



GROWING GREENER PLUS GRANT APPLICATION 2016

For DEP use only:

1. **Short Title:** Cleona Stream Restoration Project

2. **Applicant/Sponsor Information:**

APPLICANT

SPONSOR (Only If different from Applicant)

Organization: Quittapahilla Watershed Association
Street: 610 East Walnut Street
Annville, PA 17003-1925

Organization: Lebanon Valley Conservancy
Street: 752 Willow Street Suite E
Lebanon, PA 17046

City/State/(9 Digit) Zip:

City/State/(9 Digit) Zip:

Contact: David Lasky
Tel: (717) 867 - 4837 Fax: () -
E-Mail: dlasky610@comcast.net
Federal Employer ID #/SAP Vendor # _____

Contact: _____
Tel: (717) 821 - 2021 Fax: () -
E-Mail: egibble@verizon.net
Federal Employer ID #/SAP Vendor # _____

3. **Type of Organization:**

- | | |
|--|---|
| <input type="checkbox"/> School District / School
<input type="checkbox"/> Conservation District
<input type="checkbox"/> Council of Governments
<input type="checkbox"/> County or Municipality
<input type="checkbox"/> Educational Institution (Not eligible for SMCRA Bond Forfeiture and AMD Set-Aside) | <input type="checkbox"/> Municipal Authority
<input type="checkbox"/> Incorporated Watershed Association
<input checked="" type="checkbox"/> Incorporated Non-profit Organization
501(c)(3) status? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
PA Charitable Organization status? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Exempt <input type="checkbox"/>
<small>(must provide proof)</small> |
|--|---|

4. **Project Location:**

County(ies): Lebanon Municipality(ies): Cleona

(Include an 8.5"x11" copy of a USGS 1:24000 topographic map with project boundaries and quadrangle name clearly marked.)

Quadrangle Map Name(s) Annville, PA 1990 Chapter 93 Stream Name/Designation: Quittapahilla Creek

Latitude: 40°20'03.51" N Longitude: 76°28'06.79" W Percent of Project in the Chesapeake Bay Watershed: 100

5. **Application/Project Category:**

Watershed Protection Grants (Growing Greener)
(check only one)

Section 319 Nonpoint Source Grants

- a. Develop a watershed plan
- b. Education/outreach
- c. Design and/or construction
- d. Operation, maintenance and replacement
- e. Technical Assistance
- f. Evaluation, Assessment or Monitoring Tools
- g. Watershed group organization/support
- h. Watershed Renaissance Initiative
- i. Healthy Watersheds Initiative

j. 319 NPS Project

Surface Mining Conservation and Reclamation Act (SMCRA)

- k. SMCRA Grants (Bond Forfeiture)
- l. AMD Set-Aside Grants

6. Name of the DEP Regional Watershed Manager, Mining staff or Office of Water Resources Planning staff person with whom you consulted about the proposed project (see the DEP Contacts Information document # 1010-FM-GC0001I): Jineen Boyle

7. **Budget Summary:** (Must be consistent with attached DEP Task and Deliverable Budget Worksheet forms – do not include cents; round to the nearest dollar.)

Category	Grant Request	+	Match (15% minimum)	=	Project Cost
Salaries/Benefits		+		=	
Travel		+		=	
Equipment and Supplies		+		=	
Administration (grant max 5%)	\$10,000.00	+	\$12,500.00	=	\$22,500.00
Contractual	\$202,710.00	+	\$20,500.00	=	\$223,210.00
Construction		+		=	
Other		+		=	
Total for each column:	\$212,710.00	+	\$33,000.00	=	\$245,710.00

8. Are you willing to accept federal funding for this project? Yes No
9. Will your project be conducted on land you either own or control? Yes No
10. Will your project be conducted on land owned by other Commonwealth agencies? Yes No
Have you contacted the appropriate agency? Yes No
If yes, identify the person and agency contacted: _____ Yes No
11. Will your project directly or indirectly preclude access to or use of any forested land for the practice of sustainable forestry? Yes No
12. Is this project consistent with local comprehensive land use plans and zoning ordinances under Acts 67 & 68 of 2000? Yes No N/A
13. Will your project address Commonwealth Investment Criteria? Yes No
If you answered "Yes" to #13, complete a and b below.

	Permanent Full-time	Permanent Part-time	Temporary Full-time	Temporary Part-time
13a. Number of NEW jobs created by project	_____	_____	_____	_____
13b. Number of jobs RETAINED resulting from project	<u>9</u>	_____	_____	_____

- 14a. Is your project located in an area designated as an Environmental Justice community? Yes No
- 14b. Is your project located in an Act 47 Financially Distressed Municipality? Yes No
15. Project Eligibility and General Priority Identification (see the documents relating to the Special Watershed Initiatives (1010-FM-GC0001h), Growing Greener Priorities Outside of the Bay Watershed (1010-FM-GC0001i) and AMD Prioritizations (1010-FM-GC0001j) if applicable):
As outlined in the PADEP Growing Greener Plus Submittal Instructions Package, Projects within the Chesapeake Bay Watershed that meet the following eligibility criteria include:
- Projects that address non-point source pollution loadings from agricultural, stream degradation and urban runoff.
 - Projects implementing any of the following best management practices (BMPs)
 - Streambank Stabilization
16. Regional Priority Activity and Watershed Identification for Growing Greener and Section 319 Nonpoint Source Applications (see the documents relating to the Special Watershed Initiatives (1010-FM-GC0001h), Growing Greener Priorities Outside of the Bay Watershed (1010-FM-GC0001i) and EPA Section 319 Priorities (1010-FM-GC0001k) if applicable):
17. Mining Program Priorities for SMCRA Bond Forfeiture and AMD Set-Aside Grants (see the document titled Abandoned Mine Drainage (AMD) Prioritization Activities and Watersheds (1010-FM-GC0001j) if applicable):

18. Project Executive Summary: (Please limit to space provided)

The first streambank stabilization project that had been identified in our Restoration and Management Plan (2006) as a priority effort was completed along the section of Quittapahilla Creek located in the Quittie Creek Nature Park in the Annville Township. Design and permitting for that project was completed during the 2008 grant cycle. Construction was completed in two phases during the 2014 and 2015 grant cycles. While the first phase of construction was still underway, representatives of the Cleona Borough approached the Watershed Association requesting assistance with streambank erosion they are experiencing along the section of Quittapahilla Creek located in the Cleona Park. Since the project was adopted by the Watershed Association interest has grown to include all of the twenty one private landowners in the project area.

The project presented in this 2016 grant application not only addresses the concerns of the Cleona Borough and private landowners along the project area, it represents a second stream stabilization project that had been identified in our Restoration and Management Plan as a priority effort. The Cleona Stream Restoration Project for which the Watershed Association is seeking Growing Greener Plus funding also meets DEP's objective for funding priority activities.

Project Area Existing Conditions

Stability problems include high width to depth ratio, moderate to moderately high bank erosion and sedimentation. Continued lateral adjustments along many sections of channel are undermining trees causing them to fall or lean into the creek creating debris jams which further accelerate bank erosion. Deposition of fine sediments over coarser bed material has degraded in-stream habitat resulting in shallow pools and riffles that are highly embedded with fine sediments. The bank erosion is resulting in the loss of public and private land and is also a source of sediment to downstream reaches along Quittapahilla Creek, as well as Swatara Creek.

Restoration Approach

The objective of the proposed restoration project is to reestablish a narrower, stable channel cross-section, stabilize eroding streambanks, reduce sediment loading to downstream reaches contributed by the eroding banks, improve sediment transport through the project area, improve in-stream habitat throughout the project area, and reduce the loss of public and private land.

The project proposes to restore 4,450 linear feet of Quittapahilla Creek from downstream of the Dairy Street Bridge to a point immediately upstream of Mill Street. Most of this area needs some improvement. Work would occur on both sides of the Creek. However, the final plan may include some shorter length of stream, depending on landowner participation, funding, the engineering calculations, and other factors. We intend to utilize funding provided under this grant to complete the assessment, design plans and permitting for the entire project area. Future grants will be utilized to complete construction by reach in two separate phases. The first phase of construction is planned for 2019.

The restoration approach would involve:

Upper Reach

- Reconstructing and stabilizing the eroding streambanks utilizing either toe benches or toe wood and soil fabric lifts. Where banks are graded, erosion control matting will be installed, and native grasses, trees and shrubs planted.
- Modifying the channel profile to create streambed features that increase the pool to riffle ratio and improve overall pool and riffle habitat.
- Protecting newly constructed banks by installing in-stream structures (e.g., cross vanes, log vanes, and log-boulder J-Hooks to divert storm flow away from the banks. These structures will be composed of native materials (logs, boulders, cobble and gravel).
- These in-stream structures are also designed to create in-stream habitat and provide unique and challenging features for canoe and kayak enthusiasts.

Lower Reaches

- Creating a narrower cross-section and improving sediment transport capacity along this over-wide channel.
- Reconstructing and stabilizing the eroding streambanks will be accomplished by installing toe benches or toe wood with soil fabric lifts along the channel margin. Along most areas, reconstructing the banks will be accomplished by working channel-ward of existing banks to minimize grading of the banks and the loss of trees and riparian vegetation.
- Modifying the channel profile to create streambed features that increase the pool to riffle ratio and improve overall pool and riffle habitat.

- Protecting newly constructed banks by installing in-stream structures (e.g., cross vanes, log vanes, and log-boulder J-Hooks to divert storm flow away from the banks. These structures will be composed of native materials (logs, boulders, cobble and gravel).
- These in-stream structures are also designed to create in-stream habitat and provide unique and challenging features for canoe and kayak enthusiasts.

18. Project Executive Summary (continued): (Please limit to space provided)

ATTACH THE APPLICATION CHECKLIST AND THE REQUIRED ATTACHMENTS

CERTIFICATION AND SIGNATURE OF APPLICANT (REQUIRED) AND SPONSOR (IF APPLICABLE)

Applicant: I certify that the information in this application is true and correct to the best of my knowledge.

_____	_____	_____
Applicant Organization		Date
_____	_____	_____
Printed Name	Signature	Title

Sponsor: I certify that the information in this application is true and correct to the best of my knowledge. I certify that I am willing to accept responsibility for a grant on behalf of the applicant.

_____	_____	_____
Sponsor Organization		Date
_____	_____	_____
Printed Name	Signature	Title

TWO SIDED PAGES ONLY - NO PERMANENT BINDING (USE STAPLES ONLY) – NO FAXES

**SEE THE GROWING GREENER PLUS APPLICATION SUBMITTAL INSTRUCTIONS
(form # 1010-FM-GC0001c),**

DEADLINE FOR SUBMITTAL IS JANUARY 13, 2017