

**Niagara River Greenway
Ecological Fund
Application Checklist**

Project Name: Niagara Riparian Restoration Program Phase II – REVISED for 5/29/12

Prepared By: Kerri Bentkowski Li & Larry Brooks

Date: May 29, 2012

Item	
	Project Information
X	Organization name and mailing address
X	Federal ID number and/or Charities Registration number
X	Point of contact
	Evidence of Consultation (including consulting parties' comments and project proponent's responses to those comments)
X	Niagara River Greenway Commission
X	Municipality, County, and/or Indian Nation
X	State Agency
X	Federal Agency
X	Operation and Maintenance Plan
X	Description of Project Consistency with Niagara River Greenway Plan
X	Description of Consistency with State and Federal Laws & Regulations
X	Description of Efforts/Opportunities for Matching Fund
X	Description of Current and Proposed Project Area Land Ownership
X	Detailed Project Budget

*Niagara Riparian Restoration Program Phase II
Application to the Greenway Ecological Standing Committee*

I. PROJECT INFORMATION

Organization Name and Mailing Address

Name: Buffalo Niagara Riverkeeper
Mailing Address: 1250 Niagara St, Buffalo
State: New York Zip Code: 14213

Federal ID number

Federal ID#: 22-2993054

Point of Contact

Name: Kerri Bentkowski Li Title: Director of Citizen Action Programs
Business Address: 1250 Niagara St., Buffalo
State: New York Zip Code: 14213
Telephone Number: (716) 852-7483 ext. 11 Cell Number: (410) 446-8973
Fax Number: (716) 885-0765
E-Mail Address: kbentkowski@bnriverkeeper.org

Name: Larry Brooks Title: Watershed Restoration Project Manager
Organization/Firm: Buffalo Niagara Riverkeeper
Business Address: 1250 Niagara St., Buffalo
State: New York Zip Code: 14213
Telephone Number: (716) 852-7483 ext. 17 Cell Number: (716) 994-9075
Fax Number: (716) 885-0765
E-Mail Address: lbrooks@bnriverkeeper.org

II. Evidence of Consultation

Please see Attachment A. for evidence of consultation with Niagara River Greenway Commission, Municipality, County, and/or Indian Nation, State Agency, Federal Agency

III. Operation and Maintenance Plan

Executive Summary

Buffalo Niagara Riverkeeper (Riverkeeper) is seeking the support of the Niagara River Greenway Commission to implement **Phase II of the Niagara Riparian Restoration Program (NRRP)**. In addition to the continuation of riparian forest buffer restoration, we will expand the programmatic reach through two new programs. We also propose to develop a program evaluation method to measure both phases of the NRRP's effectiveness. A summary of the program components is listed below:

1. Identify, prioritize, plan and implement 5-8 riparian restoration and shoreline stabilization projects in Niagara River Greenway corridor;
2. Implement the *Native Niagara: Ready! Set! Grow!* native seed collection and grow-out pilot project;
3. Coordinate Nine Water Chestnut Pull events to assist in controlling the invasive species in Tonawanda Creek;
4. Conduct a third-party evaluation of the NRRP program and coordinate the Niagara Greenway Graduate Internship program to support program evaluation and NRRP implementation; and,
5. Utilize the website and educational materials to provide waterfront landowners and stakeholders with technical information and profiles of the NRRP projects.

The projects will be implemented by Riverkeeper's professional staff, a network of strategic partnerships, technical experts, hired contractors, and volunteers. The grant period will begin in fall 2012 and conclude by December 31, 2015.

Introduction

Urban and suburban waterfront landowners play an important role in Niagara River Greenway's riparian restoration and protection. Public and private landowners who own waterfront along Niagara's streams, creeks, and the river itself have the opportunity to serve as stewards of the local environment, providing ecological restoration of their riparian lands and serving as models to others in the communities. While many waterfront landowners value their access to water and are interested in restoring the environment, they generally lack the knowledge, skills, funding, equipment, and technical assistance required to increase the ecological integrity of their property.

To address this gap between willing landowners and the required resources for on-the-ground restoration, Buffalo Niagara Riverkeeper developed the Niagara Riparian Restoration Program to provide coordination with urban and suburban landowners and leverage the skills and existing resources of conservation partners to increase riparian restoration activities in the watershed and increase community engagement and awareness.

Status of Phase I NRRP

From July 2009 until May 2012, the NRRP team planted 19 sites in eight Greenway municipalities across Erie and Niagara counties. Of the 19, 16 sites were completed with 392 RestoreCorps volunteers. The remaining three sites were planted with contractors due to steep site conditions. The volunteer participation amounted to 1,195 hours of labor. Across these 19 sites, we have planted 5,570 linear feet of shoreline or 1.57 acres with over 5,000 plants. In addition to the plantings, we did major invasives removals at three sites including Japanese knotweed and *Ailanthus* tree cutbacks and spraying by DEC-certified applicators. Lastly, Riverkeeper applied deer protection at five sites. With the target 25 sites, the six remaining sites for 2012 have been identified and planning for those sites is now under way. We anticipate completion in September 2012.

In addition to the demonstration sites, we published the first-of-its-kind "Native and Naturalized Plant Guide for Buffalo Niagara" booklet. A tour of the sites was completed in August 2011. We published the "Caring for Your Waterfront Property" waterfront landowner stewardship guide in May 2012 and completed the stewardship trainings in March 2012.

Ecological Benefit of Riparian Forest Buffers and NRRP

Riparian forest buffers are proven to effectively reduce stormwater and degrade, extract, contain, or immobilize contaminants and excess nutrients from soil and water, and reduce shoreline erosion. Increasing the tree canopy and improving structure in soils will create areas of infiltration that support regional green infrastructure by providing flood protection and reducing nonpoint source pollution. The intention of this program is to enhance the forest buffer in the Niagara River Greenway. Nearly 90% of historical wetlands and aquatic vegetation in the Niagara River have been destroyed over the last 100 years. The Niagara Greenway is also a designed Important Bird Area and internationally significant migratory flyway. Please refer to Attachment B. for a review of the benefits of riparian forest buffers and urban forests.

Riverkeeper Habitat Planning Efforts

Concurrently, Riverkeeper is developing the Niagara Greenway Regional Habitat Conservation Strategy that was funded by the Greenway Ecological Standing Committee. The purpose of the

strategy is to create the blueprint of habitat conservation opportunities within the Greenway for both upland and riverine zones. Leveraging this body of work and early findings from this first phase of the Strategy's development, Riverkeeper will benefit from a focused approach for site selection that will fit within the Strategy's larger conservation framework.

As Riverkeeper and its partners work to strengthen Niagara's forest buffers, we recognize that the upland zones of the shoreline are only part of the ecosystem that requires study, management and potential restoration. Riverkeeper seeks to expand its programming from the shoreline and begin work in the nearshore water.

Description of Operations & Maintenance

Riverkeeper is seeking three years of funding to continue and expand the output of the urban forestry and community engagement program. The overarching goals of the NRRP Phase II are:

- Goal 1: Restore and Strengthen the Niagara River Ecosystem
- Goal 2: Increase Stewardship of the Niagara River Greenway
- Goal 3: Increase Effectiveness through Evaluation

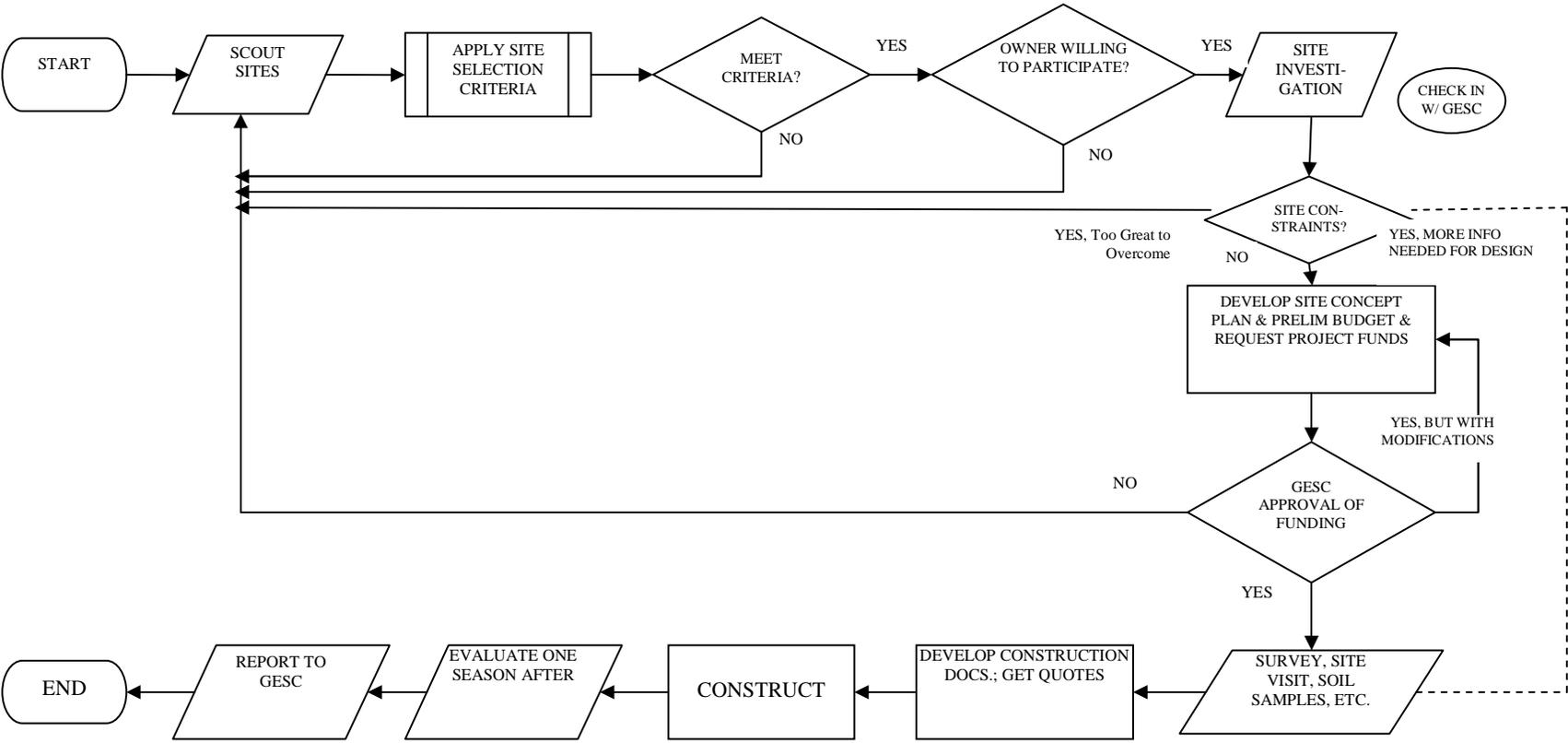
The Operation and Maintenance Plan are listed below under the five objectives proposed for the Niagara Riparian Restoration Program Phase II as follows:

1. Implement 5—8 riparian forest buffer and shoreline restoration projects

Per the GESC's recommendations, Buffalo Niagara Riverkeeper has expanded the riparian and shoreline restoration scope of work for Phase II. Due to the increased complexity and need for sound technical planning and design, Riverkeeper proposes a two part application process to the GESC that funds recruitment, selection, and the conceptual design process first. Riverkeeper will propose a slate of potential projects that includes conceptual design and budget. The GESC will review the projects and fund the appropriate award for the construction process in Part 2.

Due to the increased technicality of implementing of shoreline restoration at this scale, Riverkeeper will require additional resources for site analysis and design. In order to make an informed and accurate conceptual design and budget, information may be needed such as a site survey, mapping of invasives, and soil analysis. While some sites may have this information available, many sites will have insufficient information to create an accurate design and construction budget. After reviewing sites against the selection criteria and landowner interest is confirmed, Riverkeeper's landscape architect staff will conduct site visits and begin design. Projects may be require one – two years for implementation as we anticipate projects will be significantly larger in scope than Phase I and may require permitting. The flow chart below depicts the proposed lifecycle of the projects, from site recruitment to completion. This proposal will fund the steps from start through development of conceptual design and budget.

**NIAGARA RIVER RIPARIAN RESTORATION PROGRAM PHASE II
PROCESS FOR CHOOSING, PLANNING, AND PLANTING RESTORATION SITES**



In response to the GESC comments, Riverkeeper has revised the site selection criteria to increase the opportunity to enhance natural shorelines in the Greenway. Improvements to the criteria include the site requirement of a naturalized shoreline and increased scale of the project. The site selection criteria are as follows:

Riparian and Shoreline Restoration Criteria

- Funding (Is it cost effective? Can we feasibly do anything here with limited funds?)
- Is the property within the Niagara River Greenway?
- Is there a hardened shoreline or a naturalized shoreline with opportunities for enhancements?
- Slope aspect – is this too great of slope to feasibly address with our limited funds?
- To what extent do we need to prep the site (Will we need permits? Is it ready to plant? Will we need multiple phases of implementation?)
- What is the amount of acreage and linear feet of shoreline? What is the maximum area that we could convert to naturalized area? Site must be immediately adjacent to water's edge and allow a minimum of thirty-foot depth, but ideally one-hundred-foot depth, for the buffer. Are there opportunities for other Green Infrastructure approaches?
- Do we have the opportunity to replace mown lawn?
- To what extent do we need to do significant invasive species control and management?
- How easy is it to get to the site? How visible, to the public, is the site?
- Are there already existing natural buffer areas adjacent to property? Are we creating connectivity of the forest corridor?
- Is there the presence of rare, threatened and endangered species? Can we enhance a unique habitat?
- Degree of effort to maintain the project? Is it feasible for the landowner long term?
- Site must not be an established planting, especially a restoration planting, completed by another party in the recent past. Unsuccessful plantings by another party might qualify.
- Planting must support an ecosystem management plan, such as the Riverkeeper's Niagara Greenway Regional Habitat Conservation Strategy. Preference will be given sites located within the Active Rivers Areas.

Landowner Criteria

- Are the landowner's goals aligning with Riverkeeper, Niagara River Greenway Plan, and partner's goals?
- Ability to commit to long term land preservation and maintenance. Willingness of landowner to sign agreement & provide access for educational purposes (with permission only)
- Feasibility of maintaining water view/willingness of landowner to reduce water view.
- Is the landowner connected in anyway to the community? Preference will be to property with community or public open space. Private, residential is ineligible.
- Are they agreeable to native-only, wild and natural plantings?
- Landowner must consent to an agreement that helps provide financial or in-kind contribution toward the project and commits to five years of active maintenance and 15 years of preservation.

Community Criteria

- To what extent is the project visible to the community without accessing the property?
- Is there a likelihood of landowner connectedness that spurs other projects (ripple effect?)

In preparation of this GESC proposal, Riverkeeper has established initial connections with several landowners that have riparian and shoreline restoration opportunities that serve as examples of Phase II project types. The project types considered in Phase II: riparian forest buffers, shoreline erosion control using bioengineering techniques, rain gardens/Green Infrastructure techniques on sites with impermeable surfaces near shoreline, invasive species control and management, and a combination thereof. The examples provided in Attachment C. include Ellicott Creek Park, the Town of Tonawanda river front park/wastewater treatment plant/parking lot site on Aqua Lane, and a charter school that is being developed along the Buffalo River. Please refer to Attachment C. for project descriptions. The landowners have given Riverkeeper permission to include their sites as examples in this proposal to illustrate the types of projects that would be prepared for the GESC to consider funding. While these sites are preliminary examples of the types of projects we are targeting in Phase II, they have not been fully weighed against the selection criteria.

In Phase I, Riverkeeper relied heavily on volunteer support for the installation of planting projects. Due to the complexity and scale of the Phase II projects, Riverkeeper will rely on contractors for implementation of the construction phase of the project. Limited volunteer engagement may be required to follow-up after installation.

As in Phase I, landowners will be asked to sign a contract committing them to a signage, site and access, and maintenance agreement. Refer to Attachment D. for an example of the agreement. With the signed contract, we can schedule the actual planting event, the labor that we need, order materials, and implement the project. Riverkeeper and evaluators will make multiple visits post-restoration to each site each year of Phase II to ensure landowner maintenance and project success. Please refer to Attachment E. for an example of the signage, Attachment F. for Letters of Support and correspondence from Phase I.

2. Implement the *Native Niagara: Ready! Set! Grow!* native seed collection and grow-out pilot project

Riverkeeper currently purchases plants that are species native or naturalized to this area but the seed source are from plants outside the Western New York region. A best practice would be to use the plant stock derived from local populations with a truly native genotype.

Modeled on the Potomac Conservancy's Growing Native program (growingnative.org), Riverkeeper will pilot the *Native Niagara: Ready! Set! Grow! Program* that will utilize volunteers to collect native seeds for grow-out. These local trees and shrubs will be used in subsequent community tree plantings within the Niagara River Greenway.

Riverkeeper will consult with a local horticulturalist to identify specimen plants and organize up to 9 seed collection events using volunteers and students. NYS DEC's nursery located in Saratoga Springs will accept seeds collected from Western New York. The nursery will sort and process the seeds to grow new plants to 3-gallon containers, which will then be shipped back to Western New York for planting. A GIS analysis will be performed to track locations of seed collections. Please refer to Attachment G. for NYS DEC Letter of Support.

3. Coordinate Nine Water Chestnut Pull events to assist in controlling the invasive species in Tonawanda Creek

This is a critical project for the health of the Niagara River. Water chestnut is currently present in Tonawanda Creek in Ellicott Creek Island Park. In response to this threat, the U.S. Fish and Wildlife Service (USFWS) Lower Great Lakes Conservation Office's Aquatic Invasive Species program has launched a multi-year water chestnut control program.

Water chestnut has the ability to completely cover the surfaces of water bodies deeper than five feet. This vegetative covering creates a layer of impenetrability that makes it nearly impossible for direct sunlight to infiltrate. Waterways that are denied sunlight become less productive, and are less capable of supporting the diverse plant and animal species that dwell within. Water chestnut requires seed dispersal to sustain its invasive population. Seeds are released late in the summer. Early detection and removal is the best method for keeping water chestnut out of our lakes, rivers, and streams.

USFWS will commission an aquatic mechanical harvester to remove tons of the water chestnut plants for a week in the summer before seed dispersal. Volunteer in canoes and boats are needed to manually remove plants from the nearshore and shallow water, areas inaccessible by the harvester. Riverkeeper assisted USFWS in August 2010 and learned of the methods to recruit paddlers and safely coordinate the event.

Riverkeeper will conduct one event each in July, August and September (or as requested by US FWS technical experts) of the three years of the program. Please refer to Attachment H. for images of the 2010 Water Chestnut Pull event. USFWS have provided a letter of support in Attachment H. that states their support for continuing the partnership.

4. Conduct a third-party evaluation of the NRRP program and coordinate the *Niagara Greenway Graduate Internship Program* to support program evaluation and NRRP implementation

Riverkeeper has the opportunity to create a protocol for monitoring and evaluating the status of restoration plantings. Riverkeeper staff will recruit, select, and hire a professional, third-party evaluator to consult in the designing of a program evaluation. The evaluator will assist in identifying tools, develop the survey method, and give guidance as needed. Annual evaluation of metrics will be integrated into the work plan of the project. The evaluation tool may have utility for the other Niagara River Greenway habitat restoration projects.

The metrics will include but are not limited to: acres of restored buffer, linear foot of shoreline planted, number of plants, number of long term maintenance agreements or easements, maintenance practices, number of volunteers and volunteer hours, attitude surveys of landowners.

After the initial evaluation design work is completed, the assessment process will be implemented by Riverkeeper staff and interns, volunteers, and graduate interns recruited from local colleges and universities such as University at Buffalo's Ecosystem Restoration through

Interdisciplinary Exchange (ERIE) initiative. The ERIE program is a collection of existing academic programs and research projects designed to advance the science, engineering, and policy of ecosystem restoration, and contribute to the ecological recovery of the Great Lakes and Western New York. ERIE's centerpiece is a new doctoral traineeship funded through the National Science Foundation's Integrative Education and Research Traineeship (IGERT) program. The ERIE IGERT program director has indicated his willingness to partner with Riverkeeper as a signature project.

As a part of the evaluation, we will field assess all 25 sites planted in Phase I and all Phase II sites. If a landowner is having difficulty with maintaining a project, staff will provide an action plan to address the issue and may make volunteers available to help the landowner.

We propose to initiate a new graduate level internship program call the *Niagara Greenway Graduate Internship Program*. We will engage one graduate student per semester (up to 6 students) to assist with program evaluation, volunteer recruitment, and program implementation. Leading professors from both UB ERIE IGERT program and Buffalo State College's new Professional Masters of Environmental Science programs have indicated a willingness to partner with Riverkeeper in order to provide meaningful internship experiences for their students. Students could be trained in various evaluation methods (e.g. habitat assessments and surveys of landowners and volunteers) as well as restoration techniques, Geographic Information Systems (GIS), and evaluation design and analysis. This is a cost effective strategy to garner additional technical resources to achieve program goals.

5. Utilize the website and educational materials to provide waterfront landowners and stakeholders with technical information and profiles the NRRP projects

The NRRP website was initiated in Phase I (<http://bnriverkeeper.org/programs/habitat/habitat-restoration-projects/nrrrp/> and <http://bnriverkeeper.org/programs/habitat/habitat-restoration-projects/>). In Phase II, these pages will be updated and maintained monthly to include additional technical information regarding invasive species management, native plants, and restoration best practices as well as factsheets. The Native and Naturalized Plant Guide for Buffalo Niagara and the Waterfront Landowner Stewardship Guide will be reprinted and made available through Riverkeeper education programs and outreach events. Riverkeeper will promote the NRRP through public meetings and presentations to promote the program.

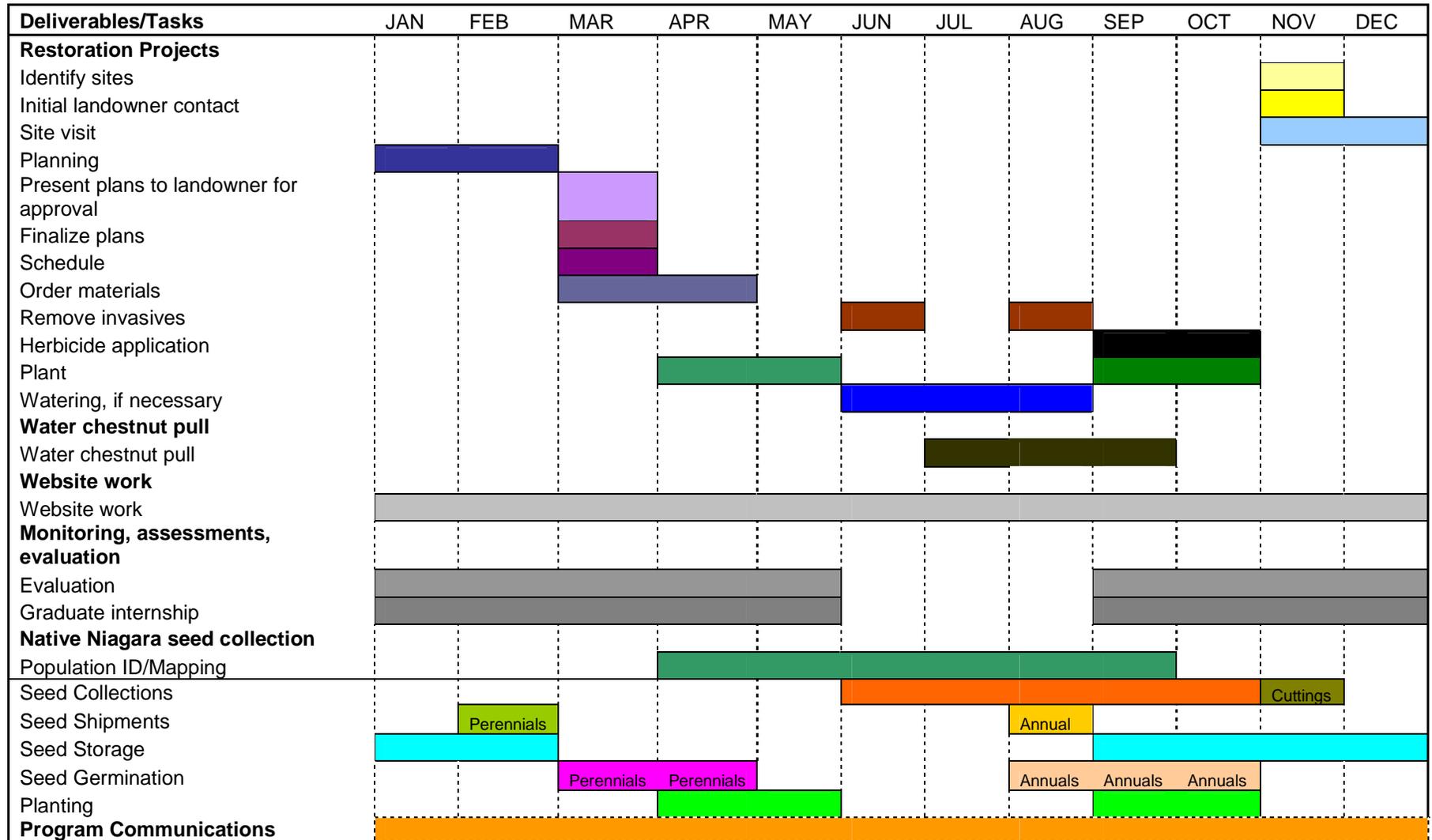
Program Timeline Narrative & Project Schedule

The program is proposed for 10/1/2012 – 12/31/2015 with annual program evaluation, work plan modification, and reapplication to the Greenway Ecological Steering Committee.

Timeline	Activity
Fall 2012	<ul style="list-style-type: none"> ▪ Award notification and media event. ▪ Formalize partnerships ▪ Create work plans for staff ▪ Draft Request for Proposals for evaluation services ▪ Recruit for graduate internships

Winter–Spring 2013	<ul style="list-style-type: none"> ▪ Identify, recruit landowners, and begin develop concept plans and budget for GESC approval of 2013 projects ▪ Develop outreach materials and recruit landowners through a mailing and an informational workshop ▪ Begin site visits and landowner selection ▪ Begin training on Native Niagara ▪ Recruit, develop work plan, and manage graduate intern
Summer–Fall 2013	<ul style="list-style-type: none"> ▪ Site assessment and begin riparian forest buffer plantings ▪ Hire a program evaluation specialist and design the evaluation. Begin maintenance visits and surveys ▪ Organize Water Chestnut Pull events and seed collection events ▪ Recruit, develop work plan, and manage graduate intern ▪ Identify, recruit landowners, and develop concept plans and budget for GESC approval of 2014 projects
Winter-Spring 2014	<ul style="list-style-type: none"> ▪ Perform annual reporting and presentation to funder ▪ Project planning and design, begin preparation for annual installation of projects throughout the Spring and Fall planting seasons ▪ Recruit, develop work plan, and manage graduate intern
Summer-Fall 2014	<ul style="list-style-type: none"> ▪ Coordinate the continuation of program and the evaluation of progress on measurable deliverables ▪ Annual maintenance assistance will be provided to increase project success ▪ Organize Water Chestnut Pull events and seed collection events ▪ Facilitate technical exchange discussion and outreach to media and community ▪ Recruit, develop work plan, and manage graduate intern ▪ Identify, recruit landowners, and develop concept plans and budget for GESC approval of 2015 projects
Winter – Spring 2015	<ul style="list-style-type: none"> ▪ Perform annual reporting and presentation to funder ▪ Begin preparation for annual installation throughout the Spring and Fall planting seasons ▪ Recruit, develop work plan, and manage graduate intern
Spring –Fall 2015	<ul style="list-style-type: none"> ▪ Finish riparian buffer plantings ▪ Coordinate the continuation of program and the evaluation of progress on measurable deliverables ▪ Annual maintenance assistance will be provided to increase project success ▪ Organize Water Chestnut Pull events and seed collection events ▪ Facilitate technical exchange discussion and outreach to media and community ▪ Recruit, develop work plan, and manage graduate intern
Fall 2015	<ul style="list-style-type: none"> ▪ Final reporting of results of program assessments and accounting of expenditures will be submitted to participating funders and partners by the end of year.

Annual Project Schedule



Partnerships and Staff Roles

Partner	Description of Role
New York State DEC	Francis Sheehan and David Lee with the NYS DEC's Division of Lands and Forests have stated DEC's willingness to partner with Riverkeeper in the native seed collection and grow out project. DEC will provide technical assistance in the seed collection method, receive the seeds collected by Riverkeeper volunteers and grow out the native plants at the Saratoga State Nursery for use in Western New York tree and shrub plantings. <i>Partnership confirmed.</i> We have begun discussions with Shannon Daugherty about participating in DEC's Trees for Tribes. <i>Partnership Confirmed.</i>
US Fish and Wildlife Service	Mike Goehle, Aquatic Invasive Species Regional Coordinator, with the US Fish and Wildlife Service's Lower Great Lakes Fish and Wildlife Conservation Office has stated his willingness to partner with Riverkeeper in the water chestnut pull events as part of the larger control project. <i>Partnership confirmed.</i>
Landowners	Urban and suburban landowners will provide the permission for the restoration of the buffer on their property, assist with financial or in-kind match, to install the planting, and be responsible for the maintenance and repair of the site. <i>Partnership pending.</i>
Universities	University at Buffalo– IGERT program and Buffalo State College Professional Masters Degree program will be the target for the "Niagara Greenway Graduate Internship program. <i>The UB IGERT partnership is confirmed.</i>
Municipalities	Emphasizing the need to increase local capacity for riparian restoration, Riverkeeper will engage local municipalities when appropriate. In addition to technical support, planting material such as compost and mulch may be sought. <i>Partnership pending.</i>
Consultants	Consultants will be engaged to assist with GIS, evaluation design, assistance with sav propagation techniques, and locating specimen trees for the Native Niagara program. <i>Contracts pending.</i>
Other Natural Resource Professionals	Soil and Water Conservation Districts - Erie and Niagara County Soil and Water Conservation District (SWCD) have provided technical assistance for the development and implementation of riparian restoration projects in Phase I. With their support, Riverkeeper will continue to consult with them as needed for technical assistance in environmental design, recommendations on local vendors, and other aspects of the projects. Experts and interested partners in the submerged aquatic vegetation will be sought to serve on a technical advisory committee. Experienced biologist with the Maryland Dept. of Natural Resources will be consulted with during the SAV growout. <i>Partnership pending.</i>
Media	Media partners will be sought to increase public awareness of the goals within the Buffalo Niagara region. <i>Partnership pending.</i>

Staff Roles

The lead staff coordination roles will be as follows:

- **Director of Citizen Action Program:** Responsible for oversight, grant administration, management, strategic direction and technical assistance on deliverables of all objectives of the grant.
- **Watershed Restoration Project Manager:** Responsible for project management, grant administration, and implementation of Objective 1, the implementation of the riparian buffer and shoreline restoration projects. This includes but not limited to: program promotion, site investigation, landowner recruitment, coordination, permissions, and negotiation of contract, recruitment, selection, and coordination of contractors, construction oversight, and partner development.
- **Landscape Architect:** Responsible for development of the conceptual design and conceptual budget and management of additional information, as needed (e.g. site survey, soil analysis) for Objective 1, the implementation of the riparian buffer and shoreline restoration projects.
- **Restoration Coordinator:** Responsible for program development, promotion, and implementation of the Objective 2: Native Niagara Growout Project, Objective 3: Water Chestnut Pull Events, Objective 4: Internship Program and assist in implementation of evaluation, and Objective 5: Coordination of communications such as website, media, email newsletters.

Please refer to Attachment I. for a description of staff qualifications.

IV. Description of Project Consistency with Niagara River Greenway Plan

The Niagara Riparian Restoration Program supports the vision of the Niagara River Greenway Plan of a world-class corridor by strengthening the Niagara’s natural ecosystem and increasing environmental awareness and participation in restoration by the citizens in the watershed. The overarching Greenway Plan goals to be addressed include the goal to “protect and restore environmental systems” by way of integrating up to 12 restoration sites that enhance the riparian forest buffer along the Greenway, “facilitating a strategic discussion and community awareness” about the value of submerged aquatic vegetation, and “developing a new partnership” through native, Western New York plant stock initiative.

The Niagara Riparian Restoration Program aligns with several Niagara River Greenway Plan criteria and principles as summarized below:

Greenway Plan Criteria

1. Consistency with Principles -

Niagara River Riparian Restoration Program

The program addresses the guiding principals of: *ecological integrity and restoration* through upland habitat creation and in-stream habitat and water quality improvements; *public well-being* as citizens and volunteers will be engaged in the physical installation of projects; *connectivity* in instances where restoration sites enhance or fill gaps in riparian corridors; *celebration* with landowner and volunteer recognition events; *partnerships* between landowners and Riverkeeper, higher educational

- institutions, and natural resource professionals; and *community-based* as local residents will voluntarily participate in the program.
- 2. Priority Status -** The program focuses on the restoration of the Niagara River ecosystem and education about regional natural resources.
- 3. Focus Area-** All restoration sites will occur within the Niagara River Greenway area giving priority to projects in targeted subwatersheds.
- 4. Environmental Soundness-** Technical assistance will be provided by NYS DEC, US Fish and Wildlife Service, and Soil and Water Conservation Districts. Restoration will be implemented following the USDA Natural Resource Conservation Service’s standards for ecological restoration.
- 5. Implementable-** The implementation plan calls for up to 4 restoration projects per planting season, or up to 12 projects over three years. According to guidance from technical experts and previous experience in Phase I, this is a manageable goal for an organization of our capacity. .
- 6. Economic Viability-** Construction costs per project will vary. Landowners will be responsible for ongoing maintenance and repair. Personnel and program related costs for the program will leverage the technical assistance, volunteer labor, planting material and supplies, and long term maintenance of the site.
- 7. Local Sponsor or Partners-** Buffalo Niagara Riverkeeper, a local nonprofit with the mission to protect and restore the Buffalo and Niagara Rivers, will be the lead sponsor of the program. Other partnerships will be developed as described later in this proposal.
- 8. Consideration of Other Planning Efforts -** *This proposal leverages the preliminary findings from data analyzed for Riverkeeper’s Niagara Regional Habitat Strategy funded by the Greenway Ecological Steering Committee and the EPA Great Lakes Restoration Initiative.* The program also supports the planning efforts of: Buffalo Remedial Action Plan, Beneficial Use Impairments for the Delisting Criteria for the Niagara River Remedial Action Plan, Lakewide Area Management Plan for Lake Erie, early planning efforts of the Town of Grand Island Conservation Easement for Home Owner’s Association, the Department of Environmental Conservation Open Space Plan, Erie County’s Department of Environmental Planning in Buffalo River near Areas of Concern calls for buffers, Niagara River Greenway Plan, and the Buffalo Niagara Riverkeeper’s strategic plan, Buffalo Niagara Riverkeeper’s Niagara River Habitat Strategy, Great Lakes Restoration Initiative. Also, all communities with MS-4 permits can use wetlands and floodplain forests as “green infrastructure” to meet compliance needs.
- 10. Clear Benefits -** The multitude of benefits to the river include: improved water quality as loadings from the nutrient, sediment, bacteria, and other pollutants are reduced from entering the stream; improved watershed/hydrological functioning as buffers reduce flood frequency and severity and increase the recharge of groundwater; enhanced fish habitat as water quality improvements, and organic litter positively affect the quality and diversity of macroinvertebrates, cooler stream temperatures, and provide cover; and increase aquatic habitat for a wide variety of fish and wildlife.

Submerged aquatic vegetation beds are proven nursery habitat for fish, reduce wave action to reduce shoreline erosion, and provide dissolved oxygen to aquatic ecosystems.

V. Description of Consistency with State and Federal Laws and Regulations

Buffalo Niagara Riverkeeper does not anticipate the requirement of SEQR for the proposed riparian buffer projects. Riverkeeper has received guidance from the Army Corps of Engineers, USFWS, and NYS DEC on the NRRP project. If a project requires a permit, Riverkeeper will work with the applicable regulatory agencies to secure all required permits and permissions. These costs will be included in construction budgets.

VI. Description of Efforts/Opportunities for Matching Funds

In order to strengthen the riparian corridor along the Buffalo and Niagara Rivers and leverage additional resources, Riverkeeper has received two federal grants that support Riverkeeper's habitat restoration goals that will be used as match. We received \$200,000 from the US EPA Great Lakes Restoration Initiative competitive funding for the shoreline restoration and invasive species control at the Seneca Bluffs Natural Habitat Area located within the Greenway boundary on the Buffalo River. Building on this success, we received \$397,000 from USDA Forest Service's Great Lakes Restoration Initiative funding to enhance forest buffers on the RiverBend site on the Buffalo River and at Griffon Park on the Niagara River. Both of these sites are brownfields located within the Niagara River Greenway boundary and extend the NRRP program's impact.

VII. Description of Current and Proposed Project Area Land Ownership

High visibility sites on public and private lands that demonstrate the need for shoreline stabilization through vegetative control measures and/or sites with less than 50 foot existing buffers are ideal candidates for the program. All participating landowners will enter into an agreement with the Riverkeeper that grants permission for the project, details roles and responsibilities, and addresses the long term maintenance of the property. Riverkeeper has a proven track record of recruiting both private and public landowners.

In Phase I, landowner support for the NRRP program was created through several outreach methods. A flyer was mailed to waterfront landowners invite them to an informational workshop. A workshop was given to explain to the waterfront landowners about the goals and restrictions of the NRRP program. In addition, presentations have been given to conservation advisory councils, local town boards, nongovernmental organizations, and to interested individuals. A letter introducing the project was sent to elected officials in all of the Niagara River Greenway municipalities. Once demonstration project commenced, landowner referrals became another way for the community and "neighbors" to learn about the program. We have also received coverage about the program through social media, the Buffalo Spree, and a press event. As these methods have been effective, we will repeat these methods for Phase II.

The NRRP Phase II will target both private and public land ownership. Actual sites cannot be confirmed until the program begins and landowner outreach is conducted but the target sites and watersheds we are presently considering include but are not limited to: Buffalo River: RCR Yachts (owner) on the City Ship Canal, RiverBend (Buffalo Urban Development Corporation), Smith Street Park (Erie County), Ohio Street (Buffalo Scholastic Rowing Association); and Seneca Bluffs (Erie County); Niagara River: Aqua Lane (Town of Tonawanda), Gratwick Park (City of North Tonawanda), Niawanda Park (City of Tonawanda), and Two-Mile Creek (Praxair, Town of Tonawanda); Tonawanda & Ellicott Creek: including Ellicott Creek Park (Erie County) and Eastern Park (City of Tonawanda); Niagara County: Cayuga Creek (multiple private owners and City of Niagara Falls), Gill Creek (City of Niagara Falls), and Bergholtz Creek (multiple private owners).

III. Detailed Project Budget

Budget Narrative for NRRP Phase II		2013	2014	2015			
Category	Description	NYPA Yr1	NYPA Yr2	NYPA Yr3	Total Request	Match	Total
Personnel							
Executive Director	Executive Oversight	\$750	\$750	\$750	\$2,250		
Watershed Restoration Project Manager	Recruit landowners, identify appropriate sites, develop projects, coordinate planning and restoration activities	\$40,000	\$48,000	\$49,000	\$137,000		
Director of Citizen Action Programs	Provide financial and work plan development and oversight, assist in planning, coordinating all deliverables, and program evaluation, communications support for website	\$25,000	\$25,000	\$25,000	\$75,000		
Landscape Architect	Development of 5-8 shoreline conceptual designs in CAD and budgets. Assistance with initial site evaluations and investigation based on 20% of construction budget anticipated at \$600,000*	\$25,000	\$25,000		\$50,000		
Restoration Coordinator	Coordinate Native Niagara Growout, Water Chestnut Pulls, Internship Program, assist in implementation of plantings, Coordination of website, media, email newsletters	\$20,000	\$30,000	\$30,000	\$80,000		
Watershed Planner	Develop GIS maps of Restoration and Native Niagara sites, Assist on site selection	\$1,000	\$1,000	\$1,000	\$3,000		
Director of Finance	Grant administration assistance, auditing, and financial management	\$1,000	\$1,000	\$1,000	\$3,000		
Personnel Subtotal		\$112,750	\$130,750	\$106,750	\$350,250		\$350,250
Fringe	25% of salary	\$28,188	\$32,688	\$26,688	\$87,563		
Fringe Subtotal		\$28,188	\$32,688	\$26,688	\$87,563		\$87,563

Supplies		NYPA Yr1	NYPA Yr2	NYPA Yr3	Total Request	Match	Total
	Native Niagara Growout Program with 6 events with 25 participants: 50 Buckets (\$150), plastic bags to sort seeds (\$100), signage (\$100), volunteer education supplies & instructions (\$500), shipping to Saratoga Springs (\$250)	\$1,100			\$1,100		
	Water Chestnut Pull Events for 25 canoes/kayaks: (150 heavy duty laundry baskets (\$1500), bungees (\$100), 2-3 canoes with paddles and life jackets (\$2500), 20 trash cans (\$500), heavy tarps & rope (\$50), 2 water pump/water proof shop vac to pump out canoes and gas (\$600), signage (\$100), printing for posters and outreach (\$500), power washer for decontamination with hoses and related supplies (\$500), detergent to remove invasives from all equipment (\$100), megaphone for announcements on the water (\$50) \$6,500	\$6,500			\$6,500		
	Reprinting native plant guide and watershed landowner stewardship guide	\$3,000			\$3,000		
	Vehicle Support	\$1,000	\$1,000	\$1,000	\$3,000		
Supplies Subtotal		\$11,600	\$1,000	\$1,000	\$13,600		\$13,600
Contractual					\$0		
	Conceptual Design and Budget Development for 5-8 projects based on assumption of 20% of \$600,000 anticipated construction budget: consultants for site surveys, soil analysis, basemap development, and other information and staff support as needed etc.*	\$28,750	\$28,750		\$57,500		
	NRRP Program Evaluation Services and Niagara Greenway Graduate Internship Program: Consultant to assist staff in developing measures to determine if program goals (e.g. measure landowner learning, attitude changes, feedback on program implementation, survivability data, etc.);	\$2,333	\$2,333	\$2,334	\$7,000		
	"Niagara Greenway" Graduate Internship Program - 6 paid internships (1 each fall, summer, and spring)) to enlist support from Masters and PhD level students to support the program evaluation work, project implementation, research on best practices	\$4,500	\$6,750	\$6,750	\$18,000		

		NYPA Yr1	NYPA Yr2	NYPA Yr3	Total Request	Match	Total
	Saratoga Spring Nursery buy back of plants			\$13,000	\$13,000		
	Native Seed Collection Technical Assistance	\$1,000	\$500	\$500	\$2,000		
	GIS Consultant to develop map of seed sources for Native Niagara.		\$700		\$700		
	AmeriCorps to provide assistant to all objectives		\$6,000	\$6,000	\$12,000		
Contractual Subtotal		\$36,583	\$45,033	\$28,584	\$110,200		\$110,200
Travel	Mileage at \$0.55 (IRS Rate) per mile for restoration projects, Water Pulls, Native Niagara, and all travel	\$3,000	\$3,300	\$3,600	\$9,900		
Travel Subtotal		\$3,000	\$3,300	\$3,600	\$9,900		\$9,900
Other	Special Event Insurance (16 events including 9 water chestnut pulls, and 7 native seed collection at \$200/event)	\$1,070	\$1,070	\$1,070	\$3,210		
Matching Funds	GLRI US EPA funding for Shoreline Restoration Project at Seneca Bluffs Natural Habitat Area adjacent to Buffalo River in the Niagara River Greenway					\$200,000	
	GLRI US Forest Service funding for Riparian Forest Buffer Enhancement at Griffon Park along the Little Niagara River and RiverBend site on the Buffalo River in the Niagara River Greenway					\$397,000	
Other Subtotal		\$1,666	\$1,666	\$1,666	\$3,210	\$597,000	\$600,210
Subtotal		\$193,787	\$214,437	\$168,288	\$574,723		\$574,723
Indirect	19% rate of total costs for overhead, office supplies, copier, office space, financial controls and accounting, etc.	\$41,439	\$44,655	\$36,826	\$122,919		\$122,919
Total		\$235,225	\$259,091	\$205,113	\$699,430	\$597,000	\$1,296,430

*Conceptual Design and Budget funding line will be used to support design costs, contingencies, and additional site information as necessary. These costs are based on an anticipated \$600,000 budget. Funds remaining in this line after 2014 can be applied to 2014/15 construction costs.

Left intentionally blank