

Regional Economic Growth Through Ecological Restoration of the Niagara Gorge Rim



Niagara Falls, New York

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Executive Summary

The Niagara gorge rim has accommodated a variety of land uses throughout its history, but perhaps none has stirred as much debate as its current use as a limited-access parkway. The use, condition, and future disposition of the Robert Moses Parkway (RMP) along the gorge rim have been sources of local concern for decades. At present, there exists an opportunity to re-evaluate the use of that land as a transportation corridor, and to consider the many benefits of a full ecological restoration of this truly unique natural resource.

The use of the gorge rim as a travel route is not a new concept. The rim has played a dominant role in the movement of people and supplies from Niagara Falls to points north for generations. In the early 1960s, the construction of the RMP formalized the use of the Niagara gorge rim as a limited-access, non-commercial vehicular thoroughfare, facilitating travel through state parks and between the city of Niagara Falls and the neighboring village of Lewiston. For thirty years the RMP operated effectively, servicing both the regional and local community. However, significant population loss and a continuous downturn in the local economy have contributed to a substantial reduction in transportation demand along the RMP. In 2001, the two southbound lanes of the northern section of the RMP were closed to vehicular traffic and dedicated to pedestrian use. Unfortunately, these lanes have never been modified (or improved) and continue to appear as an unmaintained and unused roadway, negatively impacting the quality of experience for local residents and tourists.

As the local debate regarding land use along the gorge rim has continued, various recommendations have been subsequently proposed throughout the community, ranging from re-creation of the original RMP design to reconfiguration or complete removal of the roadway. In 2009, in response to this debate, the Niagara Falls and River chapter of Wild Ones: Native Plants and Natural Landscapes (a national not-for-profit organization) proposed to study the potential for regional economic growth based on full removal of the RMP and restoration of the Niagara gorge rim to its natural ecological condition. The chapter's proposal was funded by the Niagara Greenway Commission's Ecological Standing Committee and the City of Niagara Falls. This study, entitled *Regional Economic Growth Through Ecological Restoration of the Niagara Gorge Rim* (hereafter, Restoration Study) is the outcome of that proposal.

The area addressed in this study (Study Area) includes approximately 700 acres, from First Street in the City of Niagara Falls north to Center Street in the Village of Lewiston, and from the rim of the Niagara gorge east to where adjacent neighborhoods abut the RMP. The purpose of the study is to 1) review the ecological and economic advantages of an alternative land use within the Study Area, 2) demonstrate the potential for alternate traffic routing between Lewiston and the City of Niagara Falls, 3) develop a Restoration Concept illustrating the future of the Niagara gorge rim without the RMP, and 4) strategically guide successful and sustainable restoration efforts within the Study Area. The Restoration Study begins with a review of the natural and cultural history of Niagara Falls to examine how and why its ecological context has been manipulated over time (see Part I). The region's history sheds light on the current conditions within the city, and provides a baseline upon which to begin planning for the future. This leads to a discussion of potential costs and benefits associated with reconstructing and maintaining the RMP, as compared to those associated with decommissioning the RMP and restoring the rim to its natural conditions (see Part II). An overview of the ecological and economic benefits of the proposed ecological restoration of the Niagara gorge rim and installation of a Niagara Rim Trail is then presented, followed by a Restoration Concept, which presents a vision of what the restored gorge rim could become (see Part III). With an understanding of the future direction as depicted in the Restoration Concept, pilot projects are proposed that could set the stage for phased implementation, so that initial investments can be met with incremental, but no less substantial, success. Finally, the steps necessary to undertake ecological restoration and monitor/manage the restored gorge rim over the long term are also discussed (see Part IV).

Four primary questions frame the discussion of RMP removal and restoration of the Niagara gorge rim. First, is full removal of the RMP financially feasible? Second, what significant impacts will occur due to redistribution of the RMP traffic? Third, what benefits (environmental and economic) are likely to result from the ecological restoration of the Niagara gorge rim, and fourth, how could ecological restoration of the gorge rim be achieved?

Data presented in the study show that the cost of decommissioning the RMP compares favorably to the cost of maintaining it. In light of its age (over 50 years old), maintaining the RMP necessarily includes its reconstruction in the near term. Recent estimates suggest that the reconstruction of the six-mile segment of the RMP within the Study Area could cost as much as (or more than) \$55.5 million (based on City of Niagara Falls, 2009b). When compared to an estimated cost of approximately \$3.8 million to decommission the same six miles of the RMP (based on NYSDOT, 2010), it becomes evident that removal of the Parkway should not be rejected based on potential cost. In fact, the difference between these two estimates (\$55.5 vs. \$3.8 million) clearly indicate that RMP removal is the more fiscally attractive alternative.

Redistribution of traffic from a closed RMP should not significantly disrupt local traffic. In light of the many redundant roadways in Niagara Falls, which are also currently operating below capacity, motorists seeking alternate routes will have many options. The low volumes of traffic currently using the RMP and adjacent roadways suggest that diverted traffic will not overwhelm the neighboring areas. If 70% of RMP traffic were diverted to Route 104 and 30% to Highland Avenue, it would result in 1 – 4 additional vehicles per minute traveling in each direction in the northern and southern sections of Route 104 and approximately 1 - 2 vehicles per minute in each direction in the middle section. Computerized models of traffic impacts, in addition to field research incorporating travel runs between the northern and southern termini of the Study Area, demonstrate that the average trip between these points would increase by only three minutes during peak travel times. In addition, this analysis has revealed that the levels of service at intersections throughout these adjacent corridors would remain largely unchanged if all RMP traffic were diverted. Traffic redistribution is expected to cause minimal inconvenience, at worst, for north-south commuters.

Given the favorable cost comparison and lack of significant traffic impacts, the removal of the RMP is certainly feasible. In addition, removal of the parkway will offer new opportunities for land use that could not be realized with the RMP in place. These opportunities could produce a number of environmental and economic benefits, including increased ecosystem services provided by the gorge rim landscape, opportunities for tourism development, potential employment opportunities, and the reconnection of the City of Niagara Falls with its waterfront. Many similar benefits have been experienced in cases across the world and are supported in a growing body of research literature.

The potential environmental benefits of ecological restoration range from improving the quality of air, water, and soil to contributing to regional biodiversity. All of this can be achieved through the removal of pavement, decompaction/restoration of a natural soil profile, and replacement of developed/disturbed landscape and mowed lawn with native vegetation. Many of these improvements have quantifiable ecosystem benefits that further support the position that ecological restoration can yield substantial financial savings and revenue generation that could not be achieved by maintaining current land use patterns within the Study Area. For example, the restoration of mixed deciduous forest conditions throughout a 210-acre portion of the Study Area could yield a net economic benefit of more than \$24 million over the course of 40 years, based on U.S. Forest Service estimates of the services that trees would provide in terms of temperature modulation, pollutant sequestration, and water treatment.



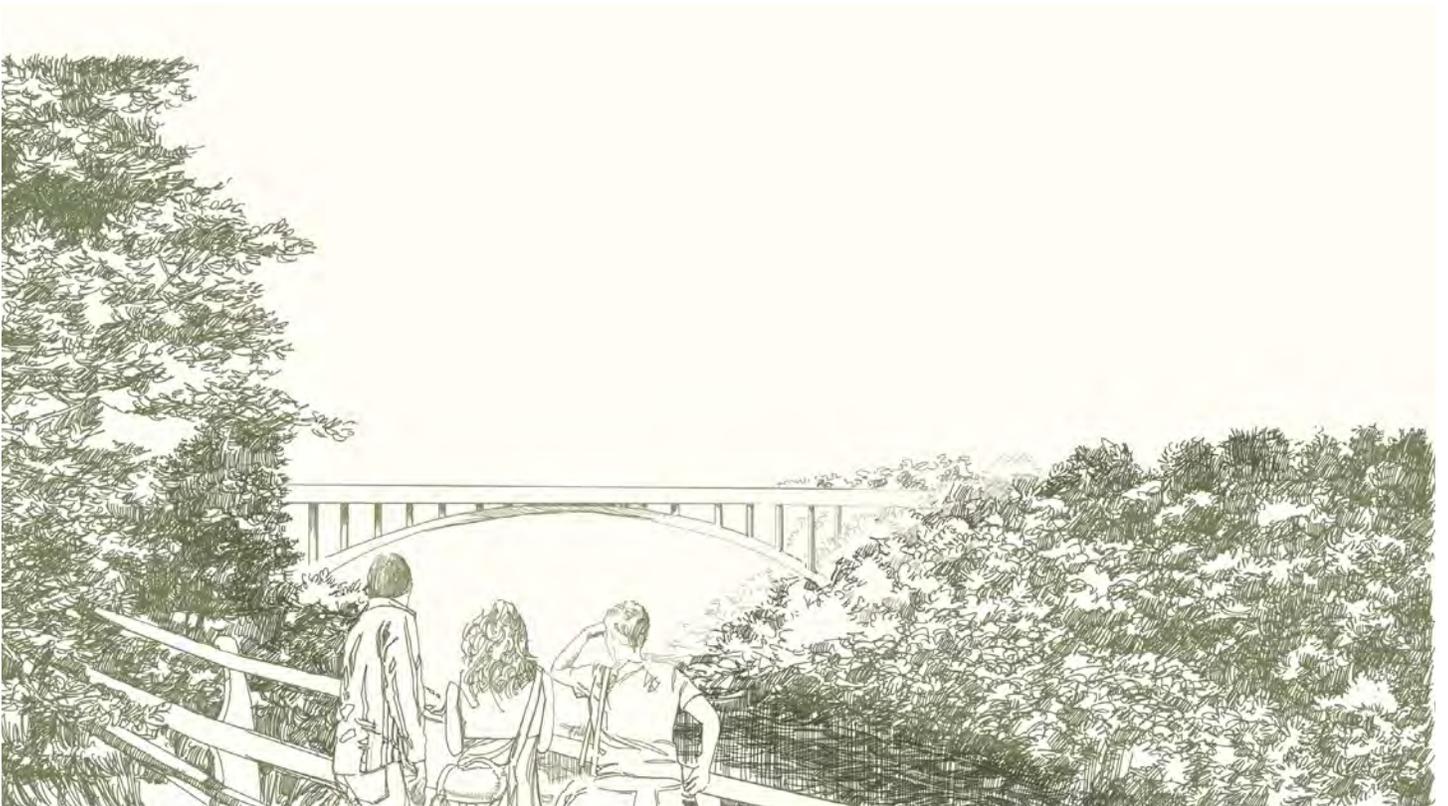
The proposed restoration effort could potentially influence economic growth throughout Niagara County by attracting tourists, including “ecotourists,” who seek nature-based travel and conservation experiences. Of the 12 million tourists visiting Niagara Falls, 9% of the visitors to the Greater Niagara area visit public parks. If a mere 5% of tourists visiting public parks were to extend their stay by one night to experience the restored Niagara gorge rim, this would contribute approximately \$4.5 million to the local economy each year. In addition to the jobs that could be created relative to the removal of the RMP and restoration of the gorge rim, these increased tourist expenditures could drive additional indirect job creation in the regional accommodations, culture, food service, transportation, and retail sectors.

Residents also stand to benefit from general improvements to the quality of life in region, particularly the long-awaited reconnection to their waterfront. Today the RMP essentially cuts off neighborhoods from the Niagara gorge and hinders rather than accommodates the ability of residents and visitors to appreciate this natural feature of international significance. By removing vehicular traffic from the rim, restoring natural communities, and providing safe, convenient public access, the community will benefit from increased property values, and enhanced opportunities to experience the natural beauty of the gorge and rim through biking, hiking, walking, strolling or picnicking along their waterfront.

Although ambitious, the goals of roadway removal and ecological restoration are not unrealistic or without precedent; a number of related precedents demonstrate the potential for both. Various types of disturbed/developed areas, ranging from reclaimed mines to roadside prairies, have been restored to functional natural systems. However, prior to undertaking such restoration efforts, some preliminary steps are warranted to ensure a successful outcome. An extensive amount of advocacy, funding support, data collection, and planning will be necessary to support RMP removal and ecological restoration. In light of potential constraints on (and impracticality of) immediate, full-scale funding and implementation, this Restoration Study proposes a phased approach to removal and restoration, in addition to three types of pilot projects that could implement portions of the overall Restoration Concept. According to this approach, four segments of the RMP would be removed sequentially over a period of five to ten years. This phased approach would facilitate incremental traffic transitions and spread capital improvement costs over time.

There is no question that the Niagara gorge rim once served the region as an important, and at times critical, transportation route. Indeed, the history of the rim and surrounding region provides ample evidence that the growth and prosperity of Niagara Falls have, at one time, benefited from such a use. However, the examination presented in this study should compel residents and regional decision-makers to reconsider whether these historic benefits remain valuable in a contemporary setting, where economic, environmental, and cultural patterns are dramatically different than they were when the RMP was constructed. While the RMP may still provide easy (albeit redundant) access between Lewiston and downtown Niagara Falls, this benefit is only experienced by the few drivers that actually utilize the parkway. In contrast, the disadvantages of a degraded environment along the Niagara gorge rim, foregone economic opportunities, and a disconnected waterfront are experienced by the entire region. As the community and its elected officials weigh the merits of options for resolving those disadvantages, the option of full roadway removal and ecological restoration, as described in this Restoration Study, should be considered as the option which offers the most valuable benefits to every constituent within the region. The concept presented herein represents the greatest potential for substantial and quantifiable public benefits to the regional economy and environment.

Introduction



Wild Ones is a national not-for-profit organization dedicated to promoting environmentally sound landscaping practices and the preservation of biodiversity. The mission of the Wild Ones Niagara Falls and River Chapter, hereafter referred to as Wild Ones Niagara or WON, was to “create in Niagara Falls (NY) and the Niagara River region a sense of place through grassroots partnerships, advocacy, and education about regional native plants and natural landscaping with a focus on the restoration, preservation and the protection of the botanically unique habitats of Niagara Falls and the Niagara gorge, their old growth forests and rare calcareous cliff botanicals” (WON, 2010). With funding provided by the Ecological Standing Committee of the Niagara River Greenway Commission and the City of Niagara Falls, **edr** Companies was engaged to prepare an Ecological Restoration Study of the eastern rim of the Niagara gorge (gorge rim).

The restoration concept addressed in this study is based on the premise that all lanes of the Robert Moses Parkway (RMP) and associated vehicular traffic should be fully removed from the Niagara gorge rim. The gorge rim, including the space previously occupied by the RMP, would then be fully restored to native ecological communities. The area being addressed in this study (Study Area) includes approximately 700 acres, from First Street in the City of Niagara Falls north to Center Street in the Village of Lewiston, and from the rim of the Niagara gorge east to where adjacent neighborhoods abut the RMP (see Figure 1). Land within the Study Area is owned by the New York State Power Authority (NYPA) and the NYS Office of Parks, Recreation, and Historic Preservation (OPRHP).

The purpose of this Restoration Study is to educate policymakers and the public as to the many potential environmental, economic, and cultural benefits that could be realized by removing the RMP, eliminating motorized vehicle traffic, improving recreational access, and encouraging a healthy restoration of the native ecology throughout this exceptional natural setting. Many are familiar with these benefits, as is evident in the inclusion of key components of Wild Ones’ vision in a number of planning initiatives:

“What we envision (is) a long gorge rim park with hiking and bicycling trails running through landscapes restored according to the philosophy of Frederick Law Olmsted, new forests being nurtured to extend the old growth forest at DeVeaux and at other appropriate locations, long grass, wildflower meadows attractive to butterflies, ground nesting birds, and other wildlife.” (The Niagara Heritage Partnership Proposal for the Removal of the Robert Moses Parkway and Restoration of Natural Landscapes, September 2004)

“The broad strategy for the upper river is to provide continuous access to the waterfront through completion of the pedestrian and bike trail; to improve the environment through plantings and naturalization; to mitigate the impacts of the Parkway; and to expand the connections between the city and trails, recreation opportunities, interpretive sites and the water itself.” (City of Niagara Falls USA, Niagara River Greenway Vision and Projects Proposal, July 2006)

“Through the reconfiguration of the parkway, its repurposing and even its elimination in some sections, land can be reclaimed and conveyed back to productive use. The riverfront would certainly gain parkland, functioning ‘greenway,’ and a heritage corridor, but would also yield new development opportunities capable of stimulating economic growth and reinvestment within the city on lands adjacent to a reconfigured Parkway.” (Comprehensive Plan for the City of Niagara Falls, USA, 2009)

The OPRHP is managing a parallel study in which policymakers at the local, regional, and state levels are considering alternative options for the future configuration of the RMP. These alternatives range from expansion to outright removal of the existing roadway. As policymakers debate the future of the RMP, this Restoration Study is intended to advance the dialogue regarding the environmental and economic

benefits of RMP removal and ecological restoration of the Niagara rim. In reviewing the Restoration Study, policymakers and the public are encouraged to consider a number of critical questions regarding the future of the Robert Moses Parkway:

- What are the current ecological and cultural conditions within the Study Area?
- How does the RMP function as a part of the regional and local transportation network?
- How does the existence of the RMP influence the ability of residents and tourists to access the Niagara gorge?
- What is the effect of the RMP on adjacent neighborhoods and the business community?
- What would full removal of the RMP look like?
- How would removal of the RMP and ecological restoration of the rim impact the community?

Wild Ones recognizes that the concept of ecological restoration is not entirely familiar to much of the community. No matter how degraded and redundant, it may still be difficult for some in the community to envision full removal of the RMP and restoration of the gorge rim to a natural landscape. The content of the Restoration Study, and the accompanying multimedia presentation (see Appendix F), will be effective in convincing even the most skeptical that full ecological restoration is not just another potential alternative, but the one that is best positioned to beautify and revitalize the community in a way that no other alternative can.

The restoration alternative is not simple, it is not quick, and it is not without its own sacrifices. It is expected to be a long-term, evolving experience. It will require the support of all levels of government, and most importantly, a critical mass of local residents. Nevertheless, it is the position of Wild Ones that the sacrifices required to pursue this option pale in comparison to the benefits that the region (generally construed as Niagara County) will experience as a result.

Full removal of the Robert Moses Parkway will create a publicly-accessible landscape restored to its natural condition. The restored gorge rim will increase biodiversity, serve as a unique opportunity for environmental education, and provide recreational and aesthetic benefits to local residents. It will also strengthen the local economy by attracting additional visitors to the area, expanding business opportunities in construction, maintenance, and tourism, and producing economic savings associated with the benefits of cleaner air, water, and soil. All of these benefits can be realized with negligible disruption to the local transportation network.

Communities around the world have recognized the benefits of deconstructing underutilized, disruptive infrastructure in favor of reconnecting their communities, improving their environments, and revitalizing their economies. While Niagara Falls may not be the first to explore this option, no other community has ever done so against such a dramatic backdrop. With this Restoration Study, Wild Ones makes the case for an extraordinary opportunity to reclaim the natural heritage of Niagara Falls.

