

**ECOLOGICAL ENHANCEMENT, WETLAND RESTORATION, AND AQUATIC
HABITAT RESTORATION PROJECT ON TUSCARORA NATION LAND WITHIN
THE NIAGARA RIVER GREENWAY CORRIDOR**

November 18, 2008

Prepared for:



NIAGARA RIVER GREENWAY COMMISSION

Prepared by:

TUSCARORA NATION

Project Registration Number _____

*Niagara River Greenway Commission
Consultation and Review Form*

Type of Review Required:

Mandatory Consultation

Voluntary Review and/or Endorsement

PROJECT SPONSOR INFORMATION

Name: Tuscarora Nation
Mailing Address: 2045 Upper Mountain Road, Sanborn
State: New York Zip Code: 14132
Federal Id# _____ Charities Registration # _____

PROJECT TYPE

Check all that apply: Environmental Cultural/Heritage Land or Water Public Access
 Cultural Trail Educational/Interpretive Waterfront or Land Based Development
Signage Recreational Other

Project Name: **Ecological Enhancement, Wetland Restoration, and Aquatic Habitat
Restoration Project on Tuscarora Nation Land within the Niagara
River Greenway Corridor**

Location: Near southwest corner of the Tuscarora Nation
Site Address: _____
State: Tuscarora Nation (New York) Zip Code: 14132
Minor Civil Division(s): _____
County: Niagara _____
Project Proponent Property Interest (own, lease, easement or other): Own – Nation Land

AUTHORIZED OFFICIAL

Name: Rene Rickard Title: Office Administrator, TEP, HETF
Business Address: 2045 Upper Mountain Road, Sanborn
State: New York Zip Code: 14132
Telephone Number: 716/609-3810 Cell Number: _____
Fax Number: _____
E-Mail Address: rene.rickard@Starband.net

PROJECT POINT OF CONTACT

Name: **Same as Above** Title: _____
Organization/Firm: _____
Business Address: _____
State: _____ Zip Code: _____
Telephone Number: _____ Cell Number: _____

Fax Number: _____
E-Mail Address: _____

PROJECT NARRATIVE

Ecological Enhancement, Wetland Restoration, and Aquatic Habitat Restoration Project on Tuscarora Nation within the Niagara River Greenway Corridor

1. In a brief paragraph, describe the project and its purpose, how and when it will be accomplished, and why it is important.

Project and Purpose

The Tuscarora Nation is submitting this application with the purpose of restoring aquatic/wetland habitat and enhancing ecological function and sustainability of their lands within a portion of the Niagara River Greenway Corridor (see Figure 1). Specifically, the proposed project will involve the creation of an open water-emergent, wetland-forested, wetland-upland mosaic for the purposes of re-establishing biological and structural diversity, native plant species, and ecological function to the project site, including the cultural tradition of a sustainable fishery.

General Site Information

The site being considered for this project is located on the southwest side of the Tuscarora Nation and is known, through Tuscarora oral history, as “The Swamp” (see Figure 2). The entire site consists of roughly 450 acres and is predominantly characterized by a dense emergent, predominantly herbaceous, vegetation community. This area comprises a large portion of the headwater source for Gill Creek, which discharges into the Upper Niagara River. Prior to the formation of Gill Creek Park, Gill Creek was a source for freshwater fish. Tuscarora oral histories record Gill Creek and the site as having contained fish such as “grass pike” and “sucker” fish. Currently, this area lacks habitat diversity and open water areas, and is also being colonized by invasive plant species such as *Phragmites* and purple loosestrife. These conditions contribute to the decline in habitat and wildlife values and functions.

Schedule and Specific Project Tasks

In order to effectively design and construct this ecological enhancement and aquatic habitat restoration project within the Niagara River Greenway Corridor, the Tuscarora propose to complete this project in phases, which will involve site analysis, conceptual design, site design, monitoring and maintenance, and construction. The technical approach for this current site analysis phase consists of the following tasks:

- Task 1: Pre-design Field Investigations (site investigations);
- Task 2: Definition of Specific Goals and Objectives/Community Collaboration; and
- Task 3: Development of Site Restoration Concepts.

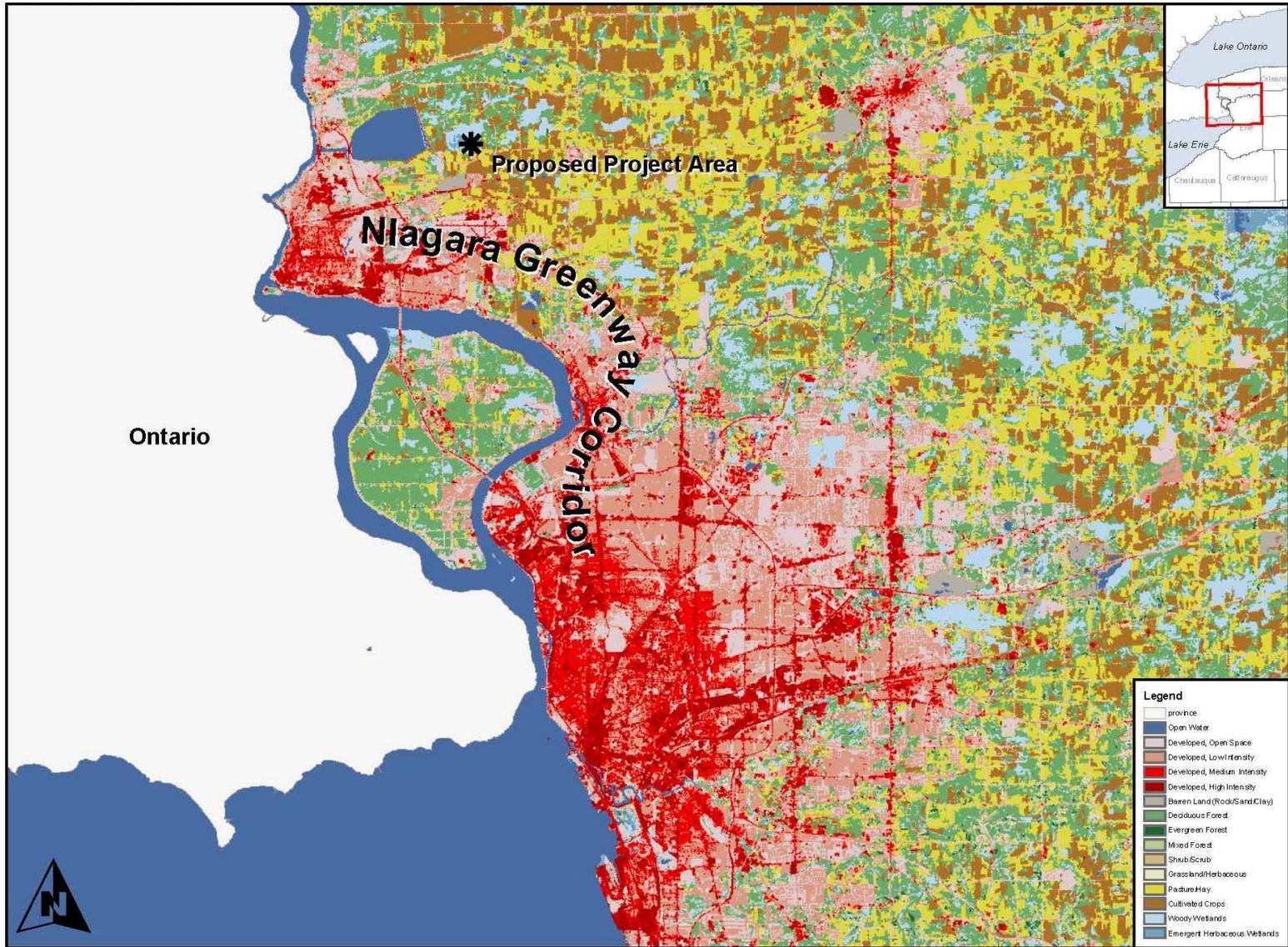


Figure 1 Proposed Ecological Enhancement and Habitat Restoration Project within the Niagara River Greenway Corridor and Western New York Region



Figure 2 Ecological Enhancement and Aquatic Habitat Restoration - Tuscarora Nation within the Niagara River Greenway Corridor

Upon contract award, the pre-design field investigations will begin in late winter-early spring 2009, and will continue throughout the year in order to observe and evaluate seasonal variations in features such as site hydrology, groundwater levels, and wildlife use. The Tuscarora expect that site restoration concepts will be developed by February 2010. We will submit a second application for site design, construction, and site monitoring and maintenance once the site restoration concepts have been developed and decided upon. Construction is being targeted for 2010.

Regional Importance of the Project

The quality, function, and disposition of healthy rivers lie in the headlands and tributaries within their watersheds. This project will reclaim, restore, and enhance a portion of the Niagara River Greenway Corridor (Gill Creek Headwater) and return sustainable ecological and cultural practices and traditions to the Tuscarora Nation Land and the region. This project will enhance the connection of the site to the surrounding landscape. The site will be used for a variety of purposes, including wildlife observation and conservation, fishing, and environmental education. The Nation school is located approximately 1.5 miles from the site and will provide a unique opportunity for conservation education in the form of a “living laboratory.”

One benefit of creating and maintaining an open water-wetland-upland complex in this location is an increased habitat for native wildlife such as migrating birds, mammals, fish, reptiles, and amphibians. One objective would be to build nesting platforms to attract osprey and, therefore, support the growth of the regional osprey population. The planting of native grasses would restore native vegetation and reduce invasive species such as *Phragmites* and purple loosestrife. The control of such species in this large area will aid in suppressing the spread of invasive species to other locations within the Niagara River Greenway Corridor. The clear benefits arising from implementation of this project include the increase in site capacity for supporting diverse assemblages of plant species and wildlife within the region, and the many concurrent opportunities for environmental and conservation education and outdoor recreation.

Site Overview and General Project Elements

Over time, changes in land use, Gill Creek channel and riparian modification in the lower watershed, and, especially, the construction of the New York Power Authority (NYPA) reservoir have combined to severely alter surface hydrology and aquatic resources in the proposed project area, near the headwaters of Gill Creek, on Tuscarora land. The Tuscarora Nation is proposing this project with the goal of enhancing and restoring regionally valuable aquatic habitat within a degraded emergent wetland complex and adjacent forested wetlands. Prior to the construction of the NYPA reservoir, the area provided ecological functions and services that were significant to Tuscarora traditions, wildlife usage, and cultural values derived from the connection between the Gill Creek headwater wetland complex and the Niagara River. The creation of the NYPA reservoir and other man-made features within the landscape hastened the decline of the fishery in Gill Creek and the ecological functionality of the proposed project site. Loss of function within the site as a seasonal fishery can be generally attributed to channel modification and loss of riparian structure manifested by barriers to fish passage and fragmentation of

wildlife corridors. The alteration of natural channel and riparian form has resulted in a loss of biotic diversity, reduced habitat functions, and a degraded process between the upper Gill Creek watershed within the Niagara River Greenway Corridor. The project, if implemented, will restore the area to a similar condition that existed prior to the construction of the NYPA project by using a function-based design approach that will utilize the principles of ecosystem-based restoration and management of water resources.

This specific request for Greenway funding is necessary to conduct detailed site data collection and analyses in order to determine sustainable ways to restore site hydrology and natural flow regime from upland areas through the site to Gill Creek headwaters. Water budget analysis and hydraulic modeling relative to ecological design are two examples of the planning tools that will be employed to identify elements of a function-based approach to design. Project objectives include increased habitat diversity, creation of fish habitat, restoration of native floral and faunal species to the site and region, increased opportunities for roosting and nesting habitat for migratory and non-migratory birds, and the development of nature trails, and wildlife observation points. The scale and location of this project will contribute to the substantive increase in aquatic and terrestrial habitat functions within the Niagara River Greenway Corridor.

After the completion of this phase of the project, the Tuscarora team will determine the method to specifically modify the site to enhance, restore, and create aquatic and wetland habitat features through engineering and biological analyses of existing surface and subsurface conditions. An understanding of surface hydrology, water budget, hydroperiod response, and soils and substrate properties—as well as biotic stressors such as invasive species—will be developed prior to the development of site restoration concepts. The design for aquatic and wetland habitats may involve the identification of target species of fish; migratory, game, and non-game birds; and herpetofaunal species. The project design will address the local and regional need for specific aquatic habitat features, ecological associations, and the potential for enhanced integration of the ecological associations with adjacent forested wetlands, uplands, and agricultural land uses. Resource restoration planning and design will include special attention to neotropical migratory bird species and resident species of concern within the Niagara River Important Bird Area (IBA).

2. Referring to the Niagara River Greenway Plan, clearly document and describe how the proposed project will advance the Niagara River Greenway vision, including the goals, principles, and criteria that define that vision.

NIAGARA RIVER GREENWAY VISION, PRINCIPLES, GOALS, AND CRITERIA

1. VISION

The Ecological Enhancement, Wetland Restoration, and Aquatic Habitat Restoration Project on Tuscarora Nation land within the Niagara River Greenway Corridor is consistent with the Niagara River Greenway Plan's vision, goals, principles, and criteria for the evaluation of proposed resource restoration projects within the defined Greenway

corridor. Specifically, the proposed project will further the vision of the Niagara River Greenway Plan by developing a sustainable world-class river corridor through the re-establishment of ecological functions; increasing ecological integrity, advancing the goal of public interaction with ecological and biological systems, increasing awareness of the interrelationships between landscape elements and environmental and social well-being, and returning to/restoring cultural practices and traditions.

2. PRINCIPLES AND GOALS

The foundation for developing this project lies in the Tuscarora Nation's vision of environmental stewardship and respect for all living things. This project is also strongly aligned with the principles and goals outlined in the Niagara River Greenway Plan. Specifically, and as described throughout this application, the project adheres to the following Greenway Plan principles:

- Excellence;
- Sustainability;
- Ecological Integrity;
- Public Well-Being;
- Connectivity;
- Restoration; and
- Authenticity (see paragraphs below for more detail).

The construction of the project will support the Greenway vision by meeting the following goals:

- Improving opportunities for conservation and restoration education, passive recreation, hiking, and fishing;
- Protecting and restoring environmental systems;
- Promoting long-term sustainability; and
- Celebrating history and heritage (see paragraphs below for more detail).

3. CRITERIA

Consistency with Principles. The proposed project design elements and deliverables are consistent with the guiding principals of the Haudenosaunee Environmental Task Force (HETF) and the Greenway Commission and specifically address the following principles:

- ***Ecological Integrity.*** Ecosystem-based project planning and design focusing on biological uplift;
- ***Restoration.*** Aquatic and terrestrial habitat enhancement and restoration of altered or degraded natural resources;
- ***Connectivity.*** Restoration of surface hydrology, aquatic habitat features, and ecological associations with adjacent natural resources and habitat features; and
- ***Partnerships, Sustainability, and Community Involvement.*** The project team will consist of the Tuscarora Environmental Program (TEP); HETF; Tuscarora Nation

residents; the Tuscarora School; Ecology and Environment Engineering, PC (EEEPC); and regional experts in wildlife biology and habitat restoration.

Priority Status. The project focuses on the restoration and enhancement of significant aquatic and wetland habitat features within the Niagara River ecosystem that will benefit various floral and faunal species and increase ecologically sustainable capacity within the Greenway. We expect that the specific values of this project include increases in biological and habitat diversity; an increase in habitat values and functions; continuing management and control of invasive species; re-establishment of a sustainable fishery in the Gill Creek headwater area; and enhancement of habitat for foraging, roosting, and nesting of neo-tropical migratory birds, as well as game and non-game resident species.

Focus Area. The project work area is located within historic headwaters of Gill Creek. The area is presently a degraded marsh dominated by cattail and reed canary grass surrounded by forested wetland and shallow unorganized surface drainage features. The marsh is subject to a number of biological stressors, including invasive plant species, altered drainage patterns, and channel modification and disconnection with the lower watershed.

Environmental Soundness. Project planning and design will restore ecological functions and habitat connectivity through a function-based design process.

Implementability. The project sponsor controls all land use activities within the project area and agrees to develop the project in accordance with this proposal.

Economic Viability. Planning, construction, and the performance monitoring tasks will be accomplished, in part, by project sponsor personnel from the Tuscarora Nation, with technical assistance from other members of the project team.

Local Sponsor or Partners. See Consistency with Principles above.

Consideration of Other Planning Efforts. The project is consistent with the Niagara River Greenway Plan and is complimentary to Greenway Habitat Improvement Projects. This project will specifically provide habitat features as described within the Niagara River IBA habitat characterization.

Clear Benefits. The proposed project will significantly improve the biotic environment by enhancing or restoring critical ecological functions and process to an altered and degraded wetland complex. The project will improve surface water recharge and drainage patterns and create open water features, tree and shrub islands, wildlife corridors to adjacent forested wetland, and control and management of invasive plant communities.

4. ADDITIONAL PROJECT ELEMENTS SUPPORTING THE NIAGARA RIVER GREENWAY VISION, PRINCIPLES, GOALS, AND CRITERIA

The Tuscarora Nation has a 300-year history in Niagara County and is part of the Haudenosaunee Confederacy, which has existed along the Niagara River prior to European settlement. The Tuscarora people have utilized natural resources and cultivated land in the Niagara River corridor guided by a cultural belief in environmental stewardship. Traditional Haudenosaunee beliefs involve the use, preservation, and caretaking of natural resources for seven generations into the future. The Haudenosaunee environmental philosophy involves traditional practices and an understanding that humans are part of the natural world and mutual survival is directly dependent upon respect and co-existence. Natural resource protection and conservation are integral components of the Tuscarora's belief and way of life. These components are also prominent elements underlying the Niagara River Greenway Plan.

In order to promote the environmental soundness of the project, technical assistance will be provided by the Tuscarora Nation's project team partner, Ecology and Environment Engineering, PC (EEEPC). EEEPC will provide pre-field design investigations, community outreach, and design services. EEEPC has been involved with numerous watershed planning and ecological restoration design projects within Niagara County and western New York. The Tuscarora Nation and EEEPC will also coordinate with natural resource agencies to obtain their input, as needed. The proposed project will develop and implement methods and techniques consistent with the science, practice, and application of restoration ecology and conservation biology. Planning and design elements will involve baseline data collection and analysis to identify the best approach to apply biological and engineering knowledge to support the enhancement and restoration objectives that are consistent with the Niagara River Greenway Plan.

Specifically, the proposed project will require that the design team develop planning and design tools for practical and feasible implementation of the habitat restoration and enhancement plan. The project will be guided by the following criteria:

- **Ecological and Biological Integrity.** The goal of this project is to restore, enhance, and increase ecological and biological integrity within the Niagara River Corridor. Diversification of the project site will increase habitat structure and complexity. This will have beneficial effects on regional ecological and biological integrity and will increase wildlife values for a greater variety of floral and faunal species. Site evaluations will be conducted to support the development of ecological and biological integrity, such as hydraulic analysis and the modeling of surface hydrology; mapping of habitat features, including vegetation communities; selection of appropriate ecological community trajectories; mapping of targeted wildlife species habitat; invasive species control and management; and adaptive management and ecological monitoring to quantify biological uplift.
- **Resource and Habitat Connectivity.** The planning, design, and implementation of this project will promote natural resource and habitat connectivity between the

various elements located within the local and regional landscape. For the site investigations, the Tuscarora Team will assess the appropriate combination of site features to maximize resource and habitat connectivity while emphasizing sustainability. Relevant elements of interest include items such as habitat features for targeted flora and faunal species of concern (e.g., rare, threatened, and endangered species); resident, migratory, and neo-tropical avian species; wildlife passage and travel corridors; and transition between habitat types.

- **Biotic System Sustainability.** Consideration of this project by the Tuscarora Nation is based upon the concept of returning biotic system sustainability to this portion of the Nation and the surrounding landscape in order to create larger areas of open space that provide increased habitat and wildlife values for various species assemblages, and to create connections between Tuscarora land and surrounding land within the Niagara River Greenway Corridor. Key elements of the site investigation will involve detailed understanding of surface water and groundwater flow regimes and periodicity, in order to fully understand and develop appropriate ecological restoration and habitat enhancement features.
- **Natural Form and Functional Authenticity.** The current state of this site strongly indicates that the site could be functioning at higher levels and provide greater values to the environment and the region. The site investigation and design process will be based upon creating conditions to emphasize natural form and function. Functional authenticity is at the center of sustainable restoration design and will be adhered to throughout the project, in order to design and construct habitat structure and complexity that is not “over-engineered.” Natural and bioengineering design features may include elements such as micro-pool creation, hummocks, pit and mound topography, open water, emergent marsh, wet meadow, and forested wetland.
- **Community Partnerships.** In addition to the Nation Council of Chiefs and Clan Mothers, other potentially collaborative partnerships are expected to continue throughout the planning, design, construction, and management phases of the site development, including partnerships with HETF, the Tuscarora School, the Niagara County Soil and Water Conservation District (NCSWCD), the New York State Department of Environmental Conservation (NYSDEC), the US Army Corps of Engineers (USACE, Buffalo District), Niagara University, the State University of New York (SUNY-ESF) , and Cornell University.
- **Environmental Education and Stewardship.** Central to the tenets and traditions of the Tuscarora Nation are stewardship to ensure sustainability and education to understand the synergies that create conditions which make sustainability possible. The Tuscarora School is less than 1.5 miles from the site. This restoration and enhancement project will offer unlimited possibilities and opportunities for environmental education through primary and secondary school. Cultural traditions will overlap with a sound scientific curriculum in order to heighten awareness and provide an in-depth understanding of ecology, habitat diversity,

invasive species management, native plant species introduction, and human connectivity with the natural world.

- **Cultural History.** The oral histories of the Tuscarora speak to the bounty of the site for seasonal fish migration and careful use of the resource. The proposed project will investigate feasible approaches for re-establishing that type of cultural connection to the site. Other heritage elements may involve the identification and selection of culturally significant plants; native plant community restoration and management; and the traditional use of species for artwork, recreation, and ceremony.

3. Define the budget for the proposed project and include costs for the following:

Planning \$196,599

Construction \$ _____

Acquisition \$ _____

Administration \$ _____

Operation and Maintenance / Year \$ _____

TOTAL PROJECT COST \$ 196,599*

Identify all sources of funding and the amount of funding expected from each source. Identify and quantify funds that are already on hand or have been allocated for the proposed project. Explain how the project will be operated and maintained.

*The Tuscarora and EEEPC will be completing this project in a partnership arrangement with task sharing, and incorporating elements of training, for implementation of the pre-design field investigations, community collaboration, and development of site restoration concepts.

For this type of project, and because the project is at such an early stage of conceptual development, the Tuscarora Nation and EEEPC note that it is extremely difficult to project accurate costs from project inception through construction with a high degree of accuracy. As indicated in our answer to Question 1 above, the data derived from the detailed site investigations will provide the foundation for developing achievable site-wide restoration concepts. The development and, then subsequent selection of the site restoration and enhancement plan will directly affect the costs for complete design and construction. Therefore after the site analyses have been completed and site restoration concepts developed, a second application will be submitted when there is a clearer idea what the costs will be for design and construction.

The tasks for this phase of the project (for this current application), as described herein, are expected to be financed solely through the Niagara River Greenway Commission and

the Greenway Ecological Fund Standing Committee, which was established by NYPA as mitigation for the relicensing of the Robert Moses Power Project. Consideration and exploration will be given to identifying other sources of funding for the construction of the project. There may be opportunities for the use of in-kind services for construction that would help to offset the overall funding needs of the project.

The project will be operated by the Tuscarora Environmental Program (TEP), which is an active member of the HETF. The Tuscarora Nation will be enlisting its project partner, EEEPC, to provide ecological restoration and engineering design support for the evaluation and design of this project.

4. Describe the measures taken at the local level to gain community and government support for this project (hearings, petitions, public surveys, resolutions of support or other methods). If this project has been cited or described in a local planning document or some equivalent thereof, attach copies of that documentation highlighting the sections that are relevant to the proposed project. Describe the role of municipal agencies, stakeholder groups, consultants, volunteers, or others who will be involved in the proposed project.

The development and implementation of this project has been scoped in such a way as to incorporate elements of Nation acceptance and support of this project through its various stages. A prominent and meaningful component of this project involves coordination with all interested members of the Tuscarora Nation early in the conceptual planning process in order to: (1) share site-specific information gathered during the site investigations, and (2) record opinions and thoughts regarding the conceptual site restoration concepts and integrate those ideas into the concept development process.

The HETF, via its TEP satellite office, will be working with EEEPC to ensure that this project is completed as proposed. Other potential groups involved in this project may include the NCSWCD, NYSDEC, USACE – Buffalo District), Niagara University, SUNY-ESF, Cornell University, and the Tuscarora School.

The Tuscarora Nation's participation in the NYPA/Federal Energy Regulatory Commission (FERC) relicensing process and current representation on the Ecological Fund Standing Committee demonstrates the Nation's continued interest in implementation of the Niagara River Greenway Plan. In addition, a collaborative relationship has been established between the HETF, TEP, and EEEPC. Most recently, the TEP provided input to the development of the Eighteenmile Creek State of the Basin Report. This report was authored by EEEPC's associated company, Ecology and Environment, Inc., (E & E) on behalf of the USACE Buffalo District and NSWCD (Eighteenmile Creek Area of Concern Remedial Action Plan). In August 2006, the HETF conducted a search conference at E & E's training center, Eagle Nest, located at Blue Mountain Lake, New York, with the participation and support of E & E and EEEPC. This important and timely event involved representatives from all nations within the Haudenosaunee Confederacy: specifically, the Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora Nations. The presentations at this search conference

included discussions of HETF principles, mission, and accomplishments and also included details regarding specific programs such as children's education, the immersion program, and the youth and elder conference.

As one result of the search conference, the Tuscarora Nation and EEEPC agreed to actively look for partnering opportunities in the arenas of environmental stewardship and regional sustainability (see Attachment A - Chief Henry letter to EEEPC). This proposed project has been identified as such an opportunity.

5. Describe and document the environmental setting and existing conditions at the proposed project site. If you are not the owner of the property include a letter(s) or resolution(s) evidencing support for the project by the owner. Provide photographs, conceptual plans, and drawings that show the site as it presently exists and how the site will change with the addition of the proposed project. Describe how your project will comply with the State Environmental Quality Review Act (SEQR). The existence of wetlands, significant upland and aquatic habitats, and plant or animal species that are classified as rare, threatened, or endangered should be noted. Explain how such natural resources will be protected and/or enhanced. Cite any relevant project-related studies.

The Tuscarora Nation is located near the Town of Lewiston in Niagara County and consists of approximately 6,250 acres. The Nation is located 10 minutes northeast of Niagara Falls and 20 minutes north of the City of Buffalo.

The proposed project site is located on the southwest side of the Tuscarora Nation east of the NYPA reservoir. The site is at the headwater of Gill Creek and consists of roughly 450 acres of successional emergent and forested areas. Gill Creek discharges into the Upper Niagara River. Prior to settlement and the implementation of watershed modifications (the formation of Gill Creek Park) and fish passage barriers, Gill Creek was a source for freshwater fish. Tuscarora oral histories record that Gill Creek and the non-forested wetland known as "The Swamp" have supported fish species that moved into the area from the lower watershed. The feasibility, goals, and objectives of the proposed project are consistent with the Niagara River Greenway Plan, which was approved on May 17, 2007, and the requirements outlined in the Niagara River Greenway Commission Greenway Related Projects and Programs (September 2007).

The proposed project involves a community collaboration component designed to provide an opportunity for Tuscarora Nation residents and stakeholders to provide input on historic use of the site, ideas for restoration and site layout, historic images of the site, and ideas regarding specific uses of the site (e.g., hiking, outdoor recreation, education, habitat sanctuary, fishing). The Tuscarora Team—consisting of the Tuscarora Nation, the TEP, and EEEPC—will present conceptual planning and design elements to stakeholders and interested parties within an interactive meeting framework. We expect that the result of this process will generate ideas for identifying Tuscarora Nation resources and community needs that could be integrated into the restoration design and community stewardship components of the proposed project. In addition, opportunities for Tuscarora Nation participation in project planning, construction, and monitoring will

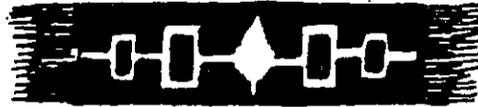
be recognized as a priority, beginning with the community scoping phase and continuing through construction and performance monitoring.

The existing marsh is the result of a combination of natural succession and anthropogenic influences associated with the construction of the NYPA Reservoir and modifications of the Gill Creek watershed between the Tuscarora Nation and its confluence with the Niagara River. Stressors to the marsh biological integrity include alteration of surface water drainage patterns, disconnection with lower watershed reaches, fish passage barriers, utility corridor management, and periodic burning of extensive acreage. Current emergent marsh species diversity is low, due in part to a monotypic plant community dominated by cattail and reed canary grass and the encroachment of invasive and exotic plant species. The enhancement and restoration design elements of the proposed project will restore aquatic habitat by creating open water, wet meadow, tree and shrub islands, and other features that will increase biodiversity in the flora and faunal communities. Connections with fringe wetlands and the forested wetland complex that surrounds most of the site will provide a mosaic of aquatic habitat types that will be linked to existing wooded and agricultural upland features. It is expected that neo-tropical migratory birds, waterfowl, raptors and resident bird species will utilize the site for food, cover, and breeding. The proposed project will increase valuable avian habitat within the New York State IBA along the Niagara River and the north migratory flyway.

The Nation will ensure that the proposed project complies with Nation environmental traditions, customs, and rules. The Nation will also ensure that the project complies with the New York State Environmental Quality Review Act (SEQR) and any other applicable city, regional, state, and federal regulations. To demonstrate compliance, the Tuscarora Nation anticipates that it will complete a SEQR Short Environmental Assessment Form once the project has been funded. Finally, the Nation strongly believes that this project is consistent with the Greenway Plan and the General Environmental Impact Statement.

Attachment A

**CHIEF HENRY LETTER TO
ECOLOGY AND ENVIRONMENT, INC./
ECOLOGY AND ENVIRONMENT ENGINEERING, PC**



HAUDENOSAUNEE

TUSCARORA NATION

2006 MT. HOPE ROAD — VIA: LEWISTON, NEW YORK 14092

April 18, 2008

Ecology and Environment, Inc.
c/o: Kris Erickson, Chief Environmental Scientist
Buffalo Corporate Center
368 Pleasant View Drive
Lancaster, New York 14086

RE: Furthering the Tuscarora – Ecology and Environment, Inc. Partnership

Dear Mr. Erickson:

Chwant. We hope this letter finds you in good health and spirits. Thank you for the work taking place between Ecology & Environment and the Haudenosaunee Environmental Task Force. Our efforts seem to be very much aligned towards the same goals, and we believe it is in the best interest of everyone to work towards an environmentally sustainable future for the benefit of coming generations.

To the extent, we are very interested in working with your company to develop Greenway proposals. We believe your company has the knowledge and expertise to fulfill our duty to the region as Haudenosaunee people while meeting the Greenways's public mandate. We have consulted with our HETF program and have decided to pursue, at a minimum, the following projects:

- Tuscarora Nation Green Building & Sustainable Design
- The New York Power Authority Power Vista Cultural Exhibit
- Tuscarora Habitat Restoration
- Tuscarora Community Supported Agriculture

We believe these projects fit within the goals of the Niagara River Greenway Plan and fulfill our responsibility to the Natural World. We are asking you to work with our HETF staff to develop these ideas into a Greenway proposal. Once the proposals have been finalized, we will be looking forward to meeting with you before they are submitted to the Greenway Commission.

Onoh,

Chief Leo Henry
Clerk, Tuscarora Nation

The Tuscarora Nation Center's Ecological Area and Sustainable Design System April 2008

The new Tuscarora Nation Center is an integral part of the improvement and enhancement of Tuscarora. Although the building will not house the most prolific and noteworthy developments for the Nation, its position as the first new building at Tuscarora will signify it as the "destination gateway" to Tuscarora. This label will aid in Tuscarora's goal to celebrate the progress of Tuscarora as a Nation, and as a vital component of the Niagara region.

The different aspects of the building and site development for the Center that could possibly fall under the criterion for the Greenway are:

Environmental -

- Instill the green design features of the Center (i.e. renewable energies, sustainable materials, innovative green architecture, efficient water systems, and optimal site and landscaping management);
- Assist with reaching LEED certification (i.e. to gain certification and become the only LEED-certified building in the Niagara Region and to become the first Native American LEED-certified building. A great asset to marketing the area, and tying it into the cultural typecast of native people's relationship to the environment.);
- Celebrate the rich ecological and native ecosystem that is Tuscarora via the school's nature trail continuation and native flora spaces surrounding the Center;

Cultural/Heritage -

- Develop cultural spaces within the Center that enrich the relationship between Tuscarora and the region;
- Provide outdoor spaces of culture and environment, pertaining to the Nation's connection to the River, water, fishing and dock life;

Recreation -

- Aid in the development of recreation spaces for the Center to expand the culture of lacrosse at Tuscarora and for the region.

In addition the Center and the site could embrace the following important Greenway Proposal goals: provide conservation areas, develop economic vitality for the greenway region, present ecological significance for Tuscarora and Niagara, and celebrate the region's heritage with indigenous approach and principles.

PROJECT 2

Extend scope and scale of Cultural Exhibit at the New York Power Vista.

A Cultural Exhibit is scheduled to be displayed at the New York Power Vista in 2008. While it is unsure at this time what will be the extent of this project, this exhibit could be enhanced with additional Greenway funds. Some ideas to include in the Cultural Exhibit with additional funding would be:

- a. Use the Tuscarora oral histories from the NYPA EIS as part of project. These valuable documents would further educate Power Vista guests about the culture and history of the Tuscarora Nation in relation to the building of the Power Project.
- b. Have funding for Tuscarora Tour Guides employed at Power Project. This would also be a valuable resource in that a Tuscarora tour guide can enhance cultural displays with native knowledge and language.
- c. Include a Native Festival at the Power Vista during Native American Month (November). This event could include all that is Tuscarora: art, music, social dancing, crafts, storytelling, food, language, literature, etc. We have a unique and wonderful culture, this would be the time for Tuscarora to share it with the western world.

Introduction

With the relicensing of the New York Power Authority came the establishment of the Niagara River Greenway Commission to distribute funds from NYPA for projects in the development and maintenance of a thriving Niagara River Greenway. The Tuscarora Environment Program is interested in taking advantage of this program by proposing two projects for consideration, both would benefit the Tuscarora Nation by preserving the integrity, environment and cultural aspects of the Nation. The first project is to further planting more trees on the Nation and utilizing them to their best ability. The second project is to extend the scope and scale of the Cultural exhibit at the Power Vista.

PROJECT 1

Increase amount of native Butternut, Maple and Sassafras trees on the Tuscarora Nation

A. Environmental Aspect

The Tuscarora Nation would benefit from having more native Butternut, Maple and Sassafras trees available on the Tuscarora Nation for the following environmental reasons:

- a. Tuscarora is in Niagara River area, more trees would increase the level of oxygen and decreasing ozone propagation.
- b. The Butternut, Maple and Sassafras trees are native trees to this area and by increasing their population would increase the assurance for the sustainability of these trees.
- c. More trees would support habitat and food production for native wildlife.
- d. As many homes rely on wood products found in Tuscarora forests for their home heating, more trees would give a higher fuel (potential) end product. It is also understood that clear cutting would be avoided.
- e. The shade from trees helps to cool homes during the summer, using less energy.
- f. These trees also provide different types of sustenance for the Tuscarora Community.

B. Cultural Aspect

Native Butternut, Maple and Sassafras trees provide traditional foods and medicines when traditionally prepared for ceremonies, medicines, and native meals. Preserving these cultural traditions is important in the preservation of the culture and traditions of the Tuscarora and Haudenosaunee People.

C. Project Proposal

This proposal would be asking for funds for TEP to do the following:

- a. Purchase/plant Native Butternut, Maple and Sassafras trees
- b. An inventory-assessment of the many forested areas on the Tuscarora Nation.
- c. Training of TEP personal to properly identify trees.
- d. Purchase more GPS Units to aid in inventory assessment
- e. Purchase a tree corer to identify ages of tree population
- f. Purchase Forest inventory measurement tools for wood volume and basal measurements.