who annually come to Ottawa-Carleton.

The Official Plan then goes on to set out an eleven-point set of procedures by which heritage resources shall be identified and protected by actions of the Council. Apart from reiterating the "need to identify and manage Ottawa-Carleton's significant cultural resources in a coordinated and responsible manner," and acknowledging the many partners who should be involved in consultations, the Official Plan also calls for development of a cultural heritage strategy, including preparation of a comprehensive built and landscape heritage feature data-base, archaeological resource potential mapping and guidelines for resource management.

This is precisely the kind of opening within Official Plans called for in Section 5.2 of this report which would permit a set of cultural landscape guidelines to be developed.

The Official Plan calls further for approaches by Council to conserve cultural heritage resources to include a number of particular elements:

- respecting heritage policies of the jurisdictions when considering development applications;
- preserving "wherever feasible" heritage buildings, structures, landscapes and archaeological resources;
• giving priority to in-situ protection of heritage resources;
• actively pursuing opportunities to acquire, renovate or lease heritage buildings in relation to the Regional Municipality's own needs;
• ensuring that heritage protection of significant resources passes with title in any land transferred to other agencies or private owners;
• encouraging local municipalities to establish cultural heritage resource policies and to use their powers to conserve cultural heritage resources, in particular exploring the use of acquisition and easements for the benefit of cultural landscapes;
• making the best of the provisions for the Ontario Heritage Act;
• ensuring that local municipalities establish policies encouraging the conservation of cultural heritage resources in land use and development planning. Here, a hierarchy of preferred treatments is proposed ranging from full preservation of cultural heritage resources within developments, to use of mitigative measures (such as recording) when resources may not be saved.

While the tone and comprehensive approach offered within the Official Plan's treatment of cultural heritage resources appears to offer an excellent and complete framework for identifying and managing such resources, it is disappointing ultimately to realize that none of the provisions described oblige the Regional Municipality or others to protect significant heritage resources, unless "feasible". This weakness suggests the degree to which significant cultural landscapes remain vulnerable in the face of developers unsympathetic to the qualities of the landscape.
The Greenbelt, although not entirely green (it contains Ottawa’s Int’l Airport) provides a good opportunity to maintain open rural space.

Ottawa’s Experimental Farm is one of the special cultural landscapes in Ottawa – Carleton

Suburban hinterland in Nepean and Gloucester beyond the Greenbelt

MAP 2
OTTAWA – CARLETON REGION

Osgoode: Suburban Shoreland mixed development of suburban bungalows, isolated cottages, and increasingly oversize houses
6.2.2 Rideau

Official Plan Notes

The Official Plan for Rideau Township was adopted in September 1992.

Provisions encouraging "heritage conservation" are contained in article 4.11. These very much resemble provisions found in the Official Plans prepared for Kemptville and for South Elmsley.

Under article 4.11 "Heritage Conservation", Council recognizes the importance of encouraging the preservation of buildings and properties of historical or architectural value. To this end, the approval of Official Plan amendments, plans of subdivisions, severances, zoning bylaws, site plans and building alteration or renovations are meant to be guided by [a set of supporting] policies.

Article 4.11 examines in some detail the obligations of the Council in pursuing these objectives and the recommended steps in a process for dealing with heritage properties. Council is encouraged to take a proactive approach and to "examine buildings and sites in the Town with regard to the desirability and suitability for restoration, conservation and preservation purposes." Process Guidelines for examining impacts on heritage buildings or properties of proposed development clarify that the significance of the property in illustrating or interpreting the heritage of the Town should be guided by the basic criteria of architectural merit and/or historical-cultural associations.

In general, it was suggested that properties should illustrate effectively the broad architectural, cultural, social, political or economic patterns of the Town's history or should be identified or associated with events or persons that have shaped such history in a significant way.

Article 4.11 goes on to focus attention on necessary consultations in decision-making, and effective use of the provisions of the Ontario Heritage Act.
Cultural Landscape Notes (Long Island)

Location

Long Island divides the Rideau River into east and west channels some 25 km south of Ottawa. Road access is provided from Highway #16 on the west side by two bridges, one toward the northern end and the other about 2/3 of the way down the island (from the village of Manotick), and on the east side from River Road by a bridge directly east of the village. An island at the north end, Nicolls Island, is accessed by a swing bridge at Long Island Locks.

Description

The island is approximately 8 km long and averages about 0.4 km across, encompassing some 210 hectares. It is almost entirely residential; the only non-residential buildings are a medical clinic, two schools, a library, a curling rink and one gasoline filling station, and a real estate office located in one of the old houses. There are no mechanical services on the island, except for the provision of electricity and a central water system serving only one of the several subdivisions; lots are a minimum of one-third of an acre in size as required to accommodate individual wells and septic tanks. As a result, houses are well spaced with generous set-backs and side yards. Properties are all well maintained and landscaped; there are few fences, boundaries being defined usually by shrubs, hedges or trees. While initial development favoured water-front lots, which, in addition to attractive views, gave convenient access to the channels for both summer and winter sports, a public boat launching site and a privately run swimming pool provide relatively easy access for all. In addition, the playing field retained by the school, and one large and two small parks contribute to the general appearance of the island as an uncrowded well-tended residential area which has retained a country atmosphere. It is part of the busy village of Manotick, which lies close to the mainland on the west; this convenience along with its close proximity to Ottawa and its potential for recreational activities on the river, has made the island attractive not only for commuters but for sportsmen, retirees, and "urban refugees" seeking to escape the noise and confusion of city life.

Land-Use History

Preparing for settlement

Prior to the building of the Rideau Canal, Long Island was a heavily wooded wilderness with a relatively shallow channel on the west side and rapids running almost the full length on the east side, dropping almost 24 feet. Colonel By's plans called for the erection of a stone arched dam and a flight of three locks, located near the eastern shore, a bit south of the tip of the Long Island.
A waste weir was constructed west of the dam across a narrow channel cut in the depression of the adjacent Nicolls Island and a second weir across Mud Creek which flowed into the Rideau River on the west side of Nicolls Island below the locks.

The water-control system was completed in time for the opening of the Canal in 1832, but its success in controlling the water flow was short lived. Due to the rapid erosion of the soil at the base of both weirs, both were washed out in 1836. They were rebuilt but problems continued to plague the control of the Canal at the Long Island Locks, and in 1858 the entire system was redesigned. A new weir was located at the tip of Long Island across to Nicoll's Island and a second one across the west channel, a few kilometres south. Recognizing the potential water power generated by the second weir, two businessmen from Ottawa - M.K. Dickinson and Joseph Currier - purchased the water rights and a nearby acreage the following year. These men built a series of mills: a stone grist mill and a woollen mill on the mainland (the centre of the village of Manotick), and a saw and bung mill on the island. Several residential lots were laid out on the island across from the mill, and this settlement shortly replaced the original one located at the locks. By 1850, the island had been surveyed into twelve land grants, in the names of some ten settlers.

Nature of the land

Long Island is relatively flat, rising to a modest height towards the north end. There are some swampy areas, but no visible outcropping of the hard limestone base which lies under the layer of arable land. Originally heavily wooded - "a piece of rougher wilderness could with difficulty be found in Canada" reported one of Colonel By's staff - the island had been sufficiently cleared by the late 19th century to allow for grain and dairy farming. The latter predominated, supplying milk to one of the several cheese factories located on the mainland.

Settlement

The only evidence of any previous settlement on the island in 1828, when the lock and dam construction began, was a small sawmill located at the foot of the island. This had already been stripped and abandoned. Permanent settlement took place in three phases beginning with a small settlement in the area of the newly completed Long Island locks. The lockmaster's house, a small store, blacksmith shop, church, manse, and tannery all were constructed. The church, its manse and the tannery were situated nearby on the mainland. In 1834, a post office was added to serve the small community and surrounding settlers.

The second phase of development resulted from the activities of Moss Kent Dickinson who, with his partner Joseph Cutler, built a
grist and woollen mill on the mainland and a saw and bung mill on
the island at the waste weir. Establishment of the mills drew other
trades to the millsite, including some already established at Long
Island locks. Dickinson ran barges on the east and west sides of
the island to serve his trade from the mill, and on the east side
there was a flimsy wooden bridge. However, when it was decided in
1866 (after a certain amount of political wrangling) to build a
swing bridge over the east channel instead of at Long Island locks
as originally proposed, the settlement at the locks was doomed.
Consequently, the early Village of Long Island was disbanded in
favour of settlement farther south, and little remains to recall
this early community.

The original settlers now moved south and, while the attraction was
the millsite, curiously most chose to remain on the island rather
than relocate to the mainland. As a result, a second settlement
grew up on the island opposite the mill. Streets were surveyed,
several houses erected, blacksmiths shops put in place; around 1870
the area also boasted a small shop, a hotel, and a school. However,
commercial development as well as most social activities were
centred in the village of Manotick, and the bulk of the island
continued to be devoted to grain and dairy farming. The original
land grants were still as surveyed in 1850, with land patterns
denoted by tree-lined boundaries of wood rail fences, few of which
now remain.

The third phase of settlement on the island occurred after the
Second World War, stimulated by an interest in country living and
recreational activities, and by an awareness of the island's
potential to accommodate both.

Infrastructure

Initially, access to the island was by way of the steamboats plying
the Canal and by a ferry service established in the 1850s. The
latter was taken over by Dickinson who constructed a wharf on the
east channel opposite the millsite on the mainland, and a second
one from the west shore to the millsite. The 1866 swing bridge over
the east channel served until it was replaced in 1956 by a high
level bridge.

On the west side the fixed, iron bridge erected in 1872 was
replaced in 1961, both new bridges incorporating much needed
walkways on each side. These two bridges formed almost a direct
route across the island and marked the boundary line between
Gloucester Township to the north and Osgoode Township to the south.
In 1974, the entire island was incorporated into the newly formed
Township of Rideau. Previously Manotick was sited on the corners of
four townships: Gloucester, Osgoode, North Gower and Nepean.

The first road - a very rough trail along the west shore connecting
to the trail from Prescott to the Richmond Road - was gradually
improved. As part of the post-war development, additional roads were created within the boundaries of the island to serve the housing subdivisions, making it possible to drive the entire length of the Island. An additional bridge was built circa 1959 over the west channel to provide access across from Highway #16, a few kilometres from the northern point of the island. Electricity arrived on the mainland in Manotick in the early 1920s, but there were no other mechanical services. The island remained very rural in nature with, as has been said, more cows than people inhabiting it.

Rise in interest in country living and in recreation

The post-war period brought with it a desire for country living, and the affluence of the period made it possible to improve roads and acquire automobiles. This made the "back to the land" movement viable. At the same time, there was a growing interest in recreation activities - money and time now being more readily available. The island lent itself particularly well to those interested in river-centred activities such as boating, fishing and sailing. Finally, the island was well within commuting distance of Ottawa, with its ever-growing population of civil servants, and was adjacent to a small village which could provide essential services. Developers were not slow to recognize the appeal of Long Island for housing subdivisions. A good part of the farm land was, by this time, idle or simply grazing land with relatively little tree growth to interfere with house building.

The first of the subdivisions was a modest one established in 1947 on the east side of the island, north of the bridge. This was followed in quick succession by a series of plans extending first to the southern tip and eventually encompassing almost the entire island. The shoreline properties were the first to be developed.

Since there were no services on the island, all building lots had to be a minimum of one-third of an acre in size in order to accommodate the required individual wells and septic tanks. Lots were sized to maximize the number of water-front lots, whether on the east (navigable) channel or the west (natural) channel. The initial roads followed the curves of the shore-line with the "back roads" more or less paralleling them. There was no overall plan or design for the entire island; the subdivisions were designed and built usually independently of each other. No provision was made for parks or recreational grounds except for the by-law regulation requiring the dedication of a percentage of the land for public use - which rarely included the more expensive and desirable parts of the property. There was neither provision for recreational land in any individual subdivision plans nor for any type of commercial enterprise. However, while only one of the earlier subdivisions was deliberately planned to create a type of garden community, the plans of the others did avoid the monotonous grid pattern still in vogue at the time.
The only non-residential developments on the island include two schools, a curling rink, swimming pool, medical centre, the public library, one church, a filling station and a real estate office (located in one of the earlier houses). These facilities serve the village of Manotick, of which Long Island is a part. There are two playing fields, one of which is a part of the school grounds, and the other a small park located at the north end of the island. Apart from that, the island is purely residential and shows promise to remain that way, given sufficient pressure by the residents who have indicated an unwillingness to permit the erection of commercial projects of any kind.

Many of the houses erected during the rapid development from 1950 to 1970 were custom built. These were considered large in comparison with the wartime and post-war housing built under the Veteran's Land Act. There were few building restrictions on size, or style, which resulted in a mixture of bungalows and storey-and-a-half designs – many with single car garages and picture windows (facing the river where possible). They were built of brick or wood or a combination of both. During this era, the bungalow, with low-lying profiles (à la Frank Lloyd Wright), was very popular, and the generous lot sizes favoured this style. Later, the energy conservation movement re-introduced the two-storey house as a desirable style. Since the late-1970s, houses have increased in size with multi-roof designs, irregular outlines, a plethora of different shaped windows, and a mandatory two (if not three) car garage. An increasing emphasis on gardening has encouraged well-landscaped lots, with trees, shrubs, flower gardens and manicured lawns in abundance. There are few fences; plantings identify boundaries. Also, there are few outbuildings or garden sheds and very few private swimming pools, with their mandatory high fences.

**Evaluation: significance and integrity**

In a few short years – from 1950 to 1990 – Long Island was completely converted from agricultural to residential use. When this conversion began, there were only about a dozen houses on the entire island, but by 1990 over 700 households had been established and most of the building lots occupied. Long Island's proximity to Ottawa has made it popular for commuters. Moreover, retirees and urban refugees have found Long Island a desirable place to settle. The island offers a pleasant landscape with the amenities in the adjacent village, easy access to water sports, and a large city nearby.

The locks and mill are the only visible evidence of the island's early history. The few early houses that remain have been altered almost beyond recognition. So it can hardly be said that the island presents a complete visible history (except possibly in the house styles that do define the periods of post-war development). The lack of overall planning has resulted in a series of rather rambling roads which interconnect with each individual subdivision.
in a not unpleasant way and certainly are an improvement over the more monotonous grid pattern otherwise found in so many suburban areas.

The transformation of the island from a farming community to a residential area has been accomplished without loss of the rural atmosphere. It is a very interesting example of relatively unplanned urban development, which by good fortune and some recognition, conscious or otherwise, on the part of the developers to establish a residential area free of commercial establishments, has resulted in the retention of much of the country charm which constituted its original attraction.

**Character-defining attributes**

- beauty of the setting
- country atmosphere
- lack of commercial development
- existence of two parks
- existence of well-spaced houses with wide setbacks
- well-tended properties with trees, flowers and lawns
- house styles in older areas, while varying in design are all of the same scale
- existence of the locks and the attractively designed and maintained park land adjacent to the east shore line
- proximity to the nation's capital.

**Conservation and threats**

The popularity of the area has inevitably brought with it a number of problems, some of which could well have been foreseen at the outset. The development moved rather too quickly with not enough forethought given to overall planning. This would have precluded the constant threat of commercial development - threats fought by those residents most directly involved - which has created a constantly changing planning-by-crisis.

There is a serious concern about water pollution due to ground water run-off, the number of septic tanks, and saturation of the land. Another major worry, particularly on the part of those living on the eastern shore (the navigable section of the Canal), concerns the erosion of the banks by boat wakes. The pollution of the Canal, on both channels, and the consequent dangers to wildlife are major threats. Moreover, the country atmosphere which originally attracted many to settle here is constantly threatened. This inevitably results from an increasing population and the related increase in the number of cars, boats and traffic in general - and the noise it all generates.
Such a threat to the peaceful atmosphere of the island lies in the potential development of the now rural area to the east. While the present residential area between the east shoreline of the Canal and the River Road forms something of a buffer, any further developments such as the small mall on one corner and the restaurant-cum-strip-club on the opposite corner of the intersecting roads at the bridge would greatly increase the traffic, with its attendant noise, dangers and pollution. And, finally, there is always the desire of some of those who ostensibly wish to live in the country and, having moved here to do so, now unwittingly or not, work hard to have the amenities of the city available at their door, thus destroying the country atmosphere they sought in the first place.

Conservation of the attributes of the island at the moment is largely in the hands of individual residents. The Township has had the foresight to acquire an area at the northern end and to preserve a waterfront walkway to it. The Rideau Valley Conservation Authority also plays a major role in the development and maintenance of this park on behalf of the Township and the treatment of the adjacent river bank. However, this work has primarily been accomplished through the determined efforts of the residents, who so far have succeeded in restricting further commercial development of the island, doing their best to maintain the country atmosphere appreciated by so many, if at times, not by all.
Ill. #97
Long Island's shores present a mixture of suburban-style manicured lawns and homes, and older cottages and bungalows in more natural settings.
North Gower - serving active dairy farms around it. Early log built farms to the west.

Manotick and Long Island - interesting combination of early settlement, milling and suburban shoreline.

Burritt's Rapids, Nicholson's, Andrewsville - significant historic landscape linking the canal and settlement.

Kars - important early settlement, well preserved.

MAP 3. RIDEAU.
6.2.3 South Gower

Official Plan Notes

The Township of South Gower's Official Plan was accepted in January 1986.

It shows little specific interest or capacity to identify or protect the Township's cultural landscapes. Its heritage focus is limited to an abbreviated version of the standard mid-1980s article concerning "historic sites". Wherever possible, efforts should be made to preserve and maintain lands and buildings of significant historical or architectural merit. This can be accomplished even through public acquisition or by providing incentives to private owners to restore and maintain such lands and structures.
Kemptville - important and well preserved early settlement connected to the Rideau by water.

Map 4.
South Gower

Suburban Shoreland - mixed development
6.2.4 Oxford-on-Rideau

Official Plan Notes

The Oxford-on-Rideau plan was adopted in October 1989.

Article 4.7 "Historic Sites" appears identical to articles in use in other Rideau Corridor townships, such as Kitley and North Crosby. Its provisions in respect of heritage resemble those commonly found in mid-1980s Official Plans throughout the Rideau Corridor.

In essence, this article notes that the municipality shall endeavour to preserve and maintain lands and buildings of significant historical or architectural merit, through public acquisition or the use of financial incentives to restore or to maintain land and structures.

The Council is encouraged to set aside public funds and to identify potential sources of public and private funds to assist these efforts. And, finally, Council is asked to allow private owners necessary exemptions to the strict application of the Building Code in restoration and repairs.

The utility of this article for the benefit of the Townships cultural landscapes is limited. Cultural landscapes seem a marginal focus at best; no provisions appear in place to encourage identification of significant heritage resources, and responsibility for positive funding support for important sites is left entirely to government.
The Canal Road following the shore from Burritts Rapids to Merrickville is a well preserved early settlement route.

Oxford Mills - one of the Corridor's most evocative villages.

MAP 5.
Oxford on Rideau
6.2.5 Wolford

Official Plan Notes

The Township of Wolford's Official Plan was accepted in January 1987.

It shows little specific interest or capacity to identify or protect the Township's cultural landscapes. Its heritage focus is limited to an abbreviated version of the standard mid-1980s article concerning "historic sites".

Wherever possible, efforts should be made to preserve and maintain lands and buildings of significant historical or architectural merit. This can be accomplished even through public acquisition or by providing incentives to private owners to restore and maintain such lands and structures.

Protection afforded environmental areas is also relatively weak for the Rideau Corridor. Sensitive areas are defined only in terms of hazardous areas.
Kilmarnock - many substantial farms with Rideau shorelines, substantial early barns.

The canal road from Burritt's Rapids to Merrickville - near intact depiction of early settlement farms and features.

Merrickville - Early Merrick's Mills preceded the canal. Highly significant and well preserved urban landscape.

Jasper - picturesque village on water and rail.

Easton's Corners - illustrative village.

Map 6. WOLFORD
The Government of Canada has carried out topographic surveys of the Corridor at intervals throughout this century. These have generally been based on aerial photography. Much can be learned about landscape changes by comparing topographical maps of the same area over time, as here with the area around Jasper and Easton's Corners, in Wolford Township depicted in 1938, 1964 and 1984.
The privately published atlases of the middle 19th century are very informative. These portray early settlement patterns, and depict farms, owners and village layouts in great detail. Wolford Township is shown here.
The mid-19th century atlases also include detailed street layouts of villages and sketches of notable properties. These sketches contain a wealth of detail about the structures on the properties but also the forms and nature of plantings. These are taken from Easton's Corners.
6.2.6 Merrickville

Official Plan Notes

Merrickville's Official Plan was adopted in 1990. Not surprisingly, given the evident heritage qualities of the town, the Official Plan includes strong provisions for heritage conservation. The intent of the Official Plan, as defined in article 5.13, is to recognize the heritage resources of the community and wherever feasible to provide for the protection and conservation, or preservation and restoration of buildings and structures of historic and architectural value.

Preservation and conservation of the community's heritage resources are to have regard for the sequential use of the buildings or structures of historic or architectural significance to ensure a compatible and functional relation with adjoining land uses in the area. The Merrickville Official Plan also spells out a number of policies to be pursued by Council in achieving its heritage objectives. These policies, which are fairly common among Official Plans of the 1990s, include close collaboration with LACAC, and the use of the Ontario Heritage Act to designate buildings and districts of particular importance. The Official Plan also elevates to policy, the importance of Council taking into account the impact of private and public development on the area's heritage resources.
Cultural Landscape Notes

Location

Merrickville is about 65 km south of Ottawa on Highway 43. The site of the town spans the Rideau River and Canal, and encompasses a flight of three locks and one of the four blockhouses erected as an integral part of the defence system of the Rideau Canal.

Description

At present, Merrickville is a small town, with a population of about 1,000, very attractively sited on the Rideau Canal. Founded in 1774, it was one of the earliest settlements in the Rideau Corridor and has retained a remarkable number of the original buildings. It was laid out in a traditional grid plan with the mills at the core and the trail to the mills becoming the main street. This plan remains unaltered and is very evident in the existing town. Merrickville was a thriving centre in the 1850s with numerous mills and established small trades, but the next decade saw the beginning of a decline from which it is only recently recovering. Evidence of its wealthier days is still very visible in the size of and number of the very handsome stone houses for which the area has become noted. Most of the commercial buildings are still in use but now house boutiques, tea rooms, craft shops or light industries - all designed for the fast growing canal-centred tourist trade. All that remains of the 19th century mills is a stabilized ruin, the foundry, which was a part of the adjacent industrial complex that is still in use and now produces light castings. Due to the development of the tourist industry and current interest in country living, Merrickville is undergoing a period of revitalization but one which, it is hoped, will not destroy the attributes and charm of this very important and unique cultural landscape.

Preparing for Settlement

The land surrounding the millsite is relatively flat with varying depths of soil over a limestone base - a factor which has made it possible to use stone extensively in the erection of both commercial and residential buildings in the town. Originally lightly forested, once cleared, although still not ideal, the land did not permit grain and sheep farming, so grist and woollen mills dominated the initial development of the town. They also formed the core of the settlement which boasts an unusually large number of stone buildings, most of which are in their original condition or in good repair.
Land-use History

Merrickville was established in 1774, by William Merrick, a millwright from Massachusetts, who elected to first take over a saw mill which had been established at the site of the falls and, subsequently, to erect a series of mills in that area.

The town grew slowly as other tradesmen settled nearby but major growth occurred with the completion of the Rideau Canal in 1832. The Canal stimulated development since it improved the strength of the waterpower and provided an improved transportation route for the import and export of goods and services to larger centres such as Smiths Falls and Ottawa.

Settlement in the area of stone masons who had worked on the Canal, and the availability of stone, resulted in the erection of a number of fine stone buildings for industrial as well as domestic use. As other settlers arrived, the need for a surveyed townsit became apparent and this was completed in circa 1828-29. The town prospered, largely under the aegis of the founding family and their descendants. When incorporated in 1860, Merrickville had a population of about 950, largely sustained by "extensive manufacturers of woollens, leather, sawn lumber staves and shingles."

However, with the arrival of the railway, and the establishment of Smiths Falls as a divisional point, the town lost its advantage as a canal town and declined. There was little evidence of growth or change until the post-war period when the town began to be revitalized due largely to the growing tourist industry which in turn was stimulated by the revitalization of the Rideau Canal and its contribution to recreational activities and tourism. This "re-growth" is going on a-pace and points to the need to take steps to ensure the preservation of the cultural heritage of the community without necessarily halting future development.

Evaluation (Significance and Integrity)

Merrickville represents the evolution of a typical Ontario town, developed by early settlers of pioneering instinct who built as they saw fit, using the men and materials available and creating small industries to provide the necessities for surrounding communities. Since these early communities were usually highly dependent on water transportation they were relatively isolated and consequently developed independently of "foreign influences": - i.e. foreign to their inherited traditions.

Merrickville, however, is remarkable in the fact that it has remained intact to a very large extent so that a great deal of evidence of its development lies in its physical attributes, many of which still remain. The community is unusually attractive due to the style and construction of the buildings which display qualities
of good scale and fine craftsmanship, many of stone construction which blend in effectively with the Canal structures to create an overall uniformity in the landscape.

Because of its location - a bit too far from Ottawa - Merrickville has not yet become a major commuting centre; nor has it been subjected to an influx of "foreign" industries or an influx of "urban refugees" erecting monster houses, altering the face of the landscape and creating demands for different and enlarged services. Consequently, it has remained relatively unchanged and intact, preserving its original character and serving as a remarkable embodiment of our cultural heritage.

**Character-Defining Attributes**

- town plan unaltered from its survey in circa 1830, the traditional grid pattern still very evident;
- the main street is practically intact, with the original mix of commercial and residential buildings built flush with the main street;
- residential lots unaltered in size, many with houses as originally sited;
- Canal lock and blockhouse, the latter one of four erected to service the original military purpose of the Canal;
- foundry erected circa 1859, originally producing stoves and ploughs, has retained its original structure and pieces of the early equipment; it is still in use, now producing small castings; a stone building adjacent, part of the original complex, is a service building for the marine;
- three-storey stone building on the main street built as a store by Sam Jakes in 1862, now housing several small stores and a restaurant; (the painted ceiling of the second floor was restored a few years ago to its original glory);
- other business blocks and a hotel built in the mid-1850s front on the main street relatively unchanged;
- a number of very fine stone houses survive in excellent condition, all dating from the mid-19th century in the Neo-classic style for which the area is noted, some presumably built by the masons who worked on the building of the Canal;
- a few wood rail fences remain as well as one or two sheds and early garages located at the rear of the lot;
- streetscapes relatively unchanged with new infill compatible in scale;
- authenticity of the buildings;
- existence of stone houses in the adjacent rural areas, similar to those in the town, suggests the close relationship between urban and rural settlements which were mutually dependent;
- maintenance of inherited traditions - due in part to the lack of any major 20th century development.
Threats

- uncontrolled and/or unplanned expansion: with improvement in transportation and less emphasis on the price of gasoline, the town may well become an commuter centre for Ottawa and thereby encourage the development of housing out of scale with those existing and/or the establishment of industries having no relevance to the area;
- loss of original commercial buildings: if the present use of existing buildings, many of which now house boutiques, proves to be an economically unviable and the buildings considered unsuited for other present-day usage, a constant threat lies in the possibility of their demolition in favour of large or non-compatible building types;
- infill or interspersing of buildings out of scale and context with the existing;
- disregard of the existing landscape in planning for future development;
- poorly planned and executed restoration or adaptation of original structures.

Conservation Aids

- vested interest of the town council in maintaining the heritage qualities of the town to attract the tourist trade, which is of major benefit to the local economy;
- presence of an active historical society and of the Local Architectural Conservation Advisory Committee (LACAC), the latter provincial organization supported by local Councils;
- attention of Parks Canada in the care and operation of the canals and locks;
- guidance in restoration offered at conferences and workshops sponsored by such organizations as LACAC, the Ontario Heritage Society, The Architectural Conservancy of Ontario (ACO).

Guiding principles for long-term preservation

- preparation, adoption and enforcement of an official plan for the town that includes full recognition its heritage qualities and permits their retention while not necessarily hindering growth. Such a plan should be designed to protect the historic core of the town by locating new housing subdivisions or industrial establishments on the perimeters of the original established town site, and by introducing any new required infrastructure in as discreet a manner as possible.
Merrickville began its existence with confidence, surrounded by good agricultural land. Houses illustrated in this watercolour by James Pattison Cockburn (circa 1830) remain today. Indeed, under small clapboard houses are the log cabins built by early settlers. NAC C-040007
The construction of early roads such as the link between the 1816 Brockville-Perth road to Merrickville and the upgrading of the Prescott road, although important for settlement of the corridor, increased the vulnerability of the Canal to sabotage. As a result, this blockhouse in Merrickville was of strategic importance to the Canal defenses. This watercolour was painted, circa 1839, by Captain H.F. Ainslie, 25th Regiment of Foot. NAC C-000512
Ill. #105
Some of Merrickville's original industrial buildings have contemporary uses which contribute to the community's vitality.
6.2.7 Kemptville

Official Plan Notes

Kemptville's Official Plan, adopted in September 1995, is one of the newer generations of Official Plans which offers improved sensitivity in treatment of heritage issues and lands. Although its principal heritage objectives to "encourage preservation, restoration, re-use of historic and architecturally significant buildings or landmarks" appear somewhat narrowly focused, article 2.10 "Heritage Conservation" focuses more broadly on the "importance of preserving buildings, properties and districts of historic and architectural value."

Article 2.10 examines in some detail the obligations of the Council in pursuing these objectives and the recommended steps in a process for dealing with heritage properties. Council is encouraged to take a proactive approach and to "examine buildings and sites in the Town with regard to the desirability and suitability for restoration, conservation and preservation purposes." Process Guidelines for examining impacts on heritage buildings or properties of proposed development clarify that the significance of the property in illustrating or interpreting the heritage of the Town should be guided by the basic criteria of architectural merit and/or historical-cultural associations.

In general, it was suggested that properties should illustrate effectively the broad architectural, cultural, social, political or economic patterns of the Town's history or should be identified or associated with events or persons that have shaped such history in a significant way.

Article 2.10 goes on to focus attention on necessary consultations in decision-making, and effective use of the provisions of the Ontario Heritage Act.

The Kemptville Official Plan offers a useful framework for introducing cultural landscape Guidelines as proposed in Section 5.2 of this report.
6.2.8 Perth

Official Plan Notes

The Official Plan of the Town of Perth was adopted in April 1983. As such it appears to be the oldest of the Official Plans still in place along the Corridor.

The Official Plan contains no direct provisions concerning identification or protection of its heritage resources. This is surprising given the many urban conservation initiatives taken in the last decades in Perth. Principal among them would be Heritage Canada's pilot Main Street programme, the first in the country, launched in the late 1970s.

The Official Plan, however, on its own merits offers no support for those interested in improving care for the municipality's heritage resources, at any level, including its urban cultural landscapes.
6.2.9 Montague

Official Plan Notes

The Official Plan of the Township of Montague was adopted in draft form in May 1997 and is still under review.

Although recently revised, provisions for heritage have not been updated. The Official Plan has maintained in article 4.7 "Historic Sites" language used in the earlier version of the Official Plan. Key improvements of the Official Plan appear to relate to its ability to better manage wetlands and floodlands along the Rideau.

The plans provisions for "historic sites" are similar to those found in the Township of Wolford and a number of other Rideau townships. Wherever possible, efforts should be made to preserve and maintain lands and buildings of significant historical or architectural merit. This can be accomplished even through public acquisition or by providing incentives to private owners to restore and maintain such lands and structures.

The Township's Official Plan makes a number of interesting references to the Rideau Trail which passes through it. The Council's attention is focused on the value of retaining "the scenic beauty of various parts of the Township from the vantage point of the natural environment." It would not be difficult to extend this approach to include concern for the cultural values in the landscape.

Generally speaking, however, the Township's Official Plan offers little support for improving care for its cultural landscapes.
Many early farms, log structures, substantially unimproved.

Early farms, substantial barns along Rideau-side road.

Early settlement road from Burritt's Rapids to Merrickville.
Montague Township is full of early farms, particularly along the road linking Smiths Falls to North Gower. A large number of these include log-built houses and barns. These are all at risk. The Montague Township planning office noted that the Township has no heritage structures. Therefore, those that survive owe their existence to the innate conservation of the area's farmers.
6.2.10 Smiths Falls

Official Plan Notes

The Official Plan for Smiths Falls was adopted in October 1991. Its provisions for heritage follow the models established for South Elmsley and Kemptville.

The Smiths Falls Official Plan treats heritage issues with more sensitivity than "historic sites" articles commonly found in Rideau Corridor Official Plans of the mid-1980s. Article 4.10 on "Heritage Conservation" focuses on the "importance of preserving buildings, properties and districts of historic and architectural value." Article 4.10 examines in some detail the obligations of the Council in pursuing these objectives and the recommended steps in a process for dealing with heritage properties. Council is encouraged to take a proactive approach and to "examine buildings and sites in the Town with regard to the desirability and suitability for restoration, conservation and preservation purposes." Process Guidelines for examining impacts on heritage buildings or properties of proposed development clarify that the "significance of the property in illustrating or interpreting the heritage of the Town should be guided by the basic criteria of architectural merit and/or historical-cultural associations." In general, it was suggested that properties should illustrate effectively the broad architectural, cultural, social, political or economic patterns of the Town's history or should be identified or associated with events or persons that have shaped such history in a significant way.

Article 4.10 goes on to focus attention on necessary consultations in decision-making, and effective use of the provisions of the Ontario Heritage Act.

In addition, article 4.11 of the Official Plan focuses specifically on the Rideau Canal. Council is encouraged to "consider policies intended to ensure that shoreline development occurs in a manner which is sensitive to the natural, historic and recreational character of the Rideau Canal." Council is asked to review development and re-development projects relative to a range of objectives for the Canal, including improving physical access, enhancing visual access, improving environmental quality of the water and shoreline, ensuring appropriate locations for marinas and docks, promoting development of exemplary public and private facilities along the waterfront, minimizing detrimental effects of development on existing land use and enhancing visual character by maintaining and upgrading structures and landscapes along the Canal. The Official Plan notes the paramount importance of working closely with Parks Canada. And, finally, with respect to the nature of acceptable shoreline development (itself subject to the nature of site plan control), the Official Plan notes that where appropriate to retain the existing character of the shoreline, development will be required to maintain or establish
a strip of narrow shoreland between the water and lawns of landscaped areas.

It is further noted that "all development along the Canal shall be in harmony with existing architectural styles and shall respect the natural and open space character of the Canal Corridor".

These provisions are very useful within an urban landscape such as Smiths Falls where the Corridor is defined in relatively limited terms, in relation to properties immediately adjacent the shoreline. As well, the Official Plan appears to provide an excellent base for introducing cultural landscape guidelines as presented in Section 5.2 of this report.
North Elmsley's Official Plan was adopted in October 1985.

As in Official Plans in place in Oxford-on-Rideau, Kitley, North Crosby and elsewhere along the Corridor, provisions for the treatment of heritage are limited to a standard, near boiler-plate article in place during the mid-1980s along the Corridor, concerned with the protection and restoration of "historic sites". Article 4.6 of the Official Plan deals with this material.

In essence, this article notes that the municipality shall endeavour to preserve and maintain lands and buildings of significant historical or architectural merit, through public acquisition or the use of financial incentives to restore or to maintain land and structures.

The Council is encouraged to set aside public funds and to identify potential sources of public and private funds to assist these efforts. And, finally, Council is asked to allow private owners necessary exemption to the strict application of the Building Code in restoration and repairs.

As elsewhere among Rideau Corridor Townships employing the fairly traditional approach to heritage contained within the provisions of the standardized "historic sites" article, the possibilities offered by the Official Plans for improving cultural landscape care are limited.
Beveridge's Locks and the Tay Canal, through Tay Marsh linking Perth to the Rideau

Port Elmsley - Significant water-side settlement

Rideau Ferry, formerly Oliver's Ferry, Early Rideau crossing settlement

Smiths Falls - most developed Rideau settlement, presence of rail, associated lock stations

MAP B.
NORTH ELMSLEY
6.2.12 South Elmsley

Official Plan Notes

South Elmsley adopted its present Official Plan in October 1991. This Official Plan is among the more sensitive of Rideau Official Plans to heritage issues and concerns. Under article 4.11 "Heritage Conservation", Council recognizes the importance of encouraging the preservation of buildings and properties of historical or architectural value. To this end, the approval of Official Plan amendments, plans of subdivisions, severances, zoning bylaws, site plans and building alteration or renovations are meant to be guided by [a set of supporting] policies.

Article 4.11 examines in some detail the obligations of the Council in pursuing these objectives and the recommended steps in a process for dealing with heritage properties. Council is encouraged to take a proactive approach and to "examine buildings and sites in the Town with regard to the desirability and suitability for restoration, conservation and preservation purposes." Process Guidelines for examining impacts on heritage buildings or properties of proposed development clarify that the "significance of the property in illustrating or interpreting the heritage of the Town should be guided by the basic criteria of architectural merit and/or historical-cultural associations." In general, it was suggested that properties should illustrate effectively the broad architectural, cultural, social, political or economic patterns of the Town's history or should be identified or associated with events or persons that have shaped such history in a significant way.

Article 4.11 goes on to focus attention on necessary consultations in decision-making, and effective use of the provisions of the Ontario Heritage Act.

South Elmsley's Official Plan offers an opportunity to introduce cultural landscape Guidelines as suggested in Section 5.2 of this report.
Cultural Landscape Notes (South Elmsley)

Location

South Elmsley is bordered by Upper and Lower Rideau lakes on the north, Kitley Township on the south, Smiths Falls and Wolford Township on the west, and South Burgess on the east.

Land-use history

South Elmsley's history of settlement parallels that of many areas along the Rideau. As a rural municipality, it had its share of early wheat farms, dairy farms (some still in existence) and cheese factories (none remain), and mines (principally near the border with South Burgess, although some gravel quarries continue in the western half). Originally much of the early settlement came as a result of its proximity to the Perth settlement; however, South Elmsley was not blessed with prime farmland.

Oliver's Ferry (later Rideau Ferry) served as the crossing point for the narrows connecting Big and Little Rideau lakes. Perth, set in Bathurst Township on the north side of the Corridor, was an administrative centre for demobilized soldiers of the War of 1812, and for Scottish settlers; it also served as a jumping off point for further settlement into the back country. The earliest roads laid out in the area necessarily connected Perth to other established centres. During the mid-1810s two principal routes were established: the Perth Road, running to Brockville (then Elizabethtown), and the Old Kingston Road, running to Kingston. The Perth Road received more maintenance and attention than the average settlement road due to the importance of the Perth Settlement.

The administrative centre of the Township, Lombardy, was affected by its proximity to Smiths Falls. A centre until the 1920s, it no longer grew once the automobile came into popular use. There are no other large communities in the area. Residential development in the late 20th century has been confined to a few pockets around Rideau Ferry, near the Poonamalie Lockstation and along the major highways. Recently, many cottages have been adapted to accommodate permanent residents.

South Elmsley is well connected with several major transportation routes passing through it. The Perth and Old Kingston roads were mentioned above; the "Victoria macadamized road" (now Highway #29) was developed between 1831 and 1851 (running from Smiths Falls to Brockville) to facilitate trade with the interior of Eastern Upper Canada and the St. Lawrence River ports. The "Stone Quarry Road" south of Smiths Falls was a "forced road" built to support Canal construction; not initially an efficient road, it was extended in the 1830s to Portland and eventually became Highway 15. The Perth-Kingston Road (through Westport on the west side of the Canal) was built first as a plank road in 1852, although sponsored as early as 1844 by Sir John A. Macdonald. The roads mentioned above and the
Canal all ensured that South Elmsley did not become isolated.

Although transversed in 1859 by two major rail lines running into Smiths Falls from Ottawa and Perth, South Elmsley did not have its own major rail station, simply a flag stop near Lombardy. Development of the Smiths Falls line did encourage land speculation on the basis of population and industrial growth.

The development of the Township's side roads also contributed to intensification of settlement and land use in the area. Kell's side road was built in 1839 in response to a petition from residents of Elmsley and Kitley. The Poonamalie settlement was connected to the main road to Smiths Falls (now Highway #15) following an 1845 settlers' petition. This road wound around swamps and, apparently without the owners' support, through land owned by Martin Kenny. The road from Smiths Falls to Jasper (in Wolford Township) followed the course of the South Elmsley Township line. Completion of this road depended on building and maintaining a bridge over Otter Creek, a somewhat difficult task given its width; this bridge, originally a cedar structure, has been re-located and replaced several times in its history. Later developments in strengthening the road network include efforts to legitimize "forced roads" such as Bay Road between Rideau Lake and Ferry Road, and increasing preference for improving roads by straightening these out, and closing the original "forces roads", e.g. Ferry Road.

South Elmsley also contains the Tay Canal financed in 1831 by the Tay Navigation Company, through the sale of company stocks and lots on Cockburn Island. The Canal opened two years late, in 1834 and includes 5 locks somewhat smaller than those on the Rideau.

Today the landscape is dominated by continuing farmland and the more recent expansion of facilities in the area offering vacation opportunities.

Oliver's Ferry developed as the centre and one of the earlier popular vacation spots along the Rideau. By the late 1880s, waterfront lots were being sold to residents of Perth, Smiths Falls and Ottawa. These lots were not connected to the road network until after the First World War, and the vacationers relied upon the steamboat service for access to their properties. Coutts Hotel, located on the south side of the Ferry, was an important destination for summer vacations. The annual regatta was begun in 1897, and has been an important part of holiday life on the Rideau for nearly a century.

Development has increased since the 1950s when roads were improved and the construction of permanent residents increased, particularly along the Ferry road. More outsiders, including Americans, began to discover the region but Smiths Falls residents continued to be the largest group of property owners.

Vacation development in South Elmsley is not restricted to the Rideau system. Otter and Bass lakes are full of waterfront
properties. These lakes developed primarily after the Second World War with private cottages and larger commercial developments including motels, trailer parks, a children's camp and a recreational ranch.

Many of these early cottages remain today, particularly along the shore and islands of Big Rideau Lake, west of the Ferry. Along with the traditional cottages nestled in the woods are newer cottages, many in large clearings with suburban-style lawns.
OLD Kingston Road, linking Rideau Ferry and Portland contains strong traces of early settlement.

MAP 9
SOUTH ELMSLEY.
Lombardy, bypassed by Highway 15 south of Smiths Falls, is today a Corridor hamlet of great interest. Its surviving structures and the layout with which they are associated are highly evocative of the mid-19th century. However, there is little to indicate high levels of appreciation of modern-day Lombardy in the maintenance or presentation of its various attributes.
6.2.13 Westport

Official Plan Notes

The Official Plan of the Village of Westport was adopted in September 1985.

Article 3.9 under General Development Policies presents provisions concerning "Historic Sites". These resemble closely provisions found in many Corridor Official Plans, not yet updated to account for changing perceptions of heritage now prevalent in the late 1990s. Similar approaches may be found in Wolford and South Crosby townships.

Article 3.9 calls for Council,
Wherever possible, efforts should be made to preserve and maintain lands and buildings of significant historical or architectural merit. This can be accomplished even through public acquisition or by providing incentives to private owners to restore and maintain such lands and structures.

There is little in Westport's Official Plan to support those interested in improving care for its urban cultural landscapes.
6.2.14 Kitley

Official Plan Notes

The Official Plan of Kitley was adopted on February 24, 1993.

This Official Plan, though relatively recent, seems to have retained heritage concepts more common in use in the mid-1980s. Its heritage focus seems limited to that provided for "Historic Sites" in article 4.6. In essence, this article notes that the municipality shall endeavour to preserve and maintain lands and buildings of significant historical or architectural merit, through public acquisition or the use of financial incentives to restore or to maintain land and structures.

The Council is encouraged to set aside public funds and to identify potential sources of public and private funds to assist these efforts. And, finally, Council is asked to allow private owners necessary exemption to the strict application of the Building Code in restoration and repairs.

The treatment offered heritage in the Official Plan provides little support for those interested in the care of the Township's cultural landscapes. The reference in article 4.6 to "lands" is intended more to indicate "property" than cultural landscapes. No specific encouragement is given to programmes of identification which might strengthen appreciation of cultural landscapes. The article also calls for government funding or acquisition, to protect sites. an approach which seems out of tune with these circumstances.
The road to Elgin—excellent dairy farms and farming landscape—early settlement

MAP 10. KITLEY. Bellamy's Mill—remains of early settlement
6.2.15 North Burgess

Official Plan Notes

The Official Plan of North Burgess, adopted March 1992 and revised January 1993, is one of the few Corridor Official Plans to include measures within its heritage provisions, focused specifically on the Rideau Canal Corridor.

Generally in the Official Plan, Council "recognizes the importance of encouraging preservation of buildings and properties of historic and architectural value." To this end, Council is expected to "examine buildings and sites in the Municipality with regard to the desirability and suitability for restoration, conservation and preservation purposes." Further provisions within article 3.12 appear to involve adaption and extension of the same basic points covered under the boiler plate "Historic Sites" Official Plan article which was present in almost all mid-1980s Corridor Plans, including possible exemptions for deviations from Building Code applications. Article 3.12 also encourages Council in association with its LACAC to make best use of the provisions of the Ontario Heritage Act, including its provisions for designation of Heritage Conservation Districts.

Most importantly, the Official Plan notes with regard to the Rideau Canal Corridor, Council will encourage Parks Canada, the Ontario Ministry responsible for heritage matters and the Township heritage interests to undertake a heritage resource inventory in order to make recommendations on the most appropriate means of protecting their integrity.

This positive statement of intent appears to provide an excellent basis for the Township to take up the challenge of developing Guidelines for its own cultural landscapes as provided for in Section 5.2 of this report.
The Narrow, historic lock station set astride Causeway. Strong presence of nature.

MAP II.
NORTH BURGESS
6.2.16 Bastard and South Burgess

Official Plan Notes

The Official Plan for Bastard and South Burgess appears to have been adopted in July 1986.

Provisions for heritage within this Official Plan are limited to those standard measures for "historic sites" contained in many mid-1980s Corridor Official Plans.

It shows little specific interest or capacity to identify or protect the Township's cultural landscapes. Its heritage focus is limited to an abbreviated version of the standard mid-1980s article concerning "historic sites".

Wherever possible, efforts should be made to preserve and maintain lands and buildings of significant historical or architectural merit. This can be accomplished even through public acquisition or by providing incentives to private owners to restore and maintain such lands and structures.
Cultural Landscape Notes (Forfar Dairy Farming Landscape)

Location

Within Bastard and South Burgess townships, the landscape unit is contained generally by Big Rideau Lake to the north, by Highways 15 and 42 to the east, and by Harlem Road to the west.

Description

A farming landscape situated on the Smiths Falls Limestone Plain (a portion of the Central St. Lawrence Lowland), the landscape includes a number of cleared areas which have reverted to forest cover (approx. 30% of ground cover). The landscape unit is also bisected by a network of major and minor roads and by the rights of way associated with two railway lines, one now abandoned (the Brockville and Westport Railway).

Land-use history

- land surveyed using single front survey system of 200-acre lots within a rectilinear grid of concessions (numbered west to east) and lots (numbered north to south);

- land first cleared to provide timber in 1810s and 1820s;

- land first settled primarily in the various waves of immigration following the war of 1812; Forfar, early on known as Hale's Corners, probably first settled in 1815;

- the major routes in use today follow early tracks used to link early communities, cutting diagonally across lot and concession lines (e.g. the stretch of route 42 linking Forfar to Phillipsville);

- Forfar, initially a "corners" settlement at the intersection of lot and concession lines, rapidly became a centre of considerable importance in the region, providing blacksmith and mercantile services to nearby farmers, and supporting a school and first a cheese factory; Forfar also served as a junction for stage-coach service and later rail traffic to and from Brockville. With the development of the motor car, the village has lost much of its commercial activity and importance, though it remains home to the last cheese factory in the Township;

- the agricultural transformation of the 1860s and 1870s brought wide-spread dairy farming to the area at that time;
while turn-of-the-century planting has enclosed the lands immediately surrounding farm residences and lined a number of avenues (Forfar Road from Highway #15 to Forfar), and much of the farm land has been abandoned, diary farming remains the primary use of land in this area.

Evaluation (Significance and Integrity)

The Forfar dairy farming landscape unit represents several significant stages in the farming history of Eastern Ontario, including settlement and the mid-19th century transformation to diary farming. The landscape unit is by no means unique in the region but it presents a relatively complete picture of the successive stages of development and use, with a reasonably high degree of integrity.

Character-Defining Attributes

• the pattern of roads, concessions, lots and farm holdings established by the initial survey exists to a high degree of integrity, and is important to maintain;

• the rail-lines which run through the unit and represent subsequent efforts to improve transportation are still present, though used much less than in the past. One of the rail-lines had been abandoned and the station at Forfar Junction lost to fire;

• the field patterns associated with early settlement are being blurred through farm consolidation; nevertheless many significant vestiges of these early patterns exist in lines of trees and/or linear piles of gathered field stones separating fields in use;

• farmhouse and outbuilding complexes show evidence of growing response to technological innovation in farming; growing maturity of domestic accommodation and large wood-frame barns have, for example, for the most part given way to successive generations of grain silos.

• the village of Forfar has sustained its vitality through successive stages of development; the commercial use of some of its early buildings may yet be read in the residential use most buildings enjoy. The late 19th century school has successfully become a community centre.
Conservation

• threats to the integrity of the landscape unit include:
  
  • continuation of farm consolidation: large-scale efficiencies may continue to erode early patterns of field lay out:
  
  • government farm policy: marketing board policies which limit agricultural land use in the region increase farm abandonment and the return of land to forest cover;
  
• support for the integrity of the landscape unit may come from:
  
  • growth in independent farming practices;
  
  • increasing market support for locally produced dairy goods;
  
  • increasing awareness of specific attributes of landscape unit (involve local LACAC in landscape attribute inventory, for example).

• guiding principles for long-term development:
  
  • maintain and intensify dairy farming land use.
Freelands—early corners settlement, legible 19th c. farming patterns.

Portland, important early Rideau-side settlement.

Fancy Free Cottages Country, including Colonel By Island.

Forfar dairy farming landscape, includes early settlements Harlem, Chantry.

MAP 12.
Bastard and South Burgess
Official Plan Notes

The Official Plan in use for North Crosby was developed and adopted in 1985. This Official Plan is one of the many mid-1980s documents which touches heritage questions in a fairly limited fashion through provision for "Historic Sites". In essence, this article notes that the municipality shall endeavour to preserve and maintain lands and buildings of significant historical or architectural merit, through public acquisition or the use of financial incentives to restore or to maintain land and structures.

The Council is encouraged to set aside public funds and to identify potential sources of public and private funds to assist these efforts. And finally, Council is asked to allow private owners necessary exemption to the strict application of the Building Code in restoration and repairs.

This article, though it refers to "lands", is of little help in improving care for cultural landscapes. The need to both identify and better manage cultural landscapes is not mentioned; actions called for assume government intervention aimed at acquisition or use of incentives to effect changes. This approach - government solving problems by spending - seems out of touch with the current mood in government; in any event; the approach could never have been intended for widespread use in dealing with "preserving the Township's heritage resources". Finally, Council is only encouraged to "endeavour", not to "assure"; it is evident that the protection offered heritage of all forms and cultural landscapes in particular is essentially optional.
Westport, and Foley Mountain - fusion of Farming landscape and Shield landscape.

MAP 13. NORTH CROSBY
6.2.18 South Crosby

Official Plan Notes

The Official Plan of South Crosby, adopted in May 1994, offers significant advantages for the protection of cultural landscapes and is one of the better instruments from a heritage perspective on the Rideau. The Official Plan notes that it is an objective of the Municipality to protect the heritage character of the Rideau Canal and its associated historic, natural and scenic setting for the ongoing importance of this system as a natural and cultural resource of national significance.

The document goes on to note that the "Township contains many areas of significant historic, architectural and natural heritage and wherever possible, these buildings and lands will be protected and preserved from the effects of incompatible development." Article 4.7 of the Official Plan defines cultural heritage resources to include "archaeological sites, buildings, structural remains of historical, architectural and contextual value and human-made rural, village and urban districts or landscapes of historic and scenic interest." The Municipality is encouraged "wherever possible ...to preserve and maintain cultural heritage resources." Parks Canada, the Ontario Ministry responsible for heritage and local LACACs are to be encouraged to undertake detailed studies of the cultural heritage resources in order to determine their historic significance and to make recommendations for the most appropriate means of protecting their integrity.

It is expected that "where appropriate, Council will implement the recommendations of such cultural heritage resources by designating properties or districts in accordance with the Ontario Heritage Act," in close collaboration with local LACACs.

While the tone and intentions of the Official Plans provisions for heritage are admirable, and among the most advanced on the Rideau, concerns arise from the standpoint of those concerned with the conservation of cultural landscapes. Cultural landscapes appear to remain a marginal focus among cultural heritage resources examined; protection offered is still discretionary ("wherever possible"); and no resources are offered for protection.
Newboro - important early settlement and historic lock station, Rideau resort

Chaffey's - historic lock station and resort

Jones Falls - historic lock station and early resort

Elgin - early settlement serving the farming community - very intact

Map 14: South Crosby
6.2.19 Bedford

Official Plan Notes

Bedford's Official Plan is one of the newer generation which begins to take a more holistic view of approaches to heritage identification and management. Uniquely on the Rideau, it uses the technique of identifying and mapping "sensitive areas" (used frequently among Corridor townships for areas of natural heritage value) to integrate concern for areas of cultural values. Sensitive areas in Bedford Township may include those significant for their vegetation, their fish and wildlife, their geological and land forms, their historic and cultural importance and "complexes" (combining interest in one or more areas). The Official Plan's provisions for sensitive areas are such as to "ensure that specific features are made known to interested parties and given careful consideration prior to the approval of the development proposal." In theory, this approach offers ample scope for improving management of Bedford Township cultural landscapes; in practice, it appeared that no "sensitive areas" of historic and cultural importance have yet been designated.
The Perth Road, built in the late 1850s, runs for the most part through much more rugged country than early roads in the middle and northern sections of the Corridor. Its purpose, to encourage settlement in the Corridor's more isolated townships between Kingston and Perth, can still be read in the varied landscapes through which it passes.
The small hamlet of Bedford Mills, just off the Perth Road from Perth to Kingston, is one of the most fascinating settlements anywhere in the Corridor. The surviving structures, houses and buildings testify to the community's mid-19th century prosperity and aspirations. Many of those structures are being reclaimed by encroaching forest cover. At the same time, the community's various structures are set within a natural landscape of great beauty and drama.
6.2.20 Storrington

Official Plan Notes

Storrington's Official Plan, updated in November 1990, makes minimal provision for either heritage protection or for the treatment of significant cultural landscapes. Its articles include a near-standard version of the "historic site" provisions found in many Rideau Townships Official Plans of the mid-1980s. These suggest that "Wherever possible, the Municipality shall endeavour to preserve and maintain lands and buildings of significant historic or architectural merit." Protection is encouraged through public acquisition or by providing incentives to private owners to restore or maintain land and structures. Councils are encouraged to set aside public funds for heritage protection, to explore sources for public and private funds, and to accord exemptions to the Building Code to private owners involved in restoration/repair of significant properties.

Considerable attention is paid to protection of natural areas; provisions for identifying both "environmental protection areas" and "environmentally sensitive" areas are made. Objectives concerning maintenance of agricultural lands exist within the Official Plans; goals are "to preserve agricultural industry". The Official Plan also commits the Township "to maintain the aesthetically pleasing characteristics of the Township".

While the commitment to preservation of agriculturally productive lands and aesthetically pleasing characteristics is welcome, the Official Plan provides little support for those concerned with the protection of cultural landscapes.
The tree-lined Forfar Road is an important component of this cultural landscape unit.
6.2.21 Rear of Leeds and Landsdowne

Official Plan Notes


Its articles include a near-standard version of the "historic sites" provisions found in many Rideau townships Official Plans of the mid-1980s. These suggest that "Wherever possible, the Municipality shall endeavour to preserve and maintain lands and buildings of significant historic or architectural merit." Protection is encouraged through "public acquisition or by providing incentives to private owners to restore or maintain land and structures." Councils are encouraged to set aside public funds for heritage protection, to explore sources for public and private funds, and to accord exemptions to the Building Code to private owners involved in restoration/repair of significant properties."

The Official Plan also provides for creation of environmental protection areas, including floodlands, wetlands and "sensitive areas".

The Official Plan provides little assistance or guidance for those interested in improving care for the Township's cultural landscapes.
Seeley Bay - important early water-side settlement

Morton - important settlement marked by Highway 15

MAP 17.
REAR OF LEEDS AND LANSDOWNE
6.2.22 Pittsburgh

Official Plan Notes

The Official Plan of the Township of Pittsburgh was adopted in draft form in April 1997.

As one of the newest Official Plans, and coming from a township long concerned for its historic resources, not surprisingly, Pittsburgh Township's Official Plan contains some important articles supporting provision of improved care for cultural landscapes.

Article 2M encourages Council to explore use of the Ontario Heritage Act to designate both structures and heritage conservation districts.

Of greater interest in the context of this study, Article 2P notes that Council's intent is "to maintain the diversity of landscapes along the Canal and to protect its scenic, natural and environmental resources." The Official Plan calls for particular policies with respect to obtaining Parks Canada comments in the context of the Rideau Canal Management Plan, and with respect to assuring development of new lots along the Canal and with respect to assuring minimum shoreline setbacks, and adequate natural screening for waterfront buildings located north of Highway 401.

The Official Plan also gives particular emphasis to the preservation of designated "Environmental Protection Areas" and "Environmental Resource Areas."

Without any doubt, Pittsburgh Township's Official Plan provides a kind of cultural landscape guidelines envisioned in Section 5.2 of this report.
Kingston Mills - historic lock station and remains of early settlement

Map 18.
PITTSBURGH
6.2.23 Kingston

Official Plan Notes

The Official Plan of the Township of Kingston was adopted in March 1995.

This Official Plan is one of the modern generation of Official Plans which attempts to strengthen provisions for heritage conservation. The focus of efforts within this Official Plan is a call for Council to develop a Heritage Strategy by which it is enabled to conserve heritage resources "wherever practicable". Heritage resources are defined to include physical and intangible heritage resources including structures, landscapes, natural areas, archaeological and palaeotological sites, landscapes, cemeteries and burial places, documents, place names, traditions and values, skills, songs and stories.

This is certainly the widest definition of heritage to be found in any Corridor township Official Plan; heritage is viewed as the total environment inherited from the past, contributed to in the present and handed on to the future. It contributes significantly to the identity and unique character of the community and contributes to the effectiveness of the greater Kingston area for tourism.

The Official Plan demonstrates that Council intends to:
- identify, recognize, conserve the Town's heritage resources;
- promote the maintenance and development of historically appropriate landscaping around heritage properties;
- encourage in cooperation with the County and the Province, the maintenance of the character of the rural areas;
- promote the preservation of the Kingston Mills Lockstation;
- respect the integrity of archaeological remains in situ, ensuring appropriate provisions for investigation and where necessary mitigation to ensure preservation of the archaeological data;
- encourage the maintenance of existing heritage resources as part of new development proposals, wherever practical;
- integrate heritage considerations into the planning and development process especially in the areas of land use and environmental planning.

Quite clearly, this Official Plan provides one of the better bases in the region for the adoption of the kind of cultural landscape Guidelines espoused in Section 5.2 of this report.
Kingston — one of Ontario's most important historic urban landscapes

MAP 19. KINGSTON.

Wolfe Island — important early settlement and farming in the St. Lawrence.Later resort and cottage area.

Essentially marsh land down to Kingston.
New owners need to be made aware of the importance that their property plays in the overall cultural landscape in order to ensure that any improvements introduced are sympathetic.
The quality of paving on a road provides no hint of the road's origins or age. The presence of this mid-19th century house on the unimproved (and occasionally very rough) road from Perth Road Village to Chaffey's Locks indicates the role played by this road in encouraging early settlement.
6.3 Government of Ontario planning tools useful in assisting Rideau Corridor Townships and Municipalities develop cultural landscape conservation guidelines

Review of the current situation

It is worth looking at the Corridor's cultural landscape conservation mechanisms in some detail to understand the nature of the obstacles to confront. The best means to evaluate the mechanisms in use on the Rideau Corridor is to review the adequacy of existing Official Plan provisions for cultural landscapes.

Ontario townships and municipalities are encouraged by the Planning Act to use their Official Plans to establish the key goals and objectives which planning is meant to address, and the related policies or provisions used to achieve the defined goals. While the revised Planning Act (March 1995) has increased available opportunities for bringing greater levels of care to important cultural landscapes ("cultural heritage landscapes"), and the general approaches encouraged have begun to work their way into the current generation of Official Plans (for example, in the Ottawa-Carleton Region's Official Plan, adopted July 1997), a review of all Official Plans in place along the Corridor shows an uneven collection of approaches.

While several families of approaches to treatment of cultural landscapes may be identified, the use of a small number of consultants to prepare such plans over time and the practise of continuing slow revision has ensured significant carry over in the wording, language and concepts from one generation of plans to the next. For example, language present in many mid-1980s Official Plans concerned with heritage usual focuses on protection of "heritage sites". The same paragraph may be found in the Official Plans prepared for North Crosby, the Rear of Leeds and Landsdowne, the village of Newboro and others, presumably supplied by consultants "J.L. Richards and Associates Limited".

This paragraph says:

"Wherever possible, the municipality shall endeavour to preserve and maintain lands and buildings of significant historic or architectural merit. This can be accomplished either through public acquisition or by providing incentives to private owners to restore and maintain such land and structures. The municipality may consider such means as setting aside public funds for such acquisitions, investigating the sources for public and private funds for such purposes and allowing private owners the compliance alternatives of Part 11 (eleven) of the Building Code in restoring or repairing structures."

Even though the Official Plan prepared for South Crosby in May 1994 has moved its focus from "historic sites" to "cultural heritage resources", and even though the goals with respect to heritage
expression have broadened to focus on protection of the "heritage character of the Rideau Canal and its associated historical, architectural, natural and scenic setting for the ongoing importance of this system as a natural and cultural resource of national significance", the Official Plan also integrates, somewhat inappropriately, remnants of the "historic sites" language used in the previous Official Plan. In section 4.7 of the South Crosby Official Plan, ("Cultural Heritage Resources"), the retention of the dated language and format previously used for "historic sites", suggesting that "wherever possible, ...the Municipality ...will endeavour to preserve and maintain cultural heritage resources etc....," compromises to some extent the larger intentions of the new Official Plan.

The approaches to cultural landscape protection among the Official Plan may be grouped in the following general families:

- those that provide little or no basis for cultural landscape protection (e.g. those mid-80s Official Plans in place along the Rideau Canal Corridor focused on "historic sites");

- those that deal with cultural landscapes as a subset of the Conservation Districts provided for by the Ontario Heritage Act (e.g. South Crosby, Pittsburgh townships);

- those few that provide a relatively comprehensive framework for cultural landscape identification and protection, whether on the basis provided for in the March 1995 Planning Act (the July 1997 Ottawa Carleton Regional Official Plan) or parallel mechanisms (for example, the Township of Kingston, March 1995, Official Plan which provides for a widely drawn Heritage Strategy to accompany its Official Plan).

Whatever the type of approach – restrictive, or encouraging, (from a cultural landscape perspective) – all existing Official Plans on the Rideau Corridor are inadequate to the task of protecting cultural landscapes. Some of the shared over-riding problems are the following:

- there are no inventories, or lists of significant cultural landscapes in the Rideau Canal Corridor, or its important townships, which could provide a basis for identifying those important terrains to be protected;

- protection is almost always optional, qualified by the phrase "wherever possible"; articles used in Official Plans with respect to management of significant natural areas oblige Councils to protect, to conserve etc. Not so for even the most significant cultural landscape terrains.

- protection offered cultural landscapes is not managed through their depiction on maps. Most Official Plans map the
"environmental areas", "environmental resource areas" or "sensitive areas" used to manage natural areas of high importance. Cultural landscapes are not mapped in Official Plans, and therefore are automatically less visible, less present in decision-making or informal discussions. Where cultural heritage resources in a municipality or township have been identified, provisions are made for placing these on lists, or inventories, without clear understanding of what specific terrain the listed item may relate to;

- it is not clear that heritage measures in Official Plans are intended to be used for cultural landscapes per se, as cultural landscapes are not directly referenced in most Official Plans. Those mid-80s Official Plans which deal with heritage under "historic sites" refer only to "lands and buildings". Even those later plans which use broader definitions of heritage are nevertheless somewhat ambiguous with respect to cultural landscapes. While the "cultural heritage resources" of S. Crosby's Official Plan are defined to explicitly include landscapes of "historic and scenic interest", Pittsburgh Township's Official Plan provides for conserving "physical and intangible heritage resources", including "landscapes". Bedford Township's Official Plan included among "sensitive areas" those with a "historic or cultural" nature but without defining criteria for identifying these.

- discrepancies in language used for protection of areas of natural heritage values add to confusion in dealing with cultural landscape values. In spite of the many common natural attributes to be found along the Rideau Corridor, each township uses its own language to describe areas of similar importance. "Environmental protection areas", "environmental resource areas", "sensitive areas" are all terms widely used within township Official Plans but not necessarily to cover the same qualities or concerns from township to township. Without a common language for natural heritage areas and treatment, it is difficult to promote a common approach to cultural landscapes.

Many of the other provisions of Official Plans dealing with matters other than heritage are also relevant to sound cultural landscape management.

1. All Official Plans contain references to agricultural lands. Most tend to promote adherence to the following three principles:

   - retention of good quality agricultural land;
   - retention of viability of existing farm units;
   - maintaining the character of existing agricultural lands.
While these principles are sound, and would contribute strongly to retention of the present open character and patterns of the rural landscape, it is difficult to see how such land practices can be ensured by municipalities or townships in the face of provincial agricultural practices promoting contradictory goals.

2. Other provisions of the Official Plans concerned with the retention and management of rural lands are often highly relevant to the health of the cultural landscape.

3. Finally, several Official Plans focus specifically on policy objectives and related practices intended to strengthen the character of the Rideau Canal Corridor.

It is clear from analysis of the above that the ability of the Official Plans to function in favour of the Corridor's cultural landscape depends very much on the degree to which township officials would be willing to commit themselves to giving the kind of absolute protection to cultural areas already accorded important natural areas.

Draft Guide for developing cultural heritage conservation policies in municipal official plans

The Government of Ontario has a number of current planning tools useful in assisting municipalities to improve the care they are enabled to give important cultural landscapes. These are reviewed within a draft "Guide for developing cultural heritage conservation policies in municipal official plans", available November, 1997 through the Ontario Ministry of Citizenship, Culture and Recreation.

The draft Guide includes several pertinent sections:

- a clarification of its purpose: "to provide information and guidance towards developing meaningful cultural heritage conservation policies in municipal official plans."
- examination of relevant legislation and policies at the provincial level; while the contributions of the Ontario Heritage Act, the Planning Act, the Environmental Assessment Act and the Aggregate Resources Act are referred to, particular attention is paid to the former two acts, the Ontario Heritage Act and the Planning Act;
- the recommended process of inserting heritage policies in municipal official plan documents;
- the recommended content of policies for cultural heritage in municipal official plan documents.
These all clarify the way in which the Ontario planning system can aid municipalities in improving their ability to identify and care for "cultural heritage landscapes."

Official Plans may integrate concern for cultural landscapes in a number of ways. As the Guide notes:

...policy wording will undoubtedly vary geographically from place to place, depending on perceptions, heritage features and values....Policies will also differ between Upper Tier municipalities (Region, County, District) and Lower Tier municipalities (City, Separate City, Town, Township) because of the different planning-administrative responsibilities.

Upper Tier municipal jurisdictions such as regions, counties, and districts will have policies which are broader than those of the lower tier counterparts because of its larger geographical jurisdiction, and more regional perspectives of land-use planning and resource management.

Lower tier municipal jurisdiction such as cities, towns, townships can incorporate more detailed official plan policies, as there are more planning regulations and greater administrative control of specific properties available at this level.

**Recommended contents for municipal official plans**

Upper Tier Municipal Official Plans, as they impinge on heritage qualities, may reflect the following considerations and references:

**Heritage Conservation Goals and Objectives** - should include official plan policy statement(s) indicating council's overall intent to conserve all significant cultural heritage resources within the jurisdiction of the municipality.

**Heritage Policies at the Lower Tier Municipal Level** - should include statements requiring lower tiers to have heritage policies.

**Regional Policies** - should include statements encouraging, complementing and supporting formulation of heritage conservation policies at the regional level.

**Heritage Properties Owned by the Upper Tier** - should include statements committing to the wise management and maintenance of heritage resources, properties, facilities, and museums owned by and upper tier municipality.

**Archaeological Assessments in Potential Areas** - should include requirements for archaeological resource assessments.

**Built/Landscape Heritage Assessments** - should include general
statement(s) suggesting need for impact assessments to significant built heritage and/or regional cross-jurisdictional heritage landscape resources.

Cultural Heritage Inventories - should include statements suggesting the importance of creating heritage resource inventories, databases of identified heritage sites located within the upper tier geographical area.

Regional Cultural Heritage Master Plans - should include statements indicating that council may undertake a comprehensive heritage master plan, containing detailed heritage mapping, guidelines, and strategies.

Upper Tier Role - should include statements acknowledging the upper tier role in heritage conservation and planning e.g. plan review, regional co-ordination of museums, heritage interpretative centres, mapping and information gathering, processes under other legislation such as the Environmental Assessment Act etc.

Education, Promotion & Tourism - should include statements encouraging cultural heritage education, community involvement, heritage promotion, and appropriate heritage tourism opportunity identification and development.

Lower Tier Municipal Official Plans, as they impinge on heritage qualities, may reflect the following considerations and references:

Heritage Conservation Goals and Objectives - should include official plan policy statement(s) indicating council's overall intent to conserve all significant cultural heritage resources within the jurisdiction of the municipality.

Local Architectural Conservation Advisory Committees (LACACs) - statements indicating the role of municipality appointed heritage advisory bodies.

Heritage Buildings/Structures - should include statements referring to conserving of significant districts and landscapes through identification and design guidelines under Ontario Heritage Act, Part V.

Heritage Properties Owned by the Municipality - should include statements committing to the wise management and maintenance of heritage resources, properties, facilities, and museums owned by a lower tier municipality.

Archaeological Assessments in Potential Area - should include statements on requirements for archaeological resource assessments on properties.

Archaeological Zoning By-laws - should include statements referring to Section 34(1)3.3 of the Planning Act which
specifically allows archaeological zoning by-laws prohibiting development to be established.

**Built/Landscape Heritage Assessments** - should include statement(s) supporting the need for impact assessment for identified significant built heritage and heritage landscape resources.

**Cultural Heritage Inventories** - should include statements suggesting the importance of developing and maintaining detailed heritage resource inventories, databases of identified local heritage sites located within the lower tier geographical area.

**Cultural Heritage Master Plans** - should include statements indicating that councils may undertake a comprehensive heritage master plan, containing detailed heritage mapping, guidelines, and strategies within that municipality.

**Education, Promotion, & Tourism** - should include statements supporting cultural heritage education, community involvement, heritage promotion, and appropriate heritage tourism opportunity identification and development.

**Use of Other Legislation** - should include statements referring to other provincial legislation for heritage conservation, such as the Environmental Assessment Act, Niagara Escarpment Planning and Development Act, and Aggregate Resources Act.

**Further provisions of the draft Guide**

The Guide also notes that "lower tier municipal official plans can also include provisions in a wide spectrum of policy areas...to strengthen heritage conservation..." These include:

- Density exemption by-laws for designated heritage areas;
- Density bonusing provisions for heritage conservation purposes;
- Policies considering establishment of a municipal heritage trust fund;
- Heritage resource conservation management policies and specific design guidelines;
- Urban design policy sections incorporating built heritage and landscape heritage conservation;
- Policies referring to downtown revitalization programs and loans, property stewardships and heritage resource conservation easements;
• Reference to other OP policy sections with links to cultural heritage i.e. subdivision agreement policies, waterfront conservation, resource extraction, other special policy areas, commercial core re-development, environmental sensitive areas or environmental protection; Policies for heritage conservation in the official plan implementation section.

The Guide further recognizes that "lower tier municipalities may also adopt a wide range of land-use development regulations and implementation measures in the form of by-laws, in order to conserve significant cultural heritage sites." These include:

• archaeological zoning by-laws (provision from 34(1)3.3 - Planning Act);
• bonusing by-laws;
• restricted area by-laws;
• demolition control areas;
• subdivision agreements;
• interim control by-laws;
• temporary use provisions;
• site plan control areas and sign by-laws;
• parkland dedication by-laws;
• property maintenance and occupancy by-laws.

The Guide also notes the value of developing additional planning tools to complement by-laws and related planning mechanisms.

With the adoption of municipal official plan policies regarding cultural heritage conservation at either the upper or lower tiers, additional planning tools can be developed. One tool is a complete identification and inventory of significant heritage buildings, districts, landscapes, archaeological sites and potential areas identified within the geographical boundary of the municipality. LACACs, historical societies and other interested groups may be approached for the research and development of such an inventory...

Another tool is the creation of various architectural/design compatibility guidelines which can management sympathetic integration of new developments proposed where there are established cultural heritage sites. Such guidelines for instance, may suggest appropriate sightlines, height, massing,
density of new development during urban infill [projects] in 
heritage districts or adjacent significant heritage buildings. 
In cases where there are significant rural heritage landscape 
features identified, planning guidelines can establish 
viewsheds, setbacks, and geographical patterns (i.e. cluster vs 
open sprawl development) which will allow for sympathetic 
development. In cases where there are significant archaeological 
sites involved, site plan control guidelines may be established 
to regulate soil grading or other ground disturbances.

Finally, a Comprehensive Heritage Master Plan can be created as 
a complete tool package. A master plan document will include 
most of the relevant tools in a co-ordinated, comprehensive 
manner, and can be developed by qualified cultural heritage 
consultants. The documents usually involves extensive 
historical/prehistorical research of the area, mapping of 
cultural heritage sites, mapping of archaeological potential 
area, strategies for conservation at the municipal level, and an 
assortment of guidelines.

Sample cultural heritage conservation policies for municipal official plans

The draft Guide is amplified with the inclusion of a section 
containing "Sample cultural heritage conservation policies for municipal official plans". The Guide notes that official plan documents demonstrate how municipalities are to have regard to Provincial Heritage Conservation Policy Statements, among others 2.5.1, which says: "significant built heritage resources and cultural heritage landscapes will be conserved."

Some excerpts from the sample municipal official plan follow:

1.0 General Intent

Council recognizes the importance of cultural heritage resources thin the municipality. Therefore, Council will encourage the identification, conservation, protection, restoration, maintenance and enhancement of cultural heritage resources. All new development permitted by the land use policies and designations of this Plan shall have regard for cultural heritage resources and shall, whenever possible, incorporate these resources into any new development plans. In addition, all new development will be planned in a manner which preserves and enhances the context in which cultural heritage resources are situated.

Cultural heritage resources include, but are not restricted to, archaeological sites, buildings and structural remains of historical and architectural value, and human-made rural, village and urban districts or landscapes of historic and scenic interest.
1.1 **Goal**

To ensure that cultural heritage resources in the municipality are managed in a manner which perpetuates their functional use while maintaining their heritage value and benefit to the community.

1.2 **Objectives**

In order to achieve this goal, Council will:

i) **prevent** the demolition, destruction or inappropriate alteration of cultural heritage resources,

ii) **encourage** development adjacent to significant cultural heritage resources to be of an appropriate scale and character.

iii) **require** the preparation of an adequate heritage/archaeological impact assessment when development proposals affect significant cultural heritage resources or areas containing archaeological potential.

iv) **encourage** and foster public awareness, participation and involvement in the conservation of cultural heritage resources.

v) **support** the creation of a heritage resource information base, resulting in comprehensive heritage site inventories and master plans.

vi) **facilitate** research into the cultural heritage of the Municipality and identify methods for its conservation and enhancement.

In section 2.2, "Heritage Conservation Districts and Cultural Heritage Landscapes", the draft document indicates how the provisions of Section 5 of the Ontario Heritage Act, long in place to encourage identification and protection of significant heritage conservation districts may also be applied to protection of significant cultural heritage landscapes.

In section 3.0, dealing with General Policies, the document suggests that councils "lead the community in restoring, rehabilitating, enhancing and maintaining cultural heritage resources owned by the municipality";

Section 3.0 also notes that "council shall protect and enhance the distinguishing qualities and character of cultural heritage landscapes"
Section 3.6 dealing with Design notes that:
where possible, new development in older established areas of
historic, architectural or landscape value shall be encouraged
to develop in a manner consistent with the overall character
of these areas.

This section also notes that:
where significant... landscape heritage features in rural
areas are affected by landuse development, establishment of
area-specific design guidelines will be encouraged to ensure
that adverse impacts on such cultural heritage development
resources are minimized.

Using the draft Guide and related sample policies

Municipalities, townships and planning officials and citizens
interested in strengthening provisions for the identification and
care of cultural landscapes important to them should contact the
Ontario Ministry of Citizenship, Culture and Recreation's heritage
staff to learn more about the Guide described above and related
sample policies.

It is worth noting, however, the emphasis given by staff concerning
the contemporary context in which planning tools need to be
applied; staff have underlined the need - in the current political
climate - to acknowledge tendencies both to download to
municipalities more responsibilities without allocation of greater
resources and to reduce the involvement of government in general in
community decision-making. It was strongly suggested that effective
policies in this context would be those that "encouraged" and
"guided" rather than "required".
Section 7. Bibliography

The following references are publications of interest in the study of cultural landscapes in general and the Rideau Corridor in particular. References have been subdivided into several sections:

A. Cultural Landscapes: General

This section contains general publications which touch the subject of cultural landscape conservation, directly and indirectly, including treatment of other transportation corridors such as railways.

B. Canals: General

The history of canal development as well as various conservation approaches used for canals is covered here.

C. Rideau Corridor

1. Cultural Landscape
   The Rideau Canal has been well studied and results published in both in government and private publications, many of which are included.

2. Regional Background
   Publications listed include local histories and regional plans for the communities along the Corridor.

3. Natural Heritage
   This list of materials (including maps) not cited elsewhere, was used by R. Snetsinger in evaluating the natural heritage of the Rideau Corridor. The section also contains this researcher's natural landscape references and information relevant to ecological investigations of the area.

4. Maps
   Historic and contemporary maps for the region are listed in this section.

D. Related Policy and Legislation in the Province of Ontario

Publications produced by the Province of Ontario which pertain to a cultural landscapes study of the Rideau Corridor.
A. CULTURAL LANDSCAPES: GENERAL

An exploration of the issue of authenticity in historic gardens and cultural landscapes focusing on three major categories: formal designed landscapes; evolved landscapes; and associative landscapes. This article is found in a special theme issue devoted to rural historic districts.

This report defines scenic corridors and views, examines their significance, explores methods for preserving and incorporating them into the development process at the local and regional levels, and recommends specific action for the Region of Waterloo. An examination of successful legislation from other Canadian and American jurisdictions is included.

A summary of a three-phase heritage planning study intended to identify, analyse, and establish priorities concerning archaeological sites as well as other heritage sites. Types of heritage examined includes landbased archaeological sites, marine heritage, built heritage and cultural landscapes, First Nation traditional use sites, and intangible heritage (conceptual, oral, and behavioural cultural aspects of heritage).

This article describes a plan for cluster development created by the Center for Rural Massachusetts as an alternative to the traditional suburban-style rural development and to preserve scenic vistas, wetlands, woodlots, etc. of the landscape.

A well-illustrated history of the North American barn, including construction techniques and various styles.

Articles in this theme issue address an array of issues and developments in the study and preservation of landscape architecture.

This report contains results of a cultural landscape inventory and study of one county on the western coast of Norway undertaken in the late 1980s. Elements of the integrated cultural landscape treated include farm buildings, meadows, individual trees, pastures, woodlands, and other man-made features such as fences. Although the area studied represents a relatively well-preserved landscape, lessons and conclusions are intended to be applied to other rural areas. The primary goal of future development and planning in the county, as defined by the report, is to maintain a viable, active agricultural sector which does not sacrifice the cultural heritage and important flora and fauna.


A readable manual encouraging good site planning written for rural property owners developing single family homes. The booklet explores the principles of sensitive, economical, and efficient residential site design and covers issues from finding a site and developing it with respect to the landscape.


The published proceedings of a conference presents period maps and the "folk" processes of naming and creating the landscape. The Dublin Seminar for New England Folklife is an ongoing exploration of the early New Englanders' daily life, work and culture.


A theoretical framework for researching landscape aesthetics using biological, cultural, and personal aspects.


A guide book designed for train enthusiasts interested in travelling by foot or car along Ontario's old rail lines and visiting the towns and villages they connected. One chapter is devoted to the Brockville and Westport line.
This booklet presents a methodology for field survey work on farm buildings. It provides well-illustrated terminology for building types commonly found on farmsteads in the United Kingdom.

A town planning approach which examines the various economic and social patterns which influenced the town's growth throughout its history and provides examples of design control and conservation.

A framework for planners and historians of historic rivers which includes eight themes for classifying human activities related to rivers.

The proceedings of a cultural landscapes workshop where invited participants worked to understand the complex area of cultural landscapes, in particular their relationship to the federal government.

This book examines and interprets ordinary everyday landscapes in urban, suburban and rural settings.


An examination of how the landscape has been shaped by human settlement, specifically during the past three centuries.

This paper examines Alberta's cultural landscapes using the National Park Service's four typologies: designed and formal landscapes, ethnographic landscapes, vernacular landscapes, and landscapes associated with historic sites.


Cultural Landscape - Historic Landscape - Monument Protection
International Scientific Conference. Proceedings of a Conference

Curk, Iva. "Landscape Preservation in Yugoslavia". APT Bulletin

De Fort-Menares, Anne M. "Cultural landscape in a new setting:

Denmark. Ministry of Environment and Energy. The National Forest
and Nature Agency. InterSave: International Survey of
Description of an inventory system called "InterSave"
(International Survey of Architectural Values in the
Environment) developed in Denmark as a basis for producing
municipal atlases descriptive of the broad range of qualities
in urban environments (in the post-Granada Convention (1985)
European world of "integrated conservation" and "sustainable
development").

An architectural values environmental atlas developed for
Aalborg South, Denmark, using the InterSave approach described
above.

An architectural values environmental atlas developed for
Middelfart, Denmark, using the InterSave approach described
above.

Eaton, Chris Lee, & Anne A. Grady. Design Guidelines and
Standards for the Blackstone River Valley National Heritage
Corridor. N.p.: Society for the Preservation for New England

Ecologistics Ltd. Options for Tomorrow: Alternative Planning and
Design Approaches for the Oak Ridges Moraine. Background Study
No. 6 ORM-007. Toronto: Ontario Ministry of Natural Resources,
Greater Toronto Area Branch, September, 1993.

Fladmark, J.M., G.Y. Mulvach, and B.M. Evans. Tomorrow's
Architectural Heritage: Landscape and buildings in the

Goldring, Philip. Preliminary Cultural Framework for Canadian
Heritage Rivers: A Parks Canada Approach. Unpublished report,
A topical publication complementing regular editions of On the Grand. This issue presents the Canadian Heritage River recognition process.

---. The Grand River Ontario. n.d.
A visitor information sheet providing background information and a map for the Grand River and its recreational opportunities.

Background information and management strategy for the Grand River valley and its tributaries as a Canadian Heritage River. Appendix includes the supporting information used in the nomination as a heritage river.


A reproduction of a late 19th century practical manual containing basic information and plans on building utility buildings.

A book about the influence on the landscape by European settlers in the country's various regions.


A manual for groups and individuals interested in land trusts as a means of conservation. A bibliography of related materials from Canada, United States and around the world is included, along with "Standards and Practices" recommended by the authors, and a commentary on current legislation.

A collection of rural conservation "tools" used throughout Vermont was compiled by graduate students under contract to the State of Vermont. This booklet has a companion slide film.


An enduring classic reference work, one whose appearance dramatically changed the way in which all landscapes were read and appreciated. The book treats the chronological development of the English landscape from the pre-Roman era through to the twentieth century.


The history of a tramroad built to stimulate development in Wales during the Napoleonic Wars. The book can also be used as a guide for travellers exploring the line by car.


A guide for protected landscapes providing guidance on criteria for the selection of a significant landscape, project implementation, management, and related legal implications. The book was prepared by the Chair of the World Conservation Union's Commission on National Parks and Protected Areas.


Maumee Valley Heritage Corridor Inc. *The Maumee Valley Heritage*
Corridor. Brochure. Toledo, Ohio, n.d.

A description of different British semi-natural landscapes, their evolution, plants and animals, and conservation techniques.

A nostalgic look at various elements of the early American landscape including trees, farmsteads, fences, different building types (mills, churches, etc.), all accompanied by detailed sketches. A chapter on canal development is included.


Part of the pocketbook-style Building Watchers Series, this book provides essays on many of the individual landscape designers in the United States, and an equal number of types of designed landscapes.

A well-illustrated history of North American mill buildings, the beginning of many early settlements. The book contains an index of mills and their locations.


A visitor information brochure for the Blackstone River Valley National Heritage Corridor running between Worcester, Massachusetts to Providence, Rhode Island.


An annual report of the Rivers, Trails and Conservation Assistance, part of the U.S. Park Service which uses local partnerships to achieve goals.
This thematic issue has published papers from the 1992 International Training Conference on Historic Transportation Corridors.

---. ---. ---. ---. CRM. Thematic Issue on Landscape Interpretation 17.7 (1994).
Articles found in this thematic issue present a variety of approaches to identifying and conserving rural and urban landscapes in the United States, Australia, United Kingdom and elsewhere.

A revision of a 1982 guide providing an extensive list of themes for use by historians involved in survey work. Each subtheme is defined and divided into a series of "facets" or related subject areas.

This guide outlines the preparation of nominations to the National Register of Historic Places for rural historic landscapes. A definition of a rural historic landscape is provided, characteristics described, and survey and research methodologies suggested.

Another in the series of guides for the preparation of National Register of Historic Places nominations. Cultural properties, as defined for this purpose, is the "traditions, beliefs, practices, lieways, arts, crafts, and social institutions of any community".

Another in the series of guides designed to assist in National Register nomination preparation. The types of burial places examined include traditional cemeteries as well as native burial grounds. A glossary of terms is included at the end of the publication.

---. ---. ---. ---. Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields. National Register
This bulletin provides a general approach to the identification, evaluation and registration of historic mining properties.

This information book is designed for those working examining properties which might be eligible for the country's inventory of historic places. It is designed to help understand the use of the criteria for evaluation and how these criteria apply to potential National Register properties.

Instructions on using the Universal Transverse Mercator (UTM) Grid System for recording geographical locations of historic sites.

A final report in a series of four reports which identifies, evaluates, and guides preservation efforts for a national historical reserve on Whidbey Island in Washington State's Puget Sound region. This document identifies landscape resources (including natural, agricultural, residential, and commercial features), and provides "preservation principles" for previously identified significant landscape elements.


This booklet contains a brief history of watermills from Greek and Roman times into Britain's industrial revolution.
B. CANALS: GENERAL

A study of England's inland waterways and the landscape through which they travel.

A travel book of ten routes through different British waterways. Also included is "A Gazetteer of Britain's Canals"; brief information on many of the remaining navitable routes and a map of navigable canals, rivers and disused or partly restored canals.

A report on the creation of the first of the United States' heritage corridors. The original canal, although not operable and partially buried under an expressway, became a corridor passing through agricultural and industrial landscapes.


A project for the British Waterway's canal bicentennial focusing on the peak of canal construction, 1793.

A holiday walking guide for the Grand Union Canal towpath.

A history of the types of wooden canalboats used in New York State during the 19th century and their construction. Includes several statistical tables for New York State canals (dates, length, size, cost, enlargements etc.)


A paper presented during a meeting of transportation canals hosted by the Government of Canada. The author provides general background on canal construction in Sweden but focuses on the importance of the Gotha Canal, built 1810-1832 and connecting the Baltic Sea and the North Sea.


A single-page tourist information brochure for visitors to the historic route of the Ohio and Erie Canal. The 20-mile trail can be explored by foot, bicycle, and even in places on horseback.


An ambitious ten-year plan developed by a combination of local, state, federal, and private contributions to establish a heritage corridor over the 150-mile length of the canal.


TICCIH. "Draft International Canal Monuments List." Unpublished
paper. [1994].
A compilation of waterways and their related monuments, throughout the world, whose primary purpose is navigation. This extensive list was prepared by the International Committee for the Conservation of the Industrial Heritage (TICCIH) for use by the International Council on Monuments and Sites (ICOMOS) in assessing candidates for nominations to the World Heritage List.

This handbook for one of the United States' most intact historic canals is divided into three sections: historical background to the canal era and related preservation efforts in the 1950s, canal construction, and finally a visitor's travel guide and reference material.

An information brochure and map for the I&M National Heritage Corridor.


---. ---. ---. Midwest Region. A Route to Prosperity: The Ohio and Erie Canal Corridor Study, August, 1993.
A study of the Ohio and Erie Canal Corridor including canal lands, associated landscapes, communities, and related resources providing a series of options for future management.


A social history of the canal workers, their backgrounds, living conditions, labour strikes etc. Includes information on Rideau Canal labourers.
C.1 RIDEAU CORRIDOR: CULTURAL LANDSCAPE

A clearly illustrated book encouraging the residents of the Rideau Corridor to understand and protect the river and its surrounding ecosystem.

One of five background studies submitted completed for the Canadian-Ontario Rideau-Trent Severn Committee (CORTS).

A management and development plan for Parks Canada's lands along the Rideau system. This plan was completed five years after the transfer of the canal's management from the Ministry of Transportation to Parks Canada.

The results of a 1969 survey of pre-1880 habitable structures in the Rideau Corridor (as defined by the CORTS study) but excluding Ottawa and Kingston. The survey was a pilot project for the Canadian Inventory of Historic Buildings, an extensive national inventory, which began the following year.


Design guidelines for maintenance and restoration of the Rideau Canal shoreline, intended for property owners, municipalities and Parks staff.


A collection of building reports for lock station buildings at Long Island, Black Rapids, Hogs Back, Hartwells, and the Ottawa Lockstation. The buildings' FHBRO scores are included in the appendix.


A collection of building reports and Federal Heritage Building Review Office (FHBRO) scores for lock station buildings at Upper and Lower Brewers, Jones Falls, Davis Locks, Chaffeys Locks, Newboro, and The Narrows.


A collection of building reports for lock station buildings at Poonamalie, Smiths Falls, Old Slys, Edmunds, Kilmarnock, Merrickville, Clowes, Nicholsons, Burritts Rapids, and on the Tay Canal branch. Building scores included in the appendix.

... Ontario Region. "Rideau Canal Historic Names."
Brief informative paragraphs providing some historic background on the names commonly used to identify sites along the Rideau.

... "Rideau Canal Construction - Quarries". Unpublished paper.
Parks Canada, Ontario Region, n.d.

A consultant's report outlining creative land development options for consideration along the Rideau.

One of three volumes prepared as part of the Canada-Ontario-Rideau-Trent-Severn organization (other volumes focus on the Bay of Quinté and the Trent-Severn).

A ten-year development plan for the Ottawa Locks focusing on heritage conservation at the site as well as tourism development.


An academic paper which presents the Rideau Corridor as an "essential inter-regional component" of the St. Lawrence system in the period prior to 1850, and an important branch in the second half of the century.

A guidebook for those travelling along the Rideau by boat,
providing interesting stories of past and current events en route. The book begins with a brief history of the canal's construction and then takes its readers on a cruise from Kingston to Ottawa. First published in 1955 the book was revised in 1972 and again in 1986.


A joint federal-provincial study as part of the Canada-Ontario-Rideau-Trent-Severn (CORTS) agreement involving municipalities, conservation authorities, various citizen groups, and private citizens. Recommendations covered a wide variety of areas from environmental pollution, open space use, historic preservation, public space, and commercial development.


One of the standard reference works on the Rideau published by Parks Canada to make the 150th anniversary of the canal's opening. The first part of the book summarizes the history of the canal. The second part contains a large number of watercolours and sketches produced by the Royal Engineers, contemporary military topographers and other civilian artists.


A book designed for school children covering the period leading up to canal construction, the construction years, and a brief synopsis of the post construction period. Produced as part of the We Built Canada series of Canadian history.


A collection of images of the Rideau covering the period prior to canal construction, during construction, the waterway's use for industrial and, eventually, recreational purposes, and finally its evolution to parkland. Accompanying text recounts canal history.

An extensive, partially-annotated bibliography of government manuscripts, unpublished reports, internal studies, and general books and publications on the Rideau Canal.


A double cassette tape designed to accompany the automobile tourist travelling the Rideau Canal from Ottawa to Kingston. Contains many anecdotes from the canal's history.

Excerpts from the diaries of two of the men, John MacTaggart and John Burrows, who surveyed the Rideau Canal. This publication was the first in the "Bytown Series".

A reprint of an anonymous diary recounting a trip made by four men in February 1830, Bytown Series.
C.2 RIDEAU CORRIDOR: REGIONAL BACKGROUND


Boyd, Marion Calvin, Ed. The Story of Garden Island. Kingston: Brown and Martin Ltd, 1983. This history of Garden Island (located at the eastern end of Lake Ontario) was written by the editor's mother in the 1920s.


Davison, Betty and Marion Stone, eds. The Tweedsmuir Histories of Bastard and South Burgess Women's Institutes. [ca. 1937]. N.p.: Philipsville Women's Institute, [1994]. This collection republishes Tweedsmuir history books from the villages of Philipsville, Forfar, Chantry, Harlem, Portland, and Delta originally written between 1929 and 1940. The histories include personal essays, oral histories, newspaper clippings, and family photographs. Publication was completed for the township's bicentennial and the 75th anniversary of the Women's Institute.


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evolution of boating over the last century, produced by the Manotic Classic Boat Club. Many historic and contemporary photographs of heritage boats are included.


The publication of a lecture delivered by Professor Fritz for the bicentennial celebrations of the founding of Bastard and South Burgess townships.


A report identifying areas of the Billings Estate (a pre-canal house and estate) with high archaeological potential. A brief history of the Billings family in the Rideau area is included.


A history of the 12 cheese factories in Marlborough and North Gower townships between 1867 and 1974. The booklet is part of a series of local histories of Rideau Township and contains a large number of historic maps, photographs, and other documents.

A community history from the Loyalist period. The appendix
contains information on population, agriculture etc from
Census Canada and other sources.

Lake, Elmer J. Chart of the Rideau Lakes Route between Kingston

Belleville, Ontario: Mica Silk Screening Ltd., 1972

Linday, Coral. Kars on the Rideau. Kars Branch of the Women's

Lockwood, Glenn J. Montague: A social history of an Irish
township 1783-1980. Kingston: Mastercraft Printing and Graphics,
1980.

---. Smiths Falls: A social history of the men and women in a
Rideau Canal community, 1794-1994. Carleton Place, Ontario:
Motion Creative Printing. 1994.
A social history of this Eastern Ontario community and how its
evolution was influenced by and has influenced the landscape
and surrounding region.

History and architectural significance of sixty-two of the
capital's important buildings from the last century. An
illustrated glossary of architectural terms is included.

Martyn, Max and Virginia Martyn. The Story of the Lower Rideau
A small booklet containing a history of Merrickville, Burritts
Rapids and surrounding area, and a detailed walking tour of
Merrickville. Historic photographs and contemporary sketches
of village buildings are included.

McGill, Jean S. A Pioneer History of the County of Lanark.

McKenzie, Ruth. Leeds and Grenville: their first two hundred
A history of two counties from pre-European settlement,
through agricultural development, industrial growth, and
development of community institutions.

Mills, Olivia and Renee Smith. Eds. Burritt's Rapids 1793-1993: A
A bicentennial collection of history, photographs, anecdotes, and memories about a Rideau Corridor village.


A general history of three hundred years of evolution for this city at the southern end of the Rideau Canal.


A description of life in the mid-nineteenth century as told through the tools and implements used for everyday life.


Turner, Larry, ed. *A Boy's Cottage Diary, 1904*. Ottawa: Petherwin
This book contains not only the diary of Fred Dickinson written from his Big Rideau Lake cottage, but also Larry Turner's interpretation of cottage life at the turn of the century.


---. *Perth: Tradition and Style in Eastern Ontario.*
A history of this community from its beginnings as a military settlement's administration centre. The final chapter outlines preservation and revitalization efforts for this town with its wealth of heritage buildings.


C.3 RIDEAU CORRIDOR: NATURAL HERITAGE


---. "Vegetation changes over 12,000 years: changes in Eastern Ontario and adjacent areas gives evidence of global change." Geos. 18.3 (1989): 39-47.


Charland, M.B. "Habitat selection in a Rideau Lakes population of black rat snakes (Elaphe obsoleta)." Diss. (B.Sc.) Department of Biology, Carleton University, Ottawa, 1983.


George, A.V. "The Rideau Corridor. The effect of a canal system on a frontier region, 1832-1895." Diss. (M.A.). Department of
Geography, Queen's University, Kingston, 1972.

"The Great Cataraqui River Valley environmental planning study." Kingston: Queen's University, School of Urban and Regional Planning, 1977.


Hall, R.I. "Paleolimnological analysis of lake-watershed interactions and long term lake trophic status." Diss. (Ph.D.) Department of Biology, Queen's University, Kingston, 1984.


McIntosh, H. "Vegetation gradients and soil moisture at Lake Opinicon. Diss. (B.Sc.) Department of Biology, Queen's University, 1978.


---. Ministry of Natural Resources. Forest Resource Inventory Maps. 1:10,000) 1970s to present.
   Scale maps that show in detail the current age and stand structure of the forests along the corridor.


---. ---. Life science areas of natural and scientific interest
in Site Districts 6-10, 6-11, and 6-12 (under review). 1994.


---. ---. Wetland Evaluations of the Rideau Corridor. Internal Reports. Napanee, Brockville, and Carleton Place Offices: 1980s to present.


Pittsburgh Township Planning Department. The official plan of the Pittsburgh planning area. n.p.: n.p., 1986.


Underhill, J.A. "Water quality of the abandoned landfill site on the Cataraqui River." Diss. (B.Sc.). Queen's University, Department of Geological Sciences, Kingston, 1975.


Westerby, G. "Geochemistry of the Cataraqui River, near Kingston Ontario." Diss. (B.Sc.). Queen's University, Department of Geological Sciences, Kingston, 1971.

C.4 RIDEAU CORRIDOR: MAPS


---. ---. Perth. 31 c/16 west half. Map. Army survey est. RCE 1927.


---. Department of Militia and Defence. Kemptville Sheet. No. 15. Ontario 75°30' 45°00'. Map. Topographical Section General Staff, 1908. (surveyed 1906, reprinted and corrections 1914)

---. ---. Merrickville. No. 8. Ontario 75°30' 44°45'. Map. Topographical Section General Staff No. 2197, 1908 (surveyed 1905).


Kingston Mills Station. Map. 1860.


Plan of the southerly and easterly part of the block of the land known as the Mill Reserve. Being also part of lots 36, 37, 38, 39 and 40, Forth Concession, Kingston. Map. 1833.


Rideau Canal. Map. n.d. (10 sections)

Section through Locks No 1 and 2, Kingston Mills. Map. 1837.


A national map identifying rivers and providing a brief explanation of each river's features as well as a contact address.
RELATED POLICY AND LEGISLATION FOR THE PROVINCE OF ONTARIO


---. ---. Bill 163 "An Act to revise the Ontario Planning and Development Act and the Municipal Conflict of Interest Act, to amend the Planning Act and the Municipal Act and to amend other statutes related to planning and municipal matters." 1st reading: May 18, 1994.

---. Ministry of Citizenship, Culture and Recreation. Cultural Programs Branch, Archaeology and Heritage Planning Unit. *Conserving a future for our past: Archaeology, land use Planning and development in Ontario.* Toronto: Queen's Printer, 1997. An educational primer and comprehensive guide for non-specialists that is intended to review all aspects of conserving the province's archaeological heritage in various land use planning and development review processes.


Urban Waterfronts: Planning and Development.
