

GRANT AWARD AGREEMENT
Fiscal Year 2013 Class A Incentive Grant Program

THIS AGREEMENT, made and entered into on the 7th day of March, 2013, by and between the **LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**, an urban county government of the Commonwealth of Kentucky, pursuant to KRS Chapter 67A (hereinafter "Government"), on behalf of its Division of Water Quality, and **FRIENDS OF WOLF RUN, INC., 639 Cardinal Lane, Lexington, Kentucky 40503**, (hereinafter "Grantee").

WITNESSETH:

WHEREAS, the Government has funds available through the Stormwater Quality Projects Incentive Grant Program to assist qualified applicants in the implementation of projects that meet the goals of the program; and

WHEREAS, the Grantee represents directly or indirectly a group of single-family residences in Fayette County who are fee-payers of the Government's Water Quality Management Fee; and

WHEREAS, the Grantee has proposed a need for the funds requested to develop and implement a proposed project by submitting a valid grant application; and

WHEREAS, the Grantee desires to implement a specific project that meets one or more Incentive Grant program goals to improve water quality, reduce stormwater runoff, and provide public or private education related to stormwater quality for the benefit of its members, community, and the general public; and

WHEREAS, the Grantee's grant application has been reviewed and selected for funding by the Government's Water Quality Fees Board in accordance with Sections 16-408 and 16-410 of the Government's Code of Ordinances;

THAT FOR AND IN CONSIDERATION OF THE MUTUAL PROMISES AND COVENANTS HEREIN EXPRESSED, GOVERNMENT AND GRANTEE AGREE AS FOLLOWS:

- (1) The Government hereby grants the Grantee the sum of **\$53,340.00** (hereinafter "the Grant"), for use in implementing the project elements as listed in Attachment A which is incorporated herein by reference as if fully set out herein.
- (2) The Grantee agrees to match the Grant with contributions, labor and other services equal to or greater than 20% of the total project cost.
- (3) The Grantee agrees to use the Grant only for the activities set forth in Attachment A.
- (4) The Grantee agrees to perform periodic reporting as detailed in Paragraph 5 herein below, and provide to the Government a Project Final Report, in digital and hard copy, within thirty (30) calendar days of the completion of the project elements following a standardized format to be provided by the Government summarizing all work completed and detailing the total grant expenditures.

(5) The Grant to the Grantee shall be disbursed in the following manner:

- (a) The Grantee shall submit, at least once every three (3) months, a *Grant Reimbursement Form* and a *Request for Funds*, in standardized format provided by the Government, to the Government's Grant Manager designated by the Director of the Division of Water Quality for the project. The *Request for Funds* shall include documentation that the Grantee has already expended the requested funds or shall be in a position to expend properly the requested funds within thirty (30) days of receipt of the funds. The *Request for Funds* shall include full accounting of all eligible grant-related expenses, as listed in Attachment A. Copies of invoices, purchase orders, or receipts showing vendor, date, amount, and items purchased or ordered shall be provided with the *Request for Funds*.
 - (b) Each *Request for Funds* shall include documentation of all of the Grantee's Match Costs listed in Attachment A and claimed for the prior period. For cash expenditures this shall include receipts, showing vendor paid, date, amount, and items purchased. For volunteer hours this shall include sign-in sheets describing the events with signatures, name, address, time in and time out (or length of event), for each participant (volunteers must be 12 years of age or older). For mileage, this shall include driver name, type of vehicle, location to and from, date, and miles driven.
 - (c) Each *Request for Funds* shall be accompanied by a *Project Status Report*, in a standardized format provided by the Government, describing the progress of the project to date, including a description and schedule of all activities completed, and hardcopy or electronic copies of materials completed and/or used to date. For educational events (if applicable), copies of the class sign-in sheets documenting the number of attendees shall be provided.
 - (d) The Government's Grant Manager shall review each *Request for Funds* and supporting documents for compliance with the terms of this Agreement and the guidelines of the Stormwater Quality Projects Incentive Grant Program. If the Government's Grant Manager finds the Grantee's *Request for Funds* is in compliance with the terms of this Agreement and the Program's guidelines and that the activity progress and management program of the Grantee satisfy the terms of this Agreement, he or she shall approve the *Request for Funds* within 15 days of receipt, and then forward it to the Division of Accounting for payment.
 - (e) Should the Government's Program Administrator determine that the Grantee is not in compliance with the terms of this Agreement and/or the Stormwater Quality Projects Incentive Grant Program, including deficiencies in progress and/or management of the project, the Division of Water Quality shall notify the Mayor's Office and the appropriate district Council person and shall meet with the Grantee on matters that prevent approval of the *Request for Funds*. Failure to resolve any such matters to the satisfaction of the Government may lead to termination of the Agreement for cause pursuant to Paragraph 25 herein below.
 - (f) The Government shall release payment of the final 3% of the Grant only after receipt and acceptance of the Project Final Report. The Government's Grant Manager shall review the Project Final Report and provide comments to the Grantee within 15 calendar days or, if acceptable, forward approval to the Division of Accounting for payment.
- (6) For any project which includes installation of permanent capital infrastructure as listed in Attachment A (not to include individual rain barrels, small rain gardens, and pond equipment), the Grantee agrees to meet all design standards specified in the Government's Engineering Manuals and/or as further described in Attachment A in the design of all Grant-funded improvements. This includes all associated activities including but not limited to erosion and sediment control, traffic control, utility relocations, seeding, etc. The Grantee further agrees to design the facilities in such a way as not to preclude the potential for future water quality/quantity monitoring by the Government.

- (7) For any project which includes installation of permanent capital infrastructure as listed in Attachment A, the Grantee agrees to provide in hard copy and electronic format the following deliverables as they become available, each sealed by a Professional Engineer licensed in the Commonwealth of Kentucky (or Registered Landscape Architect when allowed by Kentucky Revised Statutes 323A.010):
- Design calculations;
 - Final construction plans, including erosion and sediment control plans, traffic control plans, grading plans, etc.;
 - Final specifications and bidding documents (if applicable);
 - Detailed engineer's construction cost estimate including quantities;
 - Inspection, Operation, and Maintenance Plan laying out the plan for regular inspection and maintenance of each proposed facility for design performance and safety in accordance with manufacturer's specifications and the Government's Stormwater Manual.
 - Copies of all federal, state, and local permits, approvals, encroachments, etc. obtained for the project.
 - Record Drawing showing all field changes, and signed and sealed by the professional of record certifying the project as shown meets all original design intent.
 - Photo documentation of site conditions and improvements before, during, and after construction.
- (8) For any project which includes installation of permanent capital infrastructure listed in Attachment A, the Grantee shall provide, by the end of the design phase, certification by a Professional Engineer or Registered Landscape Architect licensed in Kentucky that all stormwater control facilities proposed for this project are feasible and viable Best Management Practices (BMPs) for controlling stormwater quality and/or quantity and are appropriate for the project site.
- (9) The Grantee agrees that any and all stormwater control facilities, including equipment and infrastructure, constructed or purchased with Grant monies shall remain the property of the Grantee, or the current property owner, or his successors and assigns, unless otherwise noted in Attachment A.
- (10) The Grantee agrees that all stormwater control facilities, including equipment and infrastructure shall remain in service and maintained by the Grantee or its representatives for at least the Service Life listed in Attachment A. For capital infrastructure, this shall include following the Inspection, Operation, and Maintenance Plan developed for each facility referenced in Paragraph 7 above. For capital infrastructure, the Grantee further accepts and agrees to enter into the "*Agreement to Maintain Stormwater Control Facilities for Class A Incentive Grant Projects*" attached hereto as Attachment B and which is incorporated herein by reference as if fully set out herein.
- (11) The Grantee agrees, and all individual property owners with grant-funded improvements installed on their properties shall agree, to allow the Government access to perform monitoring of the project elements for compliance with this Agreement.
- (12) The Grantee agrees to comply with all applicable local, state, and federal rules, regulations, ordinances, and laws in implementation of the project.
- (13) The Grantee agrees to obtain all necessary local, state, and federal permits and approvals in a timely manner and prior to the start of any work requiring such permits or approvals.
- (14) The Grantee agrees to obtain written approval from the Government's Grant Manager or Program Administrator for any proposed changes to the Project Team or Project Plan as listed in Attachment A prior to implementing the changes. Failure to gain written approval prior to making changes may lead to termination of the Agreement for cause pursuant to Paragraph 25 herein below.
- (15) The term of this Agreement shall be from the date of this Agreement until completion of the project outlined herein. The Grantee agrees to complete the project within **18** months from the date of this Agreement. The Grantee agrees to obtain written approval from the

Government's Grant Manager or Program Administrator for any time extensions beyond the grant period. Failure to gain written approval prior to making changes may lead to termination of the Agreement for cause pursuant to Paragraph 25 herein below.

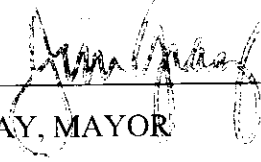
- (16) The Grantee understands that the **Grant shown herein in Paragraph 1 is a not-to-exceed amount**, and any additional funding needed to complete the project elements listed in Attachment A is the responsibility of the Grantee. If it becomes apparent to the Grantee or the Government that the Grantee will be unable to complete the project either in the manner or for the amount described in this Agreement, then the Grantee must immediately notify the Government's Grant Manager and Program Administrator by providing a complete and detailed written explanation of its inability to comply with the terms of the Agreement. The Grantee must further provide the Government's Grant Manager and Program Administrator with a complete and detailed written explanation of any proposed changes, and the reasons for those changes.
- (17) The Grantee asserts that it is an incorporated organization registered in active status with the Commonwealth of Kentucky Secretary of State, and is in full compliance with all applicable provisions of the Lexington-Fayette Urban County Government's Code of Ordinances Chapter 5 – Buildings and Building Regulations, Chapter 7 – Finance and Taxation, Chapter 12 – Housing, and Chapter 16 – Sewage, Garbage, Refuse, and Weeds, or in compliance with Kentucky Department of Housings Buildings and Construction rules and requirements as is appropriate for those state institutions, parcels, or buildings which are subject to state regulations and oversight as opposed to local ordinances and regulations. If the Grantee becomes out of compliance with any of these provisions, it will contact the Government's Program Administrator immediately. Failure to resolve any such matters to the satisfaction of the Government may lead to termination of the Agreement for cause pursuant to Paragraph 25 herein below.
- (18) This Agreement may not be modified except by written agreement of the Government and the Grantee.
- (19) In any advertisement of the grant-funded project, whether oral or written communications, the Grantee agrees to identify the Lexington-Fayette Urban County Government as the source of the above referenced funds; the Grantee shall not specifically identify any individual or elected official as being responsible for the funds donated by the Government.
- (20) The Grantee agrees to allow the Government to publicize the Grantee's project through the Government's website and other media.
- (21) The Grantee agrees to reference the Lexington-Fayette Urban County Government's Water Quality Management Fee and the Stormwater Quality Projects Incentive Grant Program as a source of funding for the project on any permanent signage or educational brochures, presentations, websites, etc. produced using grant monies.
- (22) The Grantee is solely responsible for assuring that adequate and appropriate insurance or other necessary coverage is maintained during the term of this Agreement.
- (23) The Grantee shall provide equal opportunity in employment as required by applicable federal, state, and local laws, regulations and ordinances.
- (24) The Government assumes no responsibility whatsoever in the Grantee's project activities. Grantee shall defend, indemnify, and hold harmless the Government from and against any and all liability, claims, damages, losses, actions, costs, expenses, obligations, fines, and assessments of whatever kind, including defense costs and attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, in whole or in part, from or by Grantee's or its contractor(s), agents, or assigns, negligent acts or misconduct, or errors or omissions, or in any way connected with the activities carried out pursuant to this Agreement, the Grant award or the Stormwater Quality Projects Incentive Grant Program.
- (25) If, through any cause, the Grantee shall fail to fulfill in timely and proper manner its obligations under this Agreement, or if the Grantee shall violate any of the covenants, agree-

ments or stipulations of this Agreement, the Government shall provide the Grantee thirty (30) calendar days to address the deficiency or violation. If the Grantee does not, after the thirty (30) days, come into compliance with this Agreement, the Government shall thereupon have the right to terminate this Agreement by giving written notice to the Grantee of such termination and specifying the effective date thereof, at least five (5) calendar days before the effective date of such termination. In that event, all finished or unfinished documents, receipts and reports prepared by the Grantee shall, at the option of the Government, become its property and the Grantee shall immediately repay to the Government all monies received pursuant to this Agreement less any amount representing just and equitable compensation for the Government's share of any satisfactory work completed pursuant to the Agreement.

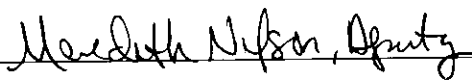
(26) The Grantee's sole remedy for a breach of this Agreement by the Government shall be limited to the amount of the Grant.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement at Lexington, Fayette County, Kentucky, this the day and year first above written.

**LEXINGTON-FAYETTE URBAN COUNTY
GOVERNMENT**


BY: 
JIM GRAY, MAYOR

ATTEST:

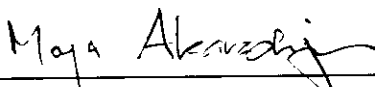

CLERK, URBAN COUNTY COUNCIL

GRANTEE ORGANIZATON:

**FRIENDS OF WOLF RUN, INC.
639 CARDINAL LANE
LEXINGTON, KENTUCKY 40503**

BY: 
NAME: Ken Cooke
TITLE: Secretary

The foregoing Agreement was subscribed, sworn to and acknowledged before me by Kenneth B Cooke, as the duly authorized representative for and on behalf of Friends of Wolf Run, Inc on this the 4th day of Feb, 2013.
My commission expires: 8-23-2014.

 ID: 4J6652
NOTARY PUBLIC

ATTACHMENT A
to the GRANT AWARD AGREEMENT
between Lexington-Fayette Urban County Government (LFUCG) and
Friends of Wolf Run Inc.
Streamside Buffer Stewardship Program

GRANT PROGRAM: FY2013 Stormwater Quality Projects Incentive Grant Program
Class A (Neighborhood) Projects

- Funded through the LFUCG Water Quality Management Fee
- Administered by the LFUCG Division of Water Quality in the Department of Environmental Quality

PROJECT TEAM AND CONTACT INFORMATION

Organization: Friends of Wolf Run, Inc. (FOWR)
639 Cardinal Lane
Lexington, KY 40503
KY Organization #: 0612068

Organization President: Bruce Hutcheson, President
859-619-2233
friend@wolfrunwater.org

Primary Project Contact and Project Manager: Ken Cooke, Secretary, Friends of Wolf Run Inc.
859-940-8234 (phone)
ken.cooke@canewoods.com (email)
Will serve as project manager; providing project administration, grant reporting, and volunteer management.

Secondary Project Contact: Frances Stokes
859-494-6515 (phone)
fcstokes@hotmail.com (email)

Contractor: Skybax Ecological Services LLC
Gary Libby, Principal Ecologist
P.O. Box 1093, Berea, KY
859-302-2897 (phone)

FOWR Board of Trustees: Bruce Hutcheson, President
Lisa Collins, Vice-President
Frances Stokes, CPA, Treasurer
Will provide financial oversight and sponsorship.

Project Steering Committee: Russ Turpin, EcoGro, Materials Manager
Dr. Julian Campbell, Plant Materials Selection
Ann Bowe, Landscape Designer
Jean Watts, Water Quality Specialist, BCTC
Laurie Thomas, LFUCG Forester and land manager

Stewardship Groups: Clay's Mill Southbend Greenway: Sandy Schafer, Picadome Neighborhood Association
Bob-O-Link Drive Greenway: Jennifer Erena, Picadome Neighborhood Association
Roanoke Drive Greenway: Wendy Havens, Port Royal Neighborhood Association
Eastway Wetland: Janet Cabanis and Thomas Martin, Hill-n-Dale Neighborhood Association with Southland Association
Springs Branch Corridor: Christy Cartner, Brandon Cartner, Twin Oaks Neighborhood Association

Versailles Road Stream Crossings: Paula Singer, Friends of Versailles Road Inc.

Goodrich Drive Greenway: Michael Peabody, Ann Bowe, WPGL Neighborhood Association

Spring Meadows Corridor: Layton Register, Spring Meadows Homeowners Association

LFUCG Contacts:

Keith Lovan, Division of Engineering: Review and approve work on LFUCG Greenways

Michael Lorton: LFUCG Parks

Michelle Kosieniak, Parks and Recreation: Review and approve work on LFUCG Parks

Tim Clark, LFUCG Parks and Recreation: Approve planting plans on park property; work with mowing contractors to ensure that native plants will not accidentally be destroyed

Chris Cooperrider, Deputy Director, LFUCG Parks and Recreation

LFUCG Streets and Roads: Assist with removal of cuttings

Cooperating Groups:

Bluegrass Community College: Tracey Knowles; Volunteer workers
Fish and Wildlife Habitat Improvement Program: Plant materials

PROJECT PLAN ELEMENTS

The goals of the Streamside Buffer Stewardship Program are to recruit, train, supply and support volunteer stewardship groups to assist LFUCG streamside property owners in managing vegetative riparian buffers along Wolf Run and its tributaries. The project seeks to accomplish 3 objectives: improvement of the quality of the streamside buffers; engagement of the public in the understanding of the purpose and function of these vegetative buffers in order to reduce complaints from adjacent residents; and providing a test/demonstration area that private property owners can use to adopt similar practices on their streamside areas. Restoration of the native vegetative buffer will help water quality by increasing nutrient uptake; shading the creek to reduce algae blooms and macrophyte infestations; filtering runoff; and stabilizing banks, thereby reducing erosion and sediment loss.

There are 5 main project elements described below.

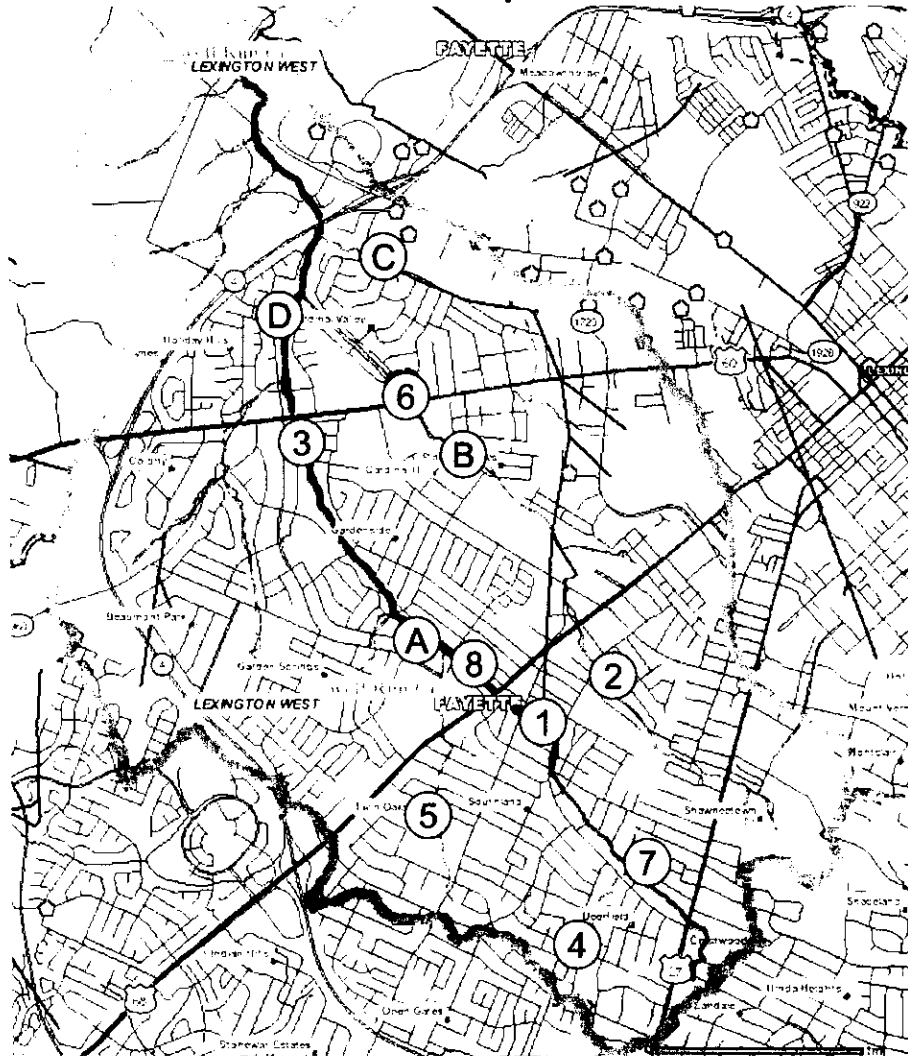
- 1) ***Project Element #1: Volunteer Stream Buffer Stewardship Initiative:*** This element continues prior work on streamside buffer enhancement on 8 sites within the Wolf Run Watershed including:
 1. Clays Mill Southbend Greenway - 1869 Clays Mill Road
 2. Bob-O-Link Drive Greenway - 398 Bob-O-Link Drive
 3. Roanoke Drive Greenway - 1514 Roanoke Road
 4. Eastway Wetland - Eastway and Sunseeker Drives
 5. Springs Branch Corridor – Springs Branch between Clays Mill Elementary Restoration Project and culvert entrance below Sheridan Drive
 6. Versailles Road Stream Crossings -Vaughn’s Branch below Versailles Road; Wolf Run at Alexandria Drive; Cardinal Run west of Central Bank
 7. Goodrich Drive Greenway - 1875 Goodrich Drive
 8. Spring Meadows Corridor - Spring Meadows Townhomes

See Table 1 for more information on each buffer enhancement site and Figure 1 for a map of the site locations.

Table 1: Buffer Enhancement Site Locations

<p>1. Clay's Mill Southbend Greenway 1869 Clay's Mill Rd. (Wolf Run) Sandy Schafer Picadome Neighborhood Association plant Materials, Maintenance Supplies, Continued Technical Support and Volunteer Support</p>	<p>Entrance below Sheridan Drive but excluding the Culvert Repair Project zone as defined by LFUCG. Christy Cartner, Brandon Cartner Twin Oaks Neighborhood Association plant Materials, Maintenance Supplies, Continued Technical Support and Volunteer Support</p>
<p>2. Bob-O-Link Drive Greenway 398 Bob O Link Dr (Big Elm Fk. of Vaughn's Branch) Jennifer Erena Picadome Neighborhood Association Resources provided include plant Materials, Maintenance Supplies, Continued Technical Support and Volunteer Support</p>	<p>6. Versailles Road Stream Crossings Vaughn's Branch below Versailles Road (Near Fords Gym) Wolf Run at Alexandria Drive, Cardinal Run west of Central Bank. Paula Singer and Friends of Versailles Road Inc. plant Materials, Maintenance Supplies, Continued Technical Support and Volunteer Support</p>
<p>3. Roanoke Drive Greenway 1514 Roanoke Rd (Wolf Run) Wendy Havens Port Royal Neighborhood Association plant Materials, Maintenance Supplies, Continued Technical Support and Volunteer Support</p>	<p>7. Goodrich Drive Greenway 1875 Goodrich Dr (Wolf Run) Michael Peabody, Ann Bowe, WPGL Neighborhood Association Continued technical support and volunteer support for their independent incentive grant (They have their own funds, but we will continue to support their leadership)</p>
<p>4. Eastway Wetland Eastway and Sunseeker Drives Janet Cabanis, Thomas Martin Hill-N-Dale Neighborhood Association with Southland Association plant Materials, Maintenance Supplies, Continued Technical Support and Volunteer Support</p>	<p>8. Spring Meadows Corridor Spring Meadows Townhomes Layton Register, Spring Meadows Homeowners Association, Plant Materials, Landscaping Supplies Management and support for initial setup.</p>
<p>5. Springs Branch Corridor Springs Branch between the Clay's Mill Elementary Restoration Project and the Culvert</p>	

Figure 1: Buffer Enhancement Site Locations & Project Areas



Work in each of these areas includes:

- **Conducting stream walks:** Residents are invited to participate. During the stream walks, experts discuss water quality, habitat and stream side buffer issues and management strategies.
 - **Trash Cleanup Days:** Participants perform trash and litter pickup.
 - **Invasive Species Removal “Bushwacking Parties”:** Participants use hand tools to remove bush honeysuckle, garlic mustard, multi-flora rose, and Japanese Knot Weed. The cut shrubs will be treated with herbicides in accordance with practices developed by the Invasive Plant Working Group.
 - **Native Plantings:** Volunteers install perennials, shrubs, and trees according to a planting plan.
 - **Education and Outreach:** The UK Extension office produced “Living Along a Kentucky Stream,” and “Stream Buffer Brochure,” which will be distributed to streamside property owners and at promotional events.
 - **Effectiveness Monitoring:** Volunteers perform water quality checks for field parameters (DO, pH, Temperature, and Conductivity) as well as nutrients via field spectrophotometers and pathogens via E. Coli analysis in cooperation with LFUCG Town Branch lab and BCTC.
 - **Identification and support of Key Stewards:** Friends of Wolf Run will continue to recruit new leaders for follow-up efforts.
 - **Mark Stream Buffer Improvement areas:** Volunteers will install educational signs.
- 2) **Project Element #2: Allendale—Moberly Spring Greenway “Riparian Arboretum” Demonstration Project:** This project location is denoted on Figure 1 as element A. Details of this project element as described in the grant application are provided in the last section of this document “Supplemental Project Element Information.”

Grant Stipulation: No work shall be performed adjacent to the stream or in a future construction staging area for future sanitary sewer trunk replacement at this location. The Organization shall coordinate all activities with the LFUCG Grant Manager and the LFUCG Remedial Measures Manager prior to planning activities for this project element.

- 3) **Project Element #3: Pine Meadow Park Wetland Seep Demonstration Area:** This project location is denoted on Figure 1 as element B. Details of this project element as described in the grant application are provided in the last section of this document “Supplemental Project Element Information.”
- 4) **Project Element #4: Preston’s Cave Spring Riparian Forest Restoration:** This project location is denoted on Figure 1 as element C. Details of this project element as described in the grant application are provided in the last section of this document “Supplemental Project Element Information.”
- 5) **Project Element #5: Valley Park Stream Buffer Restoration Demonstration Area:** This project location is denoted on Figure 1 as element D. Due to a pending sanitary sewer trunk replacement project, this project as proposed in the grant application is not possible at this time. The budget set aside for this element may be used for other similar activities only after written approval of the LFUCG Grant Manager.

REPORTING REQUIREMENTS

In addition to the reporting requirements outlined in the Grant Award Agreement, the following special items are noted for this project:

- 1) The Organization shall submit copies of the herbicide application plan to the LFUCG Grant Manager prior to work beginning.
- 2) The Organization shall provide written authorizations for private property (including LFUCG Parks) access to the LFUCG Grant Manager prior to work on any area for which they are required.

REPORTING REQUIREMENTS

In addition to the reporting requirements outlined in the Grant Award Agreement, the following special items are noted for this project: None.

EQUIPMENT

Any equipment purchased with the Grant shall remain the property of the Organization.

PERMANENT FACILITIES/INFRASTRUCTURE

Permanent Capital Infrastructure: This grant does not include “Permanent Capital Infrastructure” as defined in the Grant Award Agreement. Attachment B is not required for this Agreement.

Monitoring: The Organization agrees to allow LFUCG staff access to the project site to monitor the installed features for compliance with this agreement. Water quality sampling via grab samples or other methods may be employed by LFUCG staff as part of LFUCG’s annual reporting requirement of its Kentucky Pollutant Discharge Elimination System (KPDES) MS4 Phase 1 permit.

CONSTRUCTION ACCESS

If work is to be performed on private property, the Organization is responsible to obtain written authorization from the affected property owner(s) allowing such access. No permanent feature (including plantings), shall be placed upon private property without prior signed authorization from the owner.

ADDITIONAL GRANT STIPULATIONS

Design, construction, and plant installation shall meet the following requirements:

- a) Project sites shall be reviewed by the Division of Water Quality’s Remedial Measures Program Manager for upcoming sanitary sewer projects prior to implementation. Contingency sites can be used if a conflict is found.
- b) All existing utilities shall be located, contacted, and coordinated with prior to any work being performed as necessary.
- c) Planting of trees within 10 feet of existing utilities can only be done if written approval by the utility is provided to LFUCG prior to planting.
- d) No trees shall be planted within 10 feet of any sanitary sewer system or storm drainage pipe.
- e) If herbicides are proposed to be used, a plan for appropriate application controls shall be submitted to LFUCG prior to use, and shall be followed during applications.
- f) A letter of support from LFUCG Parks & Recreation is required prior to performing any work on LFUCG owned park properties.

GRANT PERIOD & PROJECT SCHEDULE

The grant period starts on the date of execution of the Grant Award Agreement by the Mayor and extends for the time period as listed in the Grant Award Agreement. Any time extensions must be approved in writing by the LFUCG Incentive Grant Manager. The project schedule shown in Table

1 is preliminary. Proposed changes to the project which alter this schedule significantly shall be discussed with the LFUCG Grant Manager prior to implementation.

Table 1. gives the anticipated project schedule.

TABLE 1. PROJECT SCHEDULE-Friends of Wolf Run: Streamside Buffer Stewardship Program

Activity	Anticipated Date
Approval of Grant Award Agreement	Within 1 week of Grant Award Notification
Convening of project steering committees	Within 1 week of Grant Award Notification
Approval of work plan by property managers, (Parks, Greenways)	Within 30 days of Grant Award Notification
Conduct stream walks in new project areas	April 2013
Conduct stream clean up and trash removal	April 2013, October 2013
Conduct invasive plant removal work days	April 2013, October 2013
Conduct native plant installations	May – October 2013
Follow up work days in existing riparian areas	May – October 2013
Final Report to LFUCG	December 15, 2013

PROJECT BUDGET – GRANT ELIGIBLE EXPENSES & ORGANIZATION MATCH

Tables 2.1 through 2.4 list the Eligible Expenses for this project. Only properly invoiced items shall be reimbursed with grant monies or counted toward the Organization’s match. Any work performed on this project prior to grant award by Urban County Council and Notice to Proceed from the LFUCG Grant Manager is not an eligible expense and shall not be reimbursed or counted toward the match, except for the following which will be allowed:

- Activities occurring within 90 days of Notice to Proceed that generate match through Volunteer Hours or Donated Professional Service hours or grant eligible expenses within 30 days of Notice to Proceed. The grantee assumes all risks associated with these expenses.

This is being allowed for this project due to the time sensitive nature of the planting work.

Hours worked by participants under the age of 12 shall not be counted toward the match.

No work on any item outside of the project scope described herein, or any item to be covered by the contingency budget shall be performed without prior written approval from the LFUCG Grant Manager. Failure to do so may result in non-reimbursement for any such items.

Budget Table 2.1: Total Project Budget by Project Element

	Funded by Organization	Funded by Grant	Total Expense
Project Element: Volunteer Stewards			
	\$ 4,298.75	\$ 9,190.00	\$ 13,488.75
Project Element A: Allendale-Moberly Spring Greenway “Riparian Arboretum” demonstration area			
	\$ 4,072.50	\$ 9,775.00	\$ 13,847.50
Project Element B: Pine Meadow Park Wetland Seep Demonstration Area			
	\$ 3,145.00	\$ 7,125.00	\$ 10,270.00
Project Element C: Preston’s Cave Spring Riparian Forest Restoration			
	\$ 6,145.00	\$ 13,625.00	\$ 19,770.00
CONTINGENCY: Undefined Project Element			
	\$ 6,150.00	\$ 13,625.00	\$ 19,775.00
	\$ 23,811.25	\$ 53,340.00	\$ 77,151.25
	ORGANIZATION SHARE 30.9%	GRANT SHARE 69.1%	

* Note: Organization share must be >20% of total project costs.

Budget Table 2.2: Volunteer Stream Buffer Stewards Project Element

Activities	Type of Expense	Participants	Item	Unit Price	Quantity	Funded by Organization	Funded by Grant	Total Expense
Project Element: Stream Cleaning and Tree Planting								
Invasive Plant Removal Phase	Supplies	FOWR Partner Volunteers	Trash Bags, Herbicide, Gloves, refreshments, supplies and materials	\$100 Per Project Site	8	\$ -	\$ 800.00	\$ 800.00
Invasive Plant Removal Phase	Volunteer Hours	FOWR Partner Volunteers	Volunteer Work Hours	\$ 7.25 Per Hour	160	\$ 1,160.00	\$ -	\$ 1,160.00
Native Plant Installation Phase	Plant Materials and landscaping supplies	FOWR, Partners, Volunteers	Native Plants	\$500.00 Per Project Site	8	\$ -	\$ 4,000.00	\$ 4,000.00
New Project Development	Plant Materials and landscaping supplies	FOWR Partners and Volunteers	Native Trees, Shrubs and Perennials	\$ 1,000.00 Per Project Site	1	\$ -	\$ 1,000.00	\$ 1,000.00
Native Plant Installation Phase	Volunteer Hours	FOWR Partners and Volunteers	Volunteer Work Hours	\$ 7.25 Per Hour	160	\$ 1,160.00	\$ -	\$ 1,160.00
Education and Outreach	Volunteer Hours	FOWR Partners and Volunteers	Stream Walk and Planning Meetings	\$ 7.25 Per Hour	50	\$ 362.50	\$ -	\$ 362.50
Education and Outreach	Boundary Markers	FOWR and Signs Now	Fiberglass Boundary Markers	\$3.00 Each	200	\$ -	\$ 600.00	\$ 600.00
Education and Outreach	Printed Materials	FOWR Partners and Volunteers	UK Extension Publications "Living Along A KY Stream"	\$1.00 each	1000	\$ 1,000.00	\$ -	\$ 1,000.00
Education and Outreach	Printed Materials	FOWR Partners and Volunteers	UK Extension Publication "Stream Buffer Brochure"	\$0.20 Each	4000	\$ -	\$ 800.00	\$ 800.00
Education and Outreach	Informational Signs	LFUCG and Signs Now	Aluminum sign, decal and post with hardware	\$35.00 each	30	\$ -	\$ 1,050.00	\$ 1,050.00
Effectiveness Monitoring	Maintainance and supplies for multi-meters	FOWR and Partners	Hanna Probe Calibration solution	\$35.00 Each	4	\$ -	\$ 140.00	\$ 140.00
Effectiveness Monitoring	Sample materials for nutrient and pathogen monitoring	Bluegrass Community and Technical College	Idexx Supplies, Spectrophotmeter Reagents	\$40.00 Each	20	\$ -	\$ 800.00	\$ 800.00
Project Management	Professional Services	FOWR Leadership	Project Management and oversight	\$ 7.25 /hour	80	\$ 580.00	\$ -	\$ 580.00
Project Management	Professional Services	FOWR Leadership	CPA Accounting and Grant Reporting	\$ 7.25 per hour	5	\$ 36.25	\$ -	\$ 36.25
Volunteer Stewards Total Budget						\$ 4,298.75	\$ 9,190.00	\$ 13,488.75

*COST SHARE % = 31.87%

ORGANIZATION SHARE	GRANT SHARE
31.9%	68.1%

* Note: Organization share must be >20% of total project costs.

Budget Table 2.3: Allendale Moberly Spring Greenway "Riparian Arboretum" Demonstration Area

TYPE OF EXPENSE	PARTICIPANTS	ITEM	UNIT PRICE	QUANTITY	FUNDED BY ORGANIZATION	FUNDED BY GRANT	TOTAL EXPENSE
Project Element: Buffer Restoration Zone along Stream [ca. 800 x 25 ft or 0.4 acres]:							SUBTOTAL = \$7000
Contracted honeysuckle removal from zone	Skybax Ecological Services, LLC	Cutting and piling honeysuckle; herbicide application to stumps	\$ 5,000.00 per acre	0.4	\$ -	\$ 2,000.00	\$ 2,000.00
Contracted chipping of honeysuckle	Skybax Ecological Services (or subcontractor)	Chipping of honeysuckle for future use on site in formal plantings	\$ 1,250.00 per acre	0.4	\$ -	\$ 500.00	\$ 500.00
Plant material: special collection; local provenance	Bluegrass Woodland Restoration Center	Collection and selection of native woody species for riparian/wetland	\$ 25.00 per plant	100	\$ 2,500.00	\$ -	\$ 2,500.00
Installation of plantings; with care for 1 year	Bluegrass Woodland Restoration Center	Follow-up control of honeysuckle/weeds; planting; mulching	\$ 20.00 per plant	100	\$ -	\$ 2,000.00	\$ 2,000.00
Project Element: Wetland Plantings on Palumbo Apt. and Moberly tracts [ca. 1.5 acres]:							SUBTOTAL = \$4750
Contracted alien plant removal; mostly peripheral	Skybax Ecological Services, LLC	Careful identification and removal of unwanted alien plants	\$ 1,000.00 per acre	1.5	\$ -	\$ 1,500.00	\$ 1,500.00
Chipping of peripheral honeysuckle	Skybax Ecological Services (or subcontractor)	Chipping of honeysuckle for future use on site in formal plantings	\$ 1,250.00 per acre	0.2	\$ -	\$ 250.00	\$ 250.00
Plant material: special collection; local provenance	Bluegrass Woodland Restoration Center	Collection and growing of tree seedlings for wetland planting	\$ 5.00 per plant	300	\$ 1,500.00	\$ -	\$ 1,500.00
Installation of plantings; with care for 1 year	Bluegrass Woodland Restoration Center	Follow-up control of honeysuckle/weeds; planting; mulching	\$ 5.00 per plant	300	\$ -	\$ 1,500.00	\$ 1,500.00
Project Element: Educational Materials, Seminar and Tour:							SUBTOTAL = \$2100
Volunteer Hours	Project personnel, FWR and neighborhood	Volunteer Hours for organizing and advertising event	\$ 7.25 per hour	10	\$ 72.50	\$ -	\$ 72.50
Supplies	Project personnel, FWR and neighborhood	Advertising for event: 200 single page flyers - black & white	\$ 0.10 per flyer	250	\$ -	\$ 25.00	\$ 25.00
Web-posted booklet for public education; plus technical appendices	Bluegrass Woodland Restoration Center	Preparation of 20-30 page booklet (in Word and pdf format)	\$ 2,000.00 per each	1	\$ -	\$ 2,000.00	\$ 2,000.00
TOTAL PROJECT BUDGET:					\$ 4,072.50	\$ 9,775.00	\$ 13,847.50
					ORGANIZATION SHARE 29.4%	GRANT SHARE 70.6%	
*COST SHARE % = 29.41%							

* Note: Organization share must be >20% of total project costs.

Budget Table 2.4 - Pine Meadow Park Wetland / Seep Demonstration Area

TYPE OF EXPENSE	PARTICIPANTS	ITEM	UNIT PRICE	QUANTITY	FUNDED BY ORGANIZATION	FUNDED BY GRANT	TOTAL EXPENSE
Project Element: Stream Buffer Restoration Zone and Wetland Plantings (ca. 1 acre)							
Contracted honeysuckle removal from zone	Skybax Ecological Services, LLC	Cutting and piling honeysuckle; herbicide application to stumps	\$ 5,000.00 per acre	1	\$ -	\$ 5,000.00	\$ 5,000.00
Plant material: special collection; local provenance	Skybax Ecological Services, LLC	Collection and selection of native woody and herbaceous species	\$ 50.00 per plant	50	\$ 2,500.00	\$ -	\$ 2,500.00
Contracted alien plant removal; mostly peripheral	Skybax Ecological Services, LLC	Careful identification and removal of unwanted alien plants	\$ 1,000.00 per acre	1	\$ -	\$ 1,000.00	\$ 1,000.00
Plant material: special collection; local provenance	Skybax Ecological Services, LLC	Collection and growing of tree seedlings for wetland planting	\$ 5.00 per plant	100	\$ 500.00	\$ -	\$ 500.00
Installation of plantings; with care for 1 year	Skybax Ecological Services, LLC	Follow-up control of honeysuckle/weeds; planting; mulching	\$ 5.00 per plant	100	\$ -	\$ 500.00	\$ 500.00
Project Element: Volunteer Days, Plant Species Inventory, Map of Project/Special Features							
Volunteer Hours	Project personnel, FWR and neighborhood	Volunteer Hours for organizing and advertising event	\$ 7.25 per hour	20	\$ 145.00	\$ -	\$ 145.00
Supplies	Project personnel, FWR and neighborhood	Advertising for event: 200 single page flyers - black & white	\$ 0.10 per flyer	250	\$ -	\$ 25.00	\$ 25.00
Plant Inventory, Mapping and Reports	Skybax Ecological Services, LLC	Preparation of a Species List and Special Features Map	\$ 600.00 per each	1	\$ -	\$ 600.00	\$ 600.00
TOTAL PROJECT BUDGET:					\$ 3,145.00	\$ 7,125.00	\$ 10,270.00
					ORGANIZATION SHARE 30.6%	GRANT SHARE 69.4%	
*COST SHARE % = 30.62%							

* Note: Organization share must be >20% of total project costs.

Budget Table 2.5: Preston's Cave Spring Riparian Forest Restoration

TYPE OF EXPENSE	PARTICIPANTS	ITEM	UNIT PRICE	QUANTITY	FUNDED BY ORGANIZATION	FUNDED BY GRANT	TOTAL EXPENSE
Project Element: Stream Buffer Restoration Zone and Wetland Plantings (ca. 2 acres)							
Contracted honeysuckle removal from zone	Skybax Ecological Services, LLC	Cutting and piling honeysuckle; herbicide application to stumps	\$ 5,000.00 per acre	2	\$ -	\$ 10,000.00	\$ 10,000.00
Plant material: special collection; local provenance	Skybax Ecological Services, LLC	Collection and selection of native woody and herbaceous species	\$ 50.00 per plant	100	\$ 5,000.00	\$ -	\$ 5,000.00
Contracted alien plant removal; mostly peripheral	Skybax Ecological Services, LLC	Careful identification and removal of unwanted alien plants	\$ 1,000.00 per acre	2	\$ -	\$ 2,000.00	\$ 2,000.00
Plant material: special collection; local provenance	Skybax Ecological Services, LLC	Collection and growing of tree seedlings for wetland planting	\$ 5.00 per plant	200	\$ 1,000.00	\$ -	\$ 1,000.00
Installation of plantings; with care for 1 year	Skybax Ecological Services, LLC	Follow-up control of honeysuckle/weeds; planting; mulching	\$ 5.00 per plant	200	\$ -	\$ 1,000.00	\$ 1,000.00
Project Element: Volunteer Days, Plant Species Inventory, Map of Project/Special Features							
Volunteer Hours	Project personnel, FWR and neighborhood	Volunteer Hours for organizing and advertising event	\$ 7.25 per hour	20	\$ 145.00	\$ -	\$ 145.00
Supplies	Project personnel, FWR and neighborhood	Advertising for event: 200 single page flyers - black & white	\$ 0.10 per flyer	250	\$ -	\$ 25.00	\$ 25.00
Plant Inventory, Mapping and Reports	Skybax Ecological Services, LLC	Preparation of a Species List and Special Features Map	\$ 600.00 per each	1	\$ -	\$ 600.00	\$ 600.00
TOTAL PROJECT BUDGET:					\$ 6,145.00	\$ 13,625.00	\$ 19,770.00
					ORGANIZATION SHARE 31.1%	GRANT SHARE 68.9%	
*COST SHARE % = 31.08%							

* Note: Organization share must be >20% of total project costs.

SUPPLEMENTAL PROJECT ELEMENT INFORMATION

Project Element A:

Allendale-Moberly Spring Greenway “Riparian Arboretum” demonstration area

Allendale-Moberly Spring Greenway as a 'Riparian Arboretum' for the Central Bluegrass:
Establishment of Native Plant Collection for Riparian Zones and Wetlands in this region.

Personnel

PROJECT MANAGER: Julian Campbell, Bluegrass Woodland Restoration Center
Ken Cooke, Friends of Wolf Run; and board members
Gary Libby, Skybax Ecological Services, LLC
Will Overbeck, Skybax Ecological Services
Layton Register, neighborhood representative

Purpose and Need

The Allendale-Moberly Spring Greenway is an important site for potential improvement in water quality on the west side of Lexington. With a relatively broad floodplain, it has already been used for enhancement of the small wetland here in the 1990s, and some recent test plantings coordinated by the Friends of Wolf Run Inc. The city owns land here, and two private tracts have easements for riparian protection. There is virtually no structural development and at least 20 acres are available for environmental improvements. It could become one of the most significant wetland sites within the city that is adjacent to a major stream corridor. Wetter soils are fluventic endoaquepts (Newark and Melvin).

In the whole central Bluegrass region (mostly Fayette and surrounding counties), there has been much restoration of riparian zones and wetlands within the past 20 years. However, there has been a serious shortage of native plant species for these projects, especially plants with provenance from the Bluegrass region. Much public funding has been spend on questionable plant material; there has been little accountability in results; and in several cases, there have been failures.

Project Outline

About 10 acres of the site will be devoted to restoring patches and strips of native vegetation that will include a diverse living collection of species with local provenance. [These acres include “buffer restoration area” 1 on LFUCG, area 2 on Moberly tract, and extension north into the Palumbo Apartment tract.] This collection will become available for local propagation, education and research. These uses will be developed on a non-profit basis under the direction of local government, with consultation from Bluegrass Woodland Restoration Center, Friends of Wolf Run, University of Kentucky and other appropriate organizations.

This initial project will include a ca. 800 x 10-30 feet zone along the west side of the stream, where alien honeysuckle bush (*Lonicera maackii*) will be removed. Native species to be emphasized in replantings here will include willows (*Salix: caroliniana, eriocephala, interior* and vars., *nigra*), dogwoods (*Cornus: ammomum, drummondii, obliqua, stricta*) and other selected shrubs (e.g., *Cephalanthus occidentalis, Physocarpus opulifolius, Ptelea trifoliata, Rosa setigera, R. palustris, Sambucus canadensis, Viburnum dentatum* [var. tbd], *Zanthoxylum americanum*).

It will also include a tree planting on ca. 1.5 acres of adjacent wetland [especially on the Palumbo Apartment tract], with emphasis on swamp white oak (*Quercus bicolor*), Shumard oak (*Q. shumardii*) and shellbark hickory (*Carya laciniosa*). These are species that will be needed to replace green ash—now threatened by Emerald Ash Borer in the region. Selected ashes may also be retained or planted if resistance can be shown or if insecticidal treatments can be effective.

Project Element B: Pine Meadow Park Wetland/Seep Demonstration Area

Pine Meadows Park is a unique opportunity for headwater stream restoration within Lexington. A small unnamed spring fed tributary of Vaughn's Branch flows thru the park's eastern boundary and is the ideal spot for a shrub and small tree wetland restoration. This water quality improvement project can be an urban example of Central Kentucky's rare headwater wetland ecosystem for the residents of Fayette County, providing high quality environmental education and interpretation.

Personnel

PROJECT MANAGER: Gary Libby, Skybox Ecological Services, LLC
Ken Cooke, Friends of Wolf Run; and board members
Will Overbeck, Skybox Ecological Services

Purpose and Need

The Pine Meadows Park is an important site for potential improvement in water quality and natural habitats on the west side of Lexington. Pine Meadows Park consists of the south side of Vaughn's Branch of Wolf Run which joins Wolf Run to the north-west. Restoration of the riparian buffer will improve water quality and increase diversity in the native plant species of the Bluegrass Region. Wetland soils are Huntington silt loam (0.3 acres) and Layton silty clay loam (0.2 acres) and are confined to the headwater stream corridor. The remainder of the proposed project area along Vaughn's Branch consists of Man-made soils (0.5 acres) and should be restored to riparian buffer vegetation to prevent further erosion. The Inner Bluegrass Region is thought to have had a well developed forest of Sugar Maple, Basswood, Ohio Buckeye, and Bur Oak in pre-settlement. These forests had the appearance of an orchard in some places with widely spaced trees and open habitats maintained by grazing Buffalo and other factors. Now, invasive plants and habitat fragmentation has diminished the plant diversity. Bush Honeysuckle, Wintercreeper, and Garlic Mustard are currently dominating the forest understory at Pine Meadows Park. By removing the non-native plants and reintroducing local plant species we can enhance the beauty and function of the watershed. In the past, there has been a lack of Kentucky native plant species used in stream and wetland restoration within the Bluegrass Region, but native species are now being propagated in Kentucky by Julian Campbell and Roundstone Seed, as well as the Kentucky Division of Forestry.

Project Outline

The site will be devoted to restoring patches and strips of native vegetation in aim of increasing the plant diversity to help stabilize the plant communities and resist competition from the invasive plant species that dominate the forest understory. This initial project will include 750 linear feet of Vaughn's Branch from the spring branch confluence downstream forming a Stream Buffer Zone along the south side of the creek floodplain, where the non-native Garlic Mustard (*Alliaria petiolata*) and alien Bush Honeysuckle (*Lonicera maackii*) will be removed. Native species to be emphasized in replantings here will include Willows, Hydrangea, Dogwoods, Spicebush, Bladdernut, Black Haw and other selected shrubs (e.g., *Amorpha fruticosa*, *Cephalanthus occidentalis*, *Physocarpus opulifolius*, *Ptelea trifoliata*, *Rosa setigera*, *R. palustris*, *Sambucus canadensis*, *Viburnum dentatum*, *Zanthoxylum americanum*). It will also include a tree planting on the 0.5 acres of headwater wetland with emphasis on Hop Hornbeam, Musclewood, Red Mulberry, Pawpaw and other small trees. At completion of the project, a complete report will be produced, including description of plant material, planting map and plan for future use.

Thus, the project has two components:

1. Project Component: Stream Buffer Restoration Zone and Wetland Plantings [ca. 1 acre]
SUBTOTAL = \$6,500
2. Project Component: Volunteer Days, Plant Species Inventory, Map of Project/Special Features SUBTOTAL = \$625

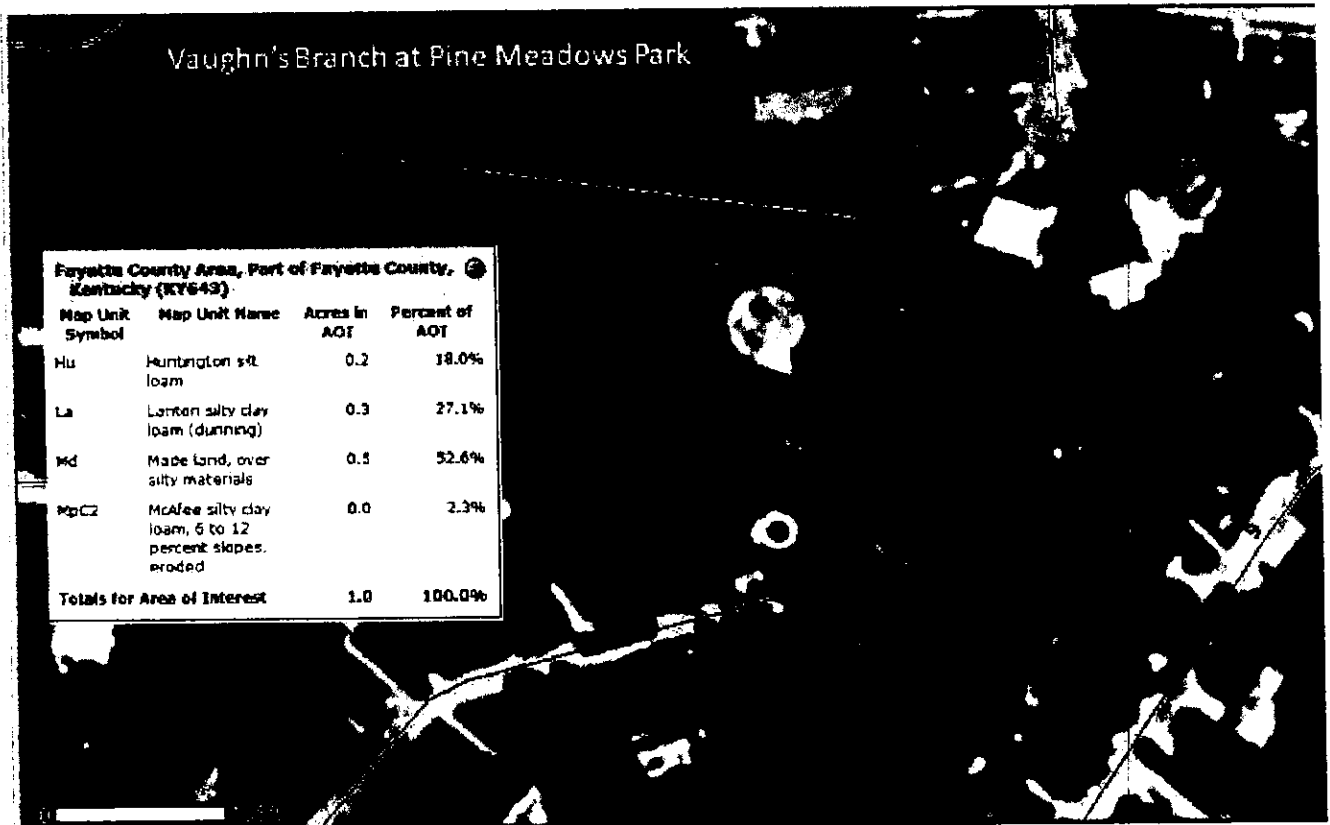
Schedule of Work

Winter of 2012/2013: removal of alien plants along stream and in wetlands.
Spring and Fall 2013: planting of native plants (as outlined above).
Summer 2013: establishment of educational signs; development of trails.
Fall 2013: seminar and release plant inventory and ecological maps.

Potential Developments and Applications in Future

Further plantings can be designed at the site in future years, as funds become available. More open areas on the bottomland and near trails could be converted to meadows of native grasses and wildflowers, with maintenance by mowing or other means.

Budget Summary (See Budget Page for Details)



Project Element C: Preston's Cave Spring Riparian Forest Restoration Project

Preston's Cave Spring is a unique riparian forest restoration project. The park should be protected for the unique geological, natural and historic features of Lexington's McConnell Springs-Preston Springs corridor and to provide natural, cultural and historical education opportunities for the residents of Fayette County through high quality environmental education and interpretation.

Personnel

PROJECT MANAGER: Gary Libby, Skybax Ecological Services, LLC
Ken Cooke, Friends of Wolf Run; and board members
Will Overbeck, Skybax Ecological Services

Purpose and Need

The Preston's Cave Spring Greenway and Park is an important site for potential improvement in water quality and natural habitats on the west side of Lexington. Preston's Cave Spring consists of LFUCG Greenway plus Parks and Recreation land and is adjacent to Valley Park which follows Wolf Run through much of the Cardinal Valley area. There is no structural development, only a small area is maintained as lawn and walking trails, and at least 17 acres are available for environmental improvements. It could become one of the most significant wetland sites within the city, especially within the Wolf Run watershed. Wetland soils are Newark silt loam and currently support a forest canopy of Sycamore-Elm-Oak-Ash-Maple-Hackberry. The Inner Bluegrass Region is thought to have had a well developed forest of Sugar Maple, Basswood, Ohio Buckeye, and Bur Oak in pre-settlement. These forests had the appearance of an orchard in some places with widely spaced trees and open habitats maintained by grazing Buffalo and other factors. Now, invasive plants and habitat fragmentation has diminished the plant diversity. Bush Honeysuckle, Wintercreeper, and Garlic Mustard are currently dominating the forest understory at Preston's Spring Cave. By removing the non-native plants and reintroducing local plant species we can enhance the beauty and function of the watershed. In the past, there has been a lack of Kentucky native plant species used in stream and wetland restoration within the Bluegrass Region, but native species are now being propagated in Kentucky by Julian Campbell and Roundstone Seed, as well as the Kentucky Division of Forestry.

Project Outline

The site will be devoted to restoring patches and strips of native vegetation in aim of increasing the plant diversity to help stabilize the plant communities and resist competition from the invasive plant species that dominate the forest understory. This initial project will include 1000 linear feet from the springs downstream forming a Stream Buffer Zone along the north side of the creek floodplain, where and the non-native Garlic Mustard (*Alliaria petiolata*) and alien Bush Honeysuckle (*Lonicera maackii*) will be removed. Native species to be emphasized in replantings here will include Willows, Hydrangea, Dogwoods, Spicebush, Bladdernut, Black Haw and other selected shrubs (e.g., *Amorpha fruticosa*, *Cephalanthus occidentalis*, *Physocarpus opulifolius*, *Ptelea trifoliata*, *Rosa setigera*, *R. palustris*, *Sambucus canadensis*, *Viburnum dentatum*, *Zanthoxylum americanum*). It will also include a tree planting on the 2 acres of wetland with emphasis on Swamp White Oak (*Quercus bicolor*), Bur Oak (*Quercus macrocarpa*) and Shumard Oak (*Q. shumardii*). At completion of the project, a complete report will be produced, including description of plant material, planting map and plan for future use.

Thus, the project has two elements:

1. Project Element: Stream Buffer Restoration Zone and Wetland Plantings [ca. 2 acres]
SUBTOTAL = \$13,000
2. Project Element: Volunteer Days, Plant Species Inventory, Map of Project/Special Features

SUBTOTAL = \$625

Schedule of Work

Winter of 2012/2013: removal of alien plants along stream and in wetlands.
Spring and Fall 2013: planting of native plants (as outlined above).
Summer 2013: establishment of educational signs; development of trails.
Fall 2013: seminar and release plant inventory and ecological maps.

Potential Developments and Applications in Future

Further plantings can be designed at the site in future years, as funds become available. More open areas on the bottomland and near trails could be converted to meadows of native grasses and wildflowers, with maintenance by mowing or other means.

The site would also become an outstanding demonstration for riparian restoration within the city. With controlled public access, it would serve varied educational and recreational uses. The Preston's Cave Spring, itself, is a significant feature that can become a focus for an attraction to the site.

Budget: see attached form for details

