

**Landscape Character Assessment
&
Planning and Management
Recommendations**



DILLON
CONSULTING

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Executive Summary

Introduction

The Rideau Canal (“Canal”) waterway extends 202 kilometres linking the Ottawa River to Lake Ontario. The Rideau Canal is honoured with a number of distinctions: a National Historic Site, a Canadian Heritage River, and inscription as a UNESCO World Heritage site. Through these designations the corridor that encompasses the Rideau Canal has been recognized as a cultural landscape of some significance.

UNESCO’s World Heritage Committee’s Decision 31-COM-8B.35 adopted the following Statement of Outstanding Universal Value:

“The Rideau Canal is a large strategic canal constructed for military purposes which played a crucial contributory role in allowing British forces to defend the colony of Canada against the United States of America, leading to the development of two distinct political and cultural entities in the north of the American continent, which can be seen as a significant stage in human history...”

As part of its decision to inscribe the Rideau Canal onto the World Heritage List, UNESCO’s World Heritage Committee recommended that, “following the completion of the study of the visual setting of the canal, consideration is given to strengthening its visual protection outside the buffer zone¹, in order to ensure the visual values of the setting are protected alongside environmental values.”

Following the recommendation of the World Heritage Committee, Parks Canada committed to undertaking an assessment of the visual character of the Canal Corridor. As this recommendation encompasses lands beyond the heritage site, a series of forums, open houses, and inter-governmental meetings were held and in 2010, the Rideau Corridor Landscape Strategy was formally created. It is led by a steering committee comprising Parks Canada, the National Capital Commission, the Province of Ontario, First Nations, and the 13 municipalities, three counties, and two conservation authorities located along the canal. Parks Canada provides a secretariat to support the work of the Strategy and planners from each of the represented groups form a Planners Technical Advisory Group.

As part of its deliberations, the Rideau Corridor Landscape Strategy commissioned a landscape character assessment of the Rideau Corridor, funded by Parks Canada, to identify key features and values along the waterway, in order to support more effective planning and management of the landscape.

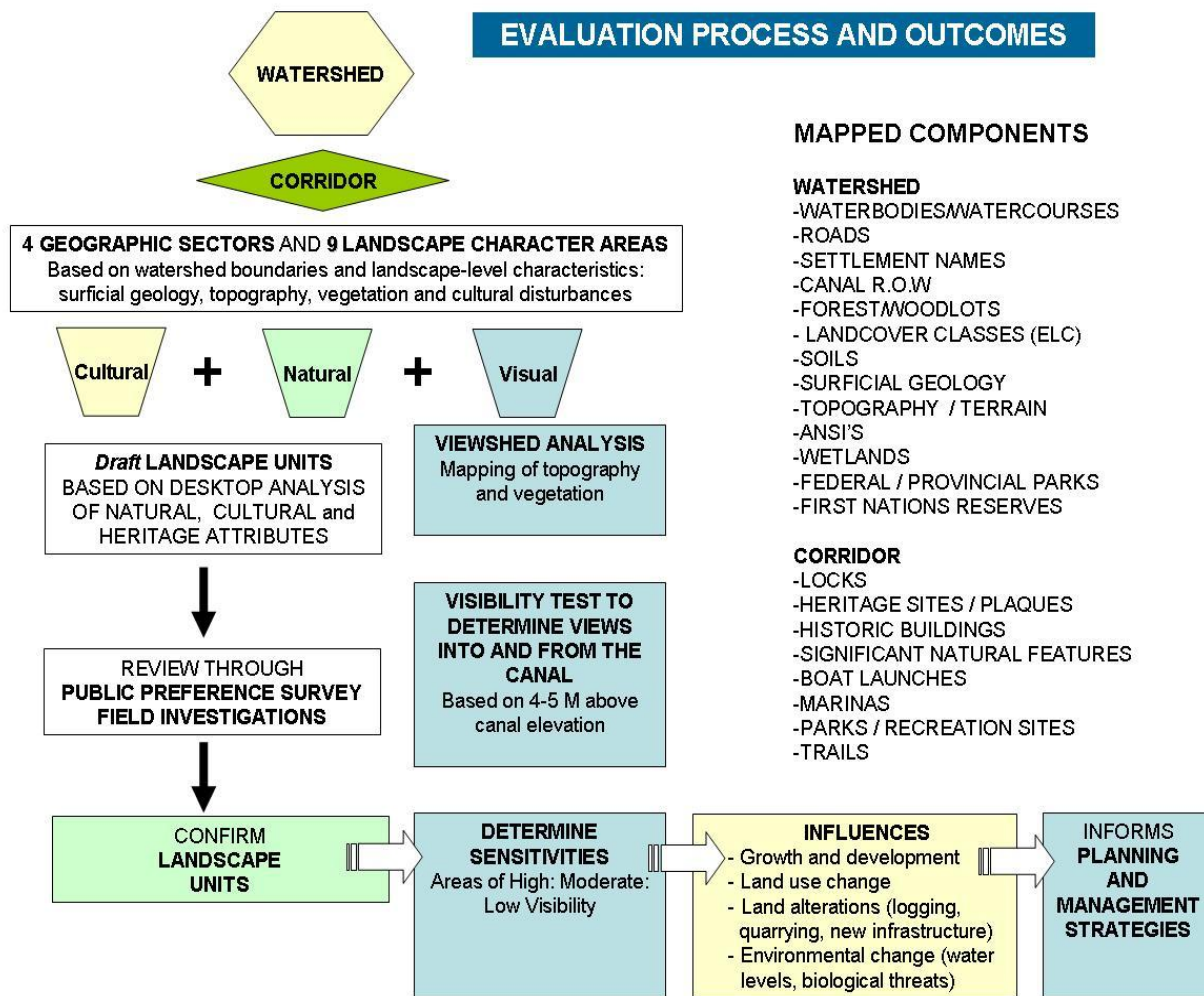
Landscape Character Assessment

The Landscape Character Assessment analysis was undertaken using a combination of methods including desk-top research, viewshed analysis mapping, field investigations and public preference survey techniques. The figure on the following page shows the evaluation process and outcomes of the study in a graphic format. The mapping completed for the landscape character assessment is provided in this report’s appendix.

The four geographic sectors identified for the Rideau Corridor are:

1. The Rideau Canal: Ottawa Locks to Hogs Back Locks;
2. Rideau River and Lakes: Hogs Back Locks to Newboro Lock;
3. Tay Canal; and,
4. Cataraqui River and Lakes: Newboro Lock to Kingston.

¹ The buffer zone is a 30 metre wide zone adjacent to the boundaries of the Rideau Canal.



The landscape character units identified for the Corridor are:

- Cultural: urban, suburban, estate lots, rural lots, historic landscapes, waterfront development, agriculture / farmland, managed landscapes, institutional/campus, industrial areas, resource extraction areas, and utility landscapes; and,
- Natural: lakes/open water, rapids/falls, vegetated river/creek valley, forested upland, forested lowlands, wetland/marsh, and significant landform.

The sensitivity of the landscape depends on the ability of the landscape to absorb visual change, and there are two ways that change can occur:

1. Change from a less developed landscape character unit to more developed landscape character (for example, urbanization that changes a C7 Agriculture / Farmland landscape unit to the C2 Suburban landscape unit); and,
2. Change within a landscape unit (for example, new waterfront cottage development within a C6 Waterfront Development landscape unit).

When various scenarios of landscape change are assessed for the degree of landscape sensitivity (i.e., ability to absorb change), many of these scenarios are identified as highly sensitive. This reinforces the belief that the Corridor's landscape is overall a quite sensitive landscape with limited capacity to absorb change in the long-term.



Visual Preference Survey

As part of the Rideau Corridor Landscape Strategy, a Visual Preference Survey was undertaken as a vital component of the landscape character assessment approach to engage local communities, partners, and stakeholders to test particular assertions regarding the public preference of particular landscape characteristics.

The survey comprised 72 photographs representing five different character types along the Rideau Corridor. For each photograph, respondents were posed the following question “This picture represents what I like to see along the Rideau Corridor”. Respondents were then asked to respond by selecting one of five responses: (1) disagree; (2) somewhat disagree; (3) neutral; (4) somewhat agree; or (5) agree.

Identification of the most-valued and least-valued photographs help to identify key features and values of the Rideau Corridor in order to support more effective planning and management of the Rideau Corridor’s landscape into the future. A common theme in all of the “negative” photographs was limited riparian vegetation along the shoreline. All of the “positive” photographs contained pristine environment and uninterrupted views with no man made features; this suggests that non-developed areas are highly valued.

Planning and Management Recommendations

For the Corridor’s landscape to be effectively planned and managed into the future, jurisdiction-sensitive planning and management approaches are needed. These tools should be part of a coordinated, comprehensive and integrated approach that addresses priority issues. The tools also need to be implementable – suitable to the scale and resources – of the varying jurisdictions and their degree of organizational capability.

While there are numerous stakeholders within the Corridor, they can be grouped into six functional jurisdictions, namely: federal, First Nations, provincial, Conservation Authority, municipal, and community.

To help organize the planning and management approaches, they have been structured into activity groups that help give an understanding of the potential complexity or simplicity of the approaches. The activity groups for the planning and management recommendations, from most complex to least complex, are:

1. **Regulatory and quasi-regulatory:** these approaches typically require some degree of professional study and analysis, a statutory process before they can take effect, and potentially substantial time and financial resources before they can have an influence; however, these are also some of the most powerful tools for planning and management in the Corridor;
2. **Community-based:** these approaches are based on partnerships and interested groups at the local level working together, typically influenced by one organization as a catalyst or sponsor, with varying levels of time and financial resources needed by the partners; the degree of influence varies with the level of interest, resources, and breadth of the partnership;
3. **Operational:** these approaches are based on integrating new activities that become part of the regular business of the organization or agency that can ultimately help benefit the sustainability of the Corridor; operational change can happen quickly or take time, and the effects may be immediate or felt over the long-term, but since they are usually internal to the organization then the approach can be implemented quickly if there is willingness within the organization for change; and,
4. **Communication:** these approaches are based on maintaining a strong relationship with stakeholders to support understanding of the Canal and Corridor’s challenges and raise awareness of activities to preserve / enhance the corridor; in doing so, a strong foundation exists for current and future generations of Canadians to become stewards of the Canal and Corridor; most communication activities can happen relatively quickly (as compared to regulatory change), however the degree of influence from communication approaches varies greatly with the medium and audience.

The planning and management approaches are presented as a menu of activities that various stakeholders can consider implementing at any time in the future. By treating the planning and management approaches as a menu of options,

then individual stakeholders can consider the extent of their influence, range of resources, and potential synergies with existing projects or partners, and take action.

It is anticipated that the important role that the Rideau Corridor Landscape Strategy Steering Committee plays in disseminating information, being a forum for knowledge-sharing, and resolving issues will continue. The Steering Committee's continued existence is also expected to help coordinate effort that contributes to the sustainability of the Corridor's landscape.

The menu of planning and management approaches may be a flexible approach for the multi-jurisdictional interests in the Corridor but there are well-known and well-documented issues impacting the Corridor's sustainability. These issues were raised during the Landscape Character Assessment and were subsequently tested during the Visual Preference Survey. The key issues that were confirmed from the Visual Preference Survey were:

- Land use with negative visual impacts (limited screening, stark contrast) from the canal;
- Limited riparian vegetation along the shoreline or destruction of vegetation;
- Evidence of erosion; and,
- Close proximity of development to the shoreline.

Having regard for various implementation approaches, a subset of approaches from the full menu has been identified as priorities that support the first five years of an implementation plan. The implementation plan assumes a 2014 start date for the potential implementation of approaches as the budgets of the Strategy members may already be established for 2013. During the course of 2013, it is recommended that the Steering Committee discuss opportunities for working together and agree to work on specific projects. The Implementation Plan appears in Section 4.5 of this report.

Conclusion

This report comprises analysis, planning approaches, priority-setting and an implementation plan that will guide the collaborative efforts of the multiple jurisdictions along the waterway to address the World Heritage Committee's recommendation for the protection of the canal's visual values. In addition, providing meaningful water and land based opportunities for visitors is a key part of connecting Canadians to their natural and cultural heritage places and is essential to the sustainability of vibrant local economies. This report is a tool that will assist in evaluating future business, planning and development opportunities along the corridor and will help ensure a memorable visitor experience of this world heritage site for present and future generations.



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Appendix A: Landscape Character Area Maps

Viewshed Analysis Map; Landscape Character Area Maps 1 to 9

Appendix B: Mapped Values from Public Consultation

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1. INTRODUCTION

The Rideau Canal (“Canal”) waterway extends 202 kilometres linking the Ottawa River to Lake Ontario. It follows the Rideau and Cataraqui River systems passing through 13 municipalities, including the cities of Kingston and Ottawa, and numerous small towns and historic villages. Adjacent lands comprising the Rideau Canal Corridor (“Corridor”) encompass urban centres and residential areas, extensive forests and wetlands, agricultural lands, recreation areas, and cottage communities. With the exception of the Canal and its associated facilities and parkland and open space owned by Parks Canada, the National Capital Commission and local municipalities, most of the land along the Corridor is in private ownership.

The Rideau Canal is honoured with a number of distinctions: a National Historic Site, a Canadian Heritage River, and inscription as a UNESCO World Heritage site. Through these designations the corridor that encompasses the Rideau Canal has been recognized as a cultural landscape of some significance.

No singular definition of cultural landscapes exists. In 1992 the World Heritage Convention became the first international legal instrument to recognize and protect cultural landscapes, identifying them as the “combined works of nature and of man”.

The *Parks Canada Cultural Resource Management Policy* identifies cultural landscapes as “any geographical area that has been modified, influenced, or given special cultural meaning by people”. As part of the Rideau Canal designation as a National Historic Site, the *Commemorative Integrity Statement* identifies the lockstation landscapes, in particular, as Level 1 cultural resources (according to ranking in the Cultural Resource Management Policy). They are noted as being valued for their:



- Associative and physical connection with the construction and early operation of the Canal;
- Contribution to the unique historical environment of the Canal system;
- Visual and historic associations with heritage communities along the Canal system such as Chaffey’s Lock, Newboro, Merrickville, Burritt’s Rapids and Ottawa;
- Role as landmarks and providing a sense of continuity along the Canal system;
- Surviving historic layout and configuration including their open spaces and circulation patterns;
- Surviving historic views both within and beyond the station boundaries; and,
- Contextual and heritage settings for the stations’ buildings and engineering works.

In its consideration of the Rideau Canal and Kingston Fortifications as a World Heritage site, UNESCO’s World Heritage Committee recognized the enormity and creativity of the Rideau Canal’s engineering and construction, its importance to the building of Canada, and its relative authenticity. It also noted that the ongoing appreciation of the Rideau Canal’s scale and impact to its surroundings are tied to its visual setting. UNESCO’s World Heritage Committee’s Decision 31-COM-8B.35 adopted the following Statement of Outstanding Universal Value:



“The Rideau Canal is a large strategic canal constructed for military purposes which played a crucial contributory role in allowing British forces to defend the colony of Canada against the United States of America, leading to the development of two distinct political and cultural entities in the north of the American continent, which can be seen as a significant stage in human history.

Criterion (i): The Rideau Canal remains the best preserved example of a slackwater canal in North America demonstrating the use of European slackwater technology in North America on a large scale. 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.

Criterion (iv): The Rideau Canal is an extensive, well preserved and significant example of a canal which was used for a military purpose linked to a significant stage in human history - that of the fight to control the north of the American continent.

The nominated property includes all the main elements of the original canal together with relevant later changes in the shape of watercourses, dams, bridges, fortifications, lock stations and related archaeological resources. The original plan of the canal, as well as the form of the channels, has remained intact. The Rideau Canal has fulfilled its original dynamic function as an operating waterway without interruption since its construction. Most of its lock gates and sluice valves are still operated by hand-powered winches.

All the elements of the nominated area (canal, associated buildings and forts) are protected as national historic sites under the Historic Sites and Monuments Act 1952-3. A buffer zone has been established. Repairs and conservation of the locks, dams, canal walls and banks are carried out directly under the control of Parks Canada. Each year one third of the canal’s assets are thoroughly inspected by engineers. A complete inventory thus exists of the state of conservation of all parts of the property. A Management Plan exists for the canal (completed in 1996 and updated in 2005), and plans are nearing completion for Fort Henry and the Kingston fortifications. The Canal Plan is underpinned by the Historic Canals Regulations which provide an enforcement mechanism for any activities that might impact on the cultural values of the monument.”

The World Heritage Committee recommended that “following the completion of the study of the visual setting of the canal, consideration is given to strengthening its visual protection outside the buffer zone², in order to ensure the visual values of the setting are protected alongside environmental values.”

Following the recommendation of the World Heritage Committee, Parks Canada committed to undertaking an assessment of the visual character of the Canal Corridor. As this recommendation encompasses lands beyond the heritage site, a series of forums, open houses, and inter-governmental meetings were held and in 2010, the Rideau Corridor Landscape Strategy was formally created. It is led by a steering committee comprising Parks Canada, the National Capital Commission, the Province of Ontario, First Nations, and the 13 municipalities, three counties, and two conservation authorities located along the canal. Parks Canada provides a secretariat to support the work of the Strategy and planners from each of the represented groups form a Planners Technical Advisory Group.

- Specifically, the Rideau Corridor Landscape Strategy includes:
- Algonquins of Ontario
- Alderville First Nation
- Cataraqui Region Conservation Authority
- City of Kingston
- City of Ottawa

² The buffer zone is a 30 metre wide zone adjacent to the boundaries of the Rideau Canal.

- County of Frontenac
- Lanark County
- Municipality of North Grenville
- National Capital Commission
- Parks Canada
- Province of Ontario, represented by the Ministry of Municipal Affairs and Housing
- Rideau Valley Conservation Authority
- Township of Montague
- Town of Smiths Falls
- Township of Drummond-North Elmsley
- Town of Perth
- Township of Tay Valley
- Township of Rideau Lakes
- Township of Leeds and the Thousand Islands
- Township of South Frontenac
- United Counties of Leeds and Grenville
- Village of Merrickville-Wolford (Chair)
- Village of Westport

As part of its deliberations, the Rideau Corridor Landscape Strategy commissioned a landscape character assessment of the Rideau Corridor, funded by Parks Canada, to identify key features and values along the waterway, in order to support more effective planning and management of the landscape.

2. LANDSCAPE CHARACTER ASSESSMENT

2.1 Purpose of the Landscape Character Assessment

Landscape character may be defined as the distinctive and recognizable pattern of elements in the landscape that give a locality its 'sense of place'. It is not the intention of a landscape character assessment to define what is better or worse, but rather to identify and classify the attributes using both mapped data and objective analytical tools together with subjective perceptions of the landscape as viewed by resident and visitors. Through the landscape character assessment the landscape types are better understood and the important values are recorded in a manner that enables more thoughtful strategies for conservation and management. By considering the landscapes of the Rideau Corridor today, how they came to be and how they may change in the future, the Landscape Character Assessment will help ensure that future development is respectful of the valued views and landscapes that make up the Corridor and consider ways to protect and even improve or enhance them.



Specifically, the Landscape Character Assessment serves to:

- act as an information resource for multiple stakeholders, ranging from all levels of government to property owners and businesses;
- promote better understanding of the significance of the Rideau Corridor; and,
- recommend planning and management strategies that will help conserve the unique character of the Rideau Corridor and assist in building sustainable communities.

2.2 Approach

The Landscape Character Assessment analysis was undertaken using a combination of methods including desk-top research, viewshed analysis mapping, field investigations and public preference survey techniques.

The information scoping and desk-based research tasks were conducted in spring and summer of 2012 in tandem with field investigations. The information scoping exercise included collection and review of existing reports and documents related to existing land uses, future growth and development, natural and cultural heritage attributes and recreation and tourism sites. A viewshed analysis was undertaken to determine areas of views into, and from, the Canal waterways (see Section 2.4). The gathered information has been compiled in a GIS database and maps which define and characterize the different attributes of the Corridor within a series of Landscape Character Areas.



The process considers methodologies from similar studies undertaken internationally and builds on data collected and mapped by the City of Ottawa Mapping Project³. The GIS map format allows for the organization, manipulation and analysis of mapped geographically referenced data in a way that can support the study objectives.

The public was consulted at a series of three workshops held in March 2012 and asked to contribute to the identification of unique or special places along the Corridor within a series of categories including: natural, recreation, culture, heritage, tourism and economic. Following the identification of landscape character mapping and field investigations, the public was further consulted through a series of five workshops held in different communities along the Corridor in August 2012. At these events photographs and an interactive survey were used to explore visual preferences as a means of ranking the visual quality of different landscapes.

Public involvement was also encouraged through a web page, linked through the Parks Canada web site, and a dedicated FLICKR site which was established to promote the project and to facilitate sharing of photos and comments on specific places along the Rideau.

The public preference survey was used together with the mapping and evaluation undertaken by the consultant team to identify areas of distinctive landscape character within the Corridor which are sensitive to physical and visual changes. The exercise was used to inform the development of management or mitigation strategies and recommendations to help conserve the unique attributes of the Canal or to manage potential changes.

³ The gathering and compilation of baseline data for the Rideau Corridor commenced under the leadership of the City of Ottawa Mapping Project. This base mapping was provided to the consulting team to further develop for the Landscape Character Assessment.

2.3 Methodology

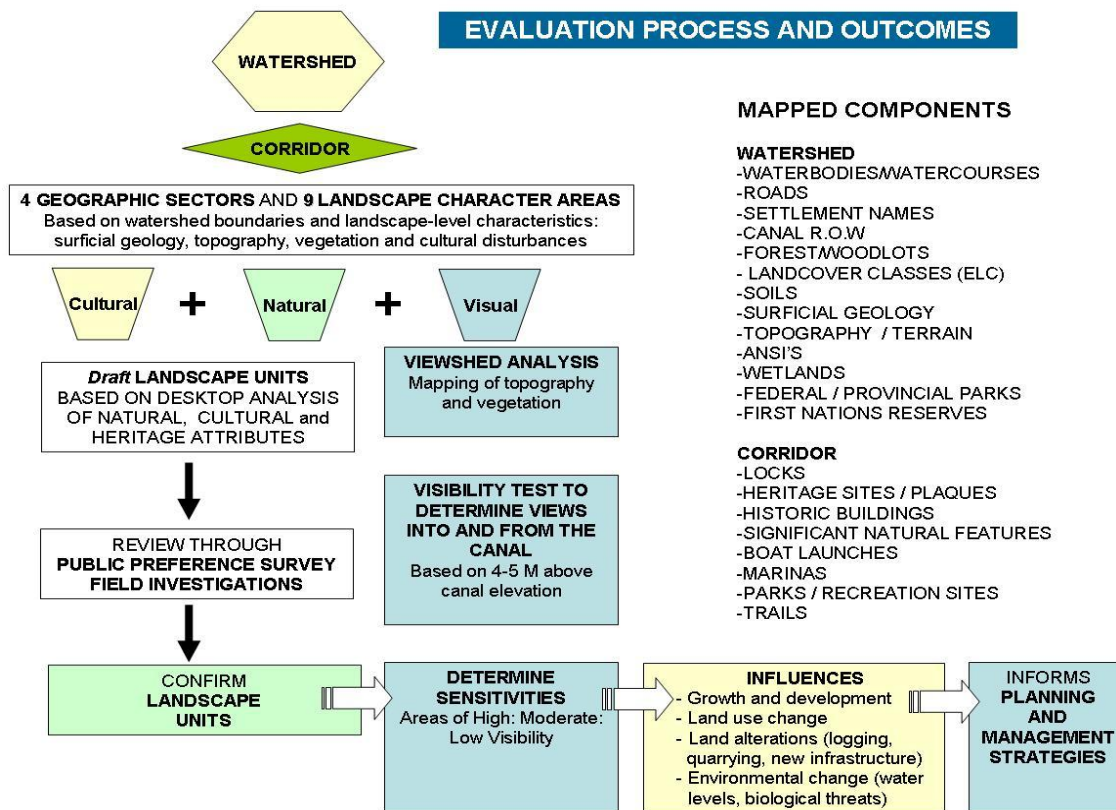
The following sections highlight the methodology used by the consultant team in the landscape character analysis which resulted in the mapping of landscape character areas along the Rideau Corridor.⁴ The initial landscape units and types as presented at the Steering Committee and at public workshops were refined and applied to the entire Corridor in a series of accompanying maps.

The figure on the following page shows the evaluation process and outcomes of the study in a graphic format.

2.4 Viewshed Analysis

Although the designated area of the Canal itself is confined to the waterways, immediate shorelines and historic buildings and structures, its heritage values and the user experience is very much influenced by its environmental context both physically and visually.

To support the exercise in identifying areas of sensitivity, and to establish a boundary for the landscape character assessment, a viewshed analysis (see **Appendix A**) was undertaken to determine the locations of views into and from the canal. The viewshed analysis used GIS software to map areas that are visible to travellers along the waterways (using an elevation of 4 to 5m above the canal as potentially seen from the upper deck of a yacht) as well as views into the canal from surrounding land. This encompasses heights of land that may be some distance away from the Canal.



The GIS processing treated existing vegetation as permeable during the viewshed analysis, although it is acknowledged that vegetation may obscure or enhance both internal and external views. Since this exercise is undertaken using GIS

⁴ It is acknowledged that the National Capital Commission has conducted a visual assessment of the Rideau Canal for the area within its jurisdiction.



software, existing vegetation can be layered into future evaluation, as needed, on a site-specific basis. This method facilitated the evaluation of current areas of high, medium and low visibility as well as identifying areas that are vulnerable to potential impacts that might result from land use change or alterations.

The viewshed analysis has been used at this time to establish the boundary for the mapping of landscape character units.

2.5 Landscape Character Areas and Values

2.5.1 Approach

For ease of data management and for the purposes of the Landscape Character Assessment, the Rideau Corridor was broken into four (4) geographic sectors and multiple sub-sectors which define the Landscape Character Areas. The four geographic sectors recognize the natural river systems along which the Rideau Canal was constructed together with its cultural evolution and engineering methods which include constructed canal cuts and channelization together with the flooding of existing lakes and rivers. One of the unique characteristics of the Rideau Canal and testament to its feat of engineering is not only its length but the significant elevation change on ascent to the Canadian Shield (approximately 51 metres when traveling southward from Ottawa, and 84 metres from Kingston). This results in a watershed divide with the Rideau River flowing north to the Ottawa River and the Cataraqui and Gananoque River systems flowing south to Lake Ontario. The sub-sectors of the Corridor further consider local geology, topography, level of development and settlement, vegetation, and other landscape characteristics.

Landscape values for each character area have been assessed and described using information compiled during the desk-top research and field investigations and with input received from stakeholders and the public through workshops (see **Appendix B**) and the visual preference survey, as well as input received from a Planners Advisory Committee during a workshop in May 2012. The landscape values described for each character area represent the “quintessential” elements of the Rideau Corridor landscape, and include natural and historic features, views and vistas, and cultural elements.

2.5.2 Geographic Sectors

The four **Geographic Sectors** identified for the Rideau Corridor are:

1. The Rideau Canal: Ottawa Locks to Hogs Back Locks;
2. Rideau River and Lakes: Hogs Back Locks to Newboro Lock;
3. Tay Canal; and,
4. Cataraqui River and Lakes: Newboro Lock to Kingston.

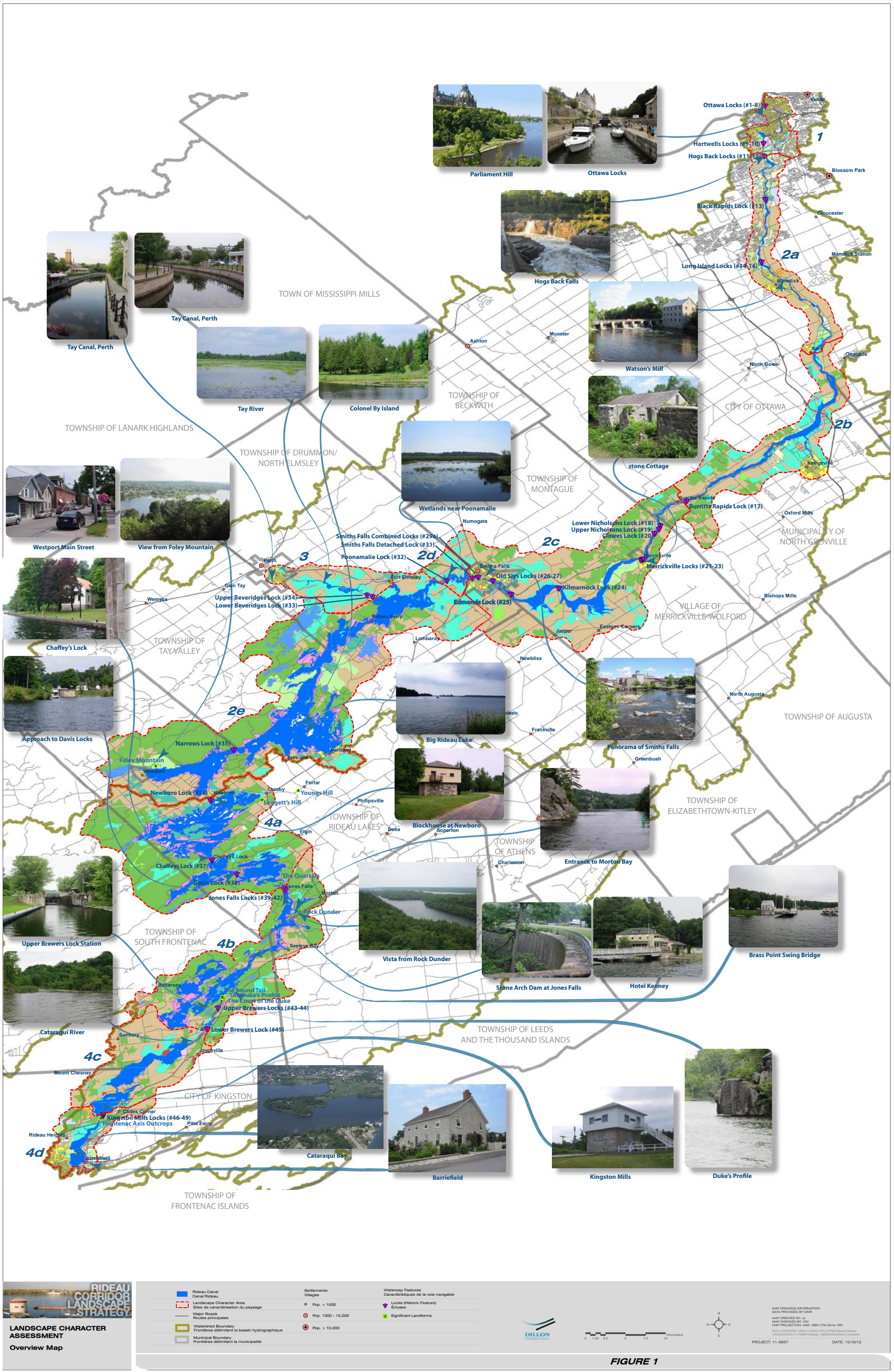
2.5.3 Landscape Character Areas

The geographic areas of the Rideau Corridor are further broken down into Landscape Character Areas which recognize the unique landscape characteristics between different reaches of the waterway. An illustrative map of the Landscape Character Areas is provided as **Figure 1: Overview Map**. The outcome of detailed GIS mapping for each sector and landscape character area are provided in **Appendix A**.

The descriptions below provide a general overview of the features of each area. There are many iconic historic, recreational, and landscape features, too numerous to mention, which have been captured in other more detailed publications and in the study GIS mapping and database. The less tangible values of the Canal and its environs which span multiple sectors were also frequently mentioned during consultation. These included: appreciation of sunrises, sunsets, and changing weather; wildlife viewing; being out on the water and watching boats from shore; the unique experience of locking through; the sounds / sights of the locks and hand-operated mechanisms; views on approach to all the lockstations; enjoyment of waterside parks, restaurants, and cultural events; and, the importance of oral histories and stories of people and places along the Canal.

The landscape character values for each character area are summarized in the following table and mapping is provided in **Appendix A**. It is important to note that the experience of the Rideau Corridor is extremely diverse and what is valued in the landscape may be valued for a combination of historic, recreational, economic, cultural, social, or other considerations. The values for each character area represent a baseline for the Corridor today and the management of landscape which considers the potential for landscape character change (see Section 4 of this report) take this baseline into consideration.





Rideau Canal Canal Rideau	Landscape Character Area Sites de caractérisation du paysage	Settlements Villages	Waterway Features Caractéristiques de la voie navigable
Major Roads Routes principales	Watershed Boundary Frontières délimitant le bassin hydrographique	Pop. < 1000	Locks (Historic Feature) Écluses
Municipal Boundary Frontières délimitant la municipalité		Pop. 1000 - 10,000	Significant Landforms
		Pop. > 10,000	

Rideau Corridor Landscape Strategy

Landscape Values (see Appendix A for mapping of each Landscape Character Area)

Landscape Character Area	Values, Views and Visual Relationships “What is quintessentially the Rideau Canal experience in this area?”
Sector 1: Rideau Canal - Ottawa Locks to Hogs Back Locks	
1a. Ottawa Locks (Locks 1-8) to Hartwells Locks (Locks 9-10)	<ul style="list-style-type: none"> the excavated channel and Canal within an urban, historic context the flight of Ottawa Locks and associated heritage buildings, views to the Parliament Buildings and Chateau Laurier the Rideau Canal Pathway, Colonel By Drive, and associated greenspace (Carleton University, the Experimental Farm and Arboretum, Dows Lake) the bridges and views to the Canal from them the Rideau Skateway and Winterlude Hartwells Lockstation and turning basin
1b. Hartwells Locks to Hogs Back Locks (Locks 11-12)	<ul style="list-style-type: none"> NCC greenbelt lands and Rideau Canal Pathway Hogs Back ‘Falls’ and limestone formations along the Rideau River Hogs Back Lockstation, earthen dam the Hogs Back Road swing bridge
Sector 2: Rideau River and Lakes - Hogs Back Locks to Newboro Lock	
2a. Hogs Back Locks (Locks 11-12) to Kars	<ul style="list-style-type: none"> part of the 40.7 km ‘Long Reach’ without locks Mooney’s Bay Park and beach steepsided, narrow, sinuous river to Black Rapids Lockstation the historic settlement of Manotick - Watsons Mill, Dickinson House historic settlement of Kars suburban/urban landscapes between Hogs Back Locks and Manotick; agricultural landscapes between Manotick and Kars Black Rapids Lockstation; Long Island Lockstation and stone arch dam, Nicholl’s Island and view from the dam
2b. Kars to Burritts Rapids	<ul style="list-style-type: none"> wide meandering river part of the ‘Long Reach’ extensive wetlands, conservation lands and Rideau Provincial Park agricultural landscapes historic settlements of Becketts Landing and Burritts Rapids Burritts Rapids Lockstation, swing bridge and remnants of 1830s dam



Rideau Corridor Landscape Strategy

Landscape Values (see Appendix A for mapping of each Landscape Character Area)

Landscape Character Area	Values, Views and Visual Relationships “What is quintessentially the Rideau Canal experience in this area?”
2c. Burritts Rapids Lock to Smiths Falls	<ul style="list-style-type: none"> • Upper and Lower Nicholsons Lockstations, excavated channel and replica king post swing bridge; Clowes Lockstation and stone arch dam • meandering, wooded river and scenic river road between Burritts Rapids Merrickville with views to historic homes / farms; • historic downtown Merrickville, Merrickville Lockstation and Blockhouse, Blockhouse Park, the Depot and industrial ruins • Rideau Bird Sanctuary and wetlands, interspersed with long views over agricultural landscapes between Merrickville and Smiths Falls • Kilmarnock Lockstation, Edmonds Lockstation and stone arch dam, view to dam from river • Old Slys Locks, Smiths Falls Combined Lock, Smiths Falls Detached Lock, Bascule railway bridge, Centennial Park and associated greenspace
2d. Smiths Falls to Lower Rideau Lake	<ul style="list-style-type: none"> • extensive wetlands and swamps • the secluded, scenic Poonamalie Lockstation • loop in the Rideau River known as the ‘Swale’
2e. Rideau Lake System	<ul style="list-style-type: none"> • flat shoreline, wetlands and marshes, Bacchus Island, Stonehouse Island and the Mud Cut on Lower Rideau Lake • open lake views, heavily wooded hills, islands, steep shorelines with granite outcroppings of the Canadian Shield on Big Rideau and Upper Rideau Lake • historic settlements of Rideau Ferry, Westport and Portland • old and new context-sensitive cottages and summer homes • views to and from Foley Mountain and Spy Rock Lookout, Murphy’s Point Provincial Park • Narrows Lockstation and the Newboro Lockstation and Blockhouse • the islands, particularly the Long Island archipelago which includes Colonel By Island on Big Rideau Lake • the ‘isthmus’ at Newboro (watershed divide)

Rideau Corridor Landscape Strategy

Landscape Values (see Appendix A for mapping of each Landscape Character Area)

Landscape Character Area	Values, Views and Visual Relationships “What is quintessentially the Rideau Canal experience in this area?”
Sector 3: Tay Canal	
Beveridges Lockstation to Perth	<ul style="list-style-type: none"> • Upper and Lower Beveridges Lockstations and the engineered Tay Canal • Tay River with extensive wetlands and marshes of the Tay Marsh and agricultural landscapes beyond • historic settlement of Port Elmsley on the Tay River • historic downtown Perth, Tay Canal Turning Basin
Sector 4: Cataraqui River and Lake System - Newboro to Kingston⁵	
4a. Newboro to Jones Falls	<ul style="list-style-type: none"> • old and new context-sensitive cottages and summer homes, some seemingly undeveloped shorelines, open water views, islands on Newboro Lake, Clear Lake, Opinicon Lake, Indian Lake, Sand Lake • remaining stumps from the flooded forests on Opinicon Lake • narrow, enclosed river channels between lakes • Precambrian rock outcroppings and islands on Sand Lake • Chaffeys Lockstation, the secluded Davis Lockstation, and Jones Falls Lockstation and views to and from them from the water • the stone arch dam, engineering works, power generation plant, and historic buildings / structures at Jones Falls • historic Opinicon Hotel, Kenney Hotel
4b. Jones Falls to River Styx	<ul style="list-style-type: none"> • forested islands, rocky outcroppings, and undeveloped shorelines of Whitefish Lake • the deep gorge at Morton Bay, Rock Dunder • old and new context-sensitive cottages and summer homes on Little Cranberry Lake, historic settlement of Seeleys Bay, Brass Point Swing Bridge • Beaupre Island and other vegetated shorelines along Cranberry Lake • the ‘Roundtail, ‘Dukes Profile’, ‘Court of the Duke’, ‘Red Rock Cliffs’ and other rock outcroppings and formations • the narrow, enclosed river channel from Cranberry Lake to Lower Brewers Lockstations bordered by woodlands, wetlands and agricultural landscapes • Upper Brewers Lockstation, Lower Brewers Lockstation and replica

⁵ Kingston’s Official Plan also identifies key views for the Rideau Canal.



Rideau Corridor Landscape Strategy

Landscape Values (see Appendix A for mapping of each Landscape Character Area)

Landscape Character Area	Values, Views and Visual Relationships “What is quintessentially the Rideau Canal experience in this area?”
	<ul style="list-style-type: none"> swing bridge historic settlement of Washburn, Washburn Mill
4c. River Styx and Colonel By Lake	<ul style="list-style-type: none"> narrow stretch of river with wetlands and agricultural landscapes south of Lower Brewers shallow flooded lands through River Styx and Colonel By Lake with evidence of the ‘drowned’ forests, agricultural landscapes bordering River Styx and Colonel By Lake Precambrian rock outcroppings north of Joyceville
4d. Kingston Mills to Cataraqui Bay	<ul style="list-style-type: none"> Kingston Mills Lockstation, Blockhouse and Lockmaster’s house Narrow, rocky gorge south of Kingston Mills Cataraqui Marsh, bounded by steep wooded escarpment on the west and a more gradually rising escarpment to the east Belle Island views across Cataraqui Bay and to Lake Ontario framed by downtown Kingston La Salle Causeway and Bascule lift bridge historic settlement of Barriefield Fort Henry and associated fortifications



Sector 1: Rideau Canal

Ottawa Locks to Hogs Back Locks

The Rideau Canal through Ottawa is approximately 8.4 kilometres long, and approximately half the distance is constructed canal. This is a highly diverse urban area, with many historic buildings, parks, civic places, and 12 locks in total located at three sites: the Ottawa Locks, the Hartwells Locks, and the Hogs Back Locks. The Ottawa section is one of the most universally recognizable areas of the Rideau Canal.

Distinctive areas within the Rideau Canal sector are described below and mapped in **Appendix A**.

1a. Ottawa Locks (Locks 1-8) to Hartwells Locks (Locks 9-10)

The Ottawa Locks at the Ottawa River is the largest single set of locks on the entire Rideau, comprising 8 locks with an elevation change of 24 metres and framed by the adjacent Parliament buildings and the Chateau Laurier. Heritage features associated with the Rideau Canal include: the former Commissariat building, c. 1826, which is the oldest surviving building in Ottawa; and, the Lockstation office, c. 1884.

Connecting the Ottawa and Hartwells lockstations is a 6.4-km long excavated channel, the longest on the Rideau waterway, flanked on both sides by masonry or concrete walls, and railings. Through this area the Canal passes through modern and historic portions of the City and extensive parkland owned by the City of Ottawa and the National Capital Commission as well as the prominent civic and cultural sites of Carleton University, and the Experimental Farm. Before reaching Hartwells Lockstation the channel passes through Dows Lake, an artificial lake created from a swamp, now part of a major city park.



This section of the Canal is transformed in the winter months to the renowned and popular Rideau Canal Skateway which extends almost 8 kilometres and supports a number of popular cultural events such as Winterlude. The Rideau Canal Pathway, part of the Capital Pathway recreational pathway system, connects the downtown to Hogs Back Falls and continues on to the Rideau River Pathway.

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The Hartwells Locks consists of a flight of two locks on the excavated channel, approximately halfway between Dows Lake and Mooneys Bay. Features of the lockstation include a defensible lockmaster's house dating to 1841, with later additions, as well as early 20th century features including the weir, storehouse and lockman's house.

1b. Hartwells Locks to Hogs Back Locks (Locks 11-12)

From Hartwells Locks to Hogs Back Locks the Canal is contained within an excavated channel contained by block-lined walls. The Hogs Back Locks are located at the junction of the man-made Ottawa canal and the Rideau River and, although in an urban context, have a picturesque setting of woodland and open parkland. Man-made falls (Prince of Wales Falls or Hogs Back Falls) replace the original Three Rock Rapids which were flooded during the canal construction. The area contains the original 98m long earth embankment dam dating to 1830, the second highest on the Rideau system next to Jones Falls. The name Hogs Back is derived from the unique limestone rock formations, remnants of which can be seen along the natural channel of the Rideau River.

Sector 2: Rideau River and Lakes

Hogs Back Locks to Newboro Lock

South of Ottawa the Rideau Canal waterway follows the path of the Rideau River, altered to a wider slower river system through the canal dams which flooded the original rapids, and extending into the Rideau Lake system to the watershed divide at Newboro. The Rideau River and Lakes system is diverse in its landscape character and has been divided into four major landscape character areas. See **Appendix A** for detailed maps.



2a. Hogs Back Locks (Locks 11-12) to Kars

Through this reach the Rideau River passes through the flat fertile Ottawa Clay Plain. The adjacent lands include a mix of historic settlement areas, intensive suburban shoreline development and agricultural lands. This section includes a portion of the Long Reach which extends lock free for a distance of approximately 40 kilometres between Long Island Locks and Burritts Rapids.



Distinctive areas within this section of the Rideau are described below.

Mooney's Bay to Black Rapids Lock

The Rideau River widens into a small lake south of Hogs Back Locks. The open lands of Mooney's Bay Park and Beach occupy most of the east side, with burgeoning suburban development buffered by a verge of trees on the east. South of Mooney's Bay the Rideau Canal waterway follows a broad, meandering path to the Black Rapids Lock (Lock 13), bordered by a mix of intensive suburban development and estate residential. An extensive wooded area buffers the east side adjacent to the airport lands. The Black Rapids area includes a single lock with a lift of 2.8m dating

to 1830, the lockmaster's house c. 1914, and dam and weir structures which date to the mid 20th century. The small managed parkland area is popular for picnicking and fishing.

Black Rapids Lock to Long Island Locks

The adjacent lands along this section of the Corridor comprise an open flat clay plain with developing suburban areas and estate residential lots mixed with agricultural lands, conservation areas and National Capital Commission greenbelt lands. The Long Island Locks (Locks 14-16) are located adjacent to Nicholls Island amidst parkland and conservation lands and features an impressive large stone arch dam, c. 1830 and a hand operated truss construction swing bridge. The western river channel is controlled by a dam at Manotick 3 km to the south. Water levels are further controlled by a weir from Nicholls Island to Long Island. Together, these control structures created the 40.7-km slackwater section known as 'The Long Reach'.

Long Island Locks to Kars

At Manotick the navigable Rideau waterway extends along the east side of Long Island. From here to Kars this area of the Corridor consists of a heavily developed suburban landscape with few traces of natural shoreline. The popularity of this section of the Long Reach for summer homes and year-round residences has resulted in one of the most intensively developed and used sections of the Canal outside of Kingston and Ottawa. There are numerous private docks, several boat launches and a yacht club. The river is widely used for active water sports such as wakeboarding and skiing, resulting in concerns over shoreline erosion and reported conflicts with cruisers and paddlers. Through several sections on both the east and west side the river is readily visible from the adjacent road, although periodic fringes of vegetation may buffer the waterway.

2b. Kars to Burritts Rapids

From 'The Big Bend' at Kars to Burritts Rapids, the balance of the Long Reach is characterized by a wide meandering river lined with extensive wetlands and periodic stretches of estate residential development with expansive areas of farmland beyond.

About mid-way on the north shore is Becketts Landing a former historic settlement area with many of the local residents being direct descendants of the founding Beckett family. To the north on the opposite shore is the outlet to Kemptville Creek leading to the town of Kemptville which was historically both an industrial town along the Prescott-Ottawa road

and a steamer stop on the Rideau. The navigation of Kemptville Creek is difficult today however with Kemptville's location near the junction of two highways, and proximity to Ottawa the community has seen residential growth in recent years.

Just before Becketts Landing is the Rideau River Provincial Park. The park comprises mostly reforested farmland and offers hiking trails, beaches, boat access, docks and a launch ramp. Two conservation areas W.A. Taylor and Baxter are also located along this stretch of the river.

The historic village of Burritts Rapids is situated on an island created by the original Rideau River on the north side and the constructed lock channel on the south. Through the village the lock channel is traversed with a road and swing bridge that allows passage of boats that require greater than 3m of clearance. The Burritts Rapids Lock (Lock 17) to the south is set in an attractive park-like landscape and is a popular stopover. Unlike other locks that are situated on bedrock or lined with cut stone, the Burritt's was constructed with an oak timber floor. The remnants of the original 1830s dam can be seen immediately downstream from the spillway dam which replaced it in 1950.

2c. Burritts Rapids Lock to Smiths Falls

This section of the Rideau Canal waterway continues to follow the natural course of the Rideau River, passing through the urban centres of Merrickville and Smiths Falls. Distinctive areas within this section are described below.

Burritts Rapids Lock to Merrickville

Through this section the Rideau is a narrow meandering river with adjacent woodlands, farmland and fringe wetlands. The scenic river road between Burritts Rapids and Merrickville affords views of the river amidst well preserved heritage farmhouses and newer riverfront residential homes.

A short distance from Burritts Rapids, are the Upper and Lower Nicholsons Locks (Locks 18-19). The locks are set a short distance apart from each other along a canal cut which bypassed significant rapids. A manually operated authentic replica king post swing bridge with stone abutments carries a local road over the Canal.

Not far from the Nicholsons Locks is Clowes Lock (Lock 20) which is set against the opposite west bank adjacent to a waste water weir and a 151m long, 4.45m high stone arch spillway dam, one of the few locations on the Rideau where these are used in combination. The defensible lockmaster's house on the property includes the original structure that dates to 1838 with a frame addition c. 1890.

Beyond Clowes Lock is a slackwater section of the river that leads to Merrickville. Located in the heart of the Corridor, Merrickville is considered one of Canada's best preserved 19th century villages and is promoted as the 'jewel of the Rideau'. The Canal and the Merrickville Locks (Locks 21-23) which were excavated in the east bank of the Rideau within a 1km long concrete channel are central to the downtown riverfront area. Today it includes: the three detached locks; the dam and power station; the stabilized ruins of an industrial complex; the iconic Blockhouse (c. 1832), the largest on the Rideau; and a park and campground. The storehouse, a frame one-storey building known as 'The Depot' (c. 1900), is in use as an interpretive centre. Remnants of the original stone masonry dam c. 1830 are still visible.

As an 18th century mill town predating the Canal construction, Merrickville contains numerous historic homes and commercial buildings, with shopping and restaurants located just steps from the Canal.





Merrickville to Smiths Falls

Upstream of Merrickville the Rideau corridor is relatively undeveloped, passing through agricultural lands and the extensive wetlands which are part of the Rideau Migratory Bird Sanctuary. The open lands along the river allow for long views of the surrounding landscape. On approach to Smiths Falls, views become more urban as the surrounding landscapes shift to commercial and residential areas.

West of Merrickville on the south bank of the river, the Kilmarnock Lock (Lock 24) with a low lift of less than 1 metre, is situated in the middle of large wetlands created by the construction of the dam at Merrickville. The lock is located in a 400-m excavated channel in association with a 300-m earth embankment dam. The property contains a defensible lockmaster's house, with original one-storey stone building c. 1841, and later second-storey stone addition c. 1889, as well as an authentic replica of a timber king post swing bridge.

The shoreline wetlands continue to be present along the river to Edmonds Lock, intermixed with open farmland and large residential estates. The lock is situated at the east end of a 150-m excavated channel on the south side of the river. An impressive spillway dam with a stone masonry weir spans the river at the western tip of a narrow island adjacent to the lock, creating a slackwater section to Old Slys Lockstation. From Edmonds to Old Slys the Canal increasingly passes through a more suburban landscape with shoreline houses and cottages.

Smiths Falls

The Canal through Smiths Falls includes three sets of locks. From downstream to upstream these are: the Old Slys (Locks 26-27), Smiths Falls Combined Locks (Locks 28-30, Lock 29A), and Smiths Falls Detached (Lock 31).



The Old Slys lockstation is located at the eastern edge of Smiths Falls, on the north side of the Rideau River, with the two locks at the western end of a 400-m excavated channel. A stone arch dam across the river creates a slackwater section between Old Slys and the Smiths Falls Combined Lockstation. A water control weir is located at the south end of the dam. The property includes a one-storey defensible lockmaster's house, c. 1838.

Between Old Slys Lock and the Detached Lock through Smiths Falls, the landscape becomes increasingly more urban with views of industrial / commercial and modern development interspersed with those of the historic elements. These include the restored former mill complex that houses the Rideau Canal Visitor Information Centre and the Parks Canada Rideau Canal Headquarters Office. The riverfront includes extensive parkland on either

side which connects the lockstations and other destinations. Victoria Park which offers docks and a campground operated by Smiths Falls is a prominent feature and popular recreational site along the Canal.

The Smiths Falls Combined Lock (Lock 29A) was built in the 1970s to replace three of the original locks (Locks 28-30) which were constructed in 1830. At 7.9 metres the Combined Lock which is a hydraulic/electric concrete lock has the greatest single lift on the Rideau Canal system. The island between contains the frame defensible lockmaster's house which dates to 1841, with a later addition around 1900.

The Smiths Falls Detached Lock (Lock 31) is located on the south side of the river and is at the west end of a 300-m excavated channel. A concrete stoplog weir crosses the river creating a slackwater section to the Poonamalie Lock. A prominent feature just to the west of Smiths Falls Detached is the Sherzer Rolling Bascule Bridge which sits at the edge of Lock Island. Although not on Parks Canada lands the bridge is a national historic site of Canada.

2d. Smiths Falls to Lower Rideau Lake

After Smiths Falls there is limited development along the shoreline and the extensive wetlands are bordered by cedar and ash-swamps. Principal features along this stretch is the secluded Poonamalie Lock (Lock 32), which is contained within a deep canal cut that bypasses a loop in the Rideau River, known as the 'Swale'. The lockstation includes a one-storey stone defensible lockmaster's house, built in 1841, with a second storey added in 1910.

2e. Rideau Lake System

Through this section of the Corridor the Rideau extends into the natural Rideau Lake system comprised of Lower Rideau Lake, Big Rideau Lake, and Upper Rideau Lake. It is located on the Canadian Shield and is part of the fringe of the Frontenac Arch geological formation which extends from the Lower Rideau Lake to Kingston Mills. The Frontenac Arch is characterized by younger sedimentary sandstone, with outcroppings of much older pre-Cambrian rock. Newboro at the Upper Rideau Lake represents the watershed divide. The characteristics of each lake are described below.

Lower Rideau Lake

The lower section of this shallow lake is associated with the Smiths Falls Limestone Plain and is characterized by generally flat terrain that facilitated the flooding of the end of Rideau Lake. There are extensive marshes at the east end with scattered islands. Although little used now, a dredged short cut known as the Mud Cut was created through these marshes during the canal construction. Bacchus Island, a glacial drumlin now connected to the mainland by a causeway, is also a feature at the eastern end of the lake.

Along the north-west shore of the Lower Rideau Lake is the outlet of both the Tay Canal and the Tay River. The Lower Beveridges Lock marks the start of the Tay Canal. Rideau Ferry, located at the juncture of Lower Rideau Lake with Big Rideau Lake, contains some evidence of the former historic settlement along with the Rideau Ferry Conservation Area and the high level Rideau Ferry Bridge.

Big Rideau Lake

This section contains examples of classic Canadian Shield landscape, with heavily wooded, steep shorelines exposed bedrock, and scattered cottage development. Pre-canal this was a single lake that stretched from Westport to Stonehouse Island. Big Rideau Lake at the north is a long deepwater lake that marks the northern extent of the Frontenac Arch. Adjacent land includes moderately dense cottages and summer homes on the east shore along with the expansive Murphys Point Provincial Park on the west shore.



At the south end Big Rideau Lake widens into a larger waterbody with the south shore located within the flatter and younger Paleozoic rock formation. Most of the shoreline has moderate cottage and summer home development. Portland on the south-east shore is a small, historic community established in the 1800s. Colonel By Island in the centre of the lake, now owned by Parks Canada, offers camping, hiking trails, and two inland 'lakes'.

Prior to canal construction, Big Rideau Lake and Upper Rideau Lake formed a single body of water. Upper Rideau Lake was created by the construction of an earth embankment dam at a natural 'narrows' on the original waterbody. The Narrows Lock (Lock 35) was built at the north end of the embankment to connect the two new lakes. The lockstation contains one of the four Rideau blockhouses of stone and

frame construction c. 1833, and a manually operated through-truss steel bridge c. 1898, which carries a local road across the lock.



Upper Rideau Lake

As a result of canal engineering, Upper Rideau Lake became the highest elevation on the Rideau Canal and the divide of two watersheds, the Rideau and Cataraqui Rivers. From this point waters flow north and south. Upper Rideau Lake contains the same contrasting geology as Big Rideau with exposed granite outcroppings and cliffs on the north shore and lower lying flat lands on the south. There was minimal disturbance from the canal construction and the shoreline of Upper Rideau Lake remains relatively unchanged from the early 1800s. The historic community of Westport is located at the western end of the lake in Mulvilles Bay adjacent to the Foley Mountain Conservation Area and Foley Mountain which offers expansive views over the village and lake. The Rideau Trail which extends from Kingston to Ottawa runs along the north shore of Upper Rideau Lake. McNalley's Bay at the far south end of the lake leads to Newboro Lock and the Cataraqui River system.

The Newboro Lock (Lock 36) is located at the south end of 'the isthmus' of the watershed divide where the Cataraqui River system begins its descent to Kingston. The operation of the Newboro lock was electrified in 1966 although the lock retains its original stone sloping walls. The lockstation includes one of the Canal's four blockhouses, constructed in 1833 with a stone lower storey and timber frame second storey. Located between Upper Rideau Lake and Newboro Lake the small hamlet of Newboro is located within a popular cottage area with a higher seasonal population.

Sector 3: Tay Canal

The constructed Tay Canal extends from Lower Rideau Lake to the Tay River and includes the Beveridges Locks (Locks 33-34) c. 1880s (see **Appendix A** for detailed mapping). Located on the north shore of Lower Rideau Lake the Beveridges Locks form the entrance to the Tay Canal. The canal extends north to the town of Perth using a 2-km excavated channel that connects Beveridges Bay on Lower Rideau Lake to the Tay River. The two locks are 500 m apart. There is an earth embankment dam and weir across the Tay River, near the northern end of the excavated channel. This creates a slackwater section navigable to Perth, a distance of 9.8 km. The lockstation includes the lockmaster's house, a large frame two-storey house c. 1883.

The Tay River continues east from the Tay Canal cut and empties into a small bay in Lower Rideau Lake past historic Port Elmsley. The Rideau Canal waterway then extends west along the Tay River to the constructed Perth Basin in downtown Perth. This sector passes through the Perth Wildlife Reserve with extensive marshlands in the southern reaches. The Rideau Trail follows a section of the river from Perth to the Wildlife Reserve.

Established as a military settlement in the early 19th century, well prior to the development of the Tay Canal, Perth was developed around several islands in the Tay River. The Tay Canal is an integral and attractive component within Perth, lined with parkland and trails, some of which extend along the original canal towpath. The vibrant downtown business area is centred on the Tay Canal Turning Basin, and contains numerous historic buildings, many beautifully restored for adaptive re-use.



Sector 4: Cataraqui River and Lake System

Newboro to Kingston

From the watershed divide at Newboro at the end of Upper Rideau Lake, the Cataraqui River system flows south-west to Lake Ontario (see **Appendix A** for detailed mapping). The Rideau Canal waterway was established using the natural river and lake system rather than constructed canal. Water depths were increased using a series of dam structures which

resulted in the flooding of adjacent forested lands. Remnant stumps from the ‘drowned’ forests can be seen today through several of the lakes.

4a. Newboro to Jones Falls

This section includes a series of natural lakes: Newboro Lake, Clear Lake, Indian Lake, Loon Lake, Opinicon Lake and Sand Lake; as well as the man-made Whitefish Lake. Distinctive areas within this sector are described below.

Newboro to Chaffeys Lock

Through this section the canal waterway passes through a series of interconnected natural lakes with many kilometers of shoreline and extensive back bays which can be explored by boat. Lake levels in Newboro Lake, Indian Lake and Clear Lake were raised as a result of the canal dam construction to improve navigation through the main channel. The surrounding heavily wooded Canadian Shield landscape has substantial waterfront and cottage development. Off the navigation channel Newboro Lake extends into an intricate web of shallow embayments with islands interspersed with marshes.



Chaffeys Lock to Jones Falls

This area is bounded by Chaffeys Lock at the north end and Jones Falls at the south end, with the Davis Lock in between and includes Opinicon and Sand Lakes. The lakes have sheltered articulated and forested shorelines and numerous islands.

The area at Chaffeys Lock (Lock 37) is particularly noteworthy with the lockmaster’s house containing a museum and interpretive displays. Nearby are the landscaped grounds of the historic Opinicon Resort Hotel one of the oldest on the Rideau, Chaffey’s Cemetery, and, the Cataraqui Trail which extends along the old railway bed.

the eastern portion of Opinicon Lake before reaching a narrow channel between Opinicon Lake and Sand Lake where the Davis Lock (Lock 38) is located. Situated at the site of a former rapids and an early dam and sawmill the lockstation is situated within a secluded wooded setting making it one of the most scenic on the Rideau. The lockstation includes one of the Rideau’s defensible lock master’s houses, with a stone first storey c. 1844 and a frame second storey addition c. 1894. It is considered one of the best surviving examples on the Rideau.

Surrounded by the wooded rolling terrain and rocky outcroppings of the Frontenac Arch area of the Canadian Shield, the Rideau Canal navigation channel continues through the south-west portion of Sand Lake. It follows a marked route through a series of islands until reaching Jones Falls Locks (Locks 39-42). Just north of Jones Falls is an area known as ‘the Quarters’, which is a height of land that once housed the camp site of the Canal’s Royal Engineers. Located between Sand Lake and Whitefish Lake, the Jones Falls dam was constructed in 1832 to control a series of rapids and falls and is considered the most complex construction project undertaken for the Rideau. Four locks span the elevation change. The wide stone arch dam which holds back the water is an impressive structure rising 19 metres. The single storey defensible lockmaster’s





house c. 1841 is one of the best original examples on the Rideau. It was located on a rise above the locks affording views of both the upper and lower reaches. The Jones Falls site also includes a blacksmith's forge, c. 1843 and the lower lockstation office, a two-storey frame structure c. 1925. A generating plant constructed in the 1940s still operates today. The historic Kenney Hotel, an early resort which still operates today, is located at the foot of the locks.

4b. Jones Falls to River Styx

This area includes Whitefish Lake, Little Cranberry Lake, Cranberry Lake, Dog Lake and sections of the Cataraqui River where flooded river and natural lakes form the canal waterway. There are shallow flooded lands through the man-made portions with visible evidence of flooded forests. The natural, forested shorelines are occupied by moderately dense cottage development. This reach contains several distinctive and significant lockstations.

Whitefish Lake

The damming of the White Fish River at Upper Brewers Lock flooded hundreds of acres of forested lands to the north, turning the marshy creek into what is today Whitefish Lake. Now a broad shallow lake with forested islands, rocky outcroppings, and numerous bays, Whitefish Lake has limited cottage development. Nearby the height of land at Rock Dunder, a provincially significant Area of Natural and Scientific Interest (ANSI) on the eastern edge of the Corridor affords spectacular views over the deep gorge at Morton Bay and beyond to Whitefish Lake.



Little Cranberry Lake, Cranberry Lake, Dog Lake

Little Cranberry Lake is a shallow, man-made lake, part of the Cranberry Flood Plain which pre-canal comprised an area of extensive marshes, forests and streams. The lake was formed by the dams at Upper Brewers Locks and Morton. Cranberry Lake, located immediately to the south, was a small, natural lake also much expanded by the dam creation.

Seeley's Bay is a large embayment on Little Cranberry Lake, created with the flooding of the cranberry marsh during the construction of the Rideau Canal. Originally a small trading post in the early 19th century, the village of Seeley's Bay was developed soon after the Canal was completed and was once a regular stop for the steam wheelers. Now largely serving boaters, seasonal residents and the

surrounding farm community, the village offers two marinas and a range of services.

Cranberry Lake contains a number of islands including the three Sister Islands, and Beaupré Island which was once farmed and is now owned by Parks Canada. Spanning Cranberry Lake is the Brass Point Swing Bridge, the only road crossing between Jones Falls and Upper Brewers Mills. One of only four remaining on the Rideau the narrow bridge is constructed of steel and wood and although modified, dates to 1887. Due to the low clearance the bridge must be opened for most boats.

Located on the west side of Cranberry Lake, offline from the main canal navigation channel, Dog Lake is comprised of two water bodies. The original deep water pre-canal lake is located at the north end. The man-made lake at the south end was created as a result of the flooding of the Cataraqui River by the dam at Upper Brewers. Much of the Dog Lake shoreline has moderate cottage development.

The outlet to the Cataraqui River is found at the southeast end of Cranberry Lake, opposite Beaupré Island. The channel is marked by the Round Tail, a large granite rock outcrop which was once the site of a small dam that supported local mills. This location was originally considered for a lockstation during the canal construction. Close by, near the top end

of the channel, is a rock outcropping locally known as the Duke's Profile (after the Duke of Wellington) with the height of land opposite referred to as the Court of the Duke.

Upper Brewers Locks to Lower Brewers Locks (Washburn)

Upper Brewers Lock (Lock 43-44) is located at a short canal cut through the west bank of the Cataraqui River in the vicinity of a former small milling community, Brewers Mills, which declined following the Canal construction. In 1939 a hydro generating station was constructed at the dam site and remains today. The lockstation is set in a secluded, peaceful, wooded setting, removed from but not far off the road system. It is a popular spot for picnics and overnight docking. The one-storey stone defensible lockmaster's house built around 1842 is still present, although some distance from the locks with views to it obscured by vegetation.



The short distance between Upper Brewers Locks and Lower Brewers Lock (Lock 45) includes passage through a relatively confined river channel that passes through farmland and wooded areas. Lower Brewers Lock (Lock 45) is located at the south end of a small shallow, marshy lake that resulted from the flooding of the Cataraqui River and adjacent forests. The manually operated lock was reconstructed in 1972 in the original location. The one-storey, stone defensible lockmaster's house was constructed some time between 1832 and 1847 and located to provide clear views of both the upper and lower approaches to the lock. A second-storey frame addition was built in 1898-99. The swing bridge at the lockstation is a reconstruction of the original swing bridge built in 1872. The small community of Washburn is situated immediately to the west of the lockstation.

Lower Brewers Locks to River Styx

This narrow reach of the Cataraqui River is deeper and straighter than the pre-canal condition and is bordered by open farmland with limited tree cover along the shoreline. The Billidore Rift's, a small set of rapids now flooded out, were located at the head of the River Styx.



4c. River Styx and Colonel By Lake

The Canal through this area was formed by flooding portions of Cataraqui River which created the lakes. There is evidence of the stumps of flooded forests along the perimeter of the waterway. The navigation channel follows the original Cataraqui River where there is sufficient water depth.

Generally the geology is dominated by a clay-plain over limestone, with frequent outcrops of Precambrian visible north of Joyceville to Burnt Hill Road line. There are extensive limestone plains around Mount Chesney on the east side and south of Joyceville.

The Joyceville Penitentiary is an imposing presence on a large tract of high land on the east bank at the upper end of the River Styx. A few pockets of old cottage development and farms are found on the east

side of River Styx and the perimeter of Colonel By Lake includes extensive farm frontages with some newer large residential properties.



4d. Kingston Mills to Cataraqui Bay

From Kingston Mills at the lower end of Colonel By Lake the Cataraqui River descends through a rocky gorge to the Cataraqui Estuary and its outlet to Lake Ontario at Kingston. Although a short distance of only 7km the final (or first) leg of the Canal passes through a broad range of landscapes. Distinctive areas are described below.

Kingston Mills

Originally the site of the King's Mills, developed by the British government in 1784 to serve the growing population of Kingston, the falls on the Cataraqui River became the site of the final set of locks for the Rideau Canal. The natural course of the Cataraqui River was blocked at the point where it descends over the southernmost extension of the Frontenac Arch, a formation of the Canadian Shield, to create the slackwater section known as Colonel By Lake. A large stone arch dam 120m long and 1.4 km of earth embankment dams are used to hold the water back. The Kingston Mills Locks (Locks 46-49) were constructed in a side channel west of the main channel of the river. The upper lock is attached to the south end of the stone arch dam. The large turning basin used for steamship repair still exists below the first lock. The lower three locks are constructed in flight, descending the river gorge over a series of rocky terraces with the lowest lock terminating at the level of Lake Ontario.

The Kingston Mills Lockstation contains one of only four blockhouses built on the Rideau. Constructed in 1833 on a height of land with strategic views to both upstream and downstream reaches, the blockhouse has been restored and outfitted as a soldier's barracks and is open to the public. The site also includes a lockmaster's house, c. 1925 which serves as a visitor centre, and is popular both as a boating stopover and picnic grounds for visitors to watch boats locking through and learn about the history of the Rideau. There is a manually operated swing bridge on the local road that passes through the tiny hamlet and the main CN rail line (formerly the Grand Trunk Railroad) crosses over the lower locks on a steel trestle bridge, c. 1929.



Cataraqui Marsh, from Kingston Mills to Belle Island

Below Kingston Mills, the Cataraqui River passes under Highway 401 and into an extensive wetland, the Cataraqui Marsh. The marsh is bounded by a steep wooded escarpment on the east, and low escarpment on the west.

Cataraqui Bay (Kingston Inner Harbour)



As Cataraqui Bay widens out, the wetlands give way to the Kingston urban area. Mid-way to Lake Ontario, Belle Island is a prominent landscape feature and significant First Nations archaeological site on the west side. Together with Belle Park (a former landfill site), the headland and island give shape to the Inner Harbour. The east side includes suburban development, the historic district of Barriefield, and the Royal Military College lands.

The La Salle Causeway connects Highway 2 across Cataraqui Bay, separating the Kingston's Inner and Outer Harbours. The causeway was completed in 1917, and utilizes three bridges. The centre most historic Strauss trunnion bascule lift bridge was designed by Joseph Strauss, designer of the Golden Gate Bridge in San Francisco.

Cataraqui Bay (Kingston Outer Harbour)

South of the causeway, the Royal Military College is a prominent feature on the eastern headland of the Outer Harbour. The western shore is part of Kingston's urban area and includes the downtown, with venerable historic buildings intermixed with modern ones overlooking the harbour area. Distant views of Wolfe Island have recently changed with the addition of wind turbines.

Fort Henry

Beyond the eastern headland occupied by the Royal Military College is Fort Henry, situated at a strategic height of land some 30m above the water, with commanding views of the north shipping channel of the St. Lawrence River, the Kingston Harbour, and the entrance to the Rideau Canal. A fort was first established on the site during the war of 1812 although the current fortifications date to 1837 or later. Fort Henry is a national historic site of Canada and was included in the Rideau Canal World Heritage listing as a key element of the Kingston fortifications system. Now an interpretive site and location for re-enactments and other events, the key historic features of the fort include the redoubt, the advanced battery and glacis, the masonry-line ditches, the west and east branch ditch towers and the commissariat stores.

Complementing the fortifications at Fort Henry are the four Martello towers constructed in response to the Oregon Crisis of the 1840s to defend the Kingston harbour, naval shipyards, and the mouth of the Rideau Canal. Two of these towers, Murney Tower and Fort Frederick are open to the public and contain museums. Fort Frederick houses the Royal Military College of Canada Museum. The towers are part of the Rideau Canal and Kingston Fortifications World Heritage site.

2.5.4 Landscape Character Units

To graphically illustrate the attributes described above, each Landscape Character Area within the Rideau Corridor was further broken down into a series of Landscape Character Units within the overall boundaries established by the viewshed analysis. These landscape units were determined by analyzing aerial photography and GIS mapping of topography, vegetation cover, land use, settlement patterns, and cultural, heritage and recreational features. The results are documented in GIS mapping (refer to **Appendix A**) and database format.

Within the landscape units the character is generally homogeneous with respect to landscape attributes, and as result the units vary considerably in size. The dominant landscape type determined the unit classification recognizing that there may be some variations in land use and cover within individual units, e.g. woodlots within agricultural lands. Recreational elements, heritage sites and other points of interest are recognized by 'points' in the GIS mapping rather than zones.

The viewshed analysis has resulted in the inclusion of lands that are situated some distance away from the Rideau Canal waterway (several kilometres in some locations) however closer attention was paid to lands immediately adjacent to or in association with the Rideau Canal.



For the purpose of map keys, landscape character units have been classified within two general categories of Cultural and Natural which are listed on the table below, with examples of where they occur within the Corridor. Cultural categories address settlement patterns and man-made influences. Natural categories include vegetative cover and natural features. These include the flooded river and lake systems created by the development of the Canal which, while arguably man-made, have evolved into natural landscapes over more than 175 years. Although mapped biophysical data and Ecological Land Classifications were used to inform the development of the Natural landscape units, it is not the intention of this mapping to isolate these elements (which can be referenced from the GIS data layers) but rather to use



categories that are of relevancy to the visual character of the landscape, hence the use of terms such as ‘forested uplands’ and ‘forested lowlands’ which capture both topography and vegetation.

Rideau Corridor Landscape Strategy

Landscape Character Units (see Appendix A for detailed mapping)

Landscape Unit	Examples
CULTURAL LANDSCAPES	
C1 Urban	Ottawa; Smiths Falls; Merrickville; Kemptville; Perth; Kingston; other urban centres
C2 Suburban	Residential subdivisions through Ottawa
C3 Estate Lots	Rural and riverfront large lot residential
C4 Rural Lots	Subdivided residential farm lots
C5 Historic Landscapes (Townscapes / Landscapes / “Lost Landscapes”)	Downtown Perth, Merrickville, Smiths Falls etc.; historic villages / hamlets; lockstations and associated structures; ruins; archaeological sites
C6 Waterfront Development	Cottage / residential development along shorelines of lakes; e.g. the Rideau Lakes, Newboro Lake; Cranberry Lake
C7 Agriculture / Farmland	North side of Cataraqui River (between River Styx and Cranberry Lake)
C8 Managed Landscapes	Parks; Campgrounds; Golf courses
C9 Institutional / Campus	Joyceville Penitentiary; Royal Military College; Carleton University
C10 Industrial Areas	Hydro-generating plants; Industrial sites
C11 Resource Extraction Areas	Pits and quarries; Logging areas
C12 Utility Landscapes	Hydro transmission corridors; Highways; Railways
NATURAL LANDSCAPES	
N1 Lakes / Open Water	Rideau River, Cataraqui River, lake systems
N2 Rapids / Falls	Jones Falls, Hogs Back Rapids / Falls

Rideau Corridor Landscape Strategy

Landscape Character Units (see Appendix A for detailed mapping)

Landscape Unit	Examples
N3 Vegetated River / Creek Valley	Kemptville Creek
N4 Forested Upland	Various locations, in particular along the Rideau Lake system through the Canadian Shield
N5 Forested Lowland	Various locations, in particular the drowned forests and adjacent lands along the Cataraqui River and River Styx
N6 Wetland / Marsh	Perth Wildlife Reserve; Wetlands south of Kars
N7 Significant Landform (rock outcropping, escarpment, sandscarp, mud flats)	“Duke’s Profile”; the “Round Tail”; Rock Dunder; visible rock formations of the Canadian Shield and Frontenac Arch (e.g. at Kingston Mills)

2.5.5 Landscape Character Sensitivities

With the Corridor’s diverse landscape categorized into character units, this framework can be used to consider landscape character sensitivities. The sensitivity of the landscape depends on the ability of the landscape to absorb visual change, and there are two ways that change can occur:

1. **Change from a less developed landscape character unit to more developed landscape character**, for example:

- Urbanization that changes a C7 Agriculture / Farmland landscape unit to the C2 Suburban landscape unit;
- A new rural residential subdivision that changes an N5 Forested Lowland landscape unit to the C3 Estate Lots landscape unit;

2. **Change within a landscape unit**, for example:

- A high-rise apartment building in a C1 Urban landscape unit;
- The addition of a large livestock barn within a C7 Agriculture / Farmland landscape unit;
- New waterfront cottage development within a C6 Waterfront Development landscape unit;
- Campus expansion within a C9 Institutional / Campus landscape unit; and,





- Community-based ecological stewardship that enhances the quality of the environmental features within an N6 Wetland / Marsh landscape unit.

The number of scenarios in the two following tables that are rated as high sensitivity reinforces the belief that much of the Corridor’s landscape has limited capacity to absorb change in the long term. In these landscapes, context sensitive development becomes more important, not only to guide the type of development but also its design. An understanding of the landscape’s sensitivity to change will help inform which planning and management approaches may be effective where along the Corridor (as discussed further in Section 4 of this report) and will help the Steering Committee in prioritizing potential implementation tools.

Rideau Corridor Landscape Strategy

Sensitivity Based on Change from a Less Developed to More Developed Unit

Existing, Less Developed Landscape Character Unit	C5 Historic Landscapes	C7 Agriculture / Farmland	C8 Managed Landscapes	N1 Lakes / Open Water*	N2 Rapids / Falls*	N3 Vegetated River / Creek Valley	N4 Forested Upland	N5 Forested Lowland	N6 Wetland / Marsh	N7 Significant Landform
More Developed Landscape Character Unit										
C1 Urban	H	H	H	-	-	H	H	H	H	H
C2 Suburban	H	H	H	-	-	H	H	H	H	H
C3 Estate Lots	H	H	H	-	-	H	H	H	H	H
C4 Rural Lots	H	H	H	-	-	H	H	H	H	H
C6 Waterfront Development	H	H	H	H*	-	H	H	H	H	H
C7 Agriculture / Farmland	M	L	L	-	-	L	M	M	M	M
C8 Managed Landscapes	M	L	L	M*	-	L	M	M	M	M
C9 Institutional / Campus	H	H	H	-	-	H	H	H	H	H
C10 Industrial Areas	H	H	H	-	-	H	H	H	H	H
C11 Resource Extraction Areas	H	H	H	-	-	H	H	H	H	H
C12 Utility Landscapes	H	H	H	H*	H*	H	H	H	H	H

Legend: H – High Sensitivity; M – Medium Sensitivity; L – Low Sensitivity

*Note: Considers infrastructure, utility crossings, and new docks / structures that could occur in-water.

Rideau Corridor Landscape Strategy

Sensitivity Based on Likely Change within a Character Unit

Landscape Character Unit	Landscape Sensitivity		
	High	Medium	Low
CULTURAL LANDSCAPES			
C1 Urban	●**	●**	
C2 Suburban			●
C3 Estate Lots		●	
C4 Rural Lots		●	
C5 Historic Landscapes	●		
C6 Waterfront Development		●	
C7 Agriculture / Farmland			●
C8 Managed Landscapes			●
C9 Institutional / Campus		●	
C10 Industrial Areas		●	
C11 Resource Extraction Areas		●	
C12 Utility Landscapes	●		
NATURAL LANDSCAPES			
N1 Lakes / Open Water	●*		
N2 Rapids / Falls	●*		
N3 Vegetated River / Creek Valley			●
N4 Forested Upland		●***	●***
N5 Forested Lowland		●***	●***
N6 Wetland / Marsh		●***	●***
N7 Significant Landform			●

Notes: *Considers infrastructure, utility crossings, and new docks / structures that could occur in-water.
 Varies depending on the scale of (re)development being proposed. *Varies with the extent of change in the natural features.



3. VISUAL PREFERENCE SURVEY

3.1 Purpose of the Visual Preference Survey

As part of the Rideau Corridor Landscape Strategy, a Visual Preference Survey⁶ was undertaken as a vital component of the landscape character assessment approach to engage local communities, partners, and stakeholders to test particular assertions regarding the public preference of particular landscape characteristics.

3.2 Methodology

The visual preference survey was conducted using two techniques to maximize the public feedback: (1) live workshops using audience response technology; and (2) an online survey. Although these two different techniques were used to administer the survey, the essential survey components were the same for both.

The survey comprised 72 photographs representing five different character types along the Rideau Corridor. The photographs were chosen based on the key character types identified earlier in the project with consideration for seasonal differences represented in the photographic survey. For each photograph, respondents were posed the following question “This picture represents what I like to see along the Rideau Corridor”. Respondents were then asked to respond by selecting one of five responses: (1) disagree; (2) somewhat disagree; (3) neutral; (4) somewhat agree; or (5) agree. During the course of the five public workshops, special consultation with Parks Canada staff, and online survey, 371 responses were received.



3.3 Approach to Image Selection

Images were selected to help identify the iconic or quintessential features and views of the Rideau that make up its landscape character and which are valued by participants. Many of these are recognizable images of the Rideau that would be familiar to survey participants. Others are of special or unique places identified through earlier public and stakeholder consultation sessions.

To help inform the identification of management issues, some images, either in whole or in part, also contained elements which were identified through the stakeholder process as having a negative impact on the visual character of the Rideau landscape. Some of this imagery such as shoreline erosion or hydro transmission corridors would be obvious to most participants. Other potentially negative elements such as shoreline ‘clutter’, boathouses, or brightly coloured roofs were identified by some stakeholders as issues to be addressed but may simply be considered part of the landscape by the average resident or visitor to the Rideau.

3.4 Key Issues and Opportunities from the Visual Preference Survey

Identification of the most-valued and least-valued photographs help to identify key features and values of the Rideau Corridor to support more effective planning and management of the Rideau Corridor’s landscape into the future.

The table on the following page identifies the five least valued and five most valued photographs from the total 72 images, describes the context for selecting the photograph and why the consultants wanted the public’s opinion for the

⁶ Full details on the survey are provided in Appendix D.


particular photograph and the observations / analysis section of the table discusses whether the public’s perception of the photograph aligned with the consultant’s reason for selecting the photograph.

The five least valued photographs had an average score of less than 2.4. This average score represents that the majority of people somewhat disagreed with the statement “This picture represents what I like to see along the Rideau Corridor”. These photographs (numbered 16, 24, 34, 40, and 51) represented features such as the Industrial works yard near Smiths Falls, hydro towers, marinas, and residential development very close to the Canal. A common theme in all of the “negative” photographs was limited riparian vegetation along the shoreline.

The five most valued photographs had an average score of more than 4.8. This average score represents that the majority of people agreed with the statement “This picture represents what I like to see along the Rideau Corridor”. These photographs (numbered 36, 37, 39, 62, and 70) represented natural features along the canal. All of the “positive” photographs contained pristine environment and uninterrupted views with no man made features; this suggests that non-developed areas are highly valued.

Rideau Corridor Landscape Strategy

Visual Preference Survey’s 5 Least Valued and 5 Most Valued Photographs




Survey Question Number and Image	Survey Score - Average [Mode] ⁷	Location and Consultant’s Rationale for Selecting the Image	Observations / Analysis
Least Valued Photographs			
16		<p><i>Industrial works yard near Smiths Falls</i></p> <ul style="list-style-type: none"> - Limited screening of ‘industrial’ elements from the river - Limited riparian vegetation along shoreline; erosion evident 	<p>The low score indicates that participants are reacting to the negative attributes of this image.</p>

⁷ A photograph with a higher average score was viewed as more favourable by the respondents and a photograph with a lower average score was viewed as less favourable by the respondents. The mode represents the response that received the most votes for each particular image.






Rideau Corridor Landscape Strategy

Visual Preference Survey's 5 Least Valued and 5 Most Valued Photographs

Survey Question Number and Image	Survey Score - Average [Mode]7	Location and Consultant's Rationale for Selecting the Image	Observations / Analysis
<p>24</p> 	<p>2.2 [1]</p>	<p><i>Hydro Towers</i></p> <ul style="list-style-type: none"> - Hydro line crossing the Rideau in stark contrast to the surrounding natural waterway 	<p>Low score indicates that participants are reacting to the negative visual attributes of this image, although the hydro corridor represents an important economic and infrastructure asset.</p>
<p>34</p> 	<p>2.2 [1]</p>	<p><i>Colonel By Island</i></p> <ul style="list-style-type: none"> - Former lodge & grounds (now vacant) - Managed lawns - Lack of riparian vegetation 	<p>Low score indicates that participants are reacting to the overall negative visual attributes of this image. The negative reaction is most likely due to the boarded up building rather than shoreline management issues.</p>
<p>40</p> 	<p>2.4 [1]</p>	<p><i>Development setbacks</i></p> <ul style="list-style-type: none"> - Cottage / residence very close to shoreline - Pool under construction - Lack of riparian vegetation 	<p>The low score indicates that participants are reacting to the negative attributes of this image.</p>

Rideau Corridor Landscape Strategy




Visual Preference Survey's 5 Least Valued and 5 Most Valued Photographs

Survey Question Number and Image	Survey Score - Average [Mode]7	Location and Consultant's Rationale for Selecting the Image	Observations / Analysis
<p>51</p> 	<p>2.3 [1]</p>	<p><i>Marina</i></p> <ul style="list-style-type: none"> - A longstanding recreational business that supports recreational boating - Limited vegetative buffers 	<p>The low score suggests participants were reacting to the general appearance of the facility from the water and not its recreational or economic values</p>
Most Valued Photographs			
<p>36</p> 	<p>4.9 [5]</p>	<p><i>Duke's Profile</i></p> <ul style="list-style-type: none"> - a recognizable cultural landmark and natural feature along the Rideau 	<p>The high positive response suggests that the Duke's Profile and other natural rock outcroppings are recognized as important features.</p>
<p>37</p> 	<p>4.9 [5]</p>	<p><i>Entrance to Morton Bay</i></p> <ul style="list-style-type: none"> - Seemingly pristine natural environment - View to Rock Dunder 	<p>The high positive response suggests that the Canadian Shield landscape is recognized as important feature of the Rideau.</p>



Rideau Corridor Landscape Strategy

Visual Preference Survey's 5 Least Valued and 5 Most Valued Photographs

Survey Question Number and Image	Survey Score - Average [Mode]7	Location and Consultant's Rationale for Selecting the Image	Observations / Analysis
<p>39</p> 	<p>4.9 [5]</p>	<p><i>Lake vista</i> - Classic open-water panoramic view</p>	<p>The very high positive response suggests that the lake systems and unobstructed panoramic views are highly valued features of the Rideau.</p>
<p>62</p> 	<p>4.9 [5]</p>	<p><i>Hogs Back Falls</i></p>	<p>Very high positive response suggests that Hogs Back Falls is considered an important scenic feature</p>
<p>70</p> 	<p>4.9 [5]</p>	<p><i>Lake view</i> - Uninterrupted by development</p>	<p>High positive response suggests participants place the highest value on these type of unspoiled lake views</p>

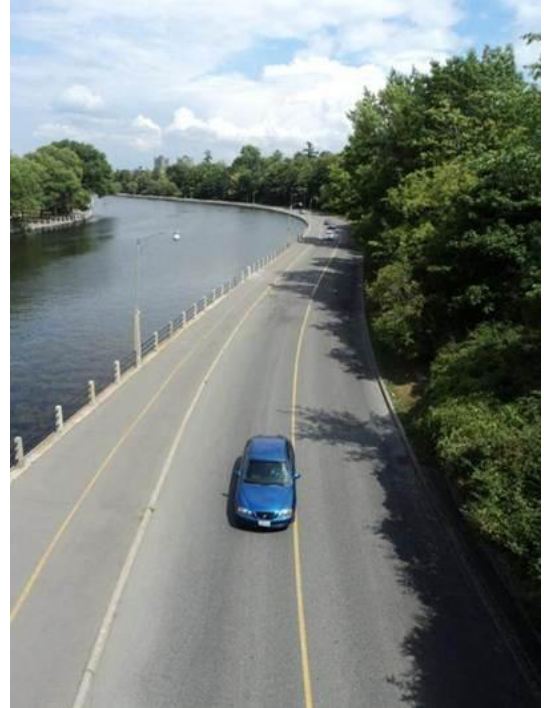
4. PLANNING AND MANAGEMENT RECOMMENDATIONS

4.1 The Complex, Multi-Jurisdictional Landscape

The Rideau Canal Corridor is a complex multi-jurisdictional landscape, with federal, provincial, and municipal levels of government, as well as Algonquin Traditional Territory in the Ottawa River Watershed.

Land use control is predominantly exercised by 13 municipalities, including three single tier municipalities, and three counties, whose powers are enabled largely through the Ontario Municipal Act, the Ontario Planning Act, and the Provincial Policy Statement. The northern end of the Canal runs through the single-tier amalgamated City of Ottawa, which is also the nation's capital city, in which significant influence is exercised by the National Capital Commission through its responsibility for federal lands under the National Capital Act.

The two conservation authorities, the Rideau Valley Conservation Authority and the Cataraqui Region Conservation Authority, operate under the Conservation Authorities Act of Ontario and are also responsible to their municipal Board of Directors. For the Rideau Canal itself, the Historic Canals Regulations under the Department of Transport Act provide the regulatory framework for the management, use and protection of the canal, while the Navigable Waters Protection Act protects the integrity and navigation safety of navigable waters. Other legislation and policies specific to the canal include the Fisheries Act, Species at Risk Act, Federal Wetlands Policy, Historic Canals Policy and the Cultural Resource Management Policy.



4.2 Scoping of Approaches

For the Corridor's landscape to be effectively planned and managed into the future, jurisdiction-sensitive planning and management approaches are needed. These tools should be part of a coordinated, comprehensive and integrated approach that addresses priority issues. The tools also need to be implementable – suitable to the scale and resources – of the varying jurisdictions and their degree of organizational capability. The landscape character of the corridor can also be impacted through changes within the viewshed described earlier in this report or through changes in the watersheds that then impact the natural environment of the corridor, and therefore approaches for the immediate viewshed and broader watershed need to be considered.

To begin scoping the potential planning and management approaches, the implementers of the planning and management approaches need to be understood. If the implementers and their jurisdiction are known then the extent of their influence and/or statutory powers can be considered; following this, planning and management recommendations can be identified. While there are numerous stakeholders within the Corridor, they can be grouped into six functional jurisdictions, namely:

1. **Federal:** includes Parks Canada, the National Capital Commission, Transport Canada, Fisheries and Oceans Canada, and aboriginal groups in eastern Ontario;
2. **First Nations:** includes the Alderville First Nation, Algonquins of Ontario, Mississauga, Mohawk, and Métis;
3. **Provincial:** includes all agencies of the Province of Ontario with an interest in the land use, environmental, and economic relationship that the Corridor has with eastern Ontario (such as the Ministry of Municipal Affairs and Housing, the Ontario Ministry of Agriculture, Food and Rural Affairs, the Ministry of Environment, Ministry of Natural Resources, Ministry of Tourism, Culture and Sport, and Ministry of Economic Development and Innovation);
4. **Conservation Authority:** includes the Cataraqui Region Conservation Authority and Rideau Valley Conservation Authority;
5. **Municipal:** includes all upper-tier, lower-tier, and single-tier municipal government jurisdictions traversed by the Corridor; and,



6. **Community:** includes all local community groups, non-governmental organizations, individual businesses and persons that have an interest in the Rideau Canal and the Corridor.

Now that the implementers of planning and management approaches are defined, the planning and management approaches can be identified. The process for identifying planning and management approaches involved multiple activities, including:

1. **Public consultation:** any suggestions from the public that emerged through public consultation were noted for consideration and inclusion;
2. **Agency consultation:** any suggestions from meetings/workshops with Rideau Canal operational staff, Province of Ontario Staff, and Parks Canada Senior Management staff were noted for consideration and inclusion;
3. the **Rideau Canal Landscape Strategy Steering Committee:** any suggestions from the Steering Committee that emerged during the course of this project were noted for consideration and inclusion;
4. the **Planners Working Group:** any suggestions from this advisory group were noted for consideration and inclusion; and,
5. the consulting team's own experience, knowledge of approaches from other jurisdictions, and research into planning/management approaches.

To help organize the planning and management approaches, they have been structured into activity groups that help give an understanding of the potential complexity or simplicity of the approaches. The activity groups for the planning and management recommendations, from most complex to least complex, are:

1. **Regulatory and quasi-regulatory:** these approaches typically require some degree of professional study and analysis, a statutory process before they can take effect, and potentially substantial time and financial resources before they can have an influence; however, these are also some of the most powerful tools for planning and management in the Corridor;
2. **Community-based:** these approaches are based on partnerships and interested groups at the local level working together, typically influenced by one organization as a catalyst or sponsor, with varying levels of time and financial resources needed by the partners; the degree of influence varies with the level of interest, resources, and breadth of the partnership;
3. **Operational:** these approaches are based on integrating new activities that become part of the regular business of the organization or agency that can ultimately help benefit the sustainability of the Corridor; operational change can happen quickly or take time, and the effects may be immediate or felt over the long-term, but since they are usually internal to the organization then the approach can be implemented quickly if there is willingness within the organization for change; and,
4. **Communication:** these approaches are based on maintaining a strong relationship with stakeholders to support understanding of the Canal and Corridor's challenges and raise awareness of activities to preserve / enhance the corridor; in doing so, a strong foundation exists for current and future generations of Canadians to become stewards of the Canal and Corridor; most communication activities can happen relatively quickly (as compared to regulatory change), however the degree of influence from communication approaches varies greatly with the medium and audience.



The planning and management approaches have varying degrees of effectiveness for managing the Corridor’s landscape and the appropriateness of these relative to the sensitivity of the Corridor’s landscape (see section 2.5.5 of this report for details on landscape sensitivity) is described below.

Rideau Corridor Landscape Strategy

Effectiveness and Appropriateness of Planning and Management Approaches


Planning and Management Approach / Effectiveness of Approach	Appropriateness for Units with High Landscape Sensitivity	Appropriateness for Units with Medium Landscape Sensitivity	Appropriateness for Units with Low Landscape Sensitivity
Regulatory and quasi-regulatory Very effective – regulations create a system with potentially strong control over any landscape change	Very appropriate: regulation addresses core issues	Very appropriate: regulation addresses core issues	Possibly appropriate: has the risk of over-regulation
Community-based Effective – activism and stewardship can have a positive effect on protecting and enhancing landscapes, but has a varying effect on influencing development decisions	Appropriate: engages stakeholder support that can influence decision-makers	Appropriate: engages stakeholder support that can influence decision-makers	Appropriate: engages stakeholder support that can influence decision-makers
Operational Effective – sustainable financing, management of infrastructure, and programming helps maintain specific components of the landscape with a varying effect on the broader landscape	Appropriate: contributes to maintenance of key landscape elements	Appropriate: contributes to maintenance of key landscape elements	Possibly appropriate: spare operational resources can be dedicated when justified
Communication Somewhat effective – the effectiveness of outreach and education varies significantly with the design of the communication program, intended audience, and core landscape issue(s)	Likely only appropriate as support to other approaches	Likely only appropriate as support to other approaches	Appropriate: can result in positive change over the long-term

4.3 The Menu of Approaches

The planning and management approaches are presented below as a menu of activities that various stakeholders can consider implementing at any time in the future. By treating the planning and management approaches as a menu of options, then individual stakeholders can consider the extent of their influence, range of resources, and potential synergies with existing projects or partners, and take action.



4.3.1 Regulatory and Quasi-Regulatory

- **New legislation:** federal or provincial government bodies could pass new enabling legislation to facilitate an agency or ministry to exercise greater control or influence decisions in the Corridor's viewshed (e.g., the Niagara Escarpment Planning and Development Act in Ontario ensures that only development compatible with that natural environment occurs);
 - **Area-specific studies and strategies:** since this study is regional in scale, a wide range of interests could undertake their own studies to examine localized issues and develop strategies to conserve and improve the qualities in the Corridor (for example, a municipality could undertake the viewshed analysis and define the viewshed with a greater degree of accuracy than a regional viewshed analysis)
 - **Regulations governing Canal use:** the federal government could issue new regulations governing the use of the Canal to address specific issues (a recent example is a regulation for no wakes to help reduce erosion impacts);
 - **Permitting of in-water works:** Parks Canada can expand its permitting role to exercise greater control over in-water works that influence the Corridor landscape character;
 - **Policies:** a wide range of interests can establish new policy to address issues, encourage rehabilitation, and support continued partnership
- 
- **Integrated Community Sustainability Plans:** a requirement in Canada for municipalities to receive federal funding from gas tax revenue, an integrated community sustainability plan (ICSP) establishes priorities and focuses action, and a municipal ICSP could prioritize actions that a municipality might take to support the Corridor;
 - **Official Plans, master plans, secondary plans:** through the Planning Act of Ontario, municipalities are empowered to establish policy through plans adopted by Council and this adoption could give official status to an area-specific study or strategy, or the adoption could incorporate certain recommendations of this project as official municipal policy;
 - **Community Improvement Plans (CIP):** through the Planning Act of Ontario, municipalities are enabled to offer financial incentives for development, redevelopment, or rehabilitation that would maintain or enhance the Corridor's landscape character
 - **Guidelines – built/cultural heritage:** any level of government could establish guidelines for the management of built/cultural heritage in the Corridor and viewshed to preserve, rehabilitate, and/or enhance heritage assets, including buildings and landscapes, that contribute to the Corridor's landscape character;
 - **Guidelines – environmental:** any level of government could establish guidelines for the natural environment management in the Corridor and viewshed to avoid environmental degradation over the long-term through incremental change / development;
 - **Guidelines – building and site design:** any level of government could establish guidelines for future development of residential and non-residential buildings and sites that address on architectural expression, building locations relative to the Canal / Corridor / viewshed, landscaping, lighting, etc.

- **Guidelines – visual impact assessment:** any level of government could establish guidelines for a visual impact assessment to ensure that a thorough analysis is undertaken and issues are fully addressed when significant development occurs in the Corridor that might negatively impact the landscape character
- **Zoning by-laws:** through the Planning Act of Ontario, municipalities could create a separate class or classes of zoning categories in their zoning by-laws that regulate lot size, building coverage, building height, and setbacks / yards to influence the scale of future development within the Corridor’s viewshed
- **Severance restrictions:** through the Planning Act of Ontario, municipalities can adopt policy and zoning regulations that reduce the number of severances for properties fronting the Canal, thereby controlling the density of development and degree of landscape character change over the long-term⁸
- **Other by-laws (e.g., tree conservation):** through the Municipal Act of Ontario, a municipality could establish by-law prohibiting, restricting, controlling, or licensing an activity within its jurisdiction (for example, a tree conservation by-law to control the removal of trees and preserve the experience of the corridor where the viewshed is influenced by large, dense woodlots)
- **Site Plan Control – single detached residential:** through the Planning Act of Ontario, a municipality could require that new single-detached residential⁹ development fronting the canal or in the Corridor’s viewshed be subject to site plan control to introduce additional municipal oversight and Parks Canada liaison in the design and layout of the development before it is approved
- **Development Permit System:** through the Planning Act of Ontario, a municipality could create a Development Permit System that applies to development fronting the canal or in the Corridor’s viewshed that would effectively manage development while consolidating and streamlining the separate approaches described for zoning, design guidelines, and site plan control into one comprehensive system (a system of this kind to a limited extent is currently in place for the Township of Lake of Bays for shoreline protection);
- **Heritage conservation districts:** through the Heritage Act, a municipality could establish a heritage conservation district for an area of significant heritage in the Corridor’s viewshed to preserve the heritage assets that contribute to the Corridor’s landscape character, with the Province potentially being a partner in supporting a program for this across the Corridor;
- **Designation/listing of built heritage:** through the Heritage Act, a municipality could designate specific, significant heritage buildings in the Corridor’s viewshed to preserve these assets that contribute to the Corridor’s landscape character, with the Province potentially being a partner in supporting a program for this across the Corridor; and,



⁸ Lot creation by severance of rural lands is the key issue; however, the policy and zoning could extend to apply to subdivisions, as well

⁹ It is customary that multiple residential development and all non-residential development be subject to site plan control in Ontario.



- **Moratorium on specific matters:** any level of government or agency could establish a moratorium within its jurisdiction that stops certain negative activity for the short-term or long-term to help manage issues within the Corridor's landscape (in a municipality this would be enacted through an interim control by-law for the short-term).

4.3.2 Community-Based

Multi-Stakeholder Steering Committee: the existing Rideau Corridor Landscape Strategy Steering Committee could continue in the future and be supported through on-going partnership resources

Tourism destination marketing: marketing of the Rideau Canal as a tourism destination through a community-based partnership could continue indefinitely in the future with specific themes of marketing (recreation, culture / heritage, boating, etc.) revolving geographically and over different years

Regional tourism branding program: a specific identity, logo, or signage common to those businesses that thrive upon and support the Canal and Corridor could help encourage economic development synergies across the Corridor's extensive length

Event programming: purposefully locating and conducting events led/hosted by community-based organizations in the Corridor would strengthen the inherent relationship with the Corridor, the immediate community, and out-of-town event goers, leading to increased appreciation of the Corridor's landscape value;

Stewardship initiatives – environmental interests: community-based stakeholders with an environmental mandate could help implement a wide variety of initiatives that would contribute to protection and enhancement of the natural environment in the corridor (activities might include tree planting, shoreline clean-up, habitat restoration, landscape enhancement, etc.)

Stewardship initiatives – agricultural interests: community-based stakeholders in the agricultural sector could help implement initiatives that minimize the negative impacts of certain agricultural activities to the corridor (initiatives might include nutrient management, setback of livestock from the riparian zone, improved storage or use of chemicals, etc.)

Stewardship initiatives – heritage interests: community-based stakeholders with a built/cultural heritage mandate could help implement initiatives that strengthen the heritage aspects of the Corridor (initiatives might include building restoration projects, historic interpretation projects, heritage-themed events, etc.)

Youth engagement: specific youth-oriented activities that are incorporated into any of the governmental or non-governmental approaches would help ensure that future generations of Canadians are contributing as leaders and supporters of the Corridor's landscape character's sustainability.

4.3.3 Operational

- **Sustainable funding mechanisms:** Parks Canada could implement a system of fees and or levies to offset its significant costs in managing the corridor (the focus is on offsetting costs related to addressing development issues) whereas other interests could make funding commitments to various projects and programs that support the Corridor;
- **Financial incentive programs (non-CIP):** agencies other than municipal government could offer financial incentive programs to encourage certain development, stewardship, and/or rehabilitation that would positively impact the Corridor's landscape
- **Local infrastructure asset management:** local government that is responsible for any infrastructure that accesses, serves as viewpoints, is near to, or crosses the Corridor could prioritize this infrastructure in their asset management so that this infrastructure continues to support the Canal and Corridor and also to ensure that the

infrastructure does not degrade to a point where the quality of the experience in the Corridor is negatively impacted;

- **Event programming:** purposefully locating and conducting events led/hosted by government in the Corridor would strengthen the inherent relationship with the Corridor, the immediate community, and out-of-town event goers, leading to increased appreciation of the Corridor’s landscape value;
- **GIS database / information management:** with centralizing information such as permitting, land title restrictions, etc., by building upon the geodatabase compiled for the Landscape Character Assessment will help strengthen Parks Canada’s ability to document, monitor, measure, manage, and ensure the sustainability of the Corridor’s landscape character

4.3.4 Communication

- **Educational programs:** all stakeholders can lead and/or partner to develop and deliver educational programs in the different communities of interest within the Corridor, with education campaigns using any combination of print, radio, television, or internet medium, as well as seminars, workshops and training sessions about key issues in the Corridor;
- **Declaration of “Rideau Corridor Landscape Day”:** stakeholders could choose a specific day or days of the year to be recognized “Rideau Corridor Landscape Day” by all the interests which could serve as a catalyst to further partnership, focus event programming or rehabilitation efforts, and promote economic development within the Corridor;



- **Partnership recognition program:** to spur the interest of stakeholders and partners to assist with implementing planning and management approaches, a recognition program by stakeholders that formally acknowledges when one of them has taken an initiative (e.g., a framed certificate of appreciation is presented to a community group for a major shoreline revitalization) could be established and continued into the future;
- **Flickr photo database:** initiated for this project, Parks Canada can continue promoting the participation of Canadians in sharing photos of the Canal and Corridor through the Flickr website with on-going annual outreach, communication, social networking, and possibly an annual contest;
- **Indicators, benchmarking, and “Report Card”:** various agencies could establish a monitoring framework for the Corridor’s landscape by developing indicators relevant to their interest or jurisdiction, benchmarking current conditions and monitoring change, and reporting on how well the landscape is being managed through a “Report Card” issued at regular intervals
- **Bulletins / newsletters:** Parks Canada, Conservation Authorities and municipalities issue bulletins of many kinds should continue doing so, especially to support the implementation of major future landscape management approaches for the Canal and Corridor; and,
- **Website:** a project specific website was created for the Landscape Character Assessment / Visual Preference Survey and Parks Canada already has its corporate website with information about the Rideau Corridor Landscape Strategy, and the corporate or both websites should be kept up to date with information about



initiatives and successes in managing the Corridor’s landscape; community-based websites are encouraged to link to the official website.

It is anticipated that the important role that the Rideau Corridor Landscape Strategy Steering Committee plays in disseminating information, being a forum for knowledge-sharing, and resolving issues will continue. The Steering Committee’s continued existence is also expected to help coordinate effort that contributes to the sustainability of the Corridor’s landscape.

The planning and management approaches menu is presented in a chart below that illustrates which stakeholder or stakeholders can help implement the approach. While First Nations are active members of the Strategy’s Steering Committee, they are not identified as a lead implementer in the chart below. Discussions are ongoing as to how Aboriginal peoples may wish to share their values and connection to the Rideau Corridor through this initiative.

Rideau Corridor Landscape Strategy

Menu of Planning & Management Approaches

	Federal	Provincial	Conservation Authority	Municipal	Community
Regulatory and quasi-regulatory					
New legislation	✓	✓			
Area-specific studies and strategies	✓	✓	✓	✓	✓
Regulations governing Canal use	✓				
Permitting of in-water works	✓				
Policies	✓	✓	✓		✓
Integrated Community Sustainability Plans				✓	
Official Plans, master plans, secondary plans				✓	
Community Improvement Plans (CIP)				✓	
Guidelines – built/cultural heritage	✓	✓		✓	
Guidelines – environmental	✓	✓	✓	✓	
Guidelines – building and site design	✓			✓	
Guidelines – visual impact assessment	✓			✓	
Zoning by-laws				✓	

Rideau Corridor Landscape Strategy

Menu of Planning & Management Approaches

	Federal	Provincial	Conservation Authority	Municipal	Community
Other by-laws (e.g., tree conservation, site alteration)				✓	
Development Permit System				✓	
Site Plan Control – single detached residential				✓	
Heritage conservation districts				✓	
Designation/listing of built heritage				✓	
Moratorium on specific matters	✓	✓	✓	✓	
Community-based					
Multi-Stakeholder Steering Committee	✓	✓	✓	✓	✓
Tourism destination marketing	✓	✓		✓	✓
Regional tourism branding program	✓	✓		✓	✓
Event programming	✓			✓	✓
Stewardship initiatives – environmental interests	✓		✓	✓	✓
Stewardship initiatives – agricultural interests	✓		✓	✓	✓
Stewardship initiatives – heritage interests				✓	✓
Youth engagement	✓		✓	✓	✓
Operational					
Sustainable funding mechanisms	✓	✓	✓	✓	✓
Financial incentive programs (non-CIP)	✓		✓	✓	
Local infrastructure asset management		✓		✓	
Event programming	✓		✓	✓	
GIS database / information management	✓		✓	✓	
Communication					



Rideau Corridor Landscape Strategy

Menu of Planning & Management Approaches

	Federal	Provincial	Conservation Authority	Municipal	Community
Educational programs	✓	✓	✓	✓	✓
Declaration of “Rideau Corridor Landscape Day”	✓		✓	✓	
Partnership recognition program	✓		✓	✓	
Flickr photo database	✓				
Indicators, benchmarking, and “Report Card”	✓				
Bulletins / newsletters	✓		✓	✓	
Website	✓				✓

4.4 Current Issues and Priorities for Action

The menu of planning and management approaches may be a flexible approach for the multi-jurisdictional interests in the Corridor but there are well-known and well-documented issues impacting the Corridor's sustainability. These issues were raised during the Landscape Character Assessment and were subsequently tested during the Visual Preference Survey. The key issues that were confirmed from the Visual Preference Survey were:

- Land use with negative visual impacts (limited screening, stark contrast) from the canal;
- Limited riparian vegetation along the shoreline or destruction of vegetation;
- Evidence of erosion; and,
- Close proximity of development to the shoreline.

It is common in Canada to use a “carrot and stick” (the “carrot” representing an incentive and the “stick” representing control) philosophy to manage issues that is also coupled with engagement to strengthen relationships. This same philosophy has been used to assess the planning and management approaches from the menu and formulate a priority short-list of planning and management recommendations. It is also important to build a strategy with approaches that can mitigate existing issues in the Corridor and approaches that can minimize or eliminate the issues arising from new development. An effective strategy also needs to include a combination of regulatory and quasi-regulatory, community-based, operational, and communication approaches to planning and management for the Corridor, and be mindful of those approaches better suited to different landscape sensitivities (see section 2.5.5 for discussion); however, it should be noted that all of the approaches are generally appropriate, with a few exceptions as noted in section 4.2. Furthermore, since there are on-going issues that need to be addressed immediately, the swiftness of implementation of an approach is important.

Having regard for the factors described above, a subset of approaches from the full menu have been identified as priority approaches that support the first five years of a strategy. The rationale for the priority approaches and their selection is identified in the table¹⁰ on Page 49. The table of priorities is a good mix of planning and management approaches that address the wide range of challenges facing

Specific Approaches for the Ecological Landscape

The ecosystem of the Corridor's landscape plays a fundamental role in defining its character. Maintaining the health of the natural heritage system is vital to maintaining the ecological integrity and character of the Rideau Canal landscape. Some specific approaches are discussed for sustaining the Corridor's ecological landscape.

Water Quality

The water quality of the Rideau Canal and associated lakes is important to the recreational, ecological, and social health of the system. Perhaps the most significant environmental threats to water quality within the Rideau watershed is lake eutrophication (blooms of dangerous algae). Specific approaches include:

- Municipal by-laws aimed at limiting excessive nitrogen and phosphorous fertilizer usage on agricultural land;
- Municipal by-laws to prohibit the use of phosphorus fertilizer on lawns adjacent to the Canal;
- Municipal by-laws that require zero or low phosphorus in cleaning supplies (laundry detergent, dish soap, etc.) especially in residential and cottage properties with septic systems;
- Municipal by-laws to ensure appropriate riparian buffers are maintained/restored, including setback of septic systems from the shoreline;
- Municipal by-laws to protect headwater streams from development pressures; and,
- Annual or bi-annual septic systems inspections for all Canal-front properties.

Invasive Species

The proliferation of invasive species within the Rideau watershed is a significant problem for the native species which define the natural heritage of the area and contribute to the character of the corridor. These species (e.g., giant hogweed) typically out-compete native species and take over the niche that native species once occupied. Specific

¹⁰ It should be recognized that if there is the opportunity for a stakeholder or agency to implement an approach even though it has not been identified as a priority, then that stakeholder or agency is encouraged to do so.



the Corridor and its landscape.

With respect to the table of priorities, the Development Permit System was prioritized over zoning because it is a more rigorous framework for land use control. Design guidelines for building and site design have been recommended as a priority and they are acceptable as a standalone approach; however, when incorporated into a Development Permit System, the guidelines become stronger as regulation. As noted earlier, a Development Permit System regarding shorelines already exists in the Township of Lake of Bays to a limited extent and so there is an established precedent that can be adapted by the municipalities in the Corridor. It should be noted that if a municipality wished to implement zoning changes rather than a Development Permit System, that approach would be encouraged. It should be noted that an amendment to the municipality's Official Plan may be needed to enable its Development Permit System powers under the Ontario Planning Act.

Funding mechanisms such as levies and fees are a reality for all governments and Parks Canada like many agencies is facing a period of financial challenges. Currently a small fee is charged by the Conservation Authority on behalf of Parks Canada during development review but the level of cost recovery (fees collected versus Parks Canada staff effort) is low.

There are established precedents across Canada for full cost-recovery of government staff effort for development-related activities and Parks Canada needs to move to this model. By doing so, its costs are offset for staff involved in development review, and it can then make resources available to advance other initiatives that support the sustainability of the Canal and Corridor's landscape.



approaches include:

- Design guidelines discouraging the use of invasive species in gardens or ornamental plantings;
- Ornamental tree and shrub planting programs that only use native trees and shrubs.; and,
- Community-based efforts to actively identify and remove invasive species where resources allow.

Tree Protection

While much of the Canal bisects rural areas, the majority of it bisects forested lands. Negative development impacts to woodlands need to be avoided. Specific approaches include:

- Municipal tree conservation by-law;
- Benchmark forest cover and use community-based effort to maintain existing levels of forest cover and restore lost forest cover through replanting;
- Requirements for sustainable forestry practices such as selective harvesting, shelterwood harvesting, and non-mechanized harvesting; and,
- Community-based effort in ecological restoration of valuable, non-forest areas.

Further Ecological Stewardship

Community-based organizations are already playing an active role in stewardship of the watershed. These organizations include hunting and fishing clubs, cottage associations, youth and religious organizations, non-government organizations, etc. Specific approaches for furthering stewardship include:

- Local sports fishing and cottage associations should be encouraged to take up a leadership role in education and the management of invasive aquatic species;
- Educational signage should be posted at all public boat launches and dedicated boat cleaning stations could also be considered;
- Public education on key topics such as: vegetation removal, invasive species, Species at Risk, tree conservation, etc.

Lastly, the partnership recognition program was prioritized because no such program already exists and a program of this kind is important to encourage stakeholders to implement local approaches, especially if new empowering legislation is unlikely in the foreseeable future. The recognition program fosters leadership and collaboration, instills community pride, and strengthens the partnership, which are important foundations for the multi-jurisdictional relationship to prosper. The recognition program also introduces a sense of competition among the partners by encouraging those who have only implemented a few approaches to do more so that they can be recognized to the same degree as their peers.

Rideau Corridor Landscape Strategy

Priority Planning & Management Approaches

	Issues addressed	Incentive, control or engagement	Mitigate existing issues or minimize new issues	Landscape sensitivity	Timeframe for operationalizing
Regulatory and quasi-regulatory					
Regulations governing Canal use	Negative visual impacts, shoreline impacts, erosion, proximity of development	Control	Minimize new issues	High, Medium	3 to 5 years
Permitting of in-water works	Permitting, negative visual impacts, shoreline impacts, erosion, proximity of development	Control	Minimize new issues	High, Medium	1 to 2 years
Guidelines – building and site design	Negative visual impacts, shoreline impacts, erosion, proximity of development	Control	Minimize new issues	High, Medium	2 to 3 years
Guidelines – visual impact assessment	Negative visual impacts	Control	Minimize new issues	High, Medium	2 to 3 years
Other by-laws than zoning (e.g., tree conservation, site alteration)	Negative visual impacts, shoreline impacts, erosion, proximity of development	Control	Minimize new issues	High, Medium	1 to 2 years



Rideau Corridor Landscape Strategy

Priority Planning & Management Approaches

	Issues addressed	Incentive, control or engagement	Mitigate existing issues or minimize new issues	Landscape sensitivity	Timeframe for operationalizing
Development Permit System	Negative visual impacts, shoreline impacts, erosion, proximity of development	Control	Minimize new issues	High, Medium	2 to 3 years
Community-based					
Stewardship initiatives – environmental interests	Shoreline impacts, erosion	Engagement	Mitigate and minimize	All	1 to 2 years
Stewardship initiatives – agricultural interests	Shoreline impacts, erosion	Engagement	Mitigate and minimize	All	1 to 2 years
Communication					
Partnership recognition program	Is needed to complement / support the above approaches	Incentive, engagement	Mitigate and minimize	All	1 year

The Five Year Implementation Plan

To further support the Rideau Corridor Landscape Strategy's implementation of the priority approaches, an implementation plan has been developed. This plan illustrates the priority approaches, lead agencies, and timeframe. Although the Province of Ontario is not identified as a lead agency for any priorities, it is expected to maintain a role as a partner and an enabler. The implementation plan assumes a start date of 2014 as the budgets of the Strategy members may already be established for 2013.

Recommended Activities for the Steering Committee in 2013

During 2013, the following activities are recommended for the Steering Committee to effectively prepare for implementation for the following years:

- Consider the existing planning/management tools (refer to **Appendix C**) and agree on the opportunities to extend these tools to other interested jurisdictions for the highly sensitive landscapes (see section 2.5.5) where change is occurring; and,

- Identify common interests based on jurisdictions that have similar landscape character units and similar priority issues, and agree to work together to advance specific initiatives (e.g., three neighbouring municipalities with N5 Forested Lowland subject to extensive cottage development agree to develop design guidelines for cottages).

Rideau Corridor Landscape Strategy

5-Year Implementation Plan

	Lead Agency	2014	2015	2016	2017	2018
Leadership and Oversight						
RCLS Steering Committee	Parks Canada			continues forward from 2012		
Regulatory and quasi-regulatory						
Regulations governing Canal use	Parks Canada					
Permitting of in-water works	Parks Canada					
Guidelines – building / site design	Parks Canada; Municipality					
Guidelines – visual impact	Parks Canada; Municipality					
Other by-laws than zoning	Municipality					
Development Permit System	Municipality					
Community-based						
Stewardship – environmental	Parks Canada; C.A.; Municipality					
Stewardship – agricultural	Parks Canada; C.A.; Municipality					
Communication						
Partnership recognition program	RCLS Steering Committee					

Legend: Project/study undertaken Project/study complete and operationalized



5. CONCLUSION

The Rideau Canal Landscape Strategy's Landscape Character Assessment and Planning and Management Recommendations project has resulted in these following key achievements:

- Regional-scale definitions of the Corridor's landscape character areas and units;
- Regional-scale delineation of the Corridor's viewshed;
- An understanding of the many stakeholder interests in the Corridor's landscape;
- An understanding of the many issues facing the sustainability of the Corridor's landscape character;
- Testing of particular assertions regarding the public preference of particular landscape characteristics through a Visual Preference Survey;
- Identification of the planning and management approaches for sustaining the Corridor's landscape character and the potential stakeholders that could be involved;
- Prioritization of planning and management approaches; and,
- An implementation plan to help guide action.



The strong foundation of analysis, planning approaches, priority-setting and an implementation plan will help guide the collaborative efforts of the multiple jurisdictions along the waterway to address the World Heritage Committee's recommendation for the protection of the canal's visual values. In addition, providing meaningful water and land based opportunities for visitors is a key part of connecting Canadians to their natural and cultural heritage places and is essential to the sustainability of vibrant local economies. This report is a tool that will assist in evaluating future business, planning and development opportunities along the corridor and will help ensure a memorable visitor experience of this world heritage site for present and future generations.