

NIAGARA RIVER GREENWAY PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT



NIAGARA RIVER GREENWAY COMMISSION

APRIL 4, 2007



**FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT (FGEIS)
COVER SHEET**

Title of Action: Adoption and implementation of the Niagara River Greenway Plan

Location: Niagara and Erie Counties, New York State

Lead Agency: New York State Office of Parks, Recreation and Historic Preservation

Contact persons:

For information on the plan and planning process: Rob Belue (716) 773-5361
Rob.belue@oprhp.state.ny.us

For comments on Plan and GEIS: Tom Lyons, Director Environmental Management
NYS OPRHP
Agency Bldg. 1, 17th floor
Empire State Plaza
Albany, NY 12238
(518) 474-0409
Thomas.Lyons@oprhp.state.ny.us

Prepared by: Wendel Duchscherer
Ecology and Environment
The HOK Planning Group
Advanced Design Group
Synegraphics
Niagara River Greenway Commission

Date of acceptance by Lead Agency: April 4, 2007

Consideration Period ends: May 3, 2007



New York State Office of Parks, Recreation and Historic Preservation
The Governor Nelson A. Rockefeller Empire State Plaza
Agency Building 1, Albany, New York 12238

518-474-0456

Human Resources
518-474-0453

Fiscal Management
518-474-0061

TDD: 518-486-1899

SEQR NOTICE OF COMPLETION OF A FINAL EIS

Date of Notice: April 4, 2007

Lead Agency: New York State Office of Parks, Recreation and Historic Preservation (OPRHP)

SEQR Status: Type I

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State environmental Quality Review) of the environmental Conservation Law. A Final Generic Impact Statement (FGEIS) on the proposed action described below has been prepared and has been accepted by OPRHP.

Title of Action: Adoption and Implementation of the Niagara River Greenway Plan

Location of Action: The Niagara River Greenway is located in towns and municipalities in Niagara and Erie Counties bordering the Niagara River.

Description of Action: The action involves adoption and implementation of the Niagara River Greenway Plan (Plan). The Plan establishes a unified vision and a set of principles for the Niagara River Greenway. It identifies the assets and resources that make up the Greenway. It sets priorities that suggest the types of activities to target in the near term. It identifies potential funding sources, partnerships and linkages, and addresses key transportation issues that affect the Greenway. The Plan also discusses several high priority "Implementation Concepts" which describe system-wide approaches and strategies for Greenway development.

Availability of FEIS: Copies of the Final Plan/FGEIS are available for review at the following locations: Niagara Greenway Commission Office at Beaver Island State Park, Grand Island, Grand Island Memorial Library, 1715 Bedell Rd., Grand Island; City of Tonawanda Public Library, 333 Main Street, Tonawanda; Kenilworth Library, 318 Montrose Avenue, Buffalo; Earl W. Brydges Library, 1425 Main Street, Niagara Falls; Niagara Falls Public Library-Lasalle Branch, 8728 Buffalo Ave., Niagara Falls; Lewiston Public Library, 305 S. Eighth St., Lewiston; North Tonawanda Public Library, 505 Meadow Drive, North Tonawanda; Ransomville Free Library, 3733 Ransomville Road, Ransomville; Wilson Free Library, 265 Young Street, Wilson; Youngstown Free Library, 240 Lockport Road, Youngstown; Buffalo and Erie County Public Library, 1 Lafayette Square, Buffalo; Kenmore Library, 160 Delaware Road, Kenmore; and online at: <http://www.niagaragreenway.org>

Agency representatives and the public can provide comments during the consideration period for the Final Plan/FEIS. The consideration period ends 30 days following the date of this Notice of Completion. Comments on the Final Plan/FEIS will be accepted by the Agency until May 3, 2007. Comments should be forwarded to the Agency Contact person.

Agency Contact: Thomas B. Lyons, Director
Environmental Management Bureau
NYS OPRHP
Agency Bldg. 1, Empire State Plaza
Albany, NY 12238
Phone: (518)474-0409
Fax: (518) 474-7013
Thomas.Lyons@oprhp.state.ny.us

Copies of this notice have been filed with involved and interested agencies and persons including: the commissioner of NYS OPRHP, NYS Department of Environmental Conservation, NYS Department of State, Municipalities within the Greenway and Greenway Commission Members.

Table of Contents

▪	EXECUTIVE SUMMARY	
1.0	INTRODUCTION	1
	A. Purpose of the Niagara River Greenway Plan	2
	B. What is a Greenway?.....	4
	C. Niagara River Greenway Boundary	7
2.0	INVENTORY OF GREENWAY RESOURCES	9
	A. Existing Parks and Public Lands	9
	B. Ecological Resources.....	13
	C. Heritage Sites.....	13
	D. Additional Lands that Contribute to the Greenway	14
	E. Existing Plans and Plans Under Development	16
3.0	VISION AND PRINCIPLES	19
	A. A Vision for the Niagara River Greenway	19
	B. Overview of Public Participation Efforts	21
	C. Principles for Niagara River Greenway.....	21
	D. Greenway Goals	23
4.0	RECOMMENDATIONS / ACTION PLAN	27
	A. Criteria.....	27
	B. Funding Sources	35
	C. Operations and Maintenance	36
	D. Key Partnerships/ Organizational Framework	41
	E. Linkages	44
	F. Transportation Issues.....	45
	G. Greenway Implementation Concepts.....	49
	1. Gateway Identification	50
	2. Accessing, Experiencing and Connecting to the River	53
	3. Protecting, Preserving and Restoring Important Ecological Resources	86
	4. Linking Special Places and Destinations- “Telling the Story”.....	92
	5. Heritage Tourism and Economic Revitalization	99
	H. Capturing the Vision.....	101
5.0	MUNICIPAL AND STAKEHOLDER INPUT	103
	A. Municipal Projects.....	103
	B. Stakeholder Projects	103
	C. Indian Nation Projects	104

Table of Contents

6.0	FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT	105
A.	Purpose and Need	105
B.	Description of Proposed Action	105
C.	Alternatives	106
D.	Environmental Setting and Impacts.....	106
E.	Cumulative Impacts.....	143
F.	Irreversible and Irrecoverable Commitment of Resources	143
G.	Unavoidable Adverse Effects	143
H.	Effects on the Use and Conservation of Energy.....	144
I.	Growth Inducing Aspects of the Proposed Action	144
J.	Future Environmental Reviews	145
7.0	COMMENTS AND RESPONSES	147
A.	Summary of Changes to the Plan and GEIS.....	147
B.	Comments and Responses	150

LIST OF TABLES

Table 1	Greenway Land Use.....	107
Table 2	Municipalities with Approved Local Waterfront Revitalization Programs	110
Table 3	Area Demographics.....	112
Table 4	Total Revenues by Municipality by Major Revenue Sources, 2004.....	114
Table 5	Total Expenditures by Municipality by Major Expenditure Recipient, 2004	115
Table 6	Total Industry Employment and Income for Buffalo-Niagara Falls MSA	116
Table 7	NYSDEC Brownfield Programs	118
Table 8	Greenway State Parks and Public Lands.....	119
Table 9	Sensitive Bird Areas along the Niagara River Corridor.....	136
Table 10	Persons/ Organizations Providing Comment	159

LIST OF FIGURES:

	Follows Page:
Figure 1: Niagara River Greenway Boundary	8
Figure 2: State, County and Local Parks	14
Figure 3: Trailways and Byways	14
Figure 4: Water Access.....	14
Figure 5: Water Features and Wetlands.....	14
Figure 6: Significant Coastal Fish and Wildlife Habitat Areas	14
Figure 7: Heritage.....	14
Figure 8: Focus Area	32
Figure 9: Organizational Framework.....	44
Figure 10: Transportation Opportunities	48
Figure 11: Lake-to-Lake Gateways	52
Figure 12: Destination Gateways	52
Figure 13: Transition Gateways	52
Figure 14: Aquatic Gateways	52
Figure 15: Gateways Network.....	52

Table of Contents

LIST OF FIGURES (con't.):

Figure 16:	Multi-Use Trails.....	54
Figure 17:	Implementation Concept – Buffalo to Black Rock Channel Area.....	54
Figure 18:	Implementation Concept – West River Parkway.....	60
Figure 19:	Implementation Concept – Grand Island Boulevard.....	66
Figure 20:	Implementation Concept – Devils Hole and Power Plant Area.....	70
Figure 21:	Implementation Concept – Lower River Area.....	78
Figure 22:	Telling the Story.....	94
Figure 23:	Interpretive Signage.....	94
Figure 24:	Wayfinding Flow Chart.....	96
Figure 25:	System Approach to Signage Design.....	96
Figure 26:	Urban Hubs.....	100
Figure 27:	Heritage and Cultural Centers.....	100
Figure 28:	Ecological Center.....	100
Figure 29:	Interpretive Center Network.....	100
Figure 30:	Riverfront Preservation and Restoration.....	100
Figure 31:	Implementation Concepts.....	102
Figure 32:	Capturing the Greenway Vision.....	102
Figure 33:	Municipal Projects Overall Maps.....	104
Figure 34:	Municipal Projects City of Buffalo.....	104
Figure 35:	Municipal Projects Town of Tonawanda.....	104
Figure 36:	Municipal Projects City of Tonawanda.....	104
Figure 37:	Municipal Projects Town of Grand Island.....	104
Figure 38:	Municipal Projects City of North Tonawanda.....	104
Figure 39:	Municipal Projects Town of Wheatfield.....	104
Figure 40:	Municipal Projects Town of Cambria.....	104
Figure 41:	Municipal Projects Niagara Falls and Town of Niagara.....	104
Figure 42:	Municipal Projects Town of Lewiston and Village of Lewiston.....	104
Figure 43:	Municipal Projects Porter, Youngstown, and Wilson.....	104
Figure 44:	Stakeholder Projects Overall Maps.....	104
Figure 45:	Stakeholder Projects City of Buffalo.....	104
Figure 46:	Stakeholder Projects Grand Island – Niagara River.....	104
Figure 47:	Stakeholder Projects City of Tonawanda.....	104
Figure 48:	Stakeholder Projects North Tonawanda, Tonawanda Creek and Ellicott Creek... 104	
Figure 49:	Stakeholder Projects Niagara Falls - Niagara River.....	104
Figure 50:	Stakeholder Projects Town and Village of Lewiston.....	104
Figure 51:	Stakeholder Projects Porter, Youngstown, and Wilson.....	104
Figure 52:	Indian Nation Project.....	104
Figure 53:	Land Use.....	108
Figure 54:	Local Waterfront Revitalization Program and Coastal Area Boundaries.....	110
Figure 55:	Brownfield Locations.....	120
Figure 56:	Community Services.....	120
Figure 57:	Educational Facilities.....	120
Figure 58:	FEMA Floodplains.....	130
Figure 59:	Hydric Soils.....	130

Table of Contents

APPENDICES

- A. Legislation establishing Niagara River Greenway Commission
- B. Public Participation Summary
- C. Summary of Niagara Power Project Relicensing Settlement Agreements
- D. Funding Sources
- E. Municipal and Stakeholder Input
- F: List of Heritage Sites
- G. Economic and Fiscal Impact Analysis for Implementation of the Niagara River Greenway Plan
- H. Bibliography

ACKNOWLEDGMENTS

The preparation of the Niagara River Greenway Plan was made possible through the efforts of:

Niagara River Greenway Commission

Robert J. Kresse, Commission Chairman, City of Buffalo, New York
Richard Soluri, Commission Vice-Chair, Village of Lewiston, New York
Paul G. Leuchner, Commission Secretary, Grand Island, New York
John Giardino, Commission Treasurer, City of Buffalo, New York
(*Chair, Plan Management Committee*)
Ronald H. Moline, Commissioner, Town of Tonawanda, New York
(*Chair, Local Government Advisory Committee*)
Paul A. Dyster, Commissioner, City of Niagara Falls, New York
(*Chair, Citizens Advisory Committee*)
Michael Cornell, Commissioner (May 2005 – December 2006), North Tonawanda, New York
Louis P. Ciminelli, Commissioner, City of Buffalo, New York
Brett M. Sommer, Commissioner, City of North Tonawanda, New York
Carol Ash, Acting Commissioner, NYS OPRHP
Designee: Dominic Jacangelo, NYS OPRHP
Carl Johnson, Acting Executive Deputy Commissioner, NYSDEC
Designee: Abby Snyder, NYSDEC Regional Director, Region 9
Lorraine A. Cortés-Vázquez, New York State Secretary of State
Designee: Matthew Andrus, Deputy Secretary of State
Astrid C. Glynn, Acting Commissioner, NYSDOT
Designee: Ron Hayes, NYSDOT, Office of Southern Tier and Western Region
Frank F. McCullough, Jr., Chairman, New York Power Authority
Designee: Elise M. Cusack, New York Power Authority Board of Directors
Don Gundersen, Chairman, Upstate Empire State Development Corporation
Designee: Christopher Schoepflin, USA Niagara

Special Thanks for Their Valuable Contributions:

Rob Belue, Executive Director, Niagara River Greenway Commission
Russ Biss, New York State Department of Environmental Conservation
Daniel David, New York State Department of Environmental Conservation
Al Nihill, NYSOPRHP
Renee Parsons, New York State Department of State
Edward Umiker, Town of Tonawanda, New York
Staff of the Niagara Region NYSOPRHP

Project Consultants

Wendel Duchscherer	Ecology and Environment
The HOK Planning Group	Advanced Design Group
Synegraphics	

And the Citizens and Public Officials of Erie and Niagara Counties

EXECUTIVE SUMMARY

The Niagara River Greenway is a world-class corridor of places, parks and landscapes that celebrates and interprets our unique natural, cultural, recreational, scenic and heritage resources and provides access to and connections between these important resources while giving rise to economic opportunities for the region.

This is the Vision Statement that has guided the development of the Niagara River Greenway Plan. It summarizes the intent of this document and the aspirations for the future of the Greenway.



Niagara Falls

The Vision Statement emphasizes the fact that the Niagara River Greenway has international significance. Niagara Falls is one of the most recognized places in the world. In addition to the Falls, the Niagara River corridor encompasses a variety of world-class features, both natural and man-made.

The Vision Statement also stresses that one of the functions of the Greenway will be to celebrate and interpret this region's many assets. The Niagara River Greenway will be a way of integrating the ideas and stories that bring the Niagara River corridor to life, revealing the region's place in history and its connections to the natural and built environment.

The Vision Statement underscores the incredible diversity of assets that comprise this corridor, including natural, cultural, recreational, scenic and heritage resources. It highlights the importance of increasing access to and connections between the region's many resources through a variety of methods, including signage, "wayfinding" systems, trails, waterfront access sites, overlooks, gateways and interpretive sites, to name a few, and it expresses the optimism that the

Greenway can lead to greater prosperity for the region.

At its foundation, the Niagara River Greenway Plan is a means to create connections between the various constituents, organizations and municipalities that comprise the Niagara River Greenway. It is an initiative with broad-based support that will foster consensus. Under the umbrella of the Niagara River Greenway, these entities can advance local and regional agendas for community livability, environmental sustainability, tourism and economic revitalization.

The Niagara River Greenway Plan is the direct response to the State legislation establishing the Niagara River Greenway Commission, but the Plan is also the result of local, grassroots advocacy for the special places that make up the Niagara River Greenway. Throughout, various stakeholders, local leadership and the general public have been integral to the development of this document.

The Niagara River Greenway Plan establishes a unified vision and a set of principles for the Niagara River Greenway. It identifies assets and resources that make up the Greenway. It sets priorities that suggest the types of activities to target in the near-term. It identifies potential funding sources, partnerships and linkages, and addresses key transportation issues that affect the Greenway. The Plan also discusses several high priority "Implementation Concepts," which describe system-wide approaches and strategies for Greenway development. The report concludes with a Generic Environmental Impact Statement that evaluates the potential environmental impacts of the Niagara River Greenway Plan and a chapter listing substantive comments received along with responses to these comments. This executive summary provides a brief overview of each section.

EXECUTIVE SUMMARY

Chapter 1: Introduction

This chapter sets the context for the Niagara River Greenway planning effort and establishes the Niagara River Greenway boundary. The boundary follows municipal lines and encompasses the municipalities of Porter, Youngstown, Lewiston (Town and Village), Niagara, Niagara Falls, Wheatfield, North Tonawanda, Grand Island, Tonawanda (City and Town), Kenmore, and Buffalo. Beyond the specific boundary of the Greenway, the boundary discussion acknowledges key connections and linkages with other systems, including the Seaway Trail, the Niagara Wine Trail and the Erie Canalway. The Niagara River Greenway boundary is shown in Figure 1.



Niagara River Greenway Boundary

Chapter 2: Inventory of Greenway Resources

This Chapter provides a summary of the many resources located along the Niagara River Greenway, including parks and public lands, ecological resources, priority conservation lands and heritage sites. The chapter also includes an inventory of existing planning documents.

Chapter 3: Vision and Principles

The vision for the Niagara River Greenway, the foundation for this document, has been discussed above. The principles for the Niagara River Greenway represent the general values that will guide greenway planning toward achieving that vision. The principles promote high-quality, ecologically sensitive and sustainable activities and development. The guiding principles for the development of the Niagara River Greenway are:

- **Excellence** – Existing Greenway resources are globally significant and Greenway projects will meet world class standards.
- **Sustainability** – The Greenway will be designed to promote ecological, economic and physical sustainability for long-term viability and effectiveness.
- **Accessibility** – The Greenway will be designed to provide and increase physical and visual access to and from the waterfront and related resources for a full range of users (youth, seniors, persons with disabilities).
- **Ecological Integrity** – The Greenway will be focused on maintaining and improving the health, vitality and integrity of natural resources and wildlife habitats. Emphasis will be placed on restoring and retaining ecologically significant areas and natural landscapes, both in and over the water and upland.
- **Public Well-Being** – The Greenway will be designed to achieve and promote physical and emotional wellness through the experience that it offers to the public. Availability of both land- and water-based recreational facilities, and access to both active and passive recreational opportunities should be considered in the development of Greenway assets.

EXECUTIVE SUMMARY

- **Connectivity** – The Greenway will increase connectivity and access (trails, pathways, parks, water access), promote the continuity of open space and habitats, and provide for connections to related corridors and resources across the region, including connections at the international border with Canada.
- **Restoration** – The Greenway will be designed to encourage the restoration of ecological resources, the appropriate reuse of brownfields, and the revitalization of existing urban centers along the corridor.
- **Authenticity** – The Greenway will establish a clear sense of “place” and identity that reflects the traditional spirit and heritage of the area. Projects and activities should have a connection to the character, culture and/or history of their location.
- **Celebration** – The Greenway will be designed to celebrate local history, diversity, cultural resources, and the natural and built environments, and will seek to share this diverse tradition with local residents and visitors to the region. Projects that support education and interpretation are encouraged, as are events and activities that help build social interaction and shared experiences.
- **Partnerships** – The focus of the Greenway will revolve around cooperation and reciprocal compromise. Relationships and partnerships must be formed and strengthened to achieve coordination and integration of efforts throughout the Greenway.
- **Community Based** – Greenway planning will reflect the preferences and plans of the local communities, while respecting other stated goals and the communal vision of the Niagara River Greenway.

Building upon the principles, the planning process for the Greenway revealed a number of benchmark concepts that have been articulated as goals for the Greenway. These concepts will help guide collective actions within the region toward realization of the vision for the Greenway. As these goals are achieved, new priorities will be developed, consistent with the Vision and the Principles.



Parade in Village of Lewiston

Initial Greenway Goals are:

- **Improve Access:** provide more opportunities to enjoy the many resources of the Greenway. Methods to achieve this goal include development of gateways to welcome visitors and promote access. Also, development of multi-use trails, water-based trails, waterfront access points, scenic overlooks, and interpretive centers.
- **Make Connections:** physical connections that link destinations and communities; conceptual linkages between Greenway resources; and better connections between the Greenway and its residents and visitors. Foster greater integration of the stories, resources and features that make up the Niagara River Greenway.
- **Protect and Restore Environmental Systems:** for environmental purposes and to promote the future revitalization of the region’s economic health. Ecotourism; interpretive opportunities regarding ecological resources; habitat restoration; and reclamation of damaged areas such as brownfields.

EXECUTIVE SUMMARY

- ***Celebrate History and Heritage:*** the region’s shared history and heritage is a deeply held value. Increase opportunities for “Telling the Story” of the region. Consistent signage and wayfinding system; interpretive centers; and thematic frameworks for coordination of interpretive activities.
- ***Spark Revitalization and Renewal:*** revitalization, reinvestment and renewal in the cities and communities along the corridor through sustainable development, tourism and improved quality of life factors. Reuse of brownfields and downtown “Main Street” development. The ultimate goal is improving the natural environment, the built environment, the culture and recreational offerings along the Greenway to attract residents, visitors and investment.
- ***Promote Long-Term Sustainability:*** investments in existing resources and assets, including rehabilitation and improvement of aging facilities, to ensure their long-term viability and world-class stature.
- ***Extend Olmsted’s Legacy:*** achieving Frederick Law Olmsted’s vision of a necklace of parks and open spaces along the length of the River to build a legacy for future generations.

Chapter 4: Action Plan

Recommendations and implementation concepts for the Niagara River Greenway are provided in the Action Plan. The vision for the Niagara River Greenway will become a reality through hundreds of incremental steps and individual actions. The Action Plan established the foundation that guides collective decision-making for the Greenway, so that all stakeholders will have a sense of how their specific actions contribute to the whole.

A. Criteria: The first section of the Action Plan sets criteria for evaluating and forming

projects and activities proposed within the Greenway. Greenway Planning will reflect the efforts of the New York Power Authority to settle with various municipalities and interests in relation to a new 50-year Niagara Power Project license, and the Standing Committees will be responsible for allocating Greenway funds established under those agreements. However, the criteria in the Plan will help the Niagara River Greenway Commission determine if an action is consistent with the Plan. They can also be used to help guide project development, by providing concepts to improve project design. Projects do not need to meet all 10 criteria. The criteria are:

1. ***Consistency with Principles:*** Projects and activities should strive to be consistent with the Principles for the Greenway. (see Chapter 3). Although this determination is inherently subjective, it provides a baseline for project assessment or development.
2. ***Priority Status:*** Projects should help achieve the goals for the Greenway (see Chapter 3). The list of priorities, based on the initial goals:
 - Improved access to waterfront resources
 - Development of an integrated trail and park system
 - Restoration of the Niagara River ecosystem
 - Interpretation and education about the region’s cultural, natural and historic resources
 - Revitalization of urban centers
3. ***Focus Area:*** Projects close to the River within the municipal boundaries of the Greenway, along State designated trails and related assets should be elevated. The focus area was based on local planning documents, including Local Waterfront Revitalization Programs, adjusted to incorporate nearby assets. There will be important and valuable projects that fall outside the focus area.

EXECUTIVE SUMMARY

Projects outside the focus area should help establish strong linkages between the Greenway focus area and the surrounding area.



4. **Environmental Soundness:** All projects within the Greenway should evaluate potential impacts associated with development and take a creative approach to reduce or remove any negative impacts.
 5. **Implementable:** Project proposals should include a schedule and a realistic assessment of the expected costs associated with the project, including costs of management, operations and maintenance. There should be evidence that the public supports the project through municipal resolution, public record or correspondence. When projects are too large to accomplish in one step, they should be broken into “sub-projects,” with each sub-project having independent value and benefit.
 6. **Economic Viability:** Each project should have a realistic assessment of anticipated economic viability, including consideration of on-going operation and maintenance (O&M) costs. Projects should be encouraged to incorporate sustainability.
 7. **Local Sponsor or Partner:** Projects need a sponsor that will oversee the long-term viability of the project: continued funding needs, operations and maintenance efforts, security, oversight of management and condition and stewardship into the future. The stronger the capacity of the sponsor, the more likely the project will be successful. Joint sponsors are encouraged where feasible.
 8. **Matching Funds/ Leveraging:** It is good policy to leverage the funds to the maximum amount possible. Dedicated Greenway funds should be seen as seed money, employed as “gap” financing, used to leverage other investments or to match grants obtained from other sources.
 9. **Consideration of other Planning Efforts:** Proposals for projects should build upon the great deal of planning work that has been completed throughout the region, and take local goals, values and vision into consideration while meeting best practices and models set forth in federal, state and regional documents including advances in new technology.
 10. **Clear Benefits:** All projects should demonstrate clear benefits to the Niagara River, the Niagara River Greenway and the stated vision of the Greenway as a world-class corridor.
- B. Funding Sources:** The Action Plan, in conjunction with Appendix D, describes potential funding sources for projects and activities along the Greenway.

EXECUTIVE SUMMARY

C. Operations and Maintenance: An “order-of-magnitude” analysis is provided to measure typical recurring costs that would be expected to occur from the execution of the Implementation Concepts included in the Niagara River Greenway Plan, using actual cost data from similar projects where available. The discussion also includes a framework for measuring and evaluating the potential long-term O&M costs. Additional information about the expected economic and fiscal impacts of the implementation of the Greenway plan is included in the Generic Environmental Impact Statement (Chapter 6) and in a Technical Memo in Appendix G. The Technical memo describes the net positive economic benefits expected to result from the implementation of the Greenway Plan, including macro-economic impacts (jobs, multiplier effects), environmental benefits and quality of life improvements. Initial estimates are that the \$9 million per year over 50 years in Greenway funds through the relicensing agreement would result in 162 jobs and approximately \$13 million annually in regional income, due to multiplier impacts. Additional funds from other sources spent on the Greenway would further increase these impacts. Net fiscal implications are also discussed.

D. Key Partnerships: The Niagara River Greenway Commission is the visible manifestation of and key advocate for the Greenway. The success of the Greenway, lies in establishing effective partnerships and cooperative relationships among all the partners. The process of developing the plan has highlighted areas of broad consensus and helped develop a greater capacity to move the program forward.

One aspect of this cooperation is consultation regarding potential funding of projects. Currently, the NYPA Greenway funds represent the only *dedicated* funding available for Greenway projects, although other sources of funding are available for Greenway projects

(see Appendix D) and it is possible that additional dedicated funding could emerge. The Standing Committees established under the Relicensing Agreements determine which projects will be funded, but there is a clear requirement that projects funded through the NYPA funds are consistent with the Niagara River Greenway Plan. Project sponsors must consult with the Niagara River Greenway Commission. The Niagara River Greenway Commission can also be an important partner for project sponsors who are applying for funding through federal or state programs, private foundations or other sources. This section of the Plan also indicates how the Plan can be amended, and addresses eminent domain.

E. Linkages: There are a number of existing features and assets that intersect with the Niagara River Greenway system, serving as junction points for interconnections with upland and interior communities. These connecting features represent an opportunity for creating both physical and conceptual linkages between the Greenway and the rest of the Buffalo-Niagara region. They have the potential to draw both residents and visitors to the Niagara River corridor.



Gateway Harbor, Erie Canal

F. Transportation Issues: Ease of transportation and access is a critical factor for the Greenway. The Plan advocates creating an environment where people can circulate comfortably and enjoy all of the Greenway’s assets, activities and attractions. The plan cannot and does not advocate specific designs for the many transportation projects planned

EXECUTIVE SUMMARY

or being evaluated within the Greenway. Those projects are legally required to undergo a specific engineering, evaluation and planning process. However, proposed transportation projects should strive to be consistent with the goals and policies established in this Plan. The Plan encourages multi-modal opportunities, incorporating features for pedestrians, bicyclists and other transportation alternatives. Transportation projects within the Greenway should avoid creation of barriers between the water's edge and the neighborhoods surrounding it; they should seek to maximize access to the resources along the water's edge; and they should prioritize enjoyment of land uses over efficiency of traffic movement. Where there is overbuilt capacity, there should be a preference for returning excess pavement to another use.

G. Greenway Implementation Concepts:

Development of the Greenway is a long-term enterprise that requires building public support and forming partnerships. The Greenway Plan is a conceptual document that looks for opportunities across a broad spectrum of publicly and privately held lands, across more than a dozen municipalities and for a wide range of activities. Unpredictable changes in the economy, environment and lifestyles require a flexible plan and implementation strategy.

The Implementation Concepts illustrate certain high-priority system-wide concepts that will help promote implementation of the Niagara River Greenway. These Concepts can be summarized as Gateways; Connections; Environmental Restoration; Interpretation and Economic Revitalization.

1. Gateway Identification

Gateways are physical or spatial devices that celebrate a transition from one distinct place to another. Within the Niagara River Greenway, gateways will be developed as entrances into the Greenway and as transitions through the Greenway. The use

of gateways can also communicate particular messages, themes or attributes of the Greenway. Gateways for the Greenway include:

- ***Lake-to-Lake Gateways:*** Lakes Erie and Ontario anchor the ends of Niagara River Greenway, reinforcing its physical and symbolic definition as a *lake-to-lake* greenway.
- ***Destination Gateways:*** these gateways welcome visitors to the Niagara River Greenway. They provide an opportunity for providing directions to river and lake access points, establish a hierarchy of gateways and integrate Greenway gateways with other systems.
- ***Transition Gateways:*** transition gateways highlight passage through a cross section of the Greenway, typically over bridges, introducing large numbers of people to the beauty of the Niagara River Greenway and emphasizing the special nature of the Greenway as a location. An emphasis on international cooperation and the mutual intent to protect the natural and cultural resources of the River can occur on the international bridges.
- ***Aquatic Gateways:*** aquatic gateways have symbolic value and encourage new users. They also offer the opportunity to create places where boaters can tie up and take advantage of landside activities.



Paddlesports

2. Accessing, Experiencing and Connecting to the River

Ways to access, experience and connect to the River include scenic overlooks, water access sites, water-based trails, parks, and

EXECUTIVE SUMMARY

recreational trails. Focusing on trails, this implementation concept discusses five gaps in the existing network of trails:

- **Buffalo-Black Rock Channel Area:** multi-use trail along the Black Rock channel connecting the trail at Scajaquada Creek to the Riverwalk.
- **Niagara River Parkway (West River Parkway):** multi-use trail from South Grand Island Bridge to the Buckhorn Bike Path.
- **Grand Island Boulevard:** trail along Grand Island Boulevard from Buckhorn Bike Path to multi-use trail at the South Grand Island Bridge.
- **Devil's Hole/Power Project Area:** trail from Artpark in Lewiston to Devil's Hole
- **Lower River Rd. – Lewiston to Youngstown:** trail linking the Villages of Lewiston and Youngstown.

3. Protecting, Preserving and Restoring Important Ecological Resources

This implementation concept identifies elements of the Niagara River ecosystem that are in need of enhancement, improvement or restoration due to the current impairment of their natural functions and values. Critical areas for protection, preservation or restoration include:

- **Upland Areas:** upland areas provide important habitat that contributes to the Niagara River ecosystem. Types of projects include protection, restoration and acquisition of unique woodlands or old growth forested areas, important bird nesting or feeding areas, unique wildlife habitats, grasslands or islands with unique or critical habitat values.
- **Riparian-Floodplain Areas:** riparian areas are critical to the health and vitality of the river because they offer food, shelter and nesting habitat for a variety of species. Project types include erosion repair, pollution control and shoreline restoration.

- **Wetlands:** wetlands are vital to the function and health of the Niagara River ecosystem. Project types include wetland enhancement and restoration, acquisition, habitat enhancement and educational projects.
- **Aquatic Habitat Areas:** the aquatic ecosystem of the Niagara River provides a wide range of features, including food, shelter, migratory routes and spawning habitats. The River is also an Important Bird Area (IBA) of international significance. Project types include restoration of various types of habitats and remediation of contaminated sediments.
- **Impaired Habitats:** Returning impaired habitats to a more natural state can help restore ecological productivity to the River. Types of projects include brownfield or landfill redevelopment, invasive species removal and remediation or correction of combined sewer overflows.



Lower Niagara River

4. Linking Special Places and Destinations- “Telling the Story”

This Implementation Concept addresses ways to interpret and share the rich heritage of the Niagara River Greenway. It organizes stories and sites along the Niagara River Greenway into five categories of interpretive venues. It recommends the development of a consistent map graphic to promote a high level of continuity for information about the Greenway across a range of media (signage, web site and print applications).

EXECUTIVE SUMMARY

To support wayfinding,¹ the design of the interpretive signage used to convey the stories should include graphics, materials and construction detailing that is similar to other Greenway signage. Integration of signage, logo, form, color and detailing promotes a strong and consistent identity throughout the Greenway, as does consistency of content. It recommends developing a Wayfinding Standards Manual to articulate these standards and protocols for the entire Greenway.

This Implementation Concept also addresses how to differentiate and integrate the identities of different systems within the Niagara River Greenway (e.g. Greenway and Seaway Trail overlap)

5. Heritage Tourism and Economic Revitalization

Revitalizing the region's urban centers, celebrating the rich cultural heritage and protecting natural resources are sound economic development issues that can improve the quality of life in the region. Environmental protection and redevelopment work together to help promote economic activity, leading to stronger neighborhoods, a healthier environment, a vibrant economy and increased tourism. Elements of this concept include:

- **Revitalizing Urban Centers:** reinvest in existing infrastructure, consistent with smart growth policies. Enhanced quality of life features create a climate that is attractive to new business, encourages private sector investment and helps build a market for new commercial opportunities.
- **Promote Heritage and Cultural Centers:** most appropriately located in urban locations, the most successful and innovative new cultural centers are those that blur the line between education and

entertainment by combining learning activities with interactive experiences.

- **Develop Ecological Centers:** emphasis on education, research and conservation of natural resources, plants and wildlife. The design of ecological centers should combine landscape with architecture by incorporating the Greenway's natural features through minimal site impacts.
- **Promote Interpretive Center Network:** Interpretive centers, trailheads, environmental graphics and interpretation programming need to be organized and located according to a strategic hierarchy in order to promote a rich user experience. The diversity of activities and facilities will encourage visitors of all ages to visit the Greenway on a routine basis.
- **Support Riverfront Preservation and Restoration:** The fundamental goal of riverfront preservation and restoration is to fulfill the vision of continuous lake-to-lake access along the Niagara River. While much of the Niagara River shoreline is and will remain in private ownership, it is a priority to maintain public ownership and increase public access where feasible, whether through trail access, conservation easements, or other means.



City of Buffalo

¹ experience of how a person orients and negotiates through the natural and built environment.

EXECUTIVE SUMMARY

Capturing the Vision

The implementation concepts help capture a consistent visual and thematic message throughout the Greenway. Equally important is building upon the unique and distinctive qualities of each place along the corridor. The Niagara River Greenway offers an incredible variety of significant and unique places and experiences that occur within a relatively short linear distance. These places have been defined as “Gateways” and “Reaches.” Gateways are transitions from one distinct place to another, while reaches are distinctive segments of the Greenway between Gateways. The gateways and reaches combine to capture a vision of a contiguous series of special events and places highlighting the Niagara River Greenway’s *“unique natural, cultural, recreational, scenic and heritage resources.”*



Peace Bridge/ Bird Island Pier

Many of these individual gateways and reaches already have distinct identities. Over time, as the vision for Niagara River Greenway is achieved through the myriad of projects and activities that are and will be implemented along the corridor, the unique and distinct character of these locations will become even more apparent. A world-class user experience will emerge: an enchanting alternation of experiences between gateways and reaches that emphasize the variety of *“special places, parks, and landscapes”* from one end of the Greenway to the other.

Chapter 5: Municipal, Stakeholder and Indian Nation Input

This chapter summarizes and maps the input received from municipalities, stakeholder groups, Indian Nations and individuals for specific projects and recommendations along the Greenway. These lists are unedited and represent a wide variety of project types at various stages of conceptualization. Some are attached to a specific site; others are system-wide; while others are general in nature. The lists are included in the report as a documentation of public input. Their inclusion does NOT imply endorsement by the Niagara River Greenway Commission, and each proposal must be evaluated individually, based on merits. These lists and maps do illustrate the tremendous amount of work and energy being brought to Greenway issues on the part of a wide variety of municipalities, stakeholders and individuals.

Chapter 6: Generic Environmental Impact Statement (GEIS)

The GEIS provides a discussion of the environmental setting, reasonable alternatives and potential impacts associated with the proposed action, which is the adoption and implementation of the Niagara River Greenway Plan. Implementation of the Plan will result in significant beneficial impacts to wetlands, terrestrial and aquatic resources, water quality, natural habitats, fisheries, and sensitive ecological areas along the Niagara River and its tributaries, particularly as these areas are protected, enhanced, restored, or improved. Protection, preservation or restoration of impaired wetlands will restore their functions and values to their full potential and in turn will result in significant long-term beneficial environmental impacts. The natural environment will benefit both on a system-wide basis and on specific sites by improving habitat for resident and migratory birds, fish and other species. Terrestrial and aquatic

EXECUTIVE SUMMARY

enhancements will result in beneficial social impacts as they add value to aesthetic, recreational and educational opportunities available in local communities. The guiding principles set forth in the Plan also will result in beneficial impacts upon existing land use by enhancing, maintaining and/or preserving areas of open space; developing areas for active recreational opportunities; encouraging redevelopment of vacant or underutilized brownfield sites and improving water access where access is currently limited or obstructed. The region's economy will benefit from enhanced recreational, cultural and ecotourism opportunities, increased residential property values, increased use of the River ecosystem for tourism and recreational boating, returning brownfields to productive and taxable uses and increased employment due to an influx of visitors and tourists.

While there are some potential adverse impacts, such as short-term and localized land use/traffic impacts in the vicinity of the particular development project, these impacts would not be significant nor would they be expected to adversely impact use and quality of the Greenway as a whole. Future projects may be subject to additional SEQR analysis, depending on the scope and location of that project as well as the potential environmental, social or economic impacts that may result.



Niagara River, Beaver Island State Park
Photo by Kim Ludwig- Isledegrande.com

While there has been discussion and debate about the details of the Greenway, there has been consistent agreement that the establishment of a Niagara River Greenway will benefit the region. The Niagara River Greenway will serve as a catalyst to a higher quality of life, an improved environment, and a rejuvenated region.

Chapter 7: Comments and Responses

The final chapter of the Plan includes the responses to the comments on the Plan received by the Office of Parks, Recreation and Historic Preservation as Lead Agency under SEQR. Two Public Hearings on the Draft Plan were held in December 2006, which a total of approximately 150 to 200 people attended. A total of 66 persons made oral statements, and many other provided written comments. All together, a total of 128 written and verbal comments on the plan were provided to the Agency. Some changes were made to the Draft Plan based on comments. These changes are identified in Chapter 7, Section A.

All comments were reviewed and summarized by categories. Responses were provided for each substantive comment category. A list of the persons and organizations who provided comments is contained at the end of this chapter.

In general, types of comments received included general support for the concept of a Niagara River Greenway, additional stakeholder input, questions about procedural or organizational issues and comments relating to specific aspects of the plan.

EXECUTIVE SUMMARY

Page Left Intentionally Blank

CHAPTER 1: INTRODUCTION

1.0 INTRODUCTION

The Niagara River has been the consistent theme that flows through the history and heritage of the Buffalo-Niagara region. From the aboriginal peoples who looked to the river for its natural resources and sacred places, the Niagara River and Niagara Falls have played an integral role in its development. A wealth of stories that relate the history and heritage of this region center upon the Niagara River.



**Old Fort Niagara
Mouth of Niagara River**

The earliest explorers recognized the strategic value of the River, which served as the gateway to the vast interior lands of the continental United States. The Portage Road marks the route historically used to bypass the Falls en route to the upper River and on to the Great Lakes. The numerous forts that have lined its shores— including Fort Niagara, Fort George, Fort Schlosser, Fort Porter, and Fort Erie, among others— are a testament to the River’s strategic importance. The Niagara Frontier had a role in all of the early wars of this nation, particularly the War of 1812, as the opposing sides fought for control of both shores.

The Erie Canal, completed in 1825, opened a new era for the Niagara River and its region. The vast interior of the United States was opened for settlement through the gateway of the Buffalo-Niagara region, resulting in extraordinary growth. Erie-Niagara’s population grew from less than

23,000 persons in 1820 to nearly 93,500 in 1840, more than a four-fold increase. The gateway to the west shifted from the mouth of the River and Lake Ontario to the City of Buffalo, where the Niagara River, Lake Erie and the Erie Canal converged.

With the growth of the region, the Niagara River became a key location for industrial development. First, as a source for direct water power, then as the means to generate hydroelectricity, the Niagara River helped propel this region’s industrial growth. The Niagara River Greenway area still bears visible reminders of this manufacturing legacy. The grain elevators and shipping docks in the City of Buffalo, the impressive network of power lines and industrial infrastructure that extend across the region from the Niagara Power Project, the brownfields ready for redevelopment to new uses and the many still active manufacturing uses help illustrate the importance of the industrial heritage of this area.



Niagara Falls

At the same time, the spectacular natural beauty of the cataracts at Niagara Falls secured Niagara’s place as one of the nation’s first and greatest tourist attractions. From its discovery by early settlers, it has attracted large numbers of visitors. The vision of the prominent landscape architect Frederick Law Olmsted helped preserve the centerpiece of the Niagara River corridor from overdevelopment, with the establishment of this nation’s first State

CHAPTER 1: INTRODUCTION

Park, the Niagara Reservation (now Niagara Falls State Park). Tourism is and will remain a key component of this region's economic vitality.

The Niagara River and the Falls have consistently played a key role in the heritage and strength of the region. The future prosperity of this region depends on reinventing the Niagara River and the region's waterfronts to meet changing needs. The waterfront is an ecological resource that is unique to this region, and an important element in dozens of stories in the region's history, from the Underground Railroad to the birth of the modern environmental movement. The River itself presents a variety of experiences, from the mix of industrial heritage and recreational assets on the Upper River, to the less developed, more natural environment around Grand Island and the Lower River. The rapids, the Falls, the islands and the gorge, all represent unique environments and create a unique sense of place. The cities and towns that line the shores of the River also each have distinct characters that should be preserved and celebrated. These ecological, cultural, economic, and historical assets help establish an authentic "place" that is appealing to residents, visitors and investors alike. Collectively, they represent an opportunity to embrace a 21st century economy built on quality of life, ecological stewardship, recreation and enhanced community character.



Lower Niagara River/ Whirlpool

A. Purpose of the Niagara River Greenway Plan

The Niagara River Greenway concept grew out of both local grassroots efforts and State-level initiatives. The importance of the Niagara River corridor has been recognized for over a century, as evidenced by Frederick Law Olmsted's vision in the 19th century. Popular support for improvements at the Falls, increased river access, open space preservation, a "Lake-to-Lake" trail system, community revitalization and other elements of a greenway plan have been consistently put forward by the communities along the River. While these efforts have resulted in accomplishments to varying degrees, there has not been a region-wide vision to join these individual efforts together into a coherent whole.

"And building on our successful efforts to revitalize Niagara Falls and its park land, and by working with the western New York delegation, let us create a Niagara River Greenway that stretches from Buffalo to Fort Niagara on Lake Ontario."

*Governor George Pataki
State of the State Address, 2004*

In January 2004, New York Governor George Pataki added impetus to the concept of Niagara River Greenway with a brief statement in his State of the State address. By September 2004, the Governor had signed the legislation creating the Niagara River Greenway Commission. This legislation defined the Commission's purpose as undertaking "all necessary actions to facilitate the creation of a Niagara River greenway." As part of the legislation, the commission was directed to develop a plan in order to "enhance waterfront access, complement economic revitalization of the communities along the river, and ensure the long-term maintenance of the greenway."

CHAPTER 1: INTRODUCTION

The legislation also set forth a list of 15 elements to be addressed in the plan. The full text of the Niagara River Greenway Commission legislation is contained in Appendix A. The Niagara River Greenway

Plan has been prepared in response to the legislation, but it is also the result of strong grassroots support for a unified vision and coherent plan for the future of this important resource.

The enabling legislation for the Niagara River Greenway states that this plan must (*emphasis added*):

1. Recommend the specific *boundaries* of the greenway within Erie and Niagara counties;
2. Develop a specific *vision* for the greenway that focuses on linking parks and conservation areas, creating a multi-use venue for the people of the region, and enhancing the tourism potential of the region;
3. Include an *inventory of existing parks and other lands* under the jurisdiction of state agencies, public corporations and municipalities which may contribute to the purposes of a greenway;
4. Identify such other lands that through acquisition, dedication or redevelopment may *contribute to the purposes of a greenway*;
5. Identify *existing plans and plans under development* that can contribute to the purposes of the greenway;
6. Conduct *economic analyses of the costs to construct, maintain and market the greenway* as part of a strategy for implementation;
7. Consider how the region's *industrial heritage* can be celebrated and reflected along the greenway;
8. Recommend how the greenway could be *linked to upland and interior communities* in order to promote linkages to the river;
9. Consider how existing and proposed *economic development activities* in proximity to the greenway can support and complement the greenway;
10. Recommend cooperative efforts with the province of Ontario and the nation of *Canada* in furtherance of the objectives of this article;
11. Identify local, state, federal and private *sources of funding* that could support the purposes of the greenway;
12. Evaluate local, state and federal *laws and regulations* relating to the purposes of the greenway;
13. Identify ways for the commission to *work cooperatively* with municipal, state and federal agencies, public and private corporations, not-for-profit organizations, and private property owners and [other] interests to advance and complement the purposes of the greenway;
14. Recommend how portions of the greenway would be managed including a *plan for on-going operation and maintenance* that would make the greenway self-supporting; and
15. Include any other information, data and recommendations which the commission determines is necessary to support the purposes of the plan.

CHAPTER 1: INTRODUCTION

This document establishes a vision and a set of principles that can be used to guide proposed actions and plans of the various entities who are working toward building a world-class Niagara River Greenway. It sets priorities that suggest the types of activities to target in the near-term. It identifies potential funding sources, partnerships and linkages, and addresses key transportation issues that affect the Greenway. The Plan also discusses several “Implementation Concepts,” which describe system-wide approaches and strategies for the Greenway. The Action Plan portion of the document concludes with a section on “Conveying the Vision of the Greenway,” which integrates a system-wide approach with the unique character of the component parts of the Niagara River Greenway.

Development of the plan has been an extremely useful process, helping to spark spirited dialogue among various interest groups and the general public. This dialogue and the presentation of various viewpoints has built greater consensus on the future for the Niagara River Greenway, a process that is essential for future progress. The Niagara River Greenway is grounded in the geography of this region, and the Plan describes the assets and resources that are part of that geography. But it is also a conceptual and organizational framework; a way of interpreting the region’s history and imagining its future that serves to connect the people of this region together.

B. What is a Greenway?

Throughout the planning process for this project, there has been a great deal of discussion and debate about what defines a “greenway.” The fact is that there is no one standard definition of a “Greenway.” Greenway concepts range from the very specific, such as targeting a particular trail, to the very broad, encompassing large-scale ecological networks like the Florida Statewide Greenway. While the use of the

term “greenways” is relatively new, the origin of the concept can be traced back to Frederick Law Olmsted’s planning theories. Olmsted was an advocate of linked, linear systems of parks, as exemplified by Boston’s “Emerald Necklace” and Buffalo’s Olmsted Park system. The movement toward establishing greenways received greater impetus in 1987, when the President’s Commission on Americans Outdoors promoted the concept of greenways as tools to “. . .provide people with access to open spaces close to where they live, and to link together the rural and urban spaces in the American landscape threading through cities and countrysides like a giant circulation system.”



City of Buffalo waterfront

While the 1987 President’s Commission on Americans Outdoors increased interest in the concept of greenways, there has been significant variation on *how* greenways provide this access and linkage. As the various definitions indicate, the exact nature of a greenway depends upon its context and purpose. Some greenways have a recreational focus, while others function more as a scenic byway. Often, a pedestrian or bicycle pathway is an element of a greenway and frequently there is a heritage component. Some greenways function primarily for environmental protection, and may even exclude recreational use.

Despite the lack of a single definition for a greenway, there are several consistent themes in greenway planning. Greenways

CHAPTER 1: INTRODUCTION

should be “green,” with a focus on the protection of important natural resources. Greenways are inherently linear spaces, stretching along a natural or man-made corridor, such as a river, a ridge line, a railway, a road or canal. As such, greenways generally require partnerships and cooperation across different jurisdictions. Finally, greenways support connectivity, linking together parks, open spaces, neighborhoods, and regions while promoting a healthy environment.



Riverwalk in Tonawanda

Each community must determine the appropriate balance between ecological considerations, access, public health and recreation. In planning the Niagara River Greenway, there have been proponents of a model that is focused on the Niagara River as an ecological resource, and those who support a model patterned after the Hudson River Valley Greenway, which is as much a regional planning pact as a geographically-based greenway. The legislation establishing the Niagara River Greenway envisioned the Niagara River Greenway as a linear system of state and local parks and conservation areas linked by a network of multi-use trails. The intent of the Niagara River Greenway, as stated in the legislation, is to redefine the Niagara riverfront by increasing landside access to the river; creating complementary access to the greenway from the river; augmenting economic revitalization efforts; and celebrating the region’s industrial heritage.



Buffalo River

While there has been intense discussion about the details of the Greenway, there has been consistent agreement that the establishment of a Niagara River Greenway will benefit the region. The Niagara River Greenway will serve as a catalyst to a higher quality of life, an improved environment, and a rejuvenated region. The specific vision that has been adopted for the Niagara River Greenway is discussed in Chapter 3 of the Plan.

First and foremost, the Niagara River Greenway is a product of the people of this region. Although the legislation creating the Niagara River Greenway Commission was developed at the State level, its impetus was the accumulated result of many local efforts. Similarly, the vision for the Niagara River Greenway transcends a specific list of places, projects or funds. The Niagara River Greenway is the physical, historic and symbolic heart of this region. By sharing this overall vision for the Greenway, we can move together toward a healthy, revitalized region.



Trail, Lower River

CHAPTER 1: INTRODUCTION

GREENWAY DEFINITIONS

Corridors of land recognized for their ability to connect people and places together.

– *Greenways Incorporated* – www.greenways.com

Linear open space, such as a path or trail, which links parks and communities around the City, providing public access to green spaces and the waterfront.

– *New York City Department of Parks & Recreation-* www.nycgovparks.org

A linear space established along a natural corridor, such as a riverfront, stream valley, or ridge line, or over land along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route; any natural or landscaped course for pedestrian or bicycle passage; an open space connector linking parks, nature reserves, cultural features, or historic sites with each other and populated areas; or a local strip or linear park designated as a parkway or greenbelt."

- *State of Florida* ([Florida Statute Chapter 260, Section 13](#))

A greenway is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of green that run through urban, suburban, and rural areas to wider corridors that incorporate diverse natural, cultural and scenic features. They can incorporate both public and private property, and can be land- or water-based. They may follow old railways, canals, or ridge tops, or they may follow stream corridors, shorelines, or wetlands, and include water trails for non-motorized craft. Some greenways are recreational corridors or scenic byways that may accommodate motorized and non-motorized vehicles. Others function almost exclusively for environmental protection and are not designed for human passage. Greenways differ in their location and function, but overall, a greenway will protect natural, cultural, and scenic resources, provide recreational benefits, enhance natural beauty and quality of life in neighborhoods and communities, and stimulate economic development opportunities

--*State of Pennsylvania, "Pennsylvania's Greenways: An Action Plan for Creating Connections, June 2001—*www.dcnr.state.pa.us/brc/greenways/

"A linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route; any natural or landscaped course for pedestrian or bicycle passage; an open-space connector linking parks, nature reserves, cultural features, or historic sites with each other and with populated area; locally, certain strip or linear parks designated as a parkway or greenbelt."

- *Charles E. Little, [Greenways for America](#) (1990)*

CHAPTER 1: INTRODUCTION

C. Niagara River Greenway Boundary

Under the legislation establishing the Niagara River Greenway, this plan must recommend a specific boundary for the greenway within Erie and Niagara Counties. During the public participation process, there has been a great deal of discussion and debate over the issue of the boundary for the Niagara River Greenway, with vocal and dedicated proponents for various alternatives. The scenarios have ranged from a narrow boundary that focused strongly on the River and its shoreline, to a wider, regional approach.

There are benefits to each approach. The narrower boundary focuses efforts and resources on the River itself. In this model, the boundary of the Greenway encompasses the lands that are targeted for open space protection and environmental restoration. A more targeted Greenway boundary is strongly grounded in a specific geography that is clearly identifiable as a linear, literal “green”-way linking resources, conservation areas and parks.

At the other end of the spectrum is a more regional approach that focuses more on the concept of the Greenway as an organizational structure. In this approach, the Greenway becomes a governance structure that encourages greater interaction and cooperation across the region, and takes a more economic development and tourism-related approach to the Greenway.

The Niagara River Greenway Commission has chosen a boundary that follows municipal lines: the jurisdictional boundary of the Niagara River Greenway is the political boundaries of those municipalities that physically border on the Niagara River, with the addition of the Town of Niagara and the Village of Kenmore. The Niagara River Greenway consists of the Towns of Porter, Lewiston, Niagara, Wheatfield,

Grand Island and Tonawanda; the Cities of Niagara Falls, Buffalo, North Tonawanda and Tonawanda; and the Villages of Youngstown, Lewiston, and Kenmore. This boundary is depicted on Figure 1.

There are a number of reasons for using a jurisdictional approach for the official Greenway boundary. The Niagara River Greenway legislation requires that the Plan be approved by the local legislative body of each city, town and village within the designated boundary before it can be submitted to the State for approval. In other words, the City Council, Town Board or Village Board of every municipality that falls within the designated boundary must affirmatively vote in favor of the plan. Therefore, it is important that the boundary be simple to understand and justify, particularly at a local municipal level. Establishing a boundary that includes the entire municipality is a standard practice for this type of regional plan. For example, the boundary established for the Erie Canalway National Heritage Corridor includes the cities, towns and villages—in their entirety—that lie immediately adjacent to the Erie Canal and its historic alignments. The Hudson River Valley Greenway and many of the State Heritage areas also use municipal boundaries to designate their official boundaries. The municipalities that comprise the Greenway area will be the stewards of the Greenway as an entity, and their full support is important for the long-term success of this effort.

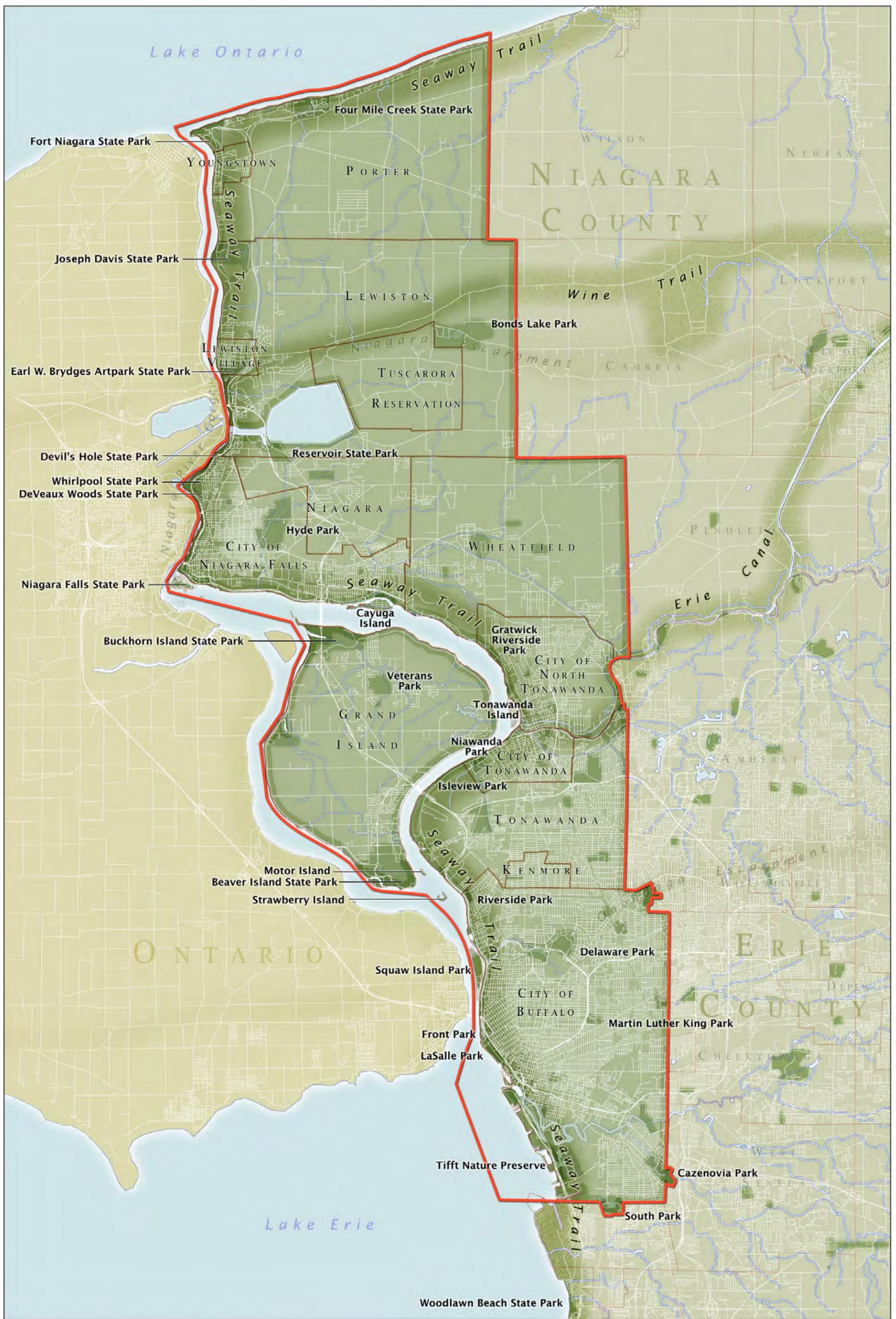
The Commission recognizes that efforts and resources should be focused on the Niagara River and its shoreline, which is the heart of the Niagara River Greenway. Mapping of resources and an initial list of existing and proposed projects shows a concentration in the River, along its shores and on adjacent inland areas. Input from the general public

CHAPTER 1: INTRODUCTION

has indicated strong support for a scheme that acknowledges the centrality of the River as the geographic basis for the Greenway. In establishing the priorities and criteria for evaluating programs and projects relating to the Greenway, the Commission has established a focus that will help direct activities and funding. Local Waterfront Revitalization Program boundaries and Coastal Zone Management boundaries formed the basis of the focus area, with modifications to include important adjacent resources, such as major tributaries, downtown “Main Street” areas and other major resources along the River. The focus area will help implement the vision of the Greenway as a linked corridor of parks, places and resources within the communities that make up the political boundary of the Greenway. However, the plan also recognizes that several municipalities do not have jurisdiction of lands immediately adjacent to the river or their waterfront lands are already developed. These municipalities must develop their own priorities in relation to the expenditure of greenway related resources. It is anticipated that these

priorities would include but not be limited to, inland parks, open space projects, trail projects and projects relating to destination resources.

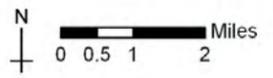
Beyond the specific ratification boundary of the Niagara River Greenway, there are important connections and intersections of the Greenway with other designated systems. The Seaway Trail, the Niagara Wine Trail and the Erie Canalway all connect to the Niagara River Greenway. These connection points link the Greenway to upland and interior communities and help integrate the Greenway into wider systems. Projects that enhance these and similar connections are consistent with the Greenway. For a description of these connections, refer to page 11. In addition, the Greenway will enhance opportunities for creating compatible linkages with similar systems in Canada. Linkages improve access to not only the Greenway, but to the many resources and attractions of this region that fall outside the designated geographic boundary of the Niagara River Greenway.



NIAGARA RIVER GREENWAY
 **Niagara River Greenway Area**

NIAGARA RIVER GREENWAY BOUNDARY
 MARCH 20, 2007

Figure 1



CHAPTER 2: INVENTORY

2.0 GREENWAY RESOURCES

There are a wealth of assets and resources in Western New York that contribute to the character and strength of the region. The Greenway enabling legislation, as noted in the Introduction, requires an inventory of these resources as part of the Greenway Plan. The written discussion of the resources that make up the Niagara River Greenway focuses on the municipalities that fall within the Niagara River Greenway boundary. At the same time, the very nature of some of these resources transcends the Niagara River corridor. Therefore, the accompanying figures show the resources on a regional basis, including inland communities.

A. Existing Parks and Public Lands

Parkland resources throughout the Buffalo-Niagara region and along the Niagara River corridor are numerous. These resources include State, County, and local park facilities. Figure 2 illustrates the location of parks and parklands throughout the region.

The most prominent and highly visited park within the Niagara River corridor is Niagara Falls State Park, which encompasses the lands and waters surrounding the Falls. Visitation at this park is estimated to be approximately 8 million visitors per year. Niagara Falls is the anchor attraction for tourism and tourism development in the region. In addition to Niagara Falls State Park, there is a chain of State Parks along the length of the River that continues both north and south to Lake Ontario and Lake Erie shorelines. State owned lands located within the defined boundary of the Niagara River Greenway from south to north are shown in the table on the following page.

There are several county parks and numerous local parks within the boundaries

of the Niagara River Greenway, and many parks in adjacent upland communities, as shown on Figure 2. Most of these parks were designed to serve the recreational needs of local residents, but many are important resources along the Niagara River, attracting visitors from the Western New York region and across the State. These parks include the Tiff Nature Preserve, the Small Boat Harbor, Erie Basin Marina, LaSalle Park, Squaw Island Park, Broderick Park, the Bird Island Pier, Tow Path Park and Riverside Park in the City of Buffalo; Isle View Park in the Town of Tonawanda; Niawanda Park in the City of Tonawanda; Gateway Harbor in the Cities of Tonawanda and North Tonawanda; Fisherman's Park and Gratwick Park in the City of North Tonawanda; and Lewiston Landing in the Village of Lewiston.

The Frederick Law Olmsted parks in the City of Buffalo and the City of Niagara Falls are also a unique resource of this region. In Buffalo, Olmsted Park System includes Riverside Park, Delaware Park, Martin Luther King Jr. Park., Front Park, Cazenovia Park and South Park as well as a number of connecting parkways and circles. In the City of Niagara Falls, Frederick Law Olmsted was instrumental in the preservation and restoration of the lands that now comprise Niagara Falls State Park, also known as the Niagara Reservation. The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) manages the Olmsted landscapes in Niagara County, while the Buffalo Olmsted Parks Conservancy, a not-for-profit organization, is charged with the oversight of the Buffalo Olmsted Parks. Both groups have or are in the process of developing master plans to preserve these landscapes for their cultural and historic value, as well for their open spaces.

CHAPTER 2: INVENTORY

State Parks and Public Lands	
Strawberry Island and Motor Island Nature Preserve	Niagara River south of Grand Island: Significant habitats. Not developed as parkland, although informal passive recreational use occurs on Strawberry Island. Some remedial work to halt erosion and restore habitats has been completed; additional remedial work is underway. Strawberry Island is considered part of Beaver Island State Park. Motor Island Nature Preserve is under the jurisdiction of NYS Department of Environmental Conservation.
Beaver Island State Park	Southern end of Grand Island: wide range of active and passive recreational facilities, including a beach, marina, nature trails, bicycle/pedestrian paths and golf course.
Buckhorn Island State Park	Northern end of Grand Island: marshes, wet meadows, riparian woodlands and upland forests. Passive recreational area with water and land trails and wildlife observation. Additional wetland restoration work and the addition of more trails is planned
Niagara Falls State Park	City of Niagara Falls: Oldest State Park in the United States; originally designed by Frederick Law Olmsted. Major tourism site with numerous scenic overlooks. Access to the Niagara River rapids, the Falls, Goat Island and Prospect Point. Facilities include an interpretive visitor center, Niagara Gorge Discovery Center, Observation Tower, Maid of the Mist and Cave of the Winds tours, trails, scenic trolley.
Whirlpool State Park	City of Niagara Falls: Overlooks of the Niagara River whirlpool and gorge with passive recreational facilities (picnic areas and playgrounds) on the gorge rim. Stairs provide access from the gorge rim to trails and fishing access points along the rapids of the lower Niagara River.
DeVeaux Woods State Park	City of Niagara Falls: old growth woodland, passive recreation, limited active recreational facilities. Adjacent to Whirlpool State Park.
Devil’s Hole State Park	City of Niagara Falls: upstream of the New York Power Authority project. Scenic overlooks of the gorge and the lower Whirlpool rapids. Trails follow the gorge and provide access to popular fishing spots.
Reservoir State Park	Town of Niagara: Active recreation facilities including athletic fields and designated areas for kite flying. Includes an overlook for Robert Moses Power Plant Reservoir, fishing access and other passive recreational facilities.
Earl W. Brydges Artpark State Park	Village of Lewiston: Dramatic and visual arts, classes, workshops and cultural Implementations. Includes a performing arts theatre, nature trails and the Lower Landing Archeological District (historic site).

CHAPTER 2: INVENTORY

State Parks and Public Lands	
Joseph Davis State Park	Town of Lewiston: Passive and some active recreational facilities; handicapped accessible fishing access. Nature trails. Adaptive reuse of former pool complex.
Fort Niagara State Park	Town of Porter: Boat launching facilities, swimming pool, trails, scenic views of mouth of River and Lake Ontario. Mix of active and passive recreational facilities.
Old Fort Niagara State Historic Site	Town of Porter: Adjacent to Fort Niagara State Park. Includes historic Fort Niagara, the old Niagara River Lighthouse and a visitor’s center. Future plans include development of a museum at the former Officers Club.
Four Mile Creek State Park	Town of Porter: Campsites (275 sites) including 21 sites on the shore of Lake Ontario. Scenic views, hiking trails, wildlife areas, picnic areas, playground. (Sited on Lake Ontario, not the Niagara River)

The above list addresses State lands only. It is emphasized that there are many other parklands and open space across the Buffalo-Niagara region that contribute to the quality of life of the area. These parks are valuable resources along the Greenway. They are depicted in Figure 2.

The region also has an extensive network of both land and water trails, which can be considered “linear parkland.” Figure 3 depicts the existing trail network through the waterfront region and connecting trail systems. Several new trail systems are in the planning and development stage, including a scenic trail between Lewiston and the City of Niagara Falls, trails in the Town of Tonawanda tying into the Riverwalk, and the Outer Harbor Trails in the City of Buffalo, which will provide waterfront access along previously inaccessible Niagara Frontier Transportation Authority (NFTA) lands. There are also numerous proposals for completing segments of trails throughout the region that are in the process of obtaining funding.

Trails can also be important connectors between the Niagara River Greenway and upland and interior communities. In particular, there are three state-designated trail systems—the Seaway Trail, the Erie Canal and the Niagara Wine Trail—that provide linkages beyond the region.

The New York State Seaway Trail is a state and nationally designated scenic by-way covering a 454-mile scenic route paralleling Lake Erie, the Niagara River, Lake Ontario and the St. Lawrence River. A well-marked, scenic alternative to interstate highways and toll roads, the Seaway Trail leads the visitor to eye-opening treasures one might otherwise overlook. A portion of the Seaway Trail parallels the Niagara River Greenway and also extends eastward along the Lake Ontario shoreline and south along the Lake Erie shore. Seaway Trail, Inc., a not-for-profit membership organization, works with local governments to promote and advocate for the Seaway Trail through educational, recreational programming, promotions and marketing, and planning efforts.

CHAPTER 2: INVENTORY

The goals of the Seaway Trail are to:

- Pursue an increased but stable rate of economic development and growth of the tourism industry throughout the Seaway Trail region,
- Protect and enhance the scenic, natural and cultural resources of the Seaway Trail region, and
- Develop the Seaway Trail region as a high quality experience for recreation and vacations.

The Erie Canal runs concurrent with the Niagara River Greenway in the Cities of Tonawanda and North Tonawanda, and extends eastward across New York State. The Erie Canal is also a federally designated national heritage corridor: Erie Canalway National Heritage Corridor. That portion of the Canal that runs through Western New York is also designated as the Western Erie Canal Heritage Corridor, part of the New York State Heritage Area System. The Erie Canal and multi-use trail represent both a water based “blueway” and land based system which connects the Niagara River Greenway by land and by water to points east. Several management plans guide projects along the Canal. Projects identified in these plans that improve the connectivity of the Canal trail and the Greenway can contribute to the implementation of the Greenway plan.

The Niagara Wine Trail is a state-designated trail that links a number of wineries and other attractions across Niagara County and into Orleans County. It overlaps the Niagara River Greenway in the western end of the Trail, extending from the City of Niagara Falls north to Lewiston. The Niagara Wine Trail continues eastward along Route 104 and some adjacent roadways to connect the wineries along the route of the Trail.

These state-designated connecting systems, which are depicted on Figure 3, link the Greenway to upland and interior communities and help integrate the Greenway into wider systems. A wealth of heritage resources and highly scenic landscapes can be found along these connections. These and similar linkages improve access to the Greenway and to the many resources and attractions of this region that fall outside the designated geographic boundary of the Niagara River Greenway.

The Greater Buffalo Niagara Regional Transportation Council (GBNRTC) is leading an effort to implement a “Shoreline Trail” system. The Shoreline Trail will run along the Lake Erie and Niagara River shorelines from the southern end of Erie County in Brant to the mouth of the Niagara River in Porter. Completion of the Niagara River section of the Shoreline Trail is also a priority for the Niagara River Greenway. More information about the existing trails, trail gaps and efforts to complete the network is included as one of the Implementation Concepts in a later section of this Plan.

There are also a number of important waterfront access sites along the length of the River. Many of these sites are associated with public parkland. Figure 4 indicates the location of water access, including boat launches, marinas and official fishing access points. There are also many locations along the length of the River and its tributaries where there are informal fishing access spots and locations where paddle powered boats such as canoes and kayaks can be launched.

CHAPTER 2: INVENTORY

B. Ecological Resources

The ecological resources of the Niagara River are clearly of critical importance to the Greenway. These resources form the foundation of the unique environmental character of the region. The inventory of ecological resources is described at length in the Generic Environmental Impact Statement section of this report (Chapter 6). In particular, the region includes many unique wetlands and NYS significant coastal fish and wildlife habitats, which are listed and described in Chapter 6. The issue is also addressed as an Implementation Concept in the Action Plan (Chapter 4), which illustrates conceptual ways of protecting, preserving and restoring important ecological resources such as uplands, riparian-floodplain areas, wetlands, aquatic habitats and impaired habitats. Figures 5 and 6 illustrate significant ecological resources including designated significant coastal fish and wildlife habitats, tributaries to the River and State and Federal wetlands.

C. Heritage Sites

The Buffalo-Niagara region has a rich history that has achieved national recognition. For example, the National Park Service has recently completed the *Niagara National Heritage Area Study* (2005). This study is the first step in the designation process for a National Heritage Area that would extend along the Niagara County portion of the Niagara River. There are currently only 37 National Heritage Areas or National Heritage Corridors across the United States. The final designation will require an act of Congress. Bills in support of the designation are currently before both Houses of the United States Congress. Official designation would provide national support for the development of a management plan, as well as technical and financial support for implementation of its recommendations. Efforts are underway to

capitalize on this region's rich heritage, including its architectural, industrial, and historical resources.

There are dozens of properties in the region that are listed on the National Register of Historic Places. The National Register is the nation's official list of significant buildings, sites, properties, archeological and cultural resources. Properties on the National Register have been evaluated according to set criteria and are officially designated by the National Park Service as worthy of preservation due to their architectural, cultural and/or historic significance. Many of these historic sites are located along the Niagara River. There are also a number of historic districts, areas where there is such a concentration of historic or architecturally significant structures that the entire neighborhood is designated as historic. These sites and districts are depicted on Figure 7. In addition, there are many historic and culturally significant sites and buildings across the region that are eligible for listing in the National Register of Historic Places, but have not been officially designated. Figure 7 also depicts significant sites that have been identified in local planning documents but that are not officially on the National Register.



Old Fort Niagara

Among the sites that are listed in the National Register are over a dozen properties in Erie and Niagara Counties that are designated as a National Historic Landmark or National Historic Site. Designation as a National Historic Landmark or National Historic Site is the

CHAPTER 2: INVENTORY

highest level of historic and/or architectural significance that can be achieved, and there are fewer than 2,500 such sites in the United States and its territories. Evidence of the strong heritage of this area is the fact that the Buffalo-Niagara region has more officially designated National Historic Landmarks than some States do. All but one of these landmark sites is located within the boundary of the Niagara River Greenway.

D. Additional Lands that Contribute to the Greenway

A required element of the Niagara River Greenway Plan is the identification of additional lands that would contribute to the purposes of the Greenway through acquisition, dedication or redevelopment. The State legislation establishing the Niagara River Greenway Commission does not give the Commission the authority to own or hold real property, and the Commission can not directly acquire any lands. However, there are categories of lands that contribute to the Greenway and should be targeted for preservation, either through acquisition or other means. The Commission can facilitate such actions by bringing together parties with mutual interests.

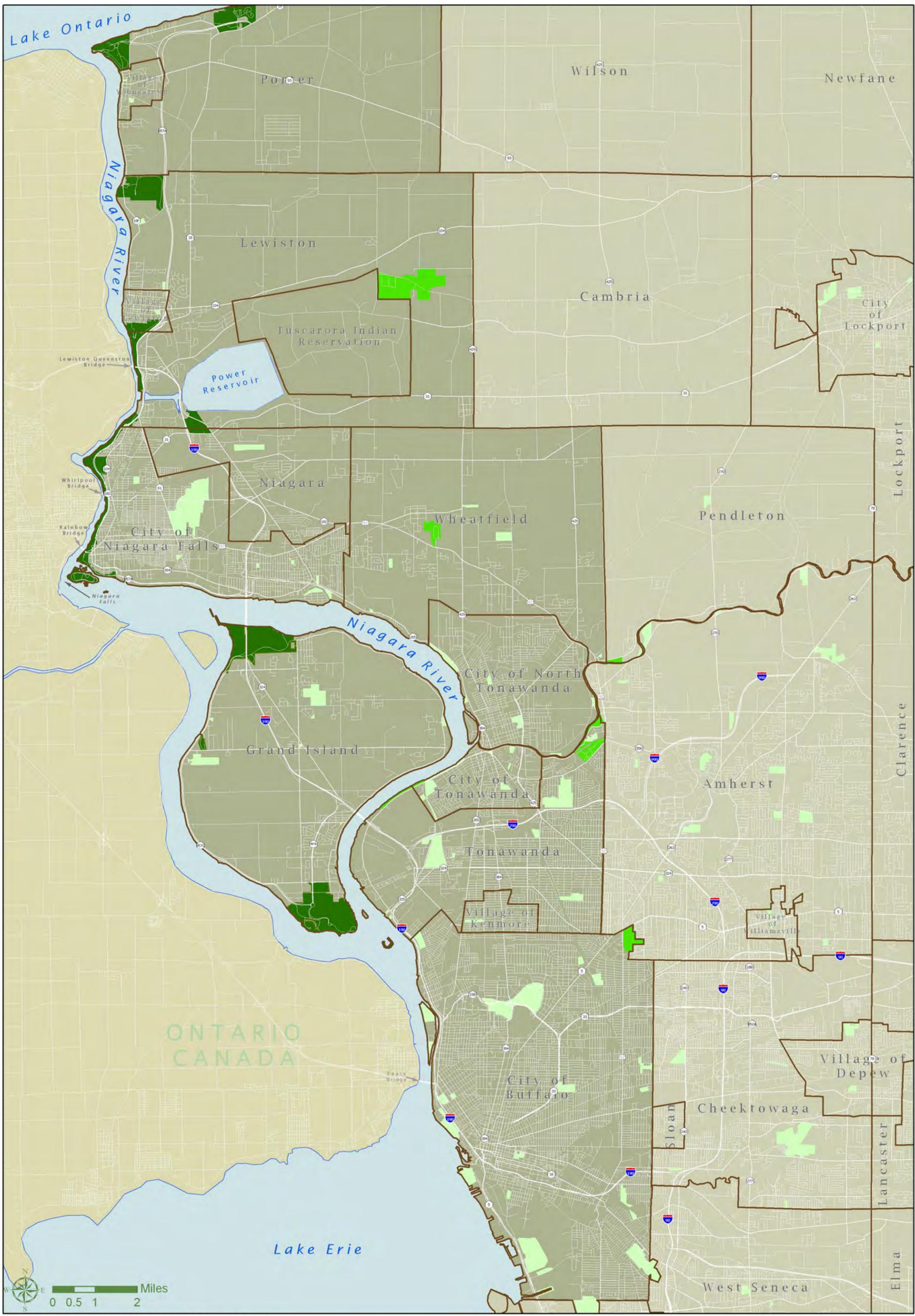
The Niagara River Greenway Plan supports open space preservation, prioritizing significant ecological areas, areas that provide recreational opportunities, and/or promote water resource protection. It supports existing local efforts, and encourages future activities toward this goal. The Plan does not explicitly list all specific tools that can be used to encourage open space preservation in order to avoid limiting options, and to enable maximum flexibility to the local project sponsors in developing appropriate methods for achieving their open space goals.

The New York State Open Space Plan (2006) has established priorities for the types of sites that should be targeted for acquisition or dedication for open space, including sites within the Niagara River Greenway. The recommendations for each region in the Open Space Plan have been made by regional advisory committees with input from State staff, local governments and the public. Updated every three years, the New York State Open Space Plan is the most comprehensive source for this type of information and therefore, it has been used as the basis for identifying lands for conservation.

For the western New York region, the highest priorities for open space acquisition are projects that protect significant ecological areas, provide recreational opportunities and/or promote water resource protection. These include projects that protect important habitat areas, unique ecosystems, such as the escarpment, and important resources, such as old growth forests. Lands along the Niagara River are explicitly included as a priority. Potential stewards of open space include the State, local governments, counties, school districts, public benefit corporations, environmental groups, such as the Western New York Land Conservancy, or private owners who agree to institute conservation easements, deed restrictions or other long-term methods of ensuring the resource's preservation.



Woods Creek, Grand Island



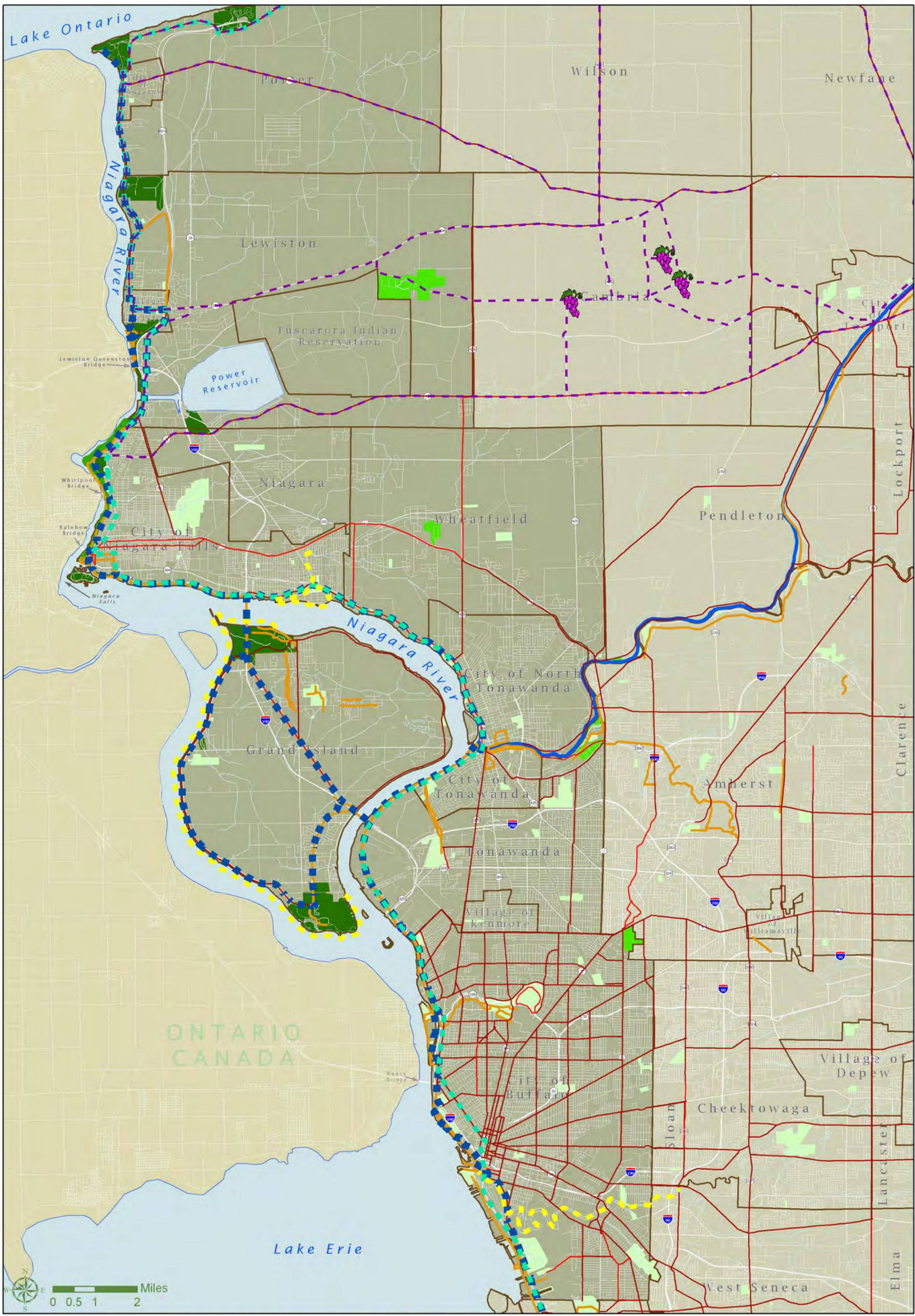
NIAGARA RIVER GREENWAY

State, County, and Local Parks

■ Local Park
 ■ County Park
 ■ State Park

Figure 2

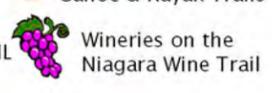
Data Sources: New York Power Authority, Erie County Office of Geographic Information Systems, Niagara County Office of Real Property Tax



NIAGARA RIVER GREENWAY

Trails and Byways

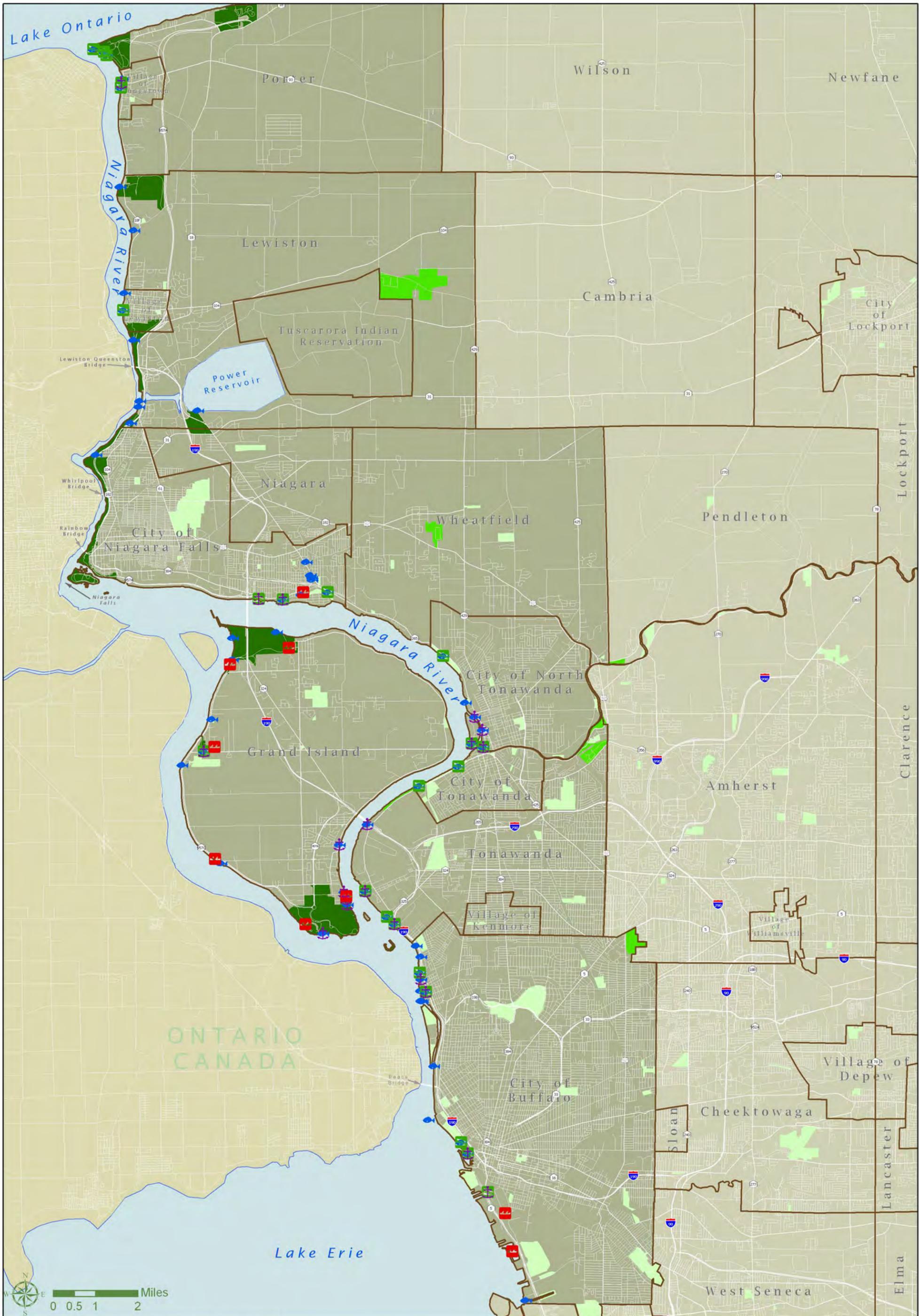
- ERIE CANAL TRAIL
- HIKING
- MULTI-USE
- DESIGNATED BIKE LANES
- SHORELINE
- SEAWAY TRAIL
- WINE
- Canoe & Kayak Trails
- BIKE
- SHORELINE
- SEAWAY TRAIL
- WINE



Data Sources: New York Power Authority, Erie County Office of Geographic Information Systems, Niagara County Office of Real Property Tax

Figure 3

Map Created: March 20, 2007 WD Project # 427001



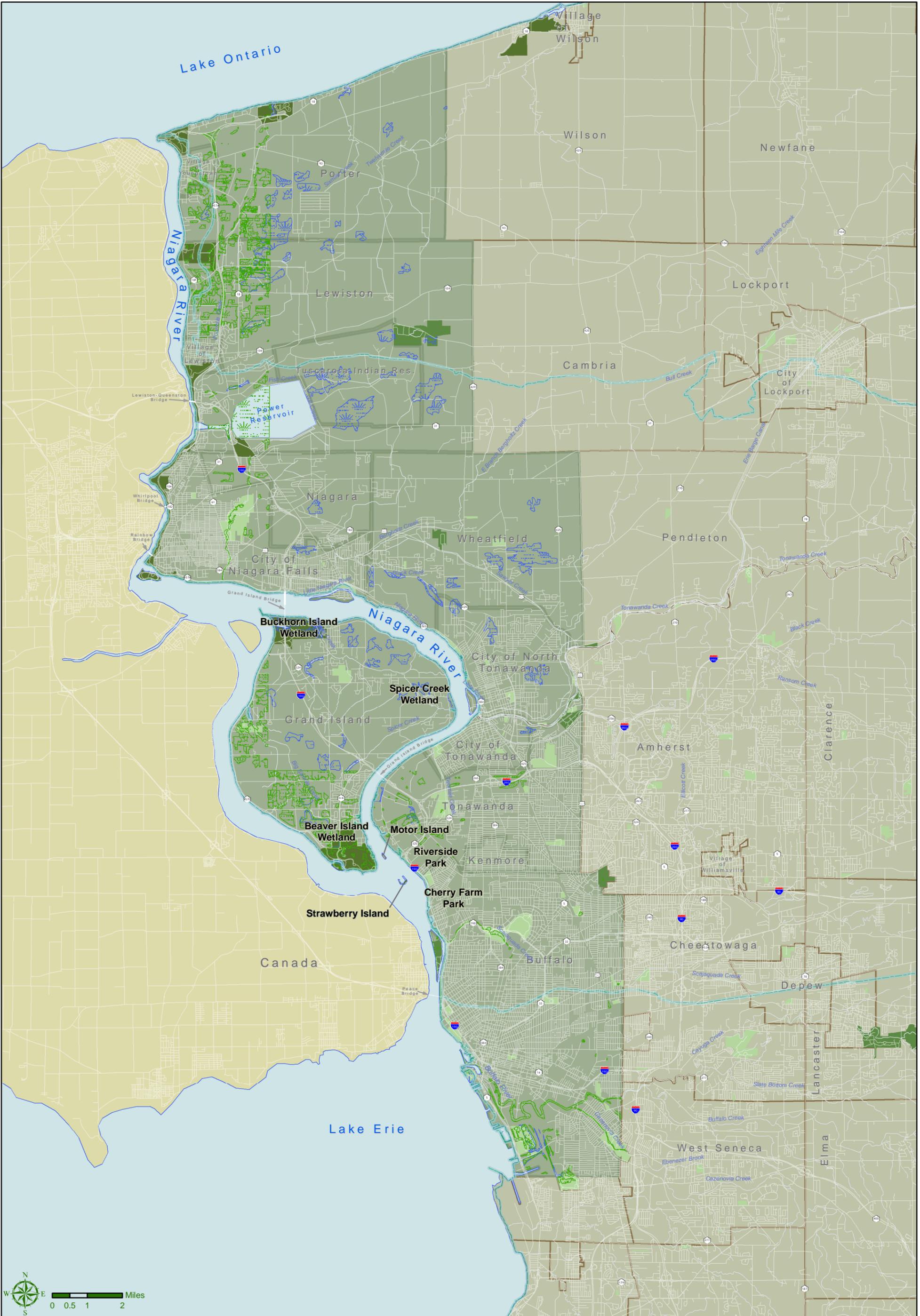
NIAGARA RIVER GREENWAY

Water Access

-  Marina
-  Boat Launch
-  Fishing Access
-  Canoe Launches

Figure 4

Data Sources: New York Power Authority, Erie County Office of Geographic Information Systems, Niagara County Office of Real Property Tax



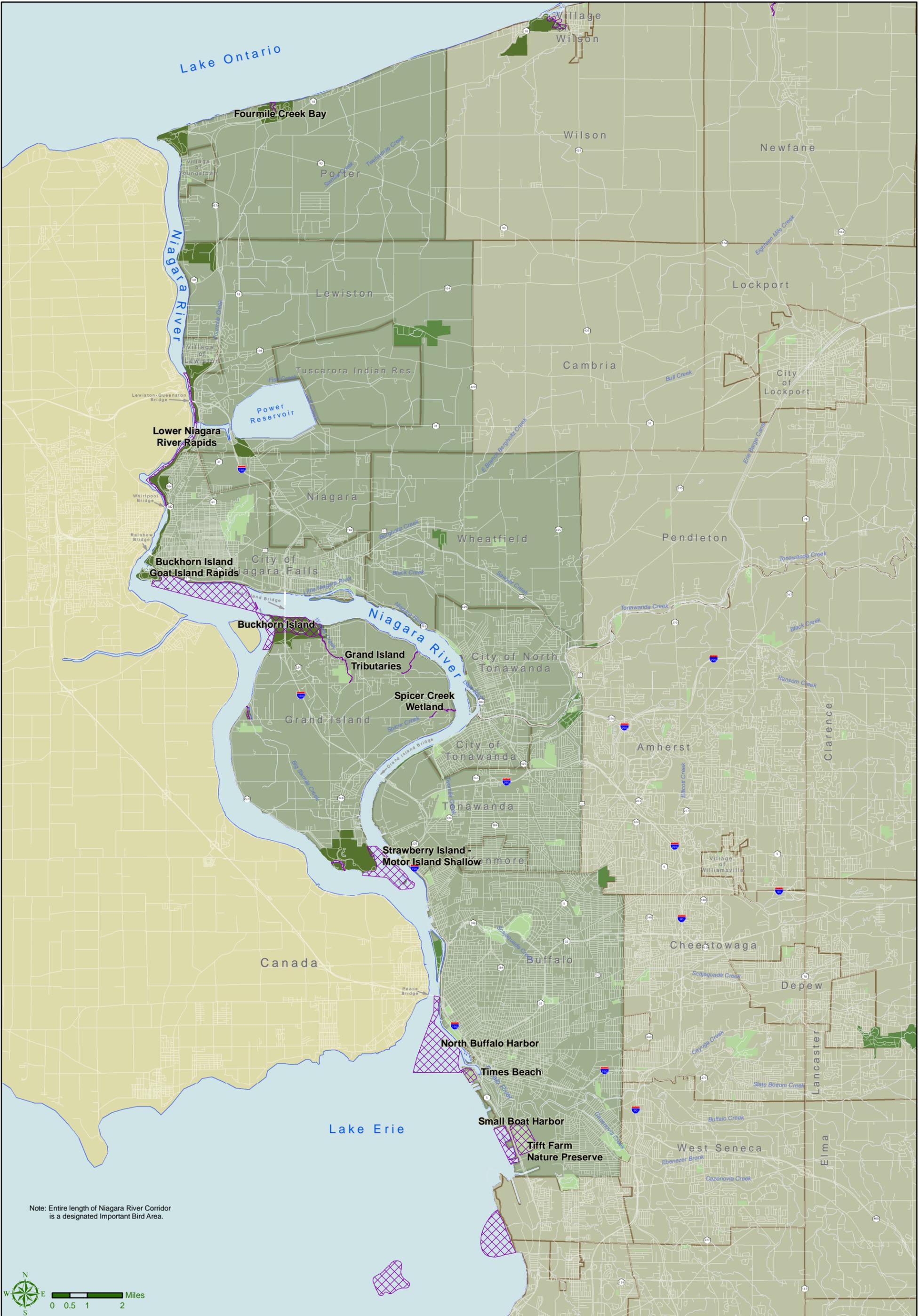
Niagara River Greenway

Water Features and Wetlands

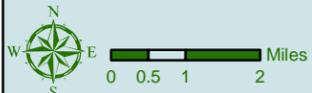
- Greenway Boundary
- Watershed Boundary (HUCs)
- DEC Wetland
- NWI Wetland
- Stream

Data Sources: New York Power Authority, Erie County Office of Geographic Information Systems, Niagara County Office of Real Property Tax, United States Fish and Wildlife Service, New York State Department of Conservation

Figure 5



Note: Entire length of Niagara River Corridor is a designated Important Bird Area.



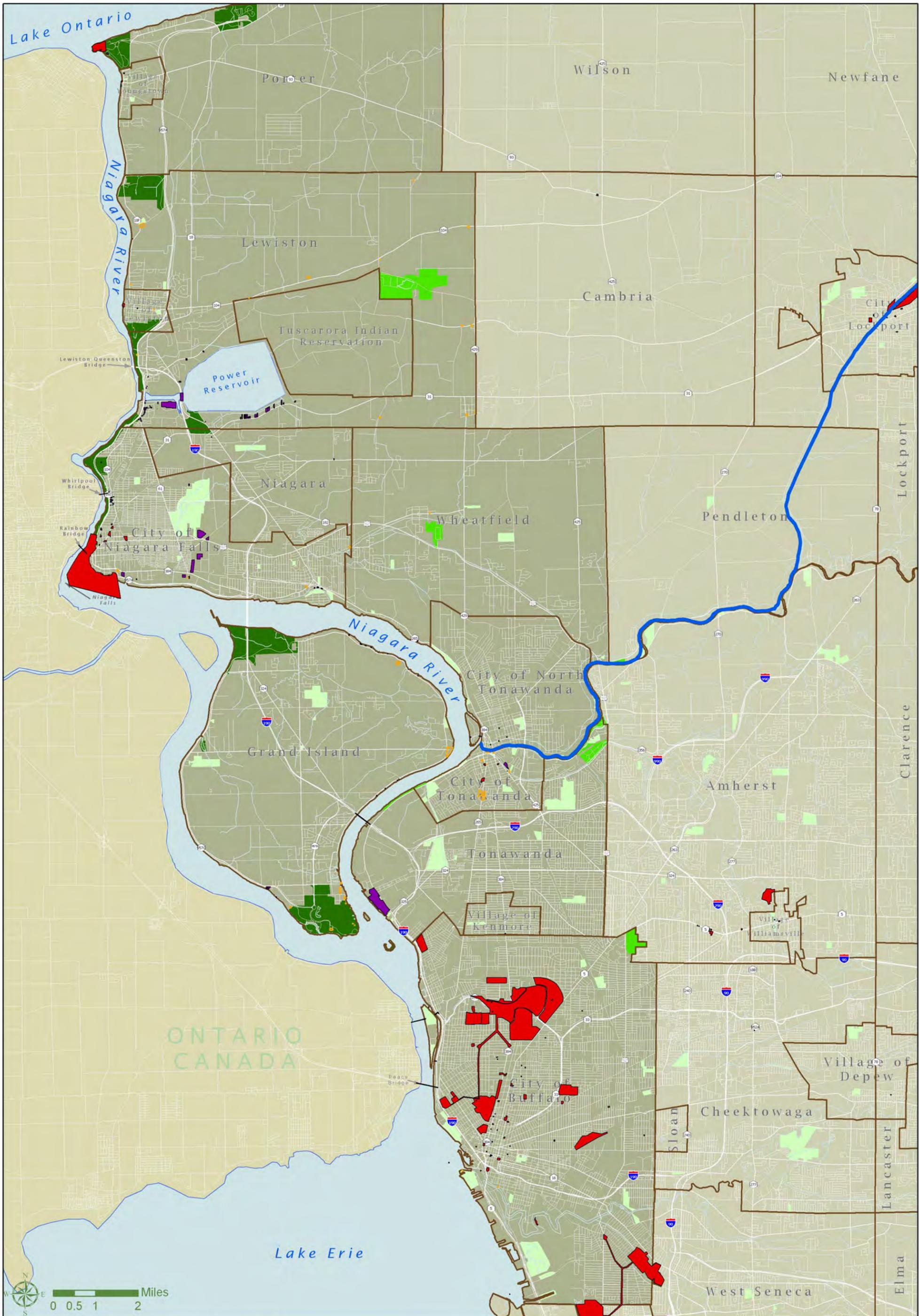
Niagara River Greenway

Significant Coastal Fish & Wildlife Areas

-  Significant Coastal Fish and Wildlife Boundary
-  Greenway Boundary
-  Stream

Data Sources: New York Power Authority, Erie County Office of Geographic Information Systems, Niagara County Office of Real Property Tax, NYS Department of State, Division of Coastal Resources

Figure 6



NIAGARA RIVER GREENWAY

Heritage

- National Register
- Eligible for National Register
- Locally Significant
- ~ Erie Canal National Heritage Area

Figure 7

Data Sources: New York Power Authority, Erie County Office of Geographic Information Systems, Niagara County Office of Real Property Tax

CHAPTER 2: INVENTORY

The following list presents categories of properties that should receive priority consideration for preservation for conservation purposes. The Niagara River Greenway Plan does not identify nor target specific parcels of land for acquisition.

Priority Conservation Projects	
Tonawanda Creek Watershed	Protection of Tonawanda Creek and its tributaries. Associated features include wetlands, open field habitats, occasional occurrences of old growth forest amid second growth forest. Threats: development, bank erosion, pollution, stormwater runoff.
Buffalo- Niagara River Corridors	Enhancement of public access to Lake Erie, Buffalo River, Niagara River, improve vital wildlife habitats in corridor. Threats: development threatens relatively undisturbed forests in urban Buffalo area.
Ecological Corridors	Protection of existing linear corridors and creation of new greenway corridors to link public lands, historic sites, improve recreational access and protect fish and wildlife habitats, including areas contiguous to water bodies, existing linear corridors. Niagara River Corridor specifically listed as important corridor.
Exceptional Forest Communities	Preservation of remaining forest remnants that exhibit old growth characteristics throughout WNY region. (e.g. DeVeaux Woods, White Oaks on Grand Island)
Niagara Escarpment	Protection of diversity of ecologically significant habitats along the length of the Niagara Escarpment in Niagara County through acquisition or easements. Preservation focused on forested tracts, protection of shellbark hickory wetland forest, abandoned farmland, wetland and floodplain habitats.
Urban Wetlands	Urban wetlands provide resident and migratory habitat for wildlife and public access to ecological resources lacking in most urban landscapes. May require establishment of upland buffer zone through acquisition or easements on adjacent properties in addition to wetland acquisition. Priority areas include the Klydel wetlands in the City of North Tonawanda and the Tiffit wetlands in the City of Buffalo. Additional sites are located in Tonawanda, North Tonawanda, Amherst, Cheektowaga, Lackawanna, Buffalo and Niagara Falls.
Great Lakes Shorelines and Niagara River	Major resources of statewide importance with variety of habitats and features, recreational and cultural resources. Fish, bird and wildlife habitats, including threatened and endangered species. NYS Open Space Plan specifically lists Niagara River Greenway corridor.
State Forest and Wildlife Management Area Protection	Protection and enhancement of existing State Forests and Wildlife Management Areas; improve access; eliminate in-holdings; provide buffers to protect resources, improve recreational and cultural opportunities.

CHAPTER 2: INVENTORY

Priority Conservation Projects	
New York State Canal System	Major recreational corridor for hiking, biking, boating, water access and recreational opportunities. The Erie Canal Greenway, the Niagara River Greenway and the Hudson Valley Greenway collectively make up the proposed “Empire State Greenway.”
State Park, State Historic Site Protection	Protection and enhancement of existing State Parks and State Historic Sites. Improve public access; eliminate in-holdings; provide buffers to protect resources; enhance recreational and cultural opportunities.
Statewide Small Projects	Acquisitions that promote one of six subcategories. Projects may not exceed \$250,000 or 200 acres. Public Fishing Easements; Waterway Access (including canoe & kayak access); Enhancement of Public Lands (improve access, provide buffers); Significant Rare Habitats; Significant Historic Archeological Resources; Trail & Greenway Connections (connecting links in trail systems)

Source: NYS 2005 Open Space Conservation Plan (Draft), November 2005

In addition to conservation of lands for environmental purposes, this Plan supports the reuse of brownfield sites and redevelopment of vacant or underutilized properties within the existing urban centers, neighborhood business districts and downtown “Main Streets” areas adjacent to the Niagara River. Rebuilding within already developed areas will help local economies and help to relieve development pressures on open spaces.

E. Existing Plans and Plans under Development

In recent years, there has been a great deal of planning activity in the communities along the Niagara River. These plans have helped establish community visions for waterfront lands and broader municipal areas. All of the local governments that front the Niagara River have undertaken some level of planning for their waterfront, either through developing Local Waterfront Revitalization Programs, local Comprehensive Plans, greenspace plans and/or strategic plans. As illustrated in the

following table, seven of the eleven municipalities fronting the Niagara River have prepared Local Waterfront Revitalization Programs (LWRPs) pursuant to Article 42 of the NYS Executive Laws. This list includes the Town of Grand Island, whose LWRP was approved by New York State in December 2006. While the City of Niagara Falls does not have an LWRP, it has completed a waterfront plan. The Town of Niagara and the Village of Kenmore do not have waterfront lands.

LWRPs seek a balance of economic development and natural resource protection and are, therefore, important mechanisms for communities to use in implementing the Niagara River Greenway Plan. An important feature of a LWRP is that once adopted, state and federal actions must make an effort to comply with the LWRP. In partnership with the Department of State, Division of Coastal Resources, all Niagara River Greenway communities are encouraged to prepare a Local Program. Existing LWRPs should be amended to incorporate the Niagara River Greenway.

CHAPTER 2: INVENTORY

Several communities have committees charged with waterfront planning, and a number of municipalities are actively implementing projects, plans and programs

set forth in their planning documents. The following table summarizes the status of planning efforts for the communities along the Niagara River.

Municipal Planning Documents- Greenway Communities	
City of Buffalo	City of Buffalo LWRP (Draft: 2005) City of Buffalo Waterfront Corridor Initiative (Draft: 2005) Queen City in the 21 st Century: Buffalo's Comprehensive Plan (2004) Queen City Hub: A Regional Action Plan for Downtown Buffalo (2003)
Town of Tonawanda	Town of Tonawanda Comprehensive Plan (2005) Town of Tonawanda LWRP (1997), (Draft Amendment: 2004) Town of Tonawanda Waterfront Land Use Plan (2002)
Town of Grand Island	Town of Grand Island Comprehensive Plan (1995, revised 1998) Town of Grand Island LWRP (2006)
City of Tonawanda	City of Tonawanda Comprehensive Plan (2002) City of Tonawanda: Staged Program of Erie Canalfront Actions (1996) City of Tonawanda LWRP (1987)
City of North Tonawanda	City of North Tonawanda Downtown Redevelopment Plan (2006) City of North Tonawanda Comprehensive Plan 1990-2010 (1990) City of North Tonawanda LWRP (1988)
Town of Wheatfield	Town of Wheatfield Comprehensive Plan (2004) Town of Wheatfield Greenspace Master Plan (1995)
City of Niagara Falls	City of Niagara Falls Strategic Plan (2004) Achieving Niagara Falls' Future: An Assessment of Niagara Falls' Waterfront Planning (2002) City of Niagara Falls LWRP (Draft: 1996) Comprehensive Plan for the City of Niagara Falls (1992)
Town of Niagara	Comprehensive Plan (1972)
Lewiston Town	Town of Lewiston Comprehensive Plan (1981: revised 1998 as Master Plan Executive Summary)
Lewiston Village	Village of Lewiston LWRP (1991)
Town of Porter	Town of Porter Comprehensive Plan: Connecting Our Past with the Future (2004) Toward a Smart Growth Master Plan (2003)
Youngstown Village	Village of Youngstown LWRP (1990)

In addition to the planning efforts being undertaken by the local jurisdictions with direct control over land use and zoning, there have been a number of regionally based or intermunicipal planning efforts, where cooperative partnerships across municipal lines have begun to occur. These documents also provided valuable insight into the potential for the Niagara River Greenway to help coordinate activities and serve as an organizational framework for planning activities. The following list summarizes the major regional and intermunicipal reports and studies that have been conducted in the region.

CHAPTER 2: INVENTORY

Additional Planning Documents
Framework for Regional Growth- Erie + Niagara Counties (2006)
Niagara National Heritage Area Study Report (2006)
Options for Managing Lake Ontario & St. Lawrence River Water Levels and Flows (2006)
Comprehensive Economic Development Strategy (CEDS), Niagara County, NY (2006)
New York State Open Space Conservation Plan (2006)
Erie Canalway National Heritage Corridor: Final Preservation and Management Plan (2006)
Western Erie Canal Heritage Corridor Management Plan (2005)
A Cultural Tourism Strategy (2005)
Erie County Shoreline Wind Study (2005)
Revealing Niagara: Heritage and Cultural Tourism in the Bi-National Niagara Region (2002)
Frederick Law Olmsted studies (various)
Various site specific studies, plans and documents

Several communities are working on implementing the recommendations and actions developed in their planning documents. The Town of Porter is developing new zoning regulations to further the vision set forth in their recently adopted Comprehensive Plan. The Cities of Niagara Falls and Buffalo have a number of initiatives underway designed to help accomplish the goals set forth in their plans. These include brownfields studies, transportation studies, neighborhood plans and area strategic plans, as well as specific

project-based planning efforts. Nearly all of the communities within the Niagara River Greenway area have identified specific action items that they want to see accomplished, and many have begun to take steps to achieve those projects and activities.

The Niagara River Greenway Commission has received lists of projects and concepts from municipalities and various interest groups, stakeholders and membership groups across the region. These proposals are summarized in Chapter 5 of this report.

CHAPTER 3: VISION AND PRINCIPLES

3.0 VISION AND PRINCIPLES

A. Vision for the Niagara River Greenway

The Niagara River Greenway is a special place, encompassing significant natural, cultural, recreational, scenic and heritage resources. It is also a way of integrating the ideas and stories that bring the Niagara River corridor to life and reveal this region's interdependence, its place in history and its connections to the natural and built environment. The Niagara River Greenway is also a planning framework. It represents a tangible initiative that various constituents, organizations and municipalities can organize around, advancing local and regional agendas for community livability, environmental sustainability, and economic revitalization. The general support for the concept of the Greenway can help overcome rivalries and encourage greater cooperation and opportunities for partnerships. For this planning framework to work effectively, it must be built on a consistent vision for the Niagara River Greenway.

There is consensus about the importance and value of the Niagara River corridor. From local governments to various grassroots organizations, there is a long history of grassroots planning related to waterfront and greenway issues. These efforts have been focused around specific issues, such as

watershed protection, environmental preservation, trails planning, neighborhood revitalization, and brownfield redevelopment. They have also been organized around particular projects. Numerous non-profits and other stakeholder organizations have worked hard on improving a wide range of specific assets along the greenway, such as heritage sites, parks, creeks, waterfront access, habitats, and more. As the active public participation evidenced throughout this process has shown, there are many individuals, municipal leaders and organizations who are passionate about various aspects of the Niagara River Greenway, and who care deeply about its future.

This long history of planning, the diversity of groups working to achieve a better quality of life in the communities along the River, and the advocacy that has occurred throughout this effort all underscore the broad support and appeal of the Greenway. While there has been debate over specific issues, there has consistently been support for the concept of a Niagara River Greenway that seeks to preserve, enhance, integrate and promote those elements of the River corridor that help make this a special place. Building upon that support, the Commission has adopted the following Vision Statement for the Niagara River Greenway:

Niagara River Greenway Vision Statement

The Niagara River Greenway is a world-class corridor of places, parks and landscapes that celebrates and interprets our unique natural, cultural, recreational, scenic and heritage resources and provides access to and connections between these important resources while giving rise to economic opportunities for the region.

CHAPTER 3: VISION AND PRINCIPLES

Several points in this Vision Statement merit emphasizing.

The Niagara River Greenway is world-class.

Niagara Falls, the centerpiece of the Greenway, is one of the great natural wonders of the world. To quote from the National Parks Service, “At Niagara we encounter a natural phenomenon that is overwhelming in its magnitude and deeply embedded in popular consciousness.” In addition to the world-class importance of the Falls, the Niagara River Greenway also includes internationally significant birding areas, unique ecosystems, and world-class architecture. The development of the Greenway presents opportunities to add to this list of world-class features, with new activities and projects of equal caliber.

The Niagara River Greenway is a corridor.

The River, the Greenway and its resources extend as a linear corridor from Lake Erie to Lake Ontario. Although the jurisdictional boundary of the Greenway is based on municipal lines, the heart of the Greenway and the focus of most activities will fall within the area nearest the water.

The elements of the Niagara River Greenway that make it special include its places, parks and landscapes.

Many landscapes create the corridor, including open spaces and conservation areas, parks and recreational sites, working industrial lands and now-vacant brownfields, cities and residential neighborhoods. These places and their diversity contribute to the experience of the Greenway.

The Niagara River Greenway is a place to celebrate and interpret shared resources.

The many unique ecosystems and environmental features merit both protection and greater appreciation. The Greenway is dotted with dozens of cultural attractions and venues, and a myriad of events enliven

the corridor and contribute to the experience of the Greenway. There are vast recreational opportunities on both land and water, ranging from active pursuits to passive enjoyment of the landscape. The Greenway can make these more accessible. The Greenway contains a diversity of sceneries that tend to get taken for granted, but which stun visitors with their quality. The history and heritage of this region runs deep, touching every aspect of the American experience from the rich history of the Native Americans who first lived along the shores of the River to the modern day. The Greenway is a physical place where people can experience and obtain a greater understanding of these rich resources. The Niagara River Greenway presents an opportunity to contribute to the economy of the region by promoting economic and tourism opportunities that capitalize on the region’s rich inventory of ecological, heritage, recreational and cultural resources.

The Niagara River Greenway will serve as a circulation system for the region that will improve access and connections throughout the area.

The Greenway will physically connect parks, recreation, waterfront sites and other resources to each other and to the surrounding areas, through trails, interpretive signage, gateways, overlooks and other linkages. It will also create emotional and experiential connections. The Greenway, as a conceptual framework, will knit the diverse elements of the region into a more coherent whole.



The Rapids above Niagara Falls

CHAPTER 3: VISION AND PRINCIPLES

B. Overview of Public Participation Efforts

Preparation of the Niagara River Greenway Plan has provided meaningful opportunities for local leaders, stakeholders, and the general public to provide ideas and insights into the development of the plan. Outreach has been extensive and diversified, using a variety of techniques and forums for disseminating information and soliciting input. Information about the Greenway and dialogue with the various stakeholder groups even precedes this current plan, having been initiated in relation to the New York Power Authority relicensing efforts, when numerous interviews and meetings were held with representatives of governments, agencies, environmental groups, non-profits and other interests.



Public Meeting for the Greenway Plan

The public participation element for the project has included workshops, stakeholder meetings, website postings, brochures, interviews and public meetings. Particularly in Niagara County, the local press has provided consistent attention to the project. Public input has also been structured into the design of the Niagara River Greenway Commission. All meetings of the Commission have been open to the public, with advance notice provided to the media.

The legislation establishing the Niagara River Greenway Commission set up two subcommittees, which have met regularly for the express purpose of communicating progress and obtaining feedback on the planning effort. The Local Government Advisory Committee provides an avenue of communication with the local government leaders who will be responsible for adopting the plan. The Citizen Advisory Committee provides the opportunity for various stakeholder groups and members of the general public to be informed of progress being made, and offer any comments or concerns they may have. Both forums have also been used by participants to recommend specific projects and concepts for inclusion in the Niagara River Greenway Plan.

A summary of public participation is included in Appendix B.

C. Principles for the Niagara River Greenway

The principles for the Niagara River Greenway represent the general values that will guide greenway planning into the future. These basic principles have been presented and discussed in various venues, and have received broad general support on the part of the wide range of groups that have been actively involved in the development of the Greenway Plan.

The focus of these principles is to facilitate the implementation of the vision established for the Niagara River Greenway. They promote high-quality, ecologically sensitive and sustainable activities and development. All actions within the Niagara River Greenway should be evaluated against these principles, not only to assess their validity, but to help improve the quality of efforts that move forward.

CHAPTER 3: VISION AND PRINCIPLES

The guiding principles for the development of the Niagara River Greenway are:

- **Excellence** – Existing Greenway resources are globally significant and Greenway projects will meet world class standards.
- **Sustainability** – The Greenway will be designed to promote ecological, economic and physical sustainability for long-term viability and effectiveness.
- **Accessibility** – The Greenway will be designed to provide and increase physical and visual access to and from the waterfront and related resources for a full range of users (youth, seniors, persons with special needs).
- **Ecological Integrity** – The Greenway will be focused on maintaining and improving the health, vitality and integrity of natural resources and wildlife habitats. Emphasis will be placed on restoring and retaining ecologically significant areas and natural landscapes, both in and over the water and upland.
- **Public Well-Being** – The Greenway will be designed to achieve and promote physical and emotional wellness through the experience that it offers to the public. Availability of both land- and water-based recreational facilities, and access to both active and passive recreational opportunities should be considered in the development of Greenway assets.
- **Connectivity** – The Greenway will increase connectivity and access (trails, pathways, parks, water access), promote the continuity of open space and habitats, and provide for connections to related corridors and resources across the region, including connections across the international border with Canada.
- **Restoration** – The Greenway will be designed to encourage the restoration of ecological resources, the appropriate reuse of brownfields, and the revitalization of existing urban centers along the corridor.
- **Authenticity** – The Greenway will establish a clear sense of “place” and identity that reflects the traditional spirit and heritage of the area. Projects and activities should have a connection to the character, culture and/or history of their location.
- **Celebration** – The Greenway will be designed to celebrate local history, diversity, cultural resources, and the natural and built environments, and will seek to share this diverse tradition with local residents and visitors to the region. Projects that support education, interpretation are encouraged, as are events and activities that help build social interaction and shared experiences.
- **Partnerships** – The focus of the Greenway will revolve around cooperation and reciprocal compromise. Relationships and partnerships must be formed and strengthened to achieve coordination and integration of efforts throughout the Greenway.
- **Community Based** – Greenway planning will reflect the preferences and plans of the local communities, while respecting other stated goals and the communal vision of the Niagara River Greenway.

The above principles present a guide to actions and development within the Niagara River Greenway over the long-term, so that the cumulative effect of projects is to move toward achieving the shared vision for the Niagara River Greenway. The principles are applicable to municipalities without waterfront lands as well as those fronting the River. They promote access and connections, including trail linkages. They support high quality, ecologically-sound projects throughout the region. They are fundamental enough to remain relevant over changing circumstances, providing consistency with flexibility. However, they are also necessarily abstract. The following section describes the goals that have been developed to help operationalize these principles.

CHAPTER 3: VISION AND PRINCIPLES

D. Greenway Goals

The planning process for this effort revealed a number of concepts that represent what is seen as the core of the Niagara River Greenway. These benchmark concepts are important to achieve in order to realize the full potential of the Niagara River Greenway. They are articulated here as goals. They form the basis for the priorities articulated in the next Chapter, and were the inspiration for the Implementation Concepts. These goals are very interrelated, with considerable overlap between them. The goals will achieve an improved quality of life for area residents and an enhanced visitor experience.

These goals represent the primary goals that need to be accomplished at the outset of this process in order to fulfill the vision for the Niagara River Greenway. As the Greenway develops, additional goals will emerge that build upon this foundation, but the core goals identified here are the initial focus. The Niagara River Greenway Commission has limited resources, in terms of funds, staff or other resources, and cannot undertake an ambitious agenda of items. The Commission's most effective position is to take a leadership role, and set the general direction for the hundreds of collective actions undertaken by a variety of public sector and private sector entities that will incrementally help create the Greenway. Therefore, these goals are simple and limited in number, to maximize their near-term impact.



Tonawanda Gateway Harbor

Improve Access

Residents during the public participation process made it clear that they value the assets of the Greenway, and welcome better opportunities to be able to enjoy these resources. Establishing a multi-use trail network across the Greenway is one way to enhance access. Gateways welcome visitors to the Greenway and promote access. There is support for increased opportunities for water-side access, including “blue line,” or water-based trails. Scenic overlooks, interpretive centers, signage and wayfinding systems also help promote access, by making it easier to navigate the Greenway. The Niagara River Greenway will facilitate ways for people to take advantage of the full range of resources and activities along the River.



Niawanda Park, City of Tonawanda

Make Connections

Most fundamentally, the Greenway is a means to forge better connections across the region. These connections include physical connections that link destinations and communities, and the development of a multi-use trail along the length of the River is a primary goal of the Greenway. Connections also include conceptual linkages: how do people understand the Greenway? How do they navigate through the Greenway? How do they understand the



CHAPTER 3: VISION AND PRINCIPLES

connections between the people, the history and the environment of the region?

The Greenway is a communal concept that stretches across two counties and over thirteen municipalities. The Greenway will promote improved physical connections between the many assets of the Greenway. It will promote improved coordination among the many partners that make up the Niagara River Greenway, and the Greenway will foster the greater integration of the stories, resources and features that make up the Niagara River Greenway.



Strawberry Island

Protect and Restore Environmental Systems

There is a strong sense of stewardship for the ecological and environmental features of the Greenway. Restoring the environmental health of the region is seen both as an important goal and a critical input into the success of the Greenway. There is passionate support for a Greenway that protects and restores the region's environmental systems, which is a necessary step for the future revitalization of the region's economic health. There is also strong interest in providing interpretive opportunities to increase public awareness of the value of these resources, and build a greater constituency for regional environmental assets. The Niagara River Greenway will protect and restore the environmental resources of the region through habitat restoration, reclamation of

damaged areas such as brownfields, and preservation of unique and threatened ecological resources. The Niagara River Greenway Commission will encourage interpretive opportunities to inform the general public about environmental resources and their importance.



Statue of Tesla, Niagara Falls

Celebrate History and Heritage

There is great excitement for a Greenway that helps the region celebrate and share its history with the world. In public outreach meetings, sessions of “Telling the Story” elicited the greatest participation and enthusiasm. There are literally hundreds of stories about this region, ranging from those of national importance, to the lesser known and personal stories of individuals who lived in the region. The Niagara National Heritage Area Study has outlined many of these stories, which help create a shared identity and pride for the Greenway and help connect its people, local residents and visitors alike, to the region. Additional stories from the Erie County portion of the Greenway follow similar themes. The Niagara River Greenway will increase opportunities for celebrating the area's rich history. The Greenway will form a thematic framework for interpretation and improve coordination of interpretive activities.

CHAPTER 3: VISION AND PRINCIPLES

Spark Revitalization and Renewal

There is an understanding that the Greenway can help spark revitalization, reinvestment and renewal in the cities and communities along the corridor through sustainable development, tourism and improved quality of life factors. Reuse of brownfields and support of downtown “Main Street” development is also a goal. Economic revitalization as an activity is not the focus; rather, it is the result of good planning and an emphasis on the other features of the Greenway. In the 21st century economy, the livability of a place, including the natural environment, the built environment, the culture and recreational offerings all contribute to attracting residents, visitors and investment. Economic prosperity will be the natural outcome of making the types of improvements that further the other goals of the Greenway.



Third Street, Niagara Falls

Promote Long Term Sustainability

While the focus in planning is often on new facilities and projects, there are many existing resources and assets that comprise the Niagara River Greenway. In order to strive for excellence, these resources will require care and maintenance to ensure that they remain functional and attractive assets

into the future. The Niagara River Greenway will promote the long-term sustainability of existing sites and features through continued investment in regional assets, and rehabilitation and improvement of aging facilities.

Extend Olmsted's Legacy



Frederick Law Olmsted was instrumental in saving Niagara Falls and portions of the Niagara River corridor from over-

development at a time when commercial and industrial development threatened the integrity of the landscape. Olmsted's vision for the Niagara River corridor was truly revolutionary and it established a legacy that is important to maintain and enhance. Olmsted's vision extended beyond the “Niagara Reservation.” He envisioned a necklace of parks and open spaces along the length of the River, from Front Park in the City of Buffalo and stretching north of the Falls. Olmsted's design for the Buffalo Park system included open spaces and connecting parkways that provided access to greenery at a municipal scale. The Niagara River Greenway will integrate open space and connections to provide access to a diversity of resources at a regional scale. Efforts undertaken under the leadership of the Niagara River Greenway Commission will preserve Olmsted's vision, building a legacy for future generations.

CHAPTER 3: VISION AND PRINCIPLES

Page Left Intentionally Blank

CHAPTER 4: ACTION PLAN

4.0 ACTION PLAN

The Action Plan represents the recommendations and implementation concepts for the Niagara River Greenway Plan. It establishes a methodology for realizing the vision outlined in the previous chapter. Implementing the Greenway is a massive undertaking that will take the cooperative efforts of a wide range of groups and people. The Vision, the Principles and the Goals will set the compass in the right direction, but it will take hundreds of incremental steps and individual actions to make the Niagara River Greenway a reality. The Action Plan sets forth the framework to guide collective decision-making for the Greenway, so that all stakeholders will have a sense of how their specific actions contribute to the whole. It will guide planning efforts of local and State agencies throughout the Greenway, and form the basis for moving toward a consistent vision.



Paddles-Up Event, Beaver Island State Park

This section of the report addresses criteria for evaluating and forming projects and activities proposed within the Greenway. It also identifies potential funding sources; strategies for operations and maintenance; key partnerships and potential linkages. It addresses system-wide transportation issues that will have an impact on the Greenway, as well as a series of Implementation Concepts that illustrate system-wide recommendations. It concludes with a

summary section that illustrates the Vision for the Greenway in graphic terms.

A. Criteria:

The Niagara River Greenway will be comprised of many individual actions, under the sponsorship of various municipalities, non-profit groups, neighborhood organizations, cultural institutions and others. Many of these actions will be site specific projects. Others will constitute

Criteria

1. Consistency with Principles
2. Priority Status
3. Focus Area
4. Environmental Soundness
5. Implementable
6. Economic Viability
7. Local Sponsor or Partner
8. Matching Funds/ Leveraging
9. Consideration of other Planning Efforts
10. Clear Benefits

system-wide improvements, such as signage; while another category of projects will include programming, such as the use of “Greenway Guides” and the scheduling of special events. This plan must set clear criteria for the evaluation of these activities, not only so the Commission can determine whether an action is consistent with the Plan, but also to help guide and inform project development.

The criteria are evaluative, but they are also intended as a planning tool. Above and beyond their use as a means for advancing project proposals, the Greenway Commissioners can use these criteria in discussions with municipalities and other project sponsors to help them improve their proposals. They can also be used as a tool in the initial design of projects, to help project sponsors improve the quality of their submissions. In other words, the criteria are also normative, in that they strive to

CHAPTER 4: ACTION PLAN

establish a standard. In this sense, the criteria can be used to help improve the quality of projects and activities throughout the Greenway.

For example, these standards can be applied by municipal planning boards to assess private sector development within the Greenway, and make recommendations regarding potential revisions the sponsor could adopt to improve how the project integrates into the Greenway. These adaptations would be entirely voluntary, but it has been shown that quality of life factors, such as proximity to trails, access to recreational amenities and availability of cultural activities are becoming significant marketing factors for both commercial and residential private development.



Isleview Park, Tonawanda

These standards can also be used to evaluate projects being forwarded for grant funding, whether through the Relicensing Greenway Settlement funds or through other funding sources. In regard to the Settlement Funds, the Niagara River Greenway Commission does not have control over which projects will be funded, which falls under the jurisdiction of the Standing Committees created as part of the contractual agreements with the New York Power Authority. (See Appendix C). While the Standing Committees have the sole responsibility for selecting projects to be funded in whole or

in part, project applicants must provide documentation evidencing consultation with the Niagara River Greenway Commission. The following criteria can be used to facilitate this consultation. Projects do not need to meet all 10 criteria, and all proposed projects would be evaluated based on the totality of the project. It is possible that in the future, other potential funding agencies will adopt these standards as a means to evaluate projects forwarded for funding within the Greenway.

The criteria, which were built from previous planning efforts and extensive public input, are intended to provide stronger guidance for project sponsors as to the types of projects that would help promote the Greenway. The Niagara River Greenway Commission will not itself undertake any projects, and no projects will be evaluated except upon request by a project sponsor.

1. Consistency with Principles

The most basic consideration is whether a proposal is consistent with the Principles that have been established for the Niagara River Greenway (see Chapter 3). While there is clearly a quantitative element of consistency in terms of the number of principles that are met by a particular proposal, there is also an equally important qualitative element. A project that makes a significant contribution toward one or two specific principles may be preferred over a project that is simply consistent with a number of principles. Although this determination is inherently subjective, it provides a baseline assessment that encourages vision for the Greenway to be explicitly considered in project development.

CHAPTER 4: ACTION PLAN

2. *Priority Status*

As noted previously, a number of concepts consistently emerged during the public input process as key elements of a Niagara River Greenway. These concepts, articulated as goals in Chapter 3, form the basis of initial priorities for the Greenway Commission. These goals highlight the activities that will advance the Niagara River Greenway over the next decade. The priorities listed here have been developed to ensure proposed activities will take positive steps toward implementing the Greenway goals. As progress is made in achieving this initial list of priorities, there will be revisions and additions to the substantive priority list. Initial priorities for the Greenway are as follows:

- ***Improved access to waterfront resources***

For many years, the Buffalo-Niagara region has neglected its waterfront. Historically, heavy industry, transportation and the infrastructure necessary to support these uses have been sited along the waterfront. As a result, opportunities for public access to the water were limited and those that were available were compromised in overall quality.



Black Rock Canal-Squaw Island

The decline of heavy industry and shipping has opened new possibilities for redevelopment. Municipalities and their residents are now beginning to take full

advantage of the waterfront for its recreational, scenic and aesthetic uses. Waterfront redevelopment is also an integral feature of the revitalization of the urban centers of this region, which were built from the water's edge out.



Fishing near the Niagara Power Project

Improved access includes a wide range of elements and may include physical, visual and experiential factors such as:

- Gateways
 - Trail connections,
 - Boat launch sites, particularly for canoes and kayaks,
 - New open spaces, parklands and conservation areas,
 - Opportunities for scenic overlooks,
 - Interpretive signage,
 - “Greenway Guides” and other interpretive programming
 - Recommended design standard for public and private development near the waterfront that encourage easements for public access, maintenance of sight lines, and avoidance of sensitive lands.
- ***Development of an integrated trail and park system***

One of the highest priorities for the Niagara River Greenway is the completion of an integrated trail system throughout the Greenway. This trail system will be a regional asset for residents and potentially increase tourism in the region. The central

CHAPTER 4: ACTION PLAN

spine of this trail system will be a “Lake to Lake” Trail extending along the River from Lake Erie to Lake Ontario. The Implementation Project on Accessing and Experiencing the River illustrates its potential alignment. A system of spurs and loops extending from the Greenway spine will connect into residential neighborhoods and provide access to near-by attractions, parks or connecting trail systems, such as the Erie Canalway. A parallel system of water-based trails will enhance opportunities for paddlesports and increase the number of ways to enjoy the River. Elements of this trail system are already in place, although certain segments are in need of rehabilitation or other improvements.



“Bicycles Prohibited”

An integrated trail and park system will improve local access to the River, increase recreational opportunity and foster a greater appreciation for the natural resources throughout the Greenway. It will also encourage healthy and environmentally friendly transportation alternatives. As trails advocates have shown, the trail system will likely result in economic development benefits ranging from improved housing sales, increased real estate values, increased tourism, and quality of life factors that can be used as recruitment tools for business investment and the attraction of top quality talent to support these investments. With the growing popularity of eco-tourism, an integrated system of land- and water-based

trails and parks can have strong economic benefits in addition to the intrinsic value for recreation and access.

Creation of an integrated trail and park system must also look at the condition of the existing trail system. There are areas where the existing trail is not well maintained, well-designed, appropriately aligned or user-friendly. It is a priority to rehabilitate and improve the existing trails to ensure consistently high standards throughout the trail system.

▪ *Restoration of Niagara River Ecosystem*

To realize the full potential of the Niagara River Greenway, the Greenway needs to be an attractive, healthy and appealing corridor. Projects that preserve or restore natural habitats, remediate past environmental damage, and/or encourage revitalization and reuse of brownfield sites should receive priority consideration.

In terms of ecosystems, priorities include restoration, enhancement, improved water quality, healthy habitats, improved access, control of invasive species, reintroduction of indigenous species and bio-diversity. Wherever feasible, there should be public ownership and stewardship of critically sensitive lands. Projects designed to promote stewardship for or awareness of the unique environmental features of the River and its natural resources (shoreline, gorge, islands, rapids, tributaries) are also valuable.



Site of Proposed Cherry Farm Park
(brownfield site)

CHAPTER 4: ACTION PLAN



Concept Plan for Proposed Cherry Farm Park

Emphasis should be placed on the following:

- **Degraded Natural Shorelines:** focus on erosion protection projects that will restore natural values with the highest priority given to projects that employ state of the art bio-engineering techniques. Projects that reverse the adverse impacts of armored or hard shoreline edges and restore natural conditions are encouraged.
- **Gorge:** restoration of the geological integrity of the gorge environment including groundwater resources and the replanting of native indigenous species that were known to exist historically within the river gorge.
- **Wetlands:** restore, enhance or reestablish wetlands including urban wetlands along the main river corridor, associated islands and the principal tributaries to the Niagara River. Priority will be given to projects that restore lost ecosystem functions and values and contribute to the overall quality of the Niagara River ecosystem.
- **Buffers:** establish vegetated buffer zones along tributary stream corridors and the Niagara River shoreline to protect water quality and enhance riparian habitat values; discourage development in these sensitive areas and encourage the use of set backs to preserve habitat values.
- **Brownfields:** prioritize projects that will yield environmental improvements and beneficial end uses that foster the goals of the Niagara River Greenway.

- ***Interpretation and education about the region's cultural, natural and historic resources***

Interpretation and education helps the public understand and appreciate the value of the variety of resources along the Greenway. Interpretive signage, programming, brochures, websites, Greenway "guides," events, and other interpretive opportunities help enrich people's experience of the Greenway.



Interpretive Signage in Youngstown

They can also help underscore themes and relationships that personalize the experience and make it easier to understand. Using interpretive themes can also help with packaging and marketing of the Greenway to highlight connections between sites that are not immediately obvious. Interpretive and educational projects can also build an appreciation of the value of the ecological resources of the region.

- ***Revitalization of Urban Centers***
In terms of urban centers, revitalization of traditional downtown centers and promotion of vital neighborhoods will improve the character of the area, promote tourism, curtail sprawl and improve the overall quality of life. Redevelopment in appropriate locations will help alleviate development pressures on natural sites. It is a priority to promote greater activity in traditional downtowns, in neighborhood centers and on brownfield sites.

CHAPTER 4: ACTION PLAN



Village of Lewiston

Redevelopment should avoid important open space areas within urban centers that are often the only natural areas available to urban populations and which serve important environmental functions. Such areas include but are not limited to major urban wetlands, such as Tiff Nature Preserve and corridors of open space, such as those following the Buffalo River.

3. Focus Area

The boundaries of the Greenway have been mapped along municipal boundaries. However, projects close to the River and its immediately adjacent assets should be elevated. Progress on improving this core area will create discrete, visible results that will have a local, regional and even international impact. As activities in the core area are completed, this momentum can then be shifted to areas that link to the greenway or further enhance its definition. Projects within the focus area, as shown in Figure 8, are elevated.

There will be important and valuable projects that fall outside the focus area boundary. Projects outside the focus area should help establish strong linkages between the Greenway focus area and the surrounding area.

In addition, several municipalities do not control their waterfront lands or their waterfront lands are already developed. It is anticipated that these municipalities and

other stakeholders will develop projects consistent with the Greenway plan, but not necessarily along the River's edge. Projects away from the River should help establish physical and/or interpretive connections between the River and the surrounding area.

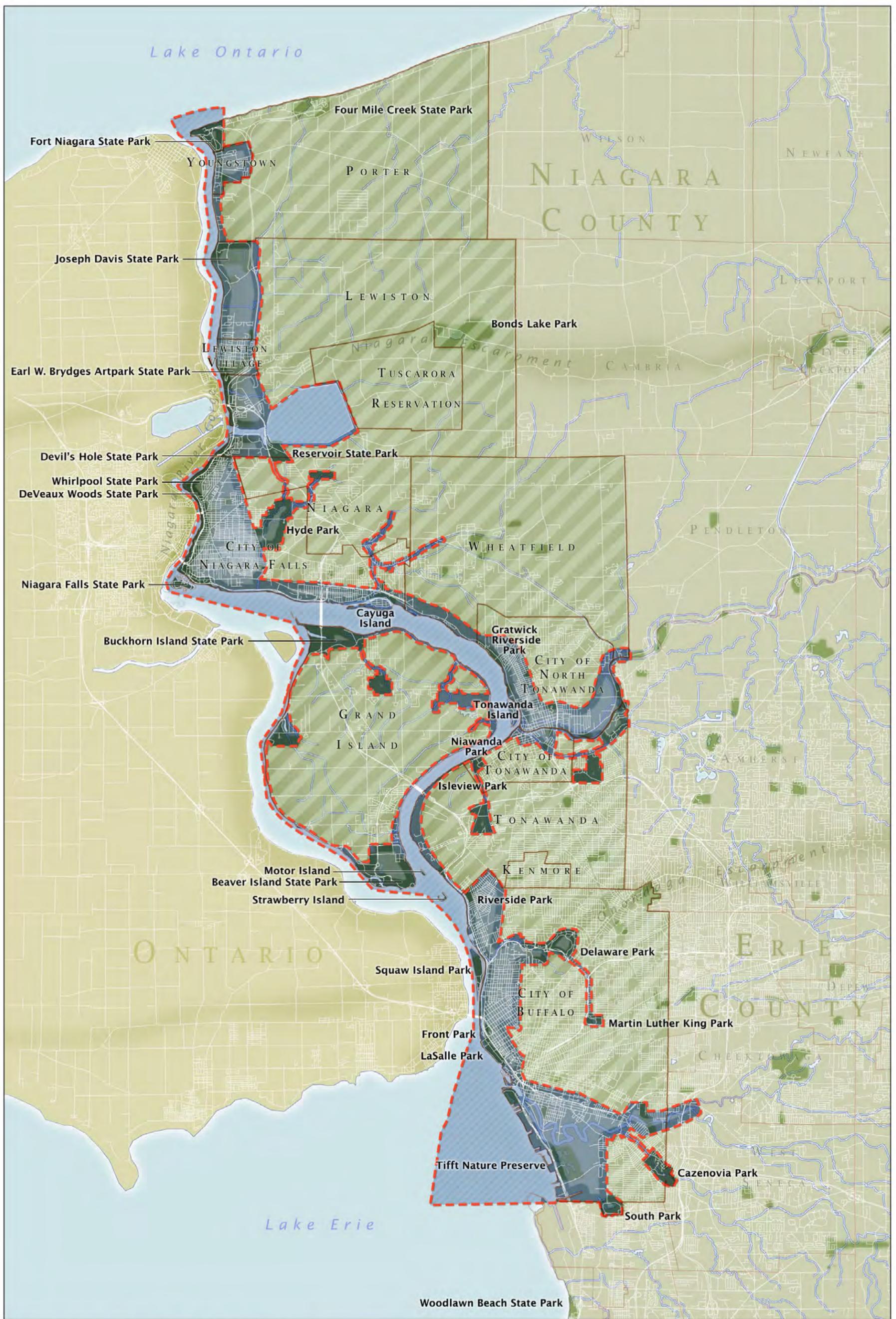
4. Environmental Soundness

The intent of this criterion is to encourage activities to consider environmental soundness in their design and implementation. Projects should strive to enhance the environmental quality of the region. This does not mean that all projects must have an environmental focus, but all projects should undertake a serious evaluation of potential impacts associated with the development, and take a creative approach to how any negative impacts can be reduced or removed.



Niagara River

Environmental soundness should be incorporated into project design for built projects. Energy-efficiency and other "green" design features should be encouraged. Projects that involve a higher density or intensity of use should be encouraged to locate in existing developed areas, reinvesting in the region's urban centers and revitalizing underutilized areas. Projects on waterfront lands should be water-dependent or water-enhanced uses, as defined under the Coastal Zone Management program. The sustainability of the project should also be considered, encouraging use of products that reduce



NIAGARA RIVER GREENWAY
 [Red dashed line icon] Greenway Focus Areas
 [Green shaded area icon] Niagara River Greenway Area

FOCUS AREAS
 MARCH 20, 2007

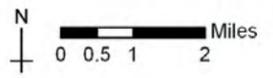


Figure 8

CHAPTER 4: ACTION PLAN

operations or maintenance costs. Project sponsors should avoid projects which result in the disturbance, modification or permanent destruction of Greenway resources that serve the needs of the public interest.

5. *Implementable*

Projects need to be clearly thought-out. Sponsors need to identify the specific actions and steps necessary to complete their proposed projects. Proposals should include a schedule and a realistic assessment of the expected costs associated with the project. This analysis needs to include an assessment of not only capital costs, but also the costs of management, operations and maintenance that can be reasonably expected to occur over the life of the project. The prospective project sponsor must show evidence of having researched the types of permits and regulatory approvals that will be needed to bring the project to fruition, and what strategies and steps will be required to move the proposed project through the various regulatory approval processes. There should be general public support for the project. Public support can be shown through municipal resolutions, public record or correspondence.

Many projects will be too large to accomplish in one step. For these projects, there should be a logical phasing plan. Where feasible, the project should be broken into discrete, coherent “sub-projects,” with each sub-project having independent value and benefit. In the case of a trail project, each sub-section should be a logical length, with termini at reasonable locations. However, phasing shall not be used for the sole purpose of expediting the review of smaller components of a larger discrete project. The level of detail should be commensurate with the level of project consideration. Projects that are at an early conceptual or planning stage will not have specific, firm dates and costs, whereas

projects moving toward construction need to provide greater documentation and justification of the estimates.

6. *Economic Viability*

As a corollary to the concept of “implementable,” each project should have a realistic assessment of anticipated economic viability. The intent of this criterion is to ensure that project sponsors have considered projects’ on-going operation and maintenance costs, as is required under the legislation. The level of effort should be appropriate to the proposed plan, with less information needed for a project, such as a trail, that has more limited operations and maintenance costs than would typically occur for a more ambitious project with potentially long-term costs for personnel, utilities, marketing, and overall management. Projects should be encouraged to incorporate sustainability by using such options as energy-efficient design that will demonstrate a green approach to resource conservation and will reduce on-going operational costs. The economic viability assessment should identify potential revenue streams that will cover expected project costs. If the project has a municipal sponsor, it may be possible to substitute in-kind services consisting of items such as labor, materials or technical services for cash support. If cash support is proposed, the source of funding should be identified.

Projects will not be required to demonstrate economic impacts, and the Niagara River Greenway Commission will not require economic feasibility analyses from project sponsors. However, project sponsors should identify dedicated funding sources, whether through a municipal budget or other source, to cover any on-going shortfalls. Projects that are not self sustaining will become a drain on the region, and will not help advance the purposes of the Niagara River Greenway.

CHAPTER 4: ACTION PLAN

7. *Local Sponsor or Partner*

The Niagara River Greenway must meet a level of quality that enhances the region. Therefore, projects need a sponsor that will assume the long-term responsibility for continued operation and maintenance. A trail that falls into disrepair is not an asset to the region and a facility or project that cannot meet operational cost obligations will not be sustainable. There should be a preference for projects that have a sponsor or partner that will continue to champion the project after it is completed.



LaSalle Pride/ Buffalo Niagara Riverkeeper

The role of the sponsor is to oversee the long-term viability of the project: continued funding needs, operations and maintenance efforts, oversight of management and condition, stewardship into the future. A municipal sponsor is preferred for a number of reasons: municipalities have the institutional capacity to ensure long-term oversight for a project. They have clear sources of revenues, through their taxing authority. They have personnel who can take on responsibility for oversight, maintenance and other functions. Municipalities generally have the capacity to make provisions for public safety and security. Municipal leaders also have the visibility and stature to build support and provide advocacy. Other forms of sponsorship or partnerships are feasible. Non-profits, volunteer groups, or “friends” groups that possess the necessary fiscal and organizational capability can also sponsor

projects. Each case must be considered on its merits, but the stronger the capacity of the sponsor, the more likely the project will be successful.

Research has demonstrated that the most successful Greenways are those that are able to establish strong partnerships. Where it makes sense, joint sponsors are encouraged, to provide more than one supporter, and to help build a wider base of support. Joint sponsorship also facilitates intermunicipal or system-wide projects, such as trails. While the development of partnerships is encouraged, roles should be clearly defined.

8. *Matching Funds/ Leveraging*

The projects and activities that can be undertaken under the Niagara River Greenway umbrella vastly exceed the amount of resources that will be available. The region is fortunate to have a dedicated funding source, through the NYPA Relicensing Agreement funds, to help achieve the purpose of the Greenway. The various Greenway funds total approximately \$9 million per year for the 50-year term of their license (see Appendix C), for a net present value of an estimated \$145.7 million. While these funds represent a significant investment, they are insufficient to fund all of the worthwhile programs, proposals and projects that have been and will continue to be forwarded.

Municipalities and other sponsors will need to look to other sources in addition to NYPA Greenway funds to fully realize the vision for the Greenway. Potential funding sources are discussed later in this chapter.

The Niagara River Greenway Commission has no direct role in allocating funding for projects within the Greenway and cannot set specific funding limits or matching fund requirements. However, it is good policy to try to leverage the funds dedicated to Greenway purposes to the maximum amount possible. Dedicated Greenway funds should

CHAPTER 4: ACTION PLAN

be seen as seed money, employed as “gap” financing, used to leverage other investments, or to match grants obtained from other sources (See Appendix D). They should not be used to substitute for existing funding sources.

9. *Consideration of other Planning Efforts*

There has been a great deal of effort and thought put into various plans for each of the municipalities along the Niagara River Greenway corridor, as well as many planning efforts that cross municipal boundaries. These range from Local Waterfront Revitalization Programs (LWRPs) that focus on local waterfronts, to municipal comprehensive plans, to the two federally sponsored heritage area studies: the Niagara National Heritage Area Study and the Erie Canalway National Heritage Corridor. Local Waterfront Revitalization Programs (LWRPs) seek a balance of economic development and natural resource protection and are, therefore, important mechanisms for communities to use in implementing the Niagara River Greenway Plan. An important feature of a LWRP is that once adopted, state and federal actions must make an effort to comply with the LWRP. In partnership with the Department of State, Division of Coastal Resources, all Niagara River Greenway communities are encouraged to prepare a Local Program. Existing LWRPs should be amended to incorporate the Niagara River Greenway. Topic specific studies, including those dealing with stormwater management, remedial action plans, brownfields studies, heritage tourism and other plans should also be taken into consideration. Proposals for projects should be built upon the work that has been completed, and be consistent with local goals, values and vision, while meeting best practices and models set forth in federal, state and regional documents, including advances in new technology.

10. *Clear Benefits*

All projects that are endorsed by the Niagara River Greenway Commission should demonstrate clear benefits to the Niagara River, the Niagara River Greenway and the stated vision of the Greenway as a world-class corridor. The intent of this criterion is to ensure project sponsors think about how to structure their proposals to maximize the beneficial impacts to the environment, to the economy and to the region. Projects that fall outside the Greenway boundary need to make a more compelling case for how they benefit the purposes of the Greenway. Priority should be given to a project that fills a critical gap, improves a highly visible site, results in significant improvement in environmental conditions, or has some other significant positive benefits.



Sculling Black Rock Canal

B. *Funding Sources*

The Niagara River Greenway is unusual, in that there is a dedicated funding source for the effort that preceded its legislative establishment. The Niagara River Greenway Commission recognizes that several interests have secured Greenway related settlement dollars in relation to the re-licensing of the Niagara Power Project. In particular, the Commission recognizes, acknowledges and congratulates the Niagara Host Communities, the Erie County Settlement Partners, the Greenway Ecological Standing Committee and the State Office of Parks, Recreation and Historic Preservation on their agreements with the New York Power Authority. The

CHAPTER 4: ACTION PLAN

Greenway Commission looks forward to working within the process outlined in those settlement agreements and anticipates consulting on all projects as required by those agreements.

The NYPA Greenway funds are a significant and important source of funding for the Greenway. As noted earlier in this document, however, the NYPA funds will be insufficient to fund all the worthwhile projects that are known or may be proposed in the future.

Additional sources of funding will be necessary to fully realize the vision of the Niagara River Greenway.

This point merits emphasis. Other potential sources of funds for Greenway-related activities include federal, state, and local funds, as well as private sources, such as foundations. There are a variety of grant programs available from other New York State and federal agencies to assist local governments, community groups, and other organizations achieve important environmental protection and community revitalization goals. These programs encompass a wide range of priority issues including natural resource preservation and restoration, water quality protection and pollution prevention, historic preservation and interpretation, community revitalization, land acquisition and open space protection, and greenway and trail development. Appendix D provides an extensive discussion of additional potential sources for projects associated with the Niagara River Greenway.

C. Operations and Maintenance

Implementing and sustaining Greenway-related projects will entail one-time construction and implementation costs as well as annually recurring operational and maintenance (O&M) costs. The term O&M refers to the day-to-day upkeep as well as the smooth and safe functioning of the greenway project. These tangible O&M costs will be offset by economic benefits derived from the Greenway and associated development and by increased quality of life for residents and visitors to the region. Since the proposed Greenway-related projects are only conceptual in nature at this point, it is difficult to perform a detailed analysis of the annualized O&M costs.

In place of an analysis using actual O&M costs, a “level-of-magnitude” analysis is provided to measure typical recurring costs that would be expected to occur as a result of implementation of the demonstration concepts. When actual projects are identified and reviewed, a more detailed analysis on the O&M costs should be required. The analysis provided here is for informational purposes, and each project sponsor is responsible to make their best estimate of the on-going O&M costs of their projects.

The following discussion of O &M costs is organized around the implementation concepts as identified and discussed separately in this Plan. Given the wide range of potential projects that could be funded under the Niagara River Greenway Plan, even under each implementation concept, basic examples will be discussed.

CHAPTER 4: ACTION PLAN

▪ Implementation Concept #1 – Gateway Identification

The overall operation and maintenance costs associated with the gateway identification concept will be relatively small. This concept primarily ensures that a unifying theme is used throughout the Greenway. Once the initial design phase is completed, relatively little costs will be required to continue the use of the planned color schemes, graphics, and signage. Similarly, the design and use of a unifying architectural treatment, landscapes and plantings will also have limited long-term costs.

If, however, landscape and horticultural projects are included under this concept, additional O & M costs will be required to maintain these areas. While these costs are not anticipated to significant, they would need to be evaluated on a project-specific basis.

According to the 2006 budgets for Erie and Niagara Counties, the following table presents the total amount budgeted towards operations and maintenance of public parks and green space. In both counties, the total amount to be spent on park O&M costs represented less than 0.5% of the total county operating budget.

Per Capita Park Expenditures by County (Erie and Niagara Counties for 2006 Budget)

	2006 Budget for Park O&M	Total Population (2005)	Per capita spending on parks in 2006
Erie County			
Parks	2,652,303	-	-
Parks – City of Buffalo	2,670,671	-	-
Total Erie County	5,322,974	898,981	\$5.92
Niagara County	753,975	212,573	\$3.55

Source: Erie and Niagara County CAFR 2005

For Erie and Niagara Counties, \$5.92 and \$3.55 were collected and spent for operations and maintenance of the parks in each respective county per person. With the addition of the Greenway funded projects in each county, the incremental increase per person for O&M costs related to these projects will be minimal. If residents are only required to pay \$5.92 per person to currently run all the parks in Erie County, any addition resulting from the funded Greenway projects would be minimal. It should also be noted that this per capita spending is at the very low end of spending for O&M on parks when compared with other “benchmark” cities. See the table below for other cities and their spending on park related maintenance.

Benchmark Cities Comparison

City	Total Parks	Total Acres	Operating Budget	Capital Budget	Total Budget	Per Capita Income	Population	Per Capita spending on Parks
Chattanooga, TN	57	1,495	\$10,445,220	\$3,753,000	\$14,198,220	\$12,332	159,000	\$89
Jackson, MS	52	1,250	\$5,600,000	\$1,725,000	\$7,325,000	\$12,216	180,600	\$41
Louisville, KY	276	10,274	\$22,633,000	\$11,967,500	\$34,600,500	\$11,527	269,000	\$129
Minneapolis, MN	133	5,694	\$44,200,000	\$10,000,000	\$54,200,000	\$14,830	353,000	\$154
Norfolk, VA	42	NA	\$10,500,000	\$0	\$10,500,000	\$11,643	225,000	\$47
Salt Lake City, UT	126	1,914	\$5,700,000	\$1,500,000	\$7,200,000	\$13,482	171,000	\$42

* Per capita incomes taken from the 1990 census; 2000 numbers were not available at the time of comparison
Source: Little Rock, Parks Master Plan - <http://www.littlerock.org/ParksRecreation/masterplanmap.aspx>

CHAPTER 4: ACTION PLAN

- **Implementation Concept #2 - Assessing, Experiencing and Connecting to the River**

The implementation of projects under this concept is expected to result in potentially substantial O&M costs to local, county and state agencies. The majority of the projects expected to be completed under this concept are related to providing and maintaining river access and recreational trail development. Given the large scale of the proposed trail system network with different options and alternatives, precise O&M estimates are not provided at this time. However, estimates developed by the American Trails Association show that annual operation and maintenance costs per mile for an urban trail system run between \$2,500 and \$10,000 per year (American Trails 2005). A variety of factors such as climate, facilities, and complexity of the system all impact the annual costs.

To further breakdown the expected O&M costs associated with trail management, the following table has been included. This table shows the total maintenance hours per mile of trail required to maintain the Schuylkill River Trail in Pennsylvania during 2000. The trail is a macadam trail that is 11.5 miles long with widths that range from 12 to 16 feet. As shown on the table trimming/pruning and safety/security were the two most labor intensive categories.

Total Maintenance Hours per Mile by Category and Month Required to Maintain the Schuylkill River Trail, PA in 2000

Maintenance Categories	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Mowing	0.0	0.0	0.0	3.1	6.8	3.6	3.9	5.6	3.3	2.5	0.0	0.0	28.8
Trimming/Pruning	1.8	0.0	8.2	5.6	17.0	8.3	7.1	14.2	8.0	7.1	2.6	0.3	80.0
Safety/Security	0.6	0.5	0.6	5.4	3.4	3.0	4.2	6.7	1.4	2.4	5.3	0.2	33.6
Trash Removal	0.6	0.7	1.6	3.7	1.3	1.7	1.8	1.3	2.0	1.8	1.6	0.8	18.8
Erosion/Stabilization	0.7	0.6	1.8	2.0	1.0	0.0	1.0	1.5	5.6	6.4	2.3	1.2	24.1
Storm Damage	1.5	7.4	3.0	2.4	0.9	2.4	0.8	0.7	1.4	0.5	0.5	0.3	21.9
Miscellaneous	1.8	1.3	3.0	2.7	2.1	2.1	1.8	2.5	1.7	4.3	1.5	0.5	25.2
Total	6.9	10.5	18.2	24.9	32.5	21.0	20.6	32.5	23.4	24.9	13.9	3.3	232.4

Source: American Trails 2006.

Note: Totals may not add due to rounding errors.

It should be noted that while the costs of trail maintenance identified above are significant, they do not all need to be borne solely by the host community. Many of the successful greenways and trails developed throughout the region have community groups that provide at least a portion of the required manpower to properly maintain their trails. Also these trails will have a region-wide impact on the economy and quality of life, therefore some of these costs could be borne by the community at large.

- **Implementation Concept #3 – Protecting, Preserving, and Restoring Important Ecological Resources**

The majority of the total costs associated with projects under this concept would tend to be the initial up-front capital and construction costs. However, some on-going monitoring and O&M costs may be required. For projects such as wetlands restoration, these on-going costs would include monitoring to ensure the effectiveness of the restoration and maintenance to remove any invasive species that may grow in the newly restored wetland. For projects that improve and create terrestrial or aquatic habitat areas, seasonal monitoring would be required to ensure that the

CHAPTER 4: ACTION PLAN

project is effective and to ensure that it is not damaged by storms or other causes (i.e. terrestrial areas or by driftwood and debris flowing down the river in the case of aquatic areas).

Acquisition of conservation easements and land banking projects would have virtually no direct long-term operation and maintenance costs associated with them. All maintenance costs occurring on these properties would remain the responsibility of the land owner or operator. Since it is not anticipated that large tracts of lands would be transferred to non-taxable entities, the local fiscal impacts of these projects would be at a minimum.

The O&M costs associated with various brownfield remediation programs and the restoration of former landfills could be significant. Routine on-going monitoring and ongoing sampling may be required to ensure that there is no migration of contamination from the proposed project areas. These monitoring costs, however, should not be additional costs, since contaminant monitoring should already be occurring apart from the greenway implications.

Finally, projects such as the correction of combined sewer overflows, repair of malfunctioning culverts to restore natural drainage and the removal of vacant commercial or industrial uses should have little or no long-term operation and maintenance costs assuming the initial work was designed and constructed effectively.

- **Implementation Concept #4 – Linking Special Places and Destinations – “Telling the Story”**

Similar to the Gateway Identification concept, many of the project costs related to this concept will be one-time in nature and involve initial design and construction. For example, landscape design, as well as the design of lighting fixtures, street furniture,

and planting materials would all be upfront capital expenditures.

However, other aspects of projects that would fall under this concept would tend to be ongoing in nature. For example, implementation of outreach/education activities, such as websites, would involve ongoing costs associated with ensuring that the information on the site was still accurate and up-to-date. Advertisements, handouts, and bulletins would have to be paid for on a continuous basis. It should be noted that these costs are not typically considered maintenance costs, which are associated with built facilities or structures.

- **Implementation Concept #5 - Heritage Tourism and Economic Revitalization**

Projects such as the development of cultural and heritage centers and interpretive centers would all fall under this concept. Operation and maintenance costs associated with these facilities could be significant as driven by a project-specific basis. However, most of these proposed facilities would have to develop a separate revenue stream to cover the large O&M costs. Entrance fees and other sources would have to be identified during the planning and design stages. Given the large nature of these projects, any future government support would be analyzed before the funding was supplied so that local representatives could make an informed decision as to the overall fiscal impact of the projects.

- **Operations and Maintenance Recommendations**

Because Greenway funding is ear-marked for capital cost improvements, an implementation plan for the operations and maintenance (O&M) costs associated with each project must be established. For example, some projects will have associated user fees that will fund or offset the annual O&M costs associated with that particular project. These include such items as a

CHAPTER 4: ACTION PLAN

visitor's center, nature/heritage centers, museums, youth camps, educational programs, commerce parks, aquariums, and marinas. Proposed projects such as these should be sustainable once the capital costs are spent for construction out of the Greenway funds. Projects that do not have user fees will be expected to meet the criteria set forth in the Greenway Plan and to be as sustainable as practical. For example, preference will be given to projects that have a local sponsor or partner such as a municipality, non-profit or volunteer group(s); that leverage/identify matching funds through local, state, federal and private funding sources; and that demonstrate economic viability, i.e., identify potential revenue streams or dedicated funding sources to cover costs.

In developing a framework for measuring and evaluating the potential, long-term O&M costs from the proposed projects, several limitations were encountered. These limitations primarily included the difficulty in applying typical 'rules of thumb' to the annual cost of these projects, because the specific details of the project, such as area of development, the combination of projects, overall size and construction costs, are unknown at this time.

To address this uncertainty, a conceptual framework of O&M costs are presented herein for evaluating typical projects proposed for the Greenway funding. These estimates are conceptual and project sponsors must develop their own estimates based on project specifics. Project applicants should prepare an O&M budget that considers the following costs:

- Maintenance: Routine and Remedial
- User Safety and Risk Management
- Programming and Events
- Resource Stewardship and Enhancement
- Marketing and Promotion
- Oversight and Coordination

Maintenance - For developed parkland, the sponsor or partnering organization should project an average of \$3,000 per year for a maintenance budget per acre¹ If a park is 10 acres and is 60% developed, this assumes that 6 acres would require maintenance at a price of \$18,000 annually. Utilizing the funding mechanisms described above, the sponsoring agency or partnering organization will administer the proper funds to maintain the long-term sustainability of the park.

Similarly, according to an article on the American Trails website *Trail Maintenance and Management*, an urban trail system can experience O&M costs of between \$2,500 and \$10,000 per mile, but can vary greatly due to conditions, climate and complexity (there are some quotes of only \$300-500 per mile for more primitive trails). If a 20-mile trail system is established through the Greenway funds, this would result in an estimated \$50,000 and \$200,000 annually for O&M. This is an example where it would be prudent for municipalities and organizations to develop partnerships and cooperative public-private ventures that would ease the financial burden of funding these O&M costs. Since a 20-mile trail system would most likely cross multiple municipal borders, there should be a coordinated effort in maintaining the trail by local governments within all of the host municipalities.

Again, there are multiple local, state and federal funding agencies that would aid in covering O&M costs associated with these projects. The sustainability of any particular project will be dependent on no single municipality being burdened with excessive annual O&M costs.

¹

<http://www.littlerock.org/ParksRecreation/masterplanmap.aspx>

CHAPTER 4: ACTION PLAN

User Safety and Risk Management - For projects requiring safety precautions and basic patrolling and risk management, the sponsoring agency (in most cases the municipality) should consider adopting and outlining a safety program to this new feature of their community. This could include patrolling a new stretch of a bike trail or a park, or the enforcement of fishing regulations in certain areas along the Niagara River corridor. Some agreement should be in place to ensure that public safety services will be provided, by whom and how these costs will be covered.

Programming and Events - Projects that involve ongoing programming and multiple events are in most cases those that would charge a user or entry fee to experience the event. The cost of O&M related to programming and events should be absorbed by these associated fees and should not impact the local municipality. Examples of programming and events include special presentations at visitor or nature centers.

Resource Stewardship and Enhancement - Resource stewardship is the long-term care and oversight of the natural or ecological resource. This, along with enhancement of the resource, would be under the management of a local sponsor or partner. Ensuring the ongoing stewardship of a natural resource would become the responsibility of the applicant (or their designee) to monitor, to ensure the longevity of the resource, and to monitor the resource following the project construction. Additional O&M funding for these projects would be available through local, state, federal, and other grant programs.

Marketing and Promotion - Marketing and promotion are essential components of the success of a project and are a part of the O&M associated with a resource. Agencies such as local, county, or state Parks Departments, Convention and Visitors

Bureaus, local Chamber of Commerce organizations, and economic development entities generally provide funding for the purpose of informing and attracting people to an area or project to experience the amenities an attraction(s) has to offer. Partnership or sponsorship programs with these types of organizations in applying for Greenway fund should be strongly encouraged.

Oversight and Coordination - Similar to maintenance and stewardship, oversight and coordination will be important to the effective ongoing management of Greenway-funded projects such as trails, parks, or other waterfront facility or attractions. Achieving long-term project-specific goals and partnerships with other organizations and agencies can provide the framework for the ongoing effectiveness of Greenway implementation that will be valued by the community.

D. Key Partnerships/ Organizational Framework

The Niagara River Greenway Commission has a leadership role in Greenway planning. It is the visible manifestation of the Niagara River Greenway, and serves as the primary advocate for the Greenway.

Research on Greenways has underscored the importance of partnerships in building a successful Greenway. Because they inherently cross jurisdictional lines, building partnerships and cooperative relationships is an important element of the planning process. As noted in the introduction, the process of developing the plan itself, through meetings, discussions, debates and consensus building, has been extremely useful. This process sparked discussion, brought out inconsistencies and highlighted areas of broad consensus. More importantly, the process has helped build

CHAPTER 4: ACTION PLAN

partnerships and has developed a greater capacity to move the program forward.



**Niagara River Greenway
Citizens Advisory Committee (CAC) Meeting**

Much of the institutional positioning that has occurred throughout the Greenway planning process has been partly due to the NYPA Greenway funds. Having a dedicated funding source gives the plan an immediate relevancy, since NYPA Greenway funds must be spent in a manner that is consistent with this plan.

Figure 9 illustrates the interrelationships among the many participants that fall under the Niagara River Greenway umbrella. The shaded area on the left side of Figure 9 represents the umbrella of the Niagara River Greenway Commission and the Niagara River Greenway Plan. Participants include local governments; federal and state agencies; stakeholders, non-governmental interest groups, such as non-profits and volunteer organizations, private enterprise and the general public at large. All of these stakeholders are important contributors to the Greenway. The policies and priorities established by the Commission will help define the course for all of these entities so that their combined efforts will make this a world class Greenway.

Outside the umbrella of the Greenway, Figure 9 illustrates funding sources, both from the NYPA Greenway funds and other competitive funding sources. Currently, the NYPA Greenway funds represent the only

dedicated funding available for Greenway projects. However, it is possible that additional dedicated funding could emerge. The source of these funds could be the State of New York, as it is for the Hudson River Valley Greenway, or the funds may be contributed by a private foundation or conservancy organization. One of the goals of the Niagara River Greenway Commission will be to move forward with an effort to obtain or assist others in obtaining additional funds for Greenway projects. Funding could also be obtained through the competitive grants described in Appendix D.

The NYPA Greenway funds were created by contractual agreement as part of the federal relicensing process (see Appendix C: Summary of Niagara Power Project Relicensing Settlement Agreements). Some of the funds are compensations required as part of the federal relicensing process. Others are contributions offered by NYPA as compensations at the State or local level. Each fund was negotiated with the beneficiaries independently, and each is subject to the terms of the agreements signed with NYPA. These agreements establish a Standing Committee for each fund and specify what organizations sit on each committee. The Standing Committees are contractually responsible for selecting, administering and overseeing the projects financed by each Relicensing Settlement Fund.

Proposals for Greenway Funds may be forwarded by municipalities, stakeholders or private entities, either under the sponsorship of the Commission or independently. The Steering Committees have the sole responsibility for the allocation of the Relicensing Settlement Greenway Funds, provided that the proposed project is consistent with the Niagara River Greenway Plan. The Niagara River Greenway Commission does not have control over the allocation of Greenway funds or the decisions of the Standing Committees, but

CHAPTER 4: ACTION PLAN

there is a clear requirement that projects help to achieve the goals of the Niagara River Greenway. Project sponsors are obligated to consult with the Niagara River Greenway Commission, and the Standing Committees must evaluate the consistency of each request with the Niagara River Greenway Plan. It is expected that this process will be interactive, as indicated by the two-way arrow between the Commission and the Standing Committees in Figure 9.

The Niagara River Greenway Commission can also be an important partner for project sponsors who are applying for other sources of funding. The Commission anticipates establishing a process for consultation and support of competitive grant funding. The Niagara Greenway Commission will also establish a more informal process of voluntary review, to enable project sponsors to obtain feedback on the types of revisions that would improve their concepts.

The Niagara River Greenway Plan is a policy document which contains considerable flexibility in its application. It is advisory in nature, and does not mandate specific projects or regulations governing the actions of local governments. The role of the Plan and the Commission is to set general guidelines; it is up to the individual municipalities and other stakeholders to present projects and actions that will help further the vision and goals set forth in this document.

While gathering information on which to base the draft plan, the Commission heard repeatedly of resident concerns in relation to the use of eminent domain. While the Niagara River Greenway Commission has no power of eminent domain, nor may it hold real property, residents are fearful that a municipality, a state agency or other public authority would use eminent domain to achieve the purposes of the Greenway.

The Commission has no ability to limit the powers of local government, state agencies or public authorities. The State Land Acquisition Policy which guides the acquisition programs of the State Office of Parks, Recreation and Historic Preservation and the Department of Environmental Conservation frowns upon the use of eminent domain and requires such agencies to demonstrate the absolute need to acquire through such an adversarial process. In fact, since the enactment of this provision, neither DEC or Parks have used an adversarial eminent domain procedure to acquire lands for open space or recreation.

The Niagara River Greenway plan is a cooperative undertaking which among its purposes is intended to improve the quality of life for area residents. It would appear inconsistent with the plan for any level of government to use eminent domain against residential property to undertake a Greenway project without exploring and exhausting any and all alternatives to the taking of private property.

The Niagara River Greenway Commission will not seek the power of eminent domain, nor seek the use of it by its partners for implementation of the Niagara River Greenway Plan.

The plan is intended to remain relevant for years into the future. As such, it is important to assess the public's perception of the plan; periodically revisit the document to assess whether the concepts included in the plan remain valid or whether a shift in emphasis is needed in order to remain consistent with the intent and substance of Article 39 and the plan. Changes in conditions or objectives, shifts in priorities and unforeseen changes in circumstances may create instances where changes to the Plan are appropriate. Therefore, the Niagara River Greenway Commission will establish

CHAPTER 4: ACTION PLAN

procedures for making amendments to the document.

The Local Government Advisory Committee (LGAC) and the Citizens' Advisory Committee (CAC) are two standing committees established under the enabling legislation for the Greenway Commission. These committees can be used to oversee the process of conducting periodic reviews of the Niagara River Greenway Plan to ensure that the plan remains a dynamic and useful document. The Commission also recognizes that there should be procedures established allowing citizens to raise potential issues, and a mechanism for soliciting public input on any proposed changes to the Plan. The CAC and LGAC will be used to facilitate that input. These committees will report to the Greenway Commission at least annually on the status of the plan and convey information and comments received in relation to the need or lack thereof for amendments to the plan.

The Niagara River Greenway Commission will review the information and comments received from the CAC and LGAC and make a determination as to the need to proceed with a plan revision. Significant changes in policy or content will be submitted to those cities, towns and villages within the boundary for approval prior to their submission to the Commissioner of Parks, Recreation and Historic Preservation for approval.



Peace Bridge

E. Linkages

One of the mandates of the Niagara River Greenway legislation is to recommend how the Greenway can be linked to upland and interior communities in order to promote linkages to the River. There are a number of existing features and assets that intersect with the Niagara River Greenway system, serving as junction points for interconnections with upland and interior communities.

These interconnection points include the following:

- Lake Erie and Lake Ontario shorelines
- Seaway Trail
- Gateways established by the Bridges at the International Border with Canada
- Niagara escarpment
- Niagara Wine Trail
- Cayuga Creek corridor
- Erie Canalway National Heritage Corridor / Western Erie Canal State Heritage Corridor (Tonawanda Creek)²
- Ellicott Creek corridor
- Lower Reach of Scajaquada Creek
- Buffalo Olmsted Park System
- Buffalo River

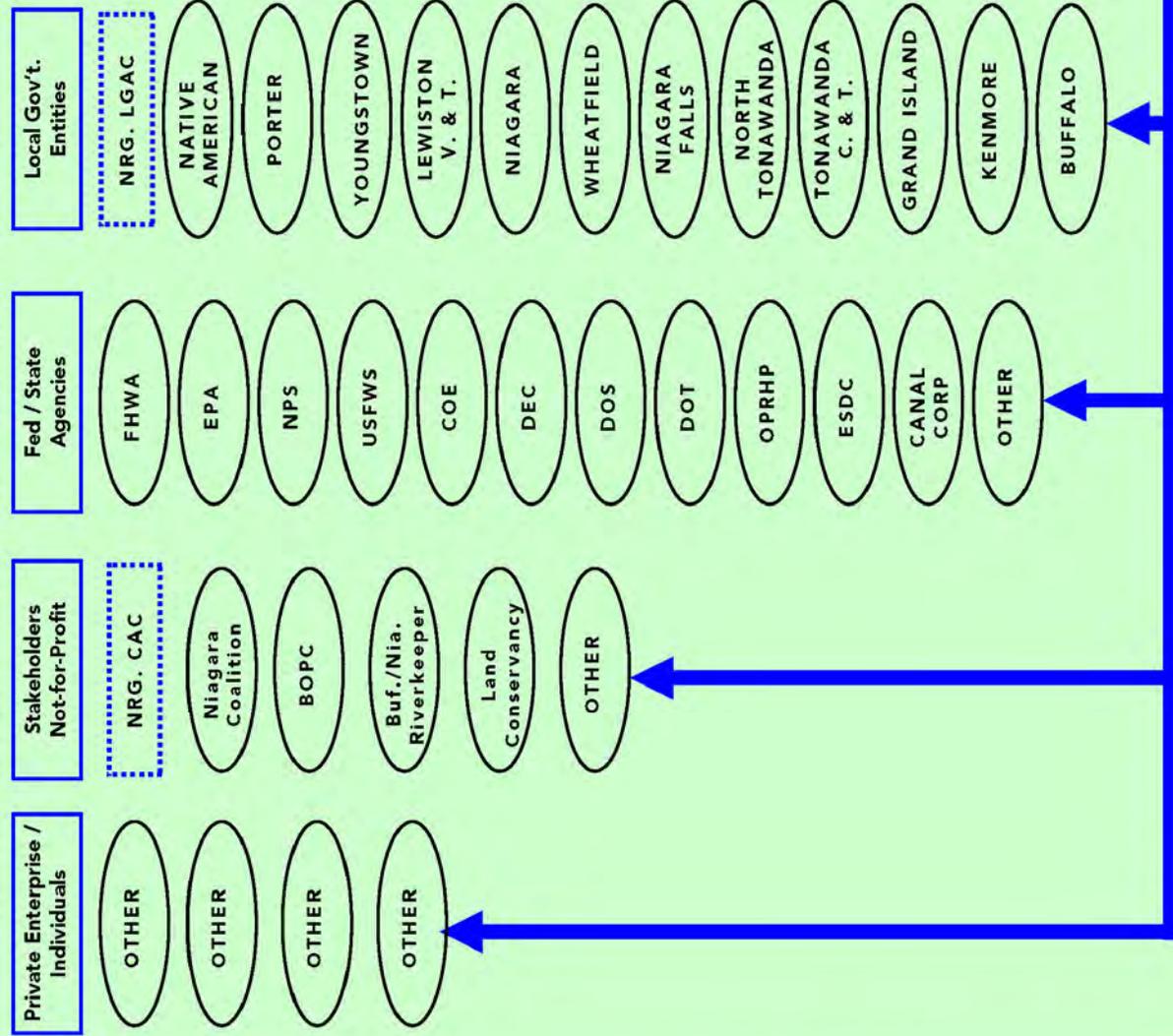
These connecting features represent an opportunity for creating both physical and conceptual linkages between the Greenway and the rest of the Buffalo-Niagara region. They have the potential to draw both residents and visitors to the Niagara River corridor.

Beyond the specific physical linkages, the success of the Niagara River Greenway will depend on how well the various layers and elements are interwoven and integrated.

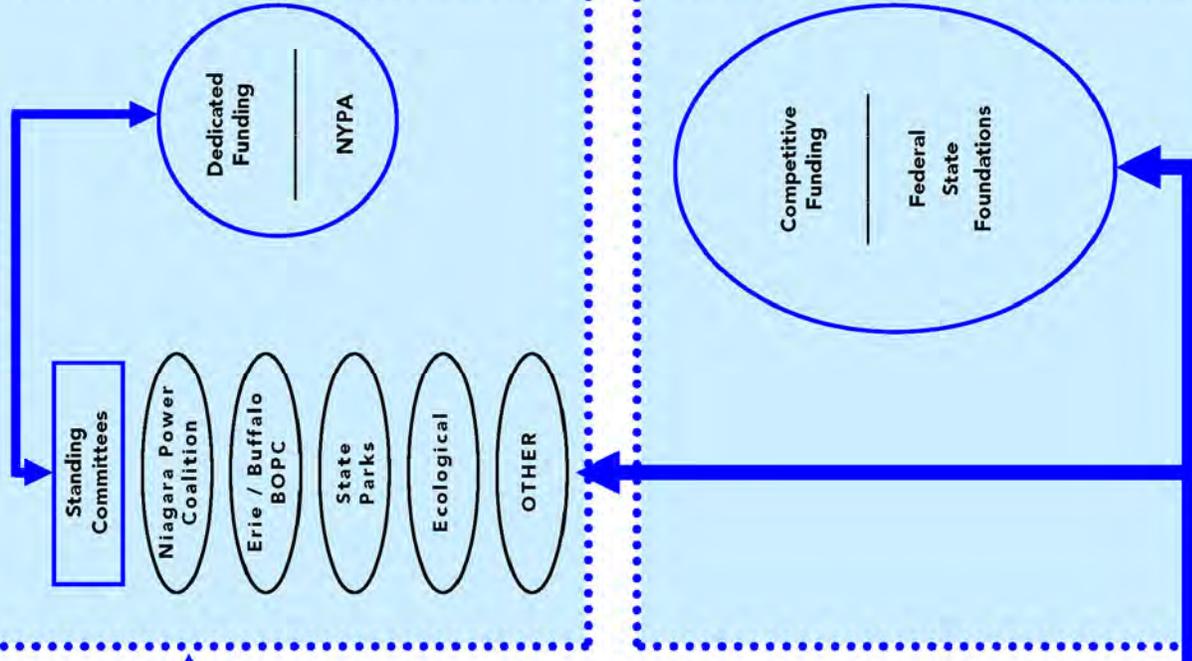
² These are the same geographic feature, but separate organizational entities. The Erie Canal joins Tonawanda Creek and follows the same alignment as the Creek within the Niagara River Greenway.

ORGANIZATIONAL FRAMEWORK

NIAGARA RIVER GREENWAY COMMISSION PLAN



FUNDING



CHAPTER 4: ACTION PLAN

The development of different types of centers along the corridor provides places for interpretation and “telling the story,” or building an appreciation for the ecological resources and environmental setting of the Greenway. The wayfinding system needs to be integrated into the trail system, which will be enhanced by interpretation. The more the various elements of the Greenway can be linked and connected, the deeper and more satisfying the experience will be for the users of the Greenway.

F. Transportation Issues

The transportation facilities that provide access to the Niagara River Greenway are essential to its overall success. Roads can provide access but they can also serve as barriers to public access and enjoyment of the Niagara River. Achieving a balance between providing ease of access to the properties and uses along a transportation route and facilitating traffic movement through the region is difficult. People want to be able to get to their destinations easily and without delay. However, the focus within the Greenway is to create a climate in which people can comfortably navigate through the system and enjoy all of its assets, activities and attractions, not to promote the rapid movement of vehicles through the area.

A recurring issue in the development of this Plan has focused on the future of specific transportation facilities like the Robert Moses Parkway. Transportation projects are planned and evaluated under a very specific and fairly lengthy process that can take years to complete. This process incorporates requirements that provide for intermunicipal notification and cooperation.

The planning process that is being used to develop the Niagara River Greenway Plan cannot provide the level of analysis and detail that is not only necessary but legally required for specific transportation projects.

The Niagara River Greenway Plan is a long-term, policy document, and is ill suited for the review of site specific transportation projects, and the Niagara River Greenway Commission does not have the legal authority to dictate how governmental agencies undertake transportation projects.



Bicyclists along the River

There are a number of ongoing and proposed transportation projects that could have a significant impact on the physical environment of the Niagara River Greenway. Between the source of the Niagara River and its mouth at Lake Ontario the following projects are ongoing or under consideration:

- Reconstruction of the Skyway
- Erie Street realignment
- Peace Bridge Plaza Alternatives, Buffalo
- Ambassador Niagara Signature Bridge and plazas, Black Rock
- Realignment of I-190 between north Buffalo and Tonawanda
- Extension of the Metro Rail (light rail rapid transit line)
- Pedestrian Accommodations Grand Island Bridges
- Replacement of the Grand Island Bridges
- West River Parkway Alternatives, Grand Island
- LaSalle Expressway Alternatives
- Robert Moses Parkway Alternatives (South and North)

As noted previously, this Plan cannot replace the independent planning processes and engineering functions that are associated with major capitol investment transportation

CHAPTER 4: ACTION PLAN

projects, which must incorporate a range of factors. However, these projects should strive to be consistent with the goals and policies established in this Plan. The enabling legislation for the Greenway requires each State agency to review its actions within the Greenway, and assess the consistency of those actions with the approved Niagara River Greenway Plan. While local, county and federal agencies are not under this mandate, consistency with the Niagara River Greenway Plan should be encouraged in planning at all governmental levels. In communities with an approved LWRP, federal agencies are required to follow certain procedures for any activity they undertake, fund or approve. State agencies are required to follow certain procedures for funding actions and for any action, including permits, for which they are an involved or lead agency pursuant to the State Environmental Quality Review Act. State agency activities listed in an approved LWRP are also subject to consistency procedures. Additionally, state agencies are required to follow the federal consistency requirements if they require federal approval of their activity or if the activity involves federal funding. At the local government level, cities, towns, or villages with adopted LWRPs enact similar consistency provisions applicable to their decision-making. As such, all Niagara River Greenway communities are encouraged to prepare a LWRP, and existing LWRPs should be amended to incorporate the Niagara River Greenway. Proposed projects would need to demonstrate consistency with the LWRPs - and the (inclusive) Niagara River Greenway Plan.

Many elements of transportation infrastructure along the waterfront are obsolete— the products of earlier patterns of land use or assumptions about future transportation needs. In general, the Greenway should facilitate rethinking of the transportation needs along the river corridor, and encourage projects to fit future transportation infrastructure to new uses anticipated under the plan. The greenway

should facilitate alternative transportation along the river corridor, while always respecting environmental sensitivities in areas like along the Niagara Gorge. These steps will improve access to the natural resources and other assets along the Greenway corridor.



Pedestrian Walkway on Rainbow Bridge

Incorporating greater balance and choice into the transportation network also increases access for youth and seniors who do not drive. The nature of these accommodations should extend beyond the basics. Pedestrian accommodations need to be user-friendly, safe, and inviting. For example, there are sidewalks on the Grand Island Bridges, but their design discourages usage. These sidewalks are narrow, intimidating and lack a sufficient buffer zone to separate vehicle traffic from pedestrians and bicyclists. Due to ongoing maintenance on these bridges, only one sidewalk on each bridge is available for public use and both have unsafe linkages to connecting trails. In contrast, the accommodations across the Rainbow Bridge are more inviting. As a general rule, excess pavement should be discouraged, and design should reflect a greater emphasis on pedestrians, bicyclists and other non-motorized traffic.

Transportation projects within the Greenway should avoid creation of barriers between the water's edge and the neighborhoods surrounding it. Interstate 190 in the City of Buffalo cut off physical and visual access to the water's edge. To the extent that future

CHAPTER 4: ACTION PLAN

transportation planning and improvements can mitigate this damage, they should be encouraged. Removal of the I-190 and building an alternative (non-interstate) route away from the Niagara River is obviously a very ambitious, expensive and long-term project. However, if redesign or relocation is able to go forward, it would be an important enhancement to the Greenway.

Transportation projects should seek to maximize access to the resources along the River. The realignment of Erie Street as proposed by the City of Buffalo, will re-establish viewsheds from downtown Buffalo to the waterfront, recreating a stronger connection between the City and the waterfront that helped create it. The City of Niagara Falls has endorsed the downgrading of the Robert Moses Parkway to provide better connections between City neighborhoods and the River. For routes near the water, the focus should be on access by alternate transportation modes, including non-motorized traffic, rather than a singular focus on the efficient movement of traffic.



I-190 impedes access to the Niagara River

Transportation projects within the Greenway should also prioritize land use over efficiency of traffic movement. Where there is overbuilt

capacity, there should be a preference for returning excess pavement to another use. For example, on Grand Island, the West River Parkway area has parallel roadways; some of that pavement could be converted to open space, scenic overlooks, and/or passive parkland without impairing the function of the overall traffic corridor. The City of Niagara Falls has identified a number of roadways with excessive pavement width that could be used for bicycle paths, wider sidewalks or greenspace.

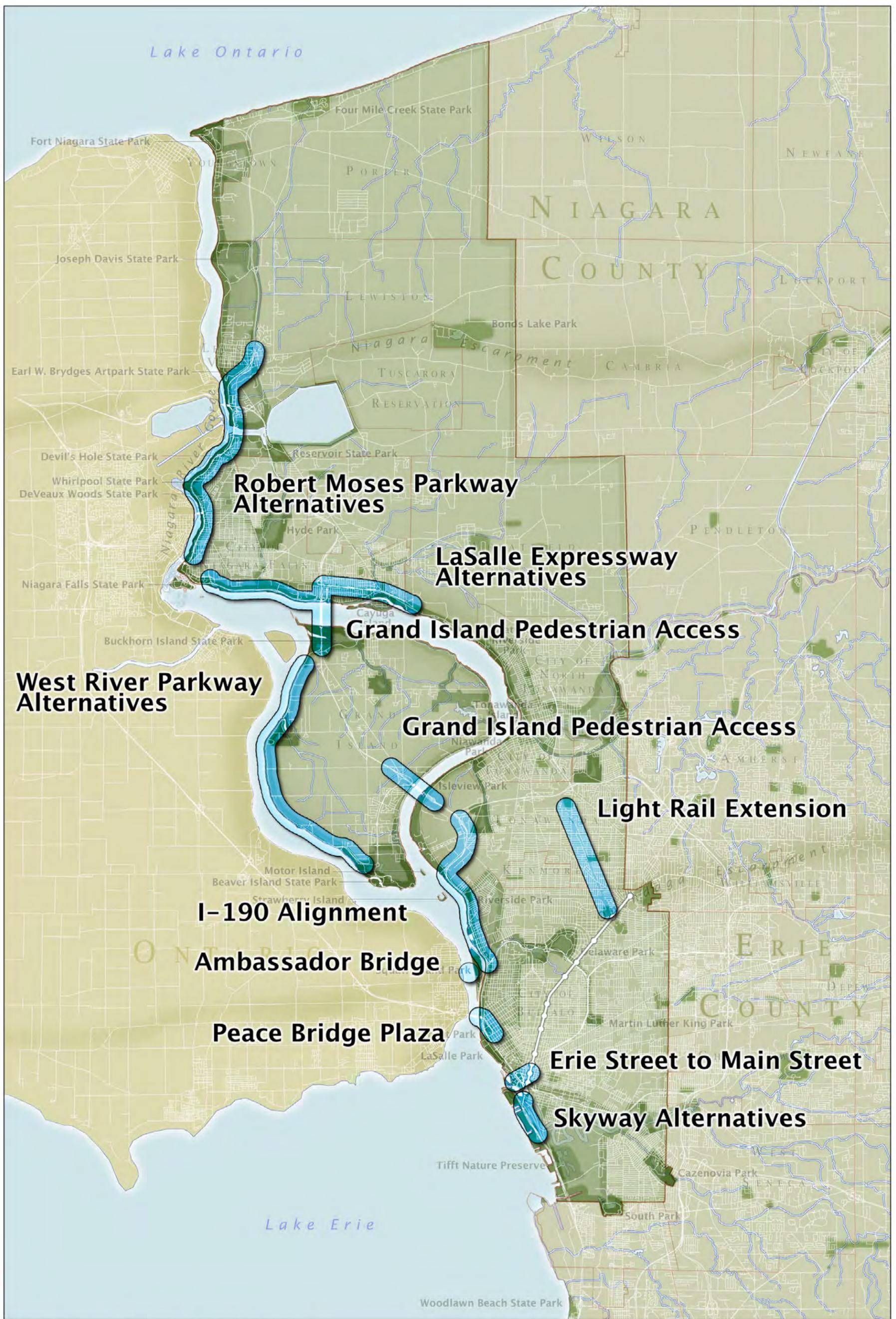


Accommodations for pedestrians, bicyclists

Transportation projects should seek to minimize their intrusiveness. More than ten years of intensive planning for the Peace Bridge expansion project has been complicated and faced with many constraints. Selection of a preferred alternative must be made within the context of a comprehensive evaluation process. However, there should be a preference for an alternative that complements Front Park, that helps restore the connections between the City and the waterfront, and is true to Olmsted's vision. Figure 10 illustrates these transportation issues.

CHAPTER 4: ACTION PLAN

Page Left Intentionally Blank



NIAGARA RIVER GREENWAY

-  Niagara River Greenway Area
-  Opportunity for Transportation Enhancements

TRANSPORTATION OPPORTUNITIES
MARCH 20, 2007

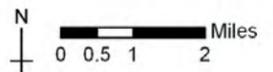


Figure 10

CHAPTER 4: ACTION PLAN

G. Greenway Implementation Concepts

Greenway development is inherently a long-term enterprise. It is a process that requires time-consuming activities including building public support, forming partnerships, assembling land, design, engineering and construction. Typically, all of this occurs while making the most of limited resources. For this reason, conceptual greenway master plans must be considered living documents that allow flexibility for unanticipated changes and opportunities. This effort is broader than typical master plans, which makes specific proposals for property that is under ownership of a single entity. It is even broader than a municipal Comprehensive Plan that sets a vision for a single community, and makes recommendations regarding general land use and zoning. This Greenway Plan is a long-term *conceptual* plan that looks for opportunities across a wide spectrum of publicly and privately held land, across more than a dozen municipalities, and for a wide range of activities. Unpredictable changes in the regional economy, environment, political climate and lifestyle trends over the long-term require a flexible greenway plan and an equally flexible implementation strategy.

Beyond these constraints, the Niagara River Greenway Commission, a duly constituted body charged with the development of the Greenway Plan, has limited control over any of the activities or projects that will ultimately make up the Greenway. The Commission cannot control land use or zoning, it cannot own or hold property and it does not have direct control over the distribution of funds. The role of the Commission is to develop this Greenway Plan as a framework for realizing the greenway vision. The framework guides implementation by addressing individual goals, responding to unanticipated

opportunities and fostering partnerships among private citizens, interest groups, government and the business community. In fact, the conceptual plan will, by necessity, evolve over time as the Niagara River Greenway takes shape and as the issues facing implementation change. Widespread support for the greenway vision is, therefore, needed to ensure that implementation has the public and private sector champions needed to maintain enthusiasm and momentum for decades to come.

Throughout the planning for this project, certain priority issues kept emerging. These priorities, which formed the basis for the Greenway Goals in Chapter 3, were derived from public participation, the enabling legislation and input from the Niagara River Greenway Commission. The following five Implementation Concepts were identified based on these priorities. The intent is that these concepts will help jumpstart near-term projects.

The Implementation concepts are centered on the following concepts:

- Gateway identification
- Accessing, experiencing, and connecting to the Niagara River
- Restoring, preserving, and enhancing unique and sensitive environmental resources
- Linking special places and destinations to “tell the story” of the Niagara River
- Heritage tourism and economic revitalization

These Implementation Concepts are conceptual in nature. They are intended to illustrate possibilities, and they do not preclude other concepts and solutions which could be proposed in the future. Specific sites and priorities will be determined by a variety of factors, including timing, funding, site control, activity level and partnerships. In all cases, implementation of individual

CHAPTER 4: ACTION PLAN

projects are expected be conducted in a spirit of making positive contributions to the overall Greenway vision.

1. Gateway Identification

Gateways are physical or spatial devices that celebrate a transition from one distinct place to another. In the landscape, gateways are meant to be experienced dynamically, by movement through space—from one side of a gateway to the other. Within the Niagara River Greenway, gateways will be developed as entrances into the Greenway and as transitions through the Greenway, from one side to the other. More specifically, the use of gateways can be targeted to communicate particular messages, themes or attributes of the Greenway. This can be accomplished through a variety of methods, such as distinctive graphics, landscapes, plantings, architectural treatment, signage, lighting, color schemes or other methods.

- **Lake-to-Lake Gateways** (See Figure 11)

The shorelines of Lake Erie and Lake Ontario are linear landscapes that transition into the upper and lower Niagara River. These transitions are landmark opportunities to anchor the ends of Niagara River Greenway, reinforcing its physical and symbolic definition as a *lake-to-lake* greenway. Not only do these gateways serve the linear movement along the shoreline of each lake into the Greenway, they also provide an opportunity for a water-based gateway, entering the Niagara River by boat from either Lake Erie or Lake Ontario. Conversely, moving from the upper or lower stretch of the river into either of the lakes is an equally significant transition.



Mouth of Niagara River, Porter

- **Destination Gateways** (See Figure 12)

Every land-based point along the Niagara River corridor that provides access to the Greenway represents an opportunity for a destination gateway. These gateways ensure that visitors, by foot, bicycle or automobile, have the sense that they have arrived at a special place. These destination gateways serve to welcome visitors to the Niagara River Greenway. Furthermore, destination greenways could fulfill an orientation function, providing directions for river and lake access points. Their mere presence indicates proximity to water and underscores the relationship between the River and its upland areas.



Niagara Falls

Destination gateway devices could be designed to relate specifically to their context, but should incorporate a consistent palette of graphics, architecture or landscape to project a consistent visual message throughout the Greenway. A hierarchy of

CHAPTER 4: ACTION PLAN

destination gateways could be applied to the various access points along the corridor, based upon a site's visibility, popularity, significance and character. For example, simple landscaping and signage may be suitable for the majority of the numerous and frequent gateways, while other areas may require a more distinctive treatment. Significant architectural features, trailheads and interpretive features could be combined to establish major gateways in particularly strategic locations.

It is important to note that since gateways will occur throughout the Niagara River Greenway corridor, they will inevitably be located within rural, suburban and urban contexts. The creative use of similar design elements will ensure consistency throughout the Greenway while responding appropriately to the corridor's diverse landscape context. In a similar manner, these design elements should be sensitive with signage and symbols of other, intersecting systems, such as the Erie Canalway. The goal is to integrate the various systems, while respecting their unique characteristics.



Lewiston Landing

- **Transition Gateways** (See Figure 13)

The purpose of destination gateways is signifying arrival. Transition gateways, on the other hand, highlight passage *through* the Niagara River Greenway, from one side of the Greenway to another. In this manner, a transition gateway conveys visitors through a cross section of the Greenway,

delivering the experience of passing over a river or stream and through its associated riparian or even urban environment. Often transition gateways are associated with a bridge, either over the Niagara River or one of its tributaries. Bridges offer existing opportunities to celebrate the pinnacle of this experience at its center.

Bridges traversing the Niagara River at Grand Island are clear examples of this opportunity. As a communication tool, these bridges are the easiest way to introduce exceptionally large numbers of people to the beauty of the Niagara River Greenway, and emphasize the special nature of the Greenway as a location.



Grand Island Bridge

Photo by Clayton Eley- Isledegrande.com

Transition gateways can also perhaps pique the interest of some visitors to learn about, explore and appreciate other aspects of the Greenway. Bridges that cross tributaries of the Niagara River, such as Tonawanda Creek (Erie Canal) or the Buffalo River perform similar gateway functions. Gateways at the tributaries also present the opportunity to highlight the fact that the communities and natural environments along these water bodies are linked to the Niagara River and important elements of the Greenway.

Another transition gateway opportunity is unique to the Niagara River. As the boundary between the United States and Canada, it is one of the few examples in the

CHAPTER 4: ACTION PLAN

country where an international greenway is possible. There is already a successful tradition of open space planning and preservation on both sides of the river, and New York can easily look to Province of Ontario as a precedent for the types of activities that may be most appropriate for the Niagara River Greenway. Furthermore, the bridges between New York and Province of Ontario are very significant as international transition gateways. They offer the opportunity to celebrate each country's relationship with the river, as well as to emphasize international cooperation and the mutual intent to protect the natural and cultural resources of this watercourse.



Peace Bridge

- ***Aquatic Gateways*** (See Figure 14)

A number of users of the Niagara River Greenway will access it by boat. There may not be large numbers of water access points, but these aquatic gateways are quite symbolic and should be effective in encouraging new users. Unlike other types of land-based gateways, aquatic gateways are more likely to depend upon the landscape and water than signage and architecture to evoke the gateway senses of transition and arrival, although these gateways should be clearly identifiable. These gateways also offer the opportunity to create water-to-land access points: places where boaters can tie up and take advantage of landside opportunities.

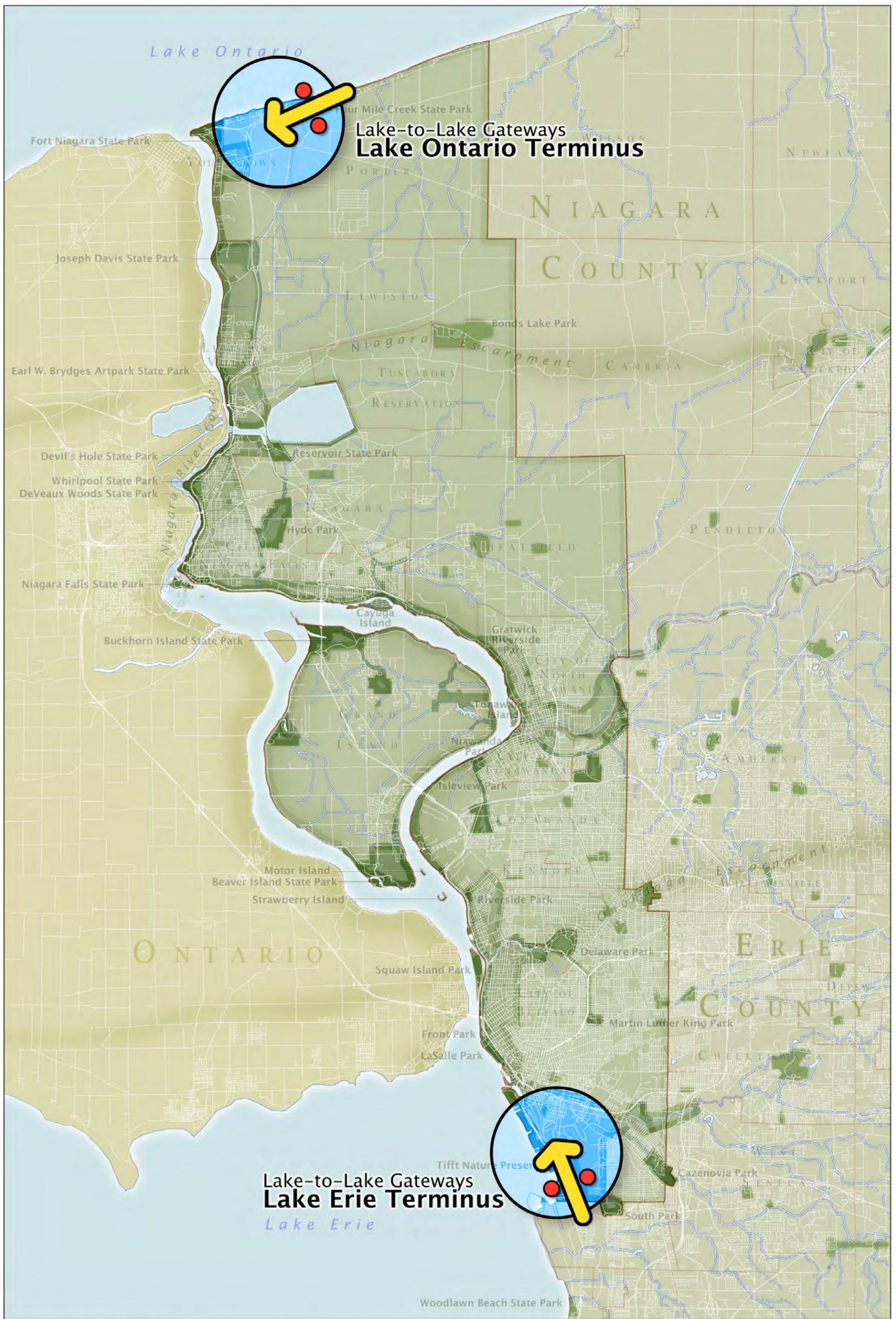


Scajaquada Creek

In addition to water access points, other features such as confluences, islands and other river features could be conceived as aquatic gateways.

- ***Gateways Network*** (See Figure 15)

Taken as a whole, the collection of many types and hierarchies of gateways would be developed as a coordinated network. Ideally, this network of Gateways will enhance the user experience throughout Niagara River Greenway while reinforcing the importance of notable hubs of activity. The implementation of a full gateway network would be coordinated with other system-wide programs including signage and graphics, interpretation and the development of multi-modal access to the Greenway, including trails, bridges, bikeways and roads. The gateway system for the Niagara River Greenway must also be coordinated with systems in place or planned under other initiatives, such as the Erie Canalway and the downtown Niagara Falls wayfinding system.



NIAGARA RIVER GREENWAY

-  Niagara River Greenway Area
-  Opportunity for Lake-to-Lake Gateway

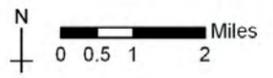
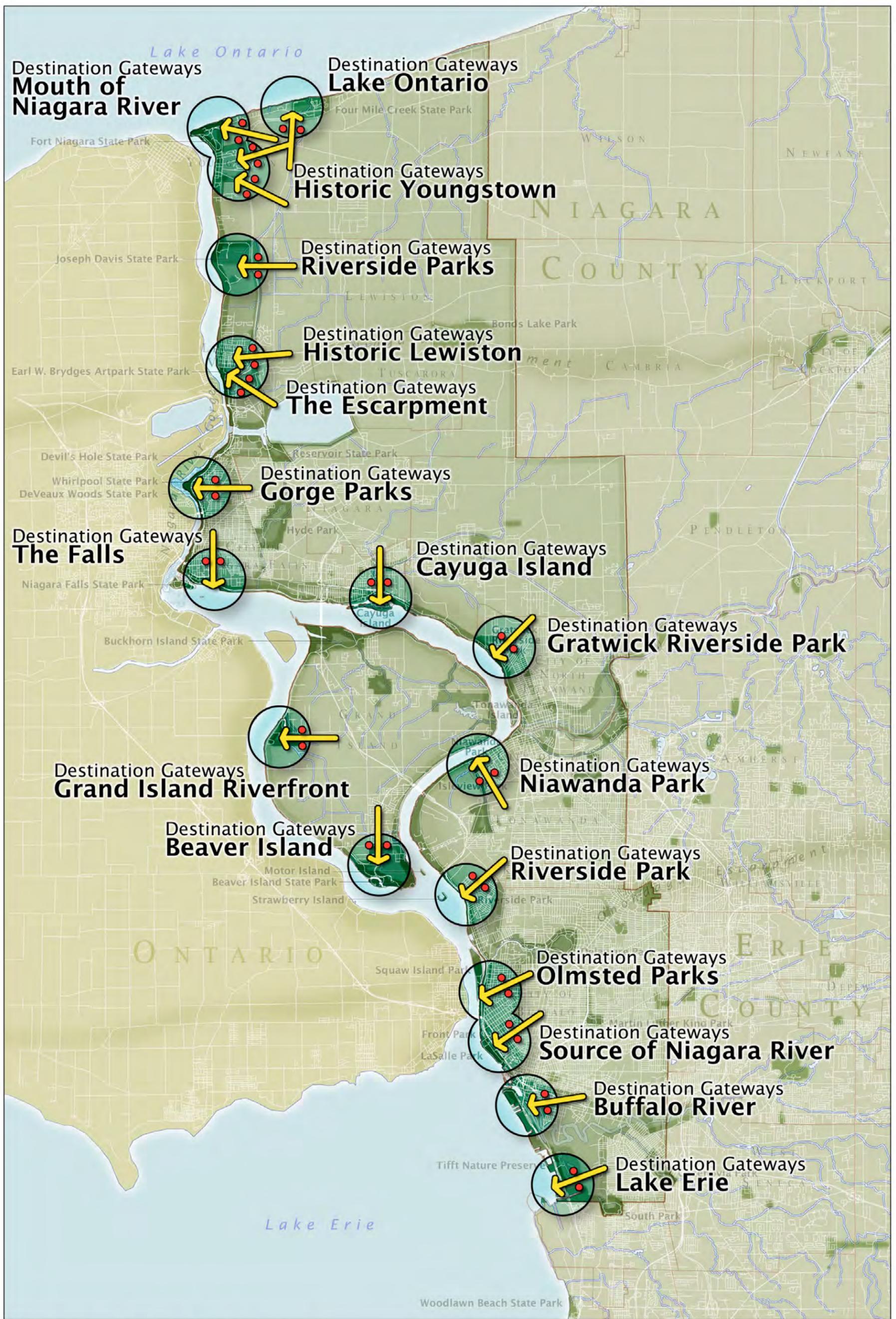


Figure 11



NIAGARA RIVER GREENWAY

-  Niagara River Greenway Area
-  Opportunity for Destination Gateway

DESTINATION GATEWAYS
MARCH 20, 2007

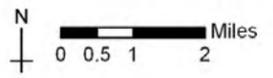
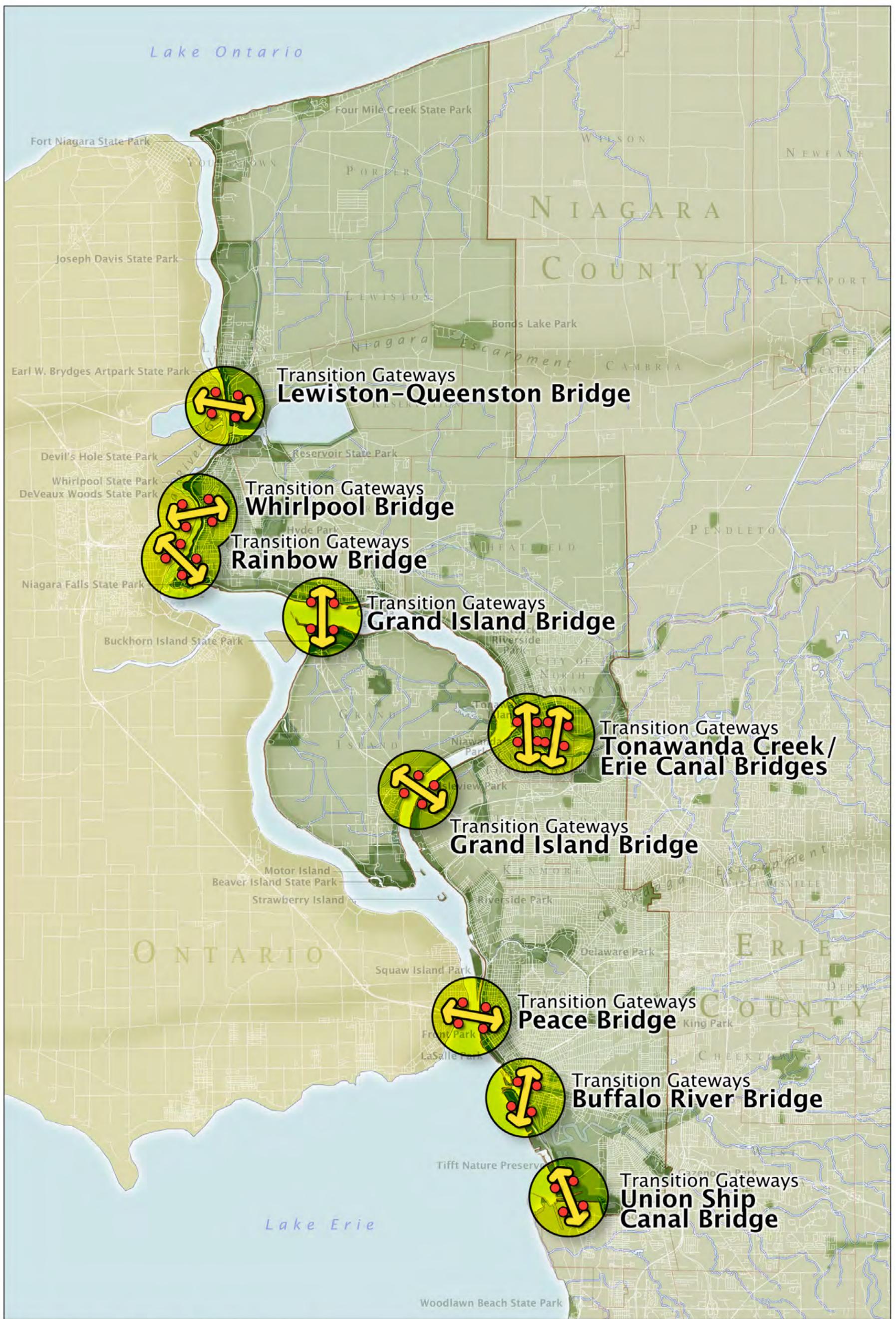


Figure 12



NIAGARA RIVER GREENWAY

-  Niagara River Greenway Area
-  Opportunity for Transition Gateway

TRANSITION GATEWAYS
MARCH 20, 2007

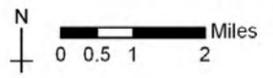
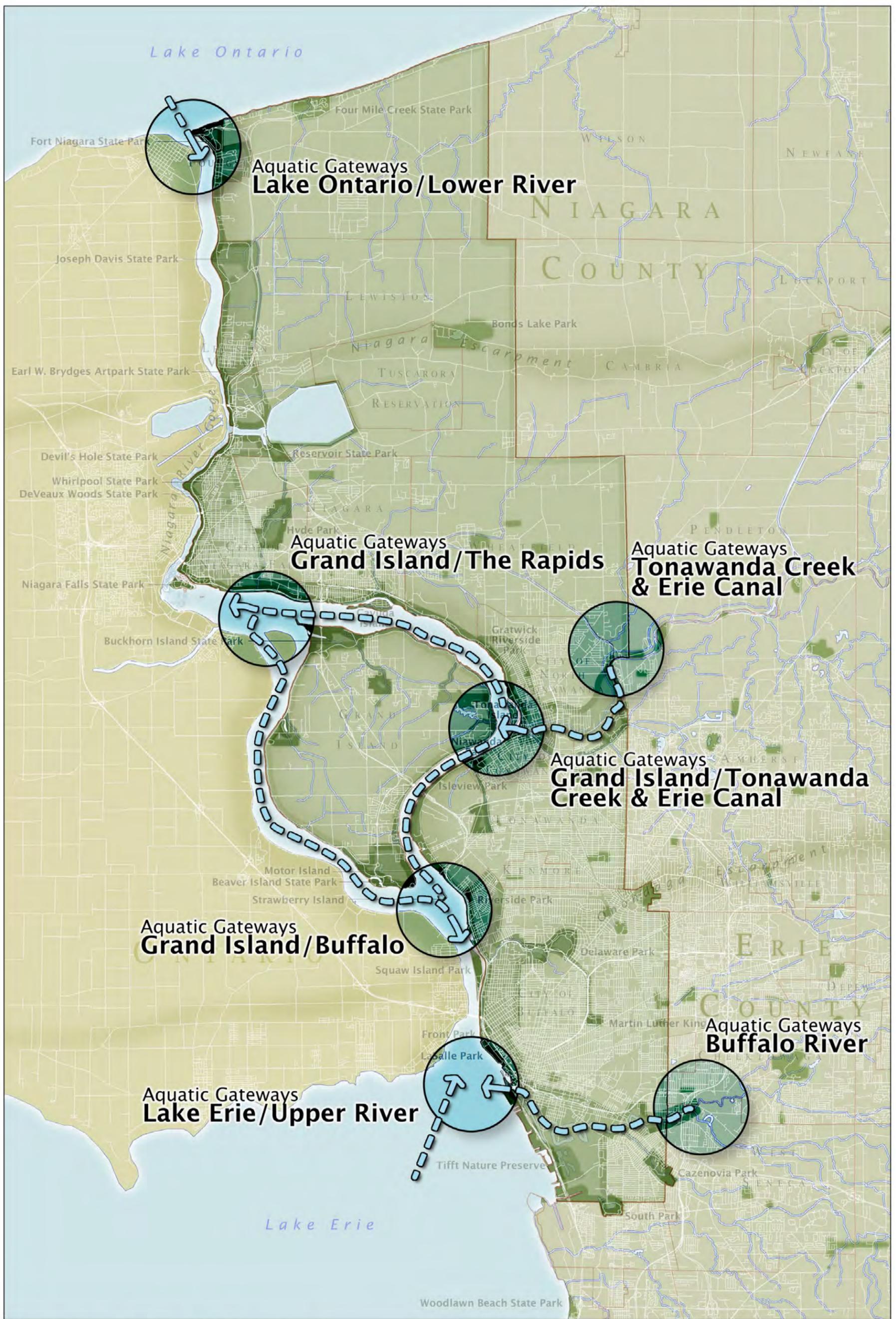


Figure 13



NIAGARA RIVER GREENWAY

-  Niagara River Greenway Area
-  Opportunity for Destination Gateway

AQUATIC GATEWAYS
MARCH 20, 2007

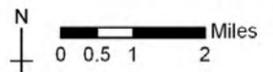
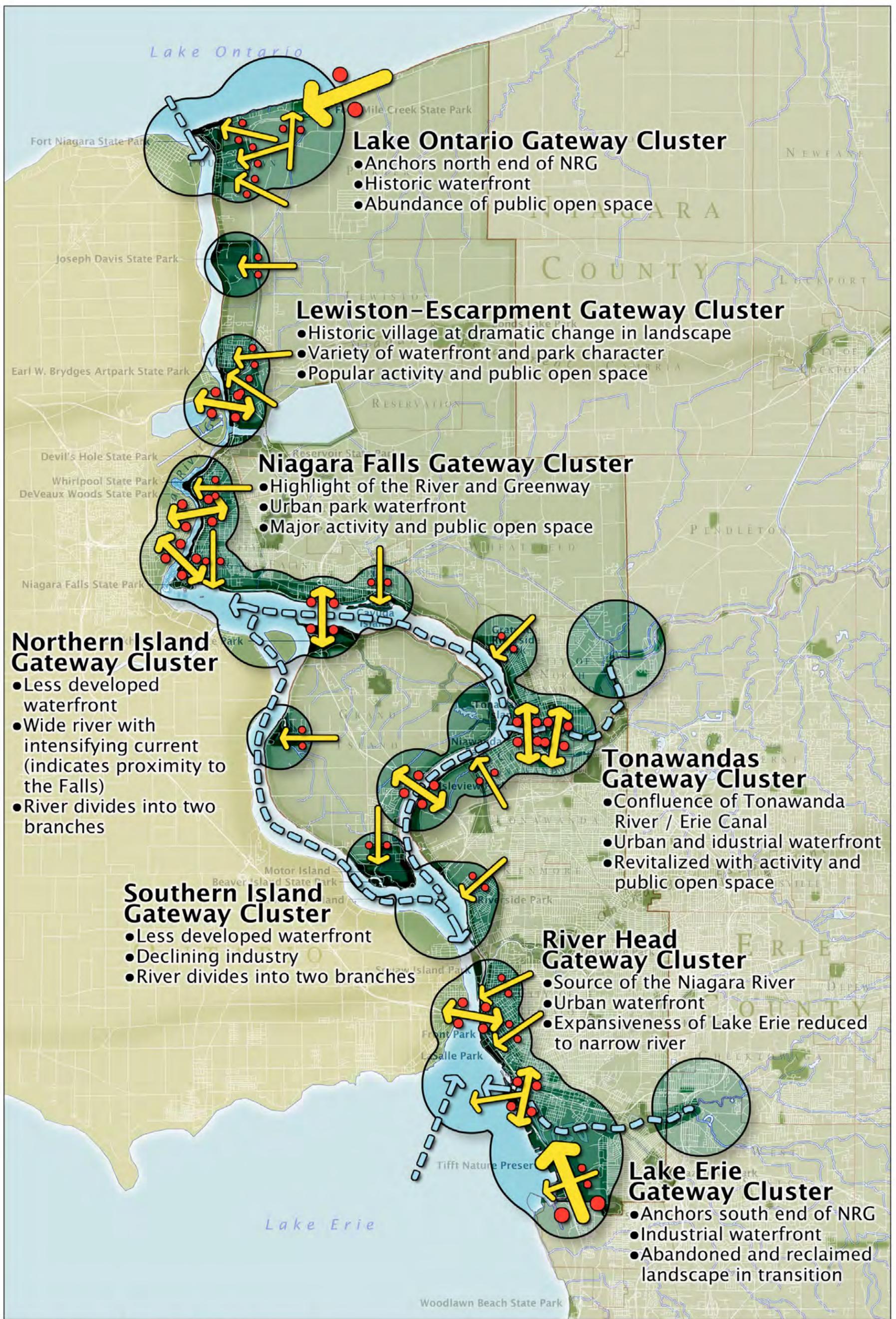


Figure 14



NIAGARA RIVER GREENWAY

- Niagara River Greenway Area
- Opportunity for Gateway Development

GATEWAYS NETWORK
MARCH 20, 2007

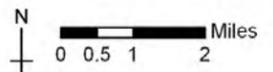


Figure 15

CHAPTER 4: ACTION PLAN

2. Accessing, Experiencing and Connecting to the River

There are many ways to access, experience and connect to the River. These include scenic overlooks, water access sites (boat launches, marinas), “blue line” or water-based trails, parks, and recreational trails.

Currently there are several gaps in the current trail system as identified on the multi-use trail map (Figure 16). As this map demonstrates, there is a need to further develop and take advantage of the many opportunities to access, experience and connect to the river, whether by multi-use trail, canoe and kayak or merely offering an opportunity to experience the countless viewsheds along the Niagara River corridor from Lake Erie to Lake Ontario.

Improved access can take many forms. For example, a Scajaquada Creek kayak and canoe launch would improve access to the Scajaquada Creek, the Black Rock Canal and the upper Niagara River. This access provides an opportunity to experience the juxtaposition of the naturalized setting of the creek within a very urban setting.

Access is also related to multi-use trails and improved facilities for non-motorized use. Numerous municipal and stakeholder recommendations make it clear that local residents place a high priority on the

completion of a “lake to lake” trail system. As part of the Niagara River Greenway Plan Implementation Concepts, a trail gap analysis was performed on five existing gaps in the existing network of trails. These analyses demonstrate potential trail alignments to fill the gap, as well as potential opportunities and/or constraints relative to each trail gap alignment. They are conceptual, and other alignments or solutions would be consistent with the Plan. The main point is that development of these trails would improve access to waterfront resources, providing the users with an enhanced physical and visual experience while simultaneously achieving the objective of a “lake-to-lake” trail system.

- **Area 1: Buffalo-Black Rock Channel Area** (see Figure 17)

The proposed route is along the west side of I-190, adjacent to the Black Rock Channel. The southern tie-in point would be the existing multi-use trail adjacent to the Interstate 190 Porter Avenue/Peace Bridge off-ramp where the trail crosses from the west side to the east side of the highway. The northern limit would cross the West Ferry Street Bridge and tie into the existing Riverwalk on the south side of Squaw Island. The following pictures illustrate conditions along the proposed trail segment:



Southern Tie-in Point at Existing Multi-use Trail

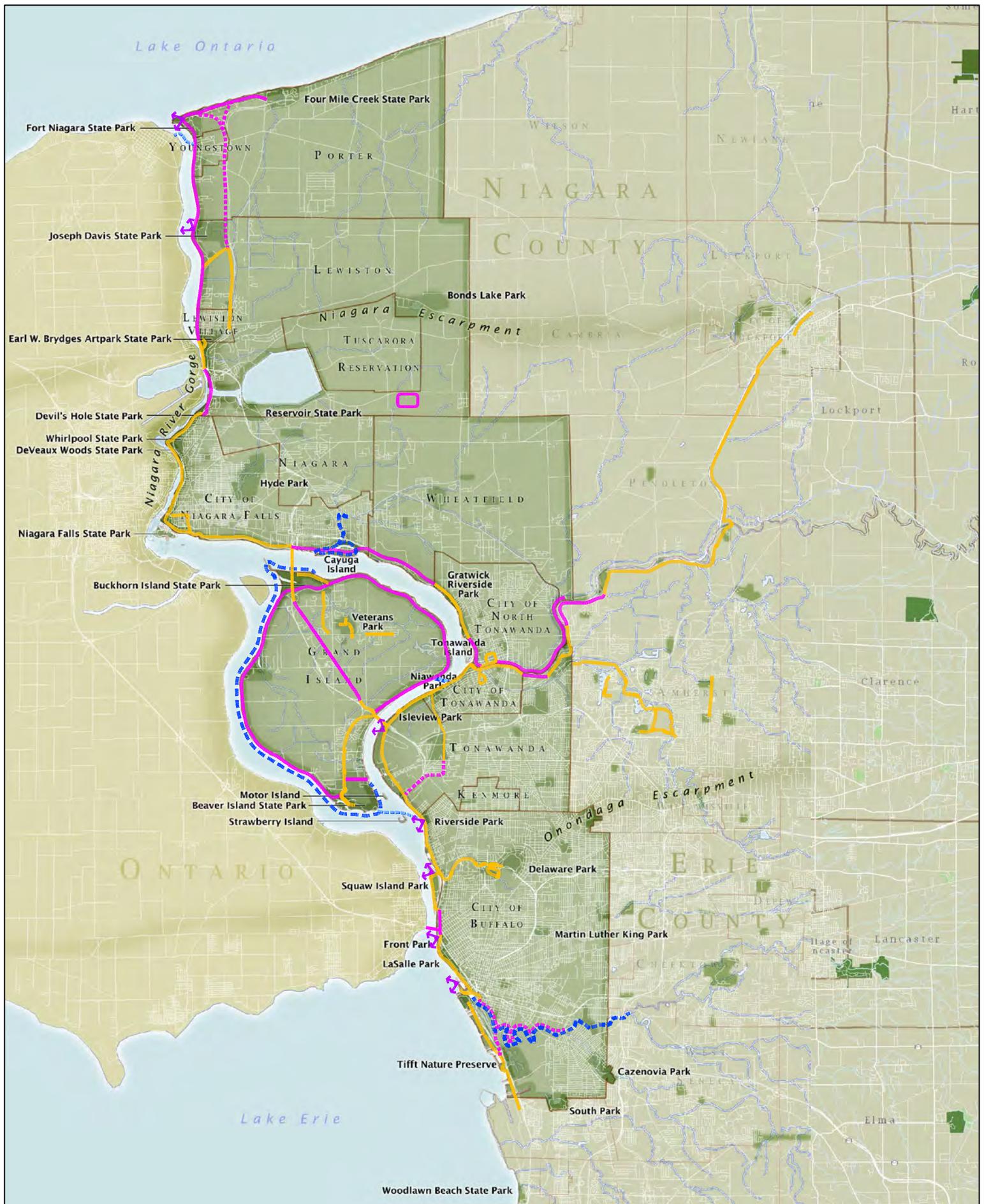
CHAPTER 4: ACTION PLAN



Existing Multi-use Trail at Southern Tie-in Point (Looking North)



Stacked Stone Retaining Wall under W. Ferry Street Draw Bridge



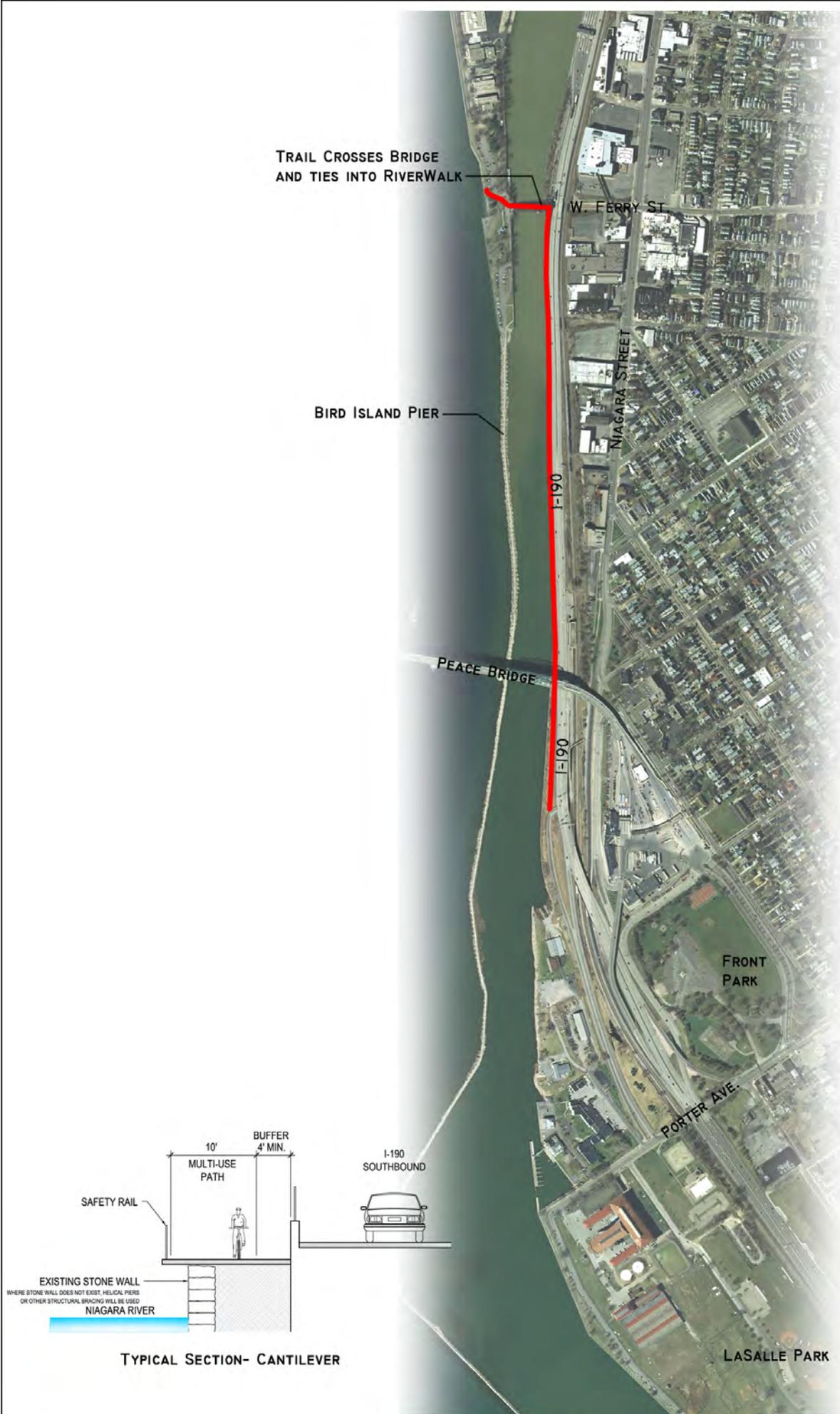
Niagara River Greenway

Multi-Use Trails

-  View
-  Existing
-  Proposed
-  Proposed Ferry
-  Proposed Canoe/Kayak

Figure 16

20 March 2007



IMPLEMENTATION CONCEPT
NIAGARA RIVER GREENWAY **BUFFALO- BLACK ROCK CHANNEL AREA**



Figure 17

CHAPTER 4: ACTION PLAN



**Stacked Stone Retaining Wall and Sheet Piling South of W. Ferry Street Draw Bridge.
Also shows Concrete Retaining Wall for I-190 in this area.**

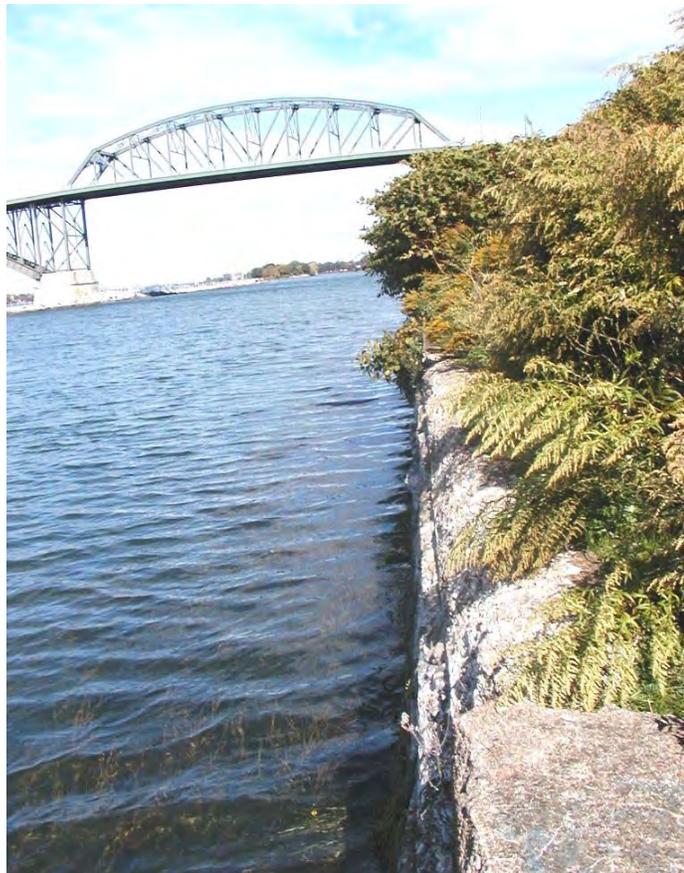


**Stacked Stone Retaining Wall
Looking South toward the Peace Bridge**

CHAPTER 4: ACTION PLAN



Stacked Stone Retaining Wall South of the Peace Bridge



Water Level View of Stacked Concrete Retaining Wall South of the Peace Bridge

CHAPTER 4: ACTION PLAN



**View of Area between I-190 SB and the Black Rock Channel
Looking North at Peace Bridge**



**View of Area between I-190 SB and the Black Rock Channel
Looking North under the Peace Bridge**

CHAPTER 4: ACTION PLAN



View of I-190 and Black Rock Channel under the Peace Bridge Looking North

OPPORTUNITY:

To provide a multi-use trail along the Black Rock Channel to connect the two existing trails at the north (Scajaquada Creek) and south (existing Multi-use trail) tie-in points.

CHALLENGES:

1. Need to determine type of trail to be constructed, i.e. a cantilevered trail off a retaining wall, a paved trail supported by a retaining wall or a combination of the two.
2. Access for construction. Construction equipment would most likely have to work from the water in some locations.
3. Security under the Peace Bridge
4. Crossing over or under the W. Ferry Street Draw Bridge and the safety/security issues at this location. If the trail met W. Ferry Street at grade, this could be a good location for access since parking is available at Broderick Park. Individuals would have to cross the bridge to access the trail from the parking lot.
5. Trail alignment at the former I-190 SB Toll Plaza; i.e. cantilevered walkway or at-grade. This could be a good place to access the trail by SB traffic since there is an existing pull-off area.

CHAPTER 4: ACTION PLAN

OPTIONS:

- 1. From the Scajaquada Creek tie-in point southerly to the area near the former I-190 SB toll plaza:** The trail could be constructed at grade but would require some sort of retaining wall on the Channel side to provide support for the trail and an anchor for fencing. Once it reaches the existing concrete retaining wall at the widening for the toll plaza, the trail could either rise to meet the existing grade and run along the wall. With the recent removal of the tolls, additional land has been made available for this purpose, and the trail could pass by on the west side. As an alternative, the trail could be cantilevered off the existing concrete wall, over the water.
- 2. From the area near the former I-190 SB Toll Plaza to the West Ferry Street Draw Bridge:** It appears that the trail could be constructed at-grade with the support of a retaining wall, either away from the water or by replacing the stacked rock wall that currently exists at water's edge. At West Ferry Street, the trail would either have to rise to meet the grade of the bridge deck if desired, or pass beneath the bridge deck. Another option that may be available is to cantilever the trail off the existing concrete retaining wall supporting I-190 SB. This would allow the trail to stay at an elevation that would allow it to be tied in at grade to the West Ferry Street Draw Bridge deck.
- 3. From the W. Ferry Street Draw Bridge to the Peace Bridge:** The trail could be constructed at-grade with the replacement of the existing stacked stone retaining wall at the water's edge. It could also be cantilevered off the I-190 SB concrete retaining wall while there is sufficient exposure. It appears the wall is eliminated somewhere near the Peace Bridge.
- 4. From the Peace Bridge to the existing multi-use trail:** The trail could be constructed at-grade and then in a cut section to meet the elevation of the existing multi-use trail. Retaining walls would have to be constructed for support of the trail and the embankment back to I-190.

The following is an artistic rendering of a cantilevered walkway:



CHAPTER 4: ACTION PLAN

- **Area 2: Niagara River Parkway (West River Parkway)**
(See Figure 18)

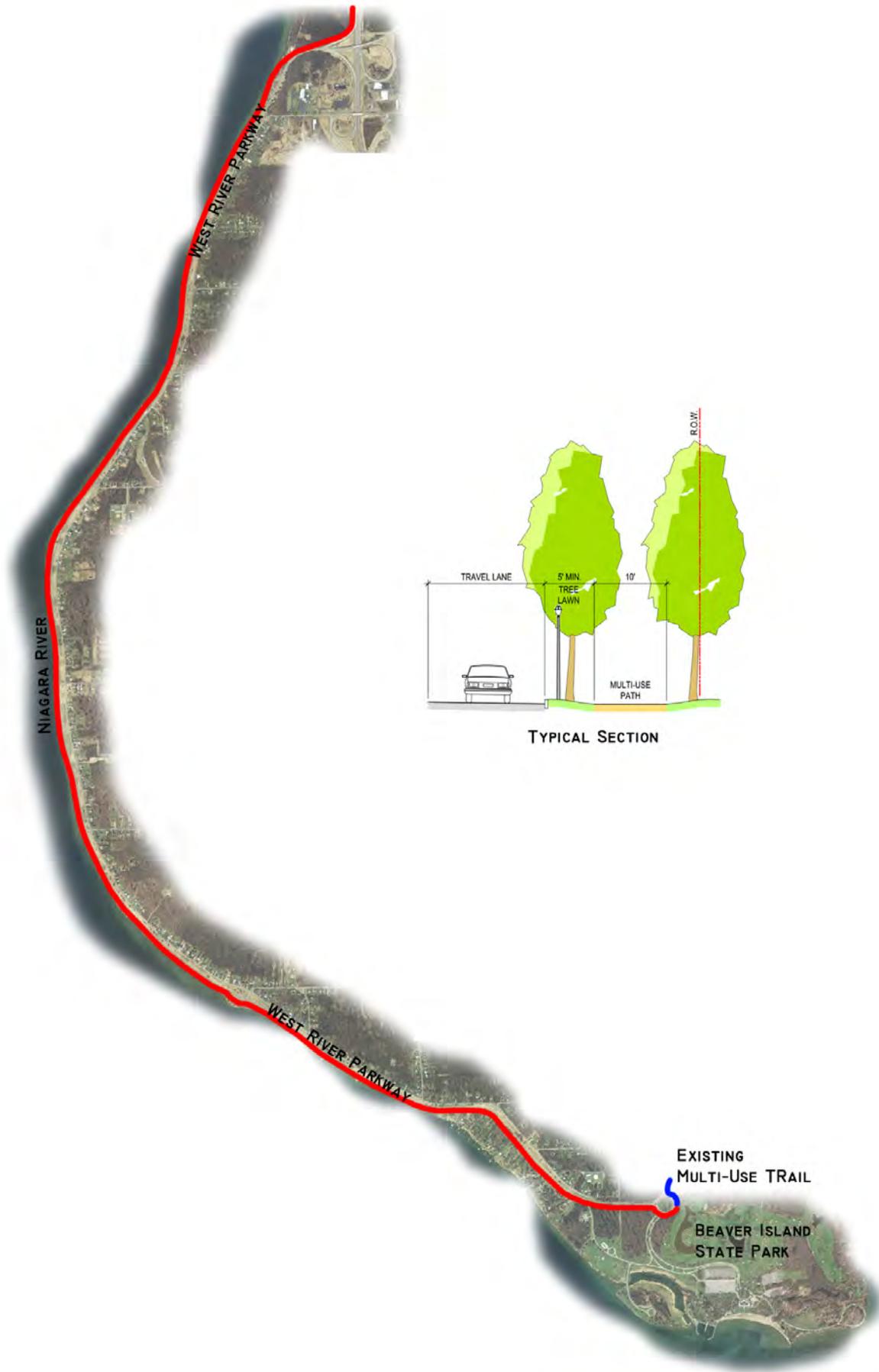
The proposed route would be from Beaver Island State Park at the southern terminus to the Buckhorn Bikeway at the northern terminus along the West River Parkway. Right-of-way is not an issue since private property along the roadway is limited to the east side of West River Road. It should be noted that West River Road used to be the northbound lanes of a former, 4-lane parkway, but is now utilized as a service road for the residences along its length. The southbound lanes of the parkway have been converted to the two-way West River Parkway. Although the initial thought was to utilize the median area between the West River Parkway and West River Road for the alignment of the trail, it is suggested that the alignment be shifted to the west side of the West River Parkway, adjacent to the water. This alignment would allow access to the two existing pull-off areas, as well as scenic rest areas that could be provided adjacent to the Niagara River.



Multi-use Path entering Beaver Island State Park on the South Side of the Traffic Circle



**View of West River Parkway North of Traffic Circle at Beaver Island State Park
(Multi-use Trail would begin in this area)**



CHAPTER 4: ACTION PLAN



West River Parkway Looking South at Traffic Circle at Beaver Island State Park



West River Parkway Looking South from Southern Pull-off Area

CHAPTER 4: ACTION PLAN



West River Parkway Looking South from Staley Road



West River Parkway Looking North from Staley Road

CHAPTER 4: ACTION PLAN



West River Parkway Looking North at Northern Pull-off Area

The West River Parkway becomes East River Road at the I-190 overpass. A portion of the bridge deck would have to be utilized by the trail to connect to the Buckhorn Bike Path on the east side. The existing bridge has adequate shoulder width for bicyclist and pedestrian use.



East River Road Looking West of Overpass over I-190

CHAPTER 4: ACTION PLAN



**East River Road Looking East at Buckhorn Bike Path Crossing–
Northern Tie-in Point for West River Parkway Multi-use Trail**

OPPORTUNITIES:

1. Provide a connection between the existing multi-use trail at the South Grand Island Bridge and along the South Parkway to the existing Buckhorn Bike Path and the North Grand Island Bridge along the Niagara River, taking advantage of its natural beauty and scenic vistas.
2. Use existing pull-off areas along the west side of the West River Parkway to allow access to the trail.

CHALLENGES:

1. Crossing drainage ditches/structures where there is currently limited width between the existing West River Parkway and a drainage ditch (See picture above of the West River Parkway Looking South from Southern Pull-off Area)
2. Reconstructing the overpass over I-190 to provide sufficient width for the trail and two vehicular travel lanes.

CHAPTER 4: ACTION PLAN

- **Area 3: Grand Island Boulevard**
(See Figure 19)

The proposed route would be along Grand Island Boulevard from the current terminus of the Buckhorn Bikeway north of Long Road south to the terminus of the trail from the South Grand Island Bridge north of Staley Road. It should be noted that, although there is no separate bike path or trail, there is a signed Bike Route along Grand Island Boulevard. Pavement markings for this signed Bike Route have not been installed.



Grand Island Blvd Looking North at Terminus of Buckhorn Bikeway and On-Ramp to I-190 N.



Terminus of Buckhorn Bike Path at Grand Island Blvd.

CHAPTER 4: ACTION PLAN



Grand Island Blvd. Looking South from Terminus of Buckhorn Bike Path



Grand Island Blvd. at Industrial Drive Looking South (note Bike Route sign)



CHAPTER 4: ACTION PLAN



**Terminus of Paved Bike Path at Grand Island Blvd. North of Staley Road Looking North
(note Bike Route sign)**



Bike Path along Grand Island Blvd. at Tim Horton's Drive just North of Staley Road

CHAPTER 4: ACTION PLAN



Bike Path along Grand Island Blvd. Looking North approaching Staley Road



Bike Path under South Grand Island Bridge

CHAPTER 4: ACTION PLAN

Grand Island Boulevard has a 100-foot right-of-way for the majority of its length, providing what appears to be adequate width to provide a trail. However, there are safety concerns involved with providing a multi-use trail across the numerous commercial driveways and intersecting roadways. The current design for the Bike Route on the shoulders of the roadway is actually a safer design for the bicyclists. There are no sidewalks along Grand Island Boulevard, presumably due to the commercial nature of the roadway. Other challenges include the open drainage ditches and utility locations.

OPPORTUNITIES:

1. Provide a direct link between the Buckhorn Bike Path (and the North Grand Island Bridge) and the multi-use trail at the South Grand Island Bridge along Grand Island Blvd.

CHALLENGES:

1. Safety issues crossing the intersecting roadways and commercial driveways.
2. Existing open ditch drainage systems that would have to be traversed.
3. Existing utility locations.

CHAPTER 4: ACTION PLAN

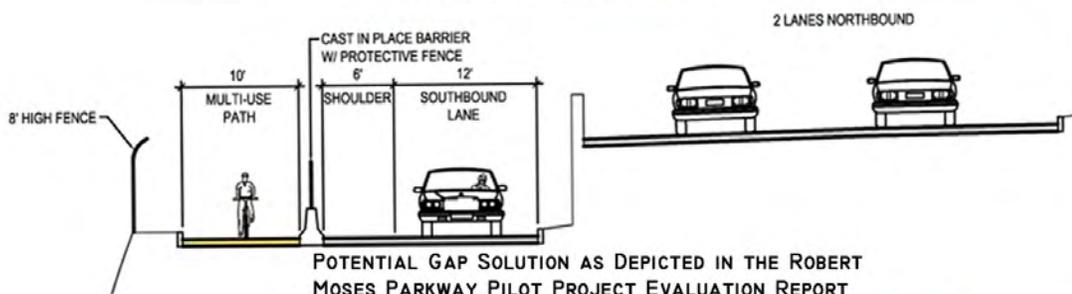
- **Area 4: Devil's Hole/Power Project Area**
(See Figure 20)

New York State is currently initiating a scoping process for the Robert Moses Parkway in this location. The preferred bike lane route, under any scenario for the Robert Moses Parkway, would be to cross the Power Authority structure on the west side of the former southbound lanes of the parkway. The entire southbound lane is closed at this time for reconstruction work being done by the Power Authority. There appear to be no capacity issues with the current traffic pattern utilizing the former northbound lanes for two-way traffic. The design set forth under the Pilot Project by NYSDOT and NYS OPRHP provides for two northbound lanes and a single southbound lane separated from the trail by concrete barrier (see attached rendering from the Pilot Project Evaluation Report). If the traffic pattern remains as is under the current conditions, the entire width of the southbound lanes could be used for the trail and observation area. Security concerns at the Power Authority structure may be an issue.

The southern limit would be the current terminus of the trail at the Devil's Hole observation area, as indicated in the following pictures:



Current Trail Terminus at Devil's Hole Looking SB



POTENTIAL GAP SOLUTION AS DEPICTED IN THE ROBERT MOSES PARKWAY PILOT PROJECT EVALUATION REPORT

CHAPTER 4: ACTION PLAN



Current Terminus at Devil's Hole Looking NB



**North View of Robert Moses Parkway SB Lanes
In the vicinity of Devil's Hole**

CHAPTER 4: ACTION PLAN



**North View of Robert Moses Parkway SB Lanes
In the vicinity of Devil's Hole & Niagara University**

The northern limit of the trail segment would be a connection to Artpark and its trail system. Although there are existing trails along the gorge to the south of the Artpark facility, the condition and location of the trails would preclude connecting a multi-use trail to them. This trail would pass highly scenic areas.



Signage at Entrance to Gorge Trail south of Artpark

CHAPTER 4: ACTION PLAN



View of Rock Outcropping of Escarpment along Gorge Trail



Southern Terminus of Gorge Trail

CHAPTER 4: ACTION PLAN

A trail at this location would create safety issues, as well as constructability questions with the difference in grade between the Robert Moses Parkway and the Gorge Trail.

A possible tie-in point would be at the north end of the access road from Portage Road in the vicinity of the Artpark maintenance building, as shown in the following pictures:



Access Road to Artpark from Portage Road looking at Robert Moses Parkway

CHAPTER 4: ACTION PLAN



**Access Road to Artpark at Drive to Maintenance Building
In vicinity of Robert Moses Parkway**



**Access Road to Artpark
Looking north at Drive to Maintenance Building and Robert Moses Parkway**

CHAPTER 4: ACTION PLAN

This approach would require extending the trail along the current Robert Moses Parkway right-of-way, either in or adjacent to the southbound lanes. While the future configuration of the parkway is currently under study, a trail could be accommodated under various proposed alternatives. The existing northbound lanes could be converted to two-way traffic with little difficulty in this area, if the southbound lanes were converted to a trail. Another option would be for a single southbound lane in this area, adjacent to the trail. Locating a trail at the grade of the Robert Moses Parkway is also conducive to tying the trail in to Artpark.

OPPORTUNITIES:

1. Provide connection in trail system to allow pedestrians/bicyclists to travel between Artpark in Lewiston and Devil's Hole (and on to Niagara Falls) and to enjoy the natural beauty and scenic vistas within this section.
2. Provide a viewing opportunity of the gorge at the Power Authority structure for pedestrians and bicyclists.
3. Provide a pedestrian and bicycle friendly means of access between the upper and lower escarpment in Lewiston.
4. Provide a multi-use trail separate from the vehicular travelway.

CHALLENGES:

1. Accommodating trail system in existing right-of-way, and possible need to re-route traffic.
2. Security issues at Power Authority structure.
3. Impact on the existing Robert Moses Parkway/ I-190 Interchange.
4. Power Authority acceptance of project.
5. Access point to Niagara University.

CHAPTER 4: ACTION PLAN

- **Area 5: Lower River Rd. – Lewiston to Youngstown**
(See Figure 21)

The proposed route is, in general, along the Niagara River corridor from Lewiston to Youngstown along State Route 18F. The southern terminus would be Artpark in Lewiston and the northern terminus would be the entrance to Fort Niagara in Youngstown, with the option of continuing it northerly through the Fort to the Robert Moses Parkway.

It seems the most direct route from Artpark to Lower River Road within the Village of Lewiston would be to follow 4th Street from the entrance to Artpark, northerly, crossing Center Street where it would follow State Route 18F northerly to Oneida Street. From this point, the trail would turn west and finally north again on Lower River Road. The Village Streets have 99-foot rights-of-way with stone or concrete sidewalks on one or both sides, depending on the location. Village streets are lined with mature trees. There is sufficient shoulder width on 4th Street to allow on-street parking.



4th Street Looking South at Artpark Entrance

CHAPTER 4: ACTION PLAN



4th Street Looking North at Center Street



4th Street Looking North at Oneida Street



FORT NIAGARA STATE PARK

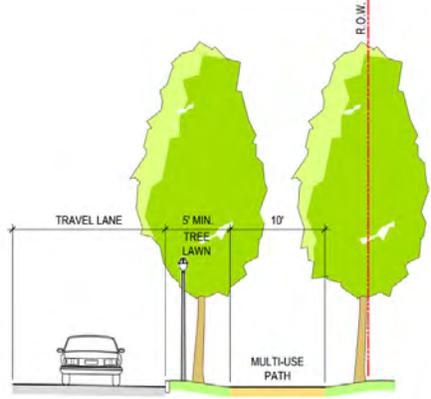
VILLAGE OF YOUNGSTOWN

LOWER RIVER ROAD

NIAGARA RIVER

LOWER RIVER ROAD

JOESPH DAVIS STATE PARK



TYPICAL SECTION

WITHIN VILLAGE OF YOUNGSTOWN AN OFF ROAD MULTI-USE PATH WOULD NOT BE POSSIBLE. THEREFORE A COMBINATION OF DESIGNATED BIKE LANE AND/OR SHARED ROADWAY WOULD APPLY.

PATH CROSSES BACK TO EAST SIDE OF ROAD

*NOTE: PATH GENERALLY FOLLOWS ALIGNMENT OF EXISTING 4 FOOT WIDE PATH ALONG LOWER RIVER ROAD.

PATH CROSSES FROM EASTSIDE OF RIVER ROAD TO WEST SIDE



PLETCHER ROAD

NIAGARA RIVER

DUTTON DRIVE

LOWER RIVER ROAD

ONEIDA ST.

FOURTH ST.

ARTPARK

NIAGARA RIVER GREENWAY

IMPLEMENTATION CONCEPT LOWER RIVER AREA

Figure 21

CHAPTER 4: ACTION PLAN



Oneida Street Looking East from Lower River Road



Lower River Road Looking North from Oneida Street

CHAPTER 4: ACTION PLAN

Concrete sidewalk is located on the east side of Lower River Road along the section from Oneida Street to Dutton Drive. At Dutton Drive, a cross walk is provided on the south side of the intersection to connect the concrete sidewalk to the asphalt path on the west side of Lower River Road.



**Lower River Road Looking North
In the vicinity of Morgan Drive**



Lower River Road Looking North at Dutton Drive

CHAPTER 4: ACTION PLAN

Limited right-of-way (66 feet), physical constraints caused by erosion of the embankment along the Niagara River, existing bridge structures, on-street parking, mature trees and Village business centers, as well as driveway and roadway crossings, all create design challenges for providing sufficient width for a multi-use trail in this section.



Lower River Road Looking North, north of Dutton Drive



Lower River Road Looking South at Stella Niagara

CHAPTER 4: ACTION PLAN



**Lower River Road at Pletcher Road Looking North
(Trail crosses to east side of roadway on the north side of the intersection)**



**Lower River Road at Youngstown Estates Looking North
(existing path crosses to east side of Lower River Road on north side of this intersection)**

CHAPTER 4: ACTION PLAN



Lower River Road at Swain Road in Youngstown Looking South



Main Street, Village of Youngstown Looking North