

On-Line Application Guidance

1. Short Title

Snitz Creek 18 and Upper 19 Stream and Floodplain Restoration Project

2. Project Narrative

a. Project Description (989 characters)

The Snitz Creek 18 and Upper 19 Stream and Floodplain Project proposes to restore approximately 2,208 linear feet of Snitz Creek as a stable E4/C4 stream channel; repair a failing low head dam to maintain the water supply to adjacent farm pond and maintain the hydrology for the 15.82 acre permanently flooded wetland system along the adjacent and upstream floodplains; excavate a small baseflow channel along the right floodplain to provide fish passage around the dam and into upper stream reaches; plug and/or modify existing drainage ditches to restore full hydrologic conditions to the existing 4.26 acre emergent wetlands along the right floodplain.

In addition, an area currently mowed for hay along the right floodplain and adjacent slopes will be taken out of production, allowing it to revert to wetland and riparian buffer providing an additional 1.3 acres of protected area, thereby providing a total of 18.9 acres of wetlands and riparian buffer restored, created and protected.

b. Executive Summary (1,980 characters)

Project Reach 18 was historically straightened. The stream through this project area is laterally unstable. Stability problems include bank erosion, undercut and fallen trees, debris jams and heavy sedimentation along the upper section of this reach. In addition, a historic low-head dam has been compromised by a cutoff channel formed by lateral erosion during recent stormflows. Because the dam provides a water supply to an adjacent farm pond, the landowner has installed sandbags blocking the cutoff channel to temporarily maintain the water surface elevation necessary to feed the pond inlet. The dam also maintains hydrology to a large 15.82 acre wetland system along the adjacent and upstream floodplains.

Project Reach Upper 19 has not been straightened. The stream through this project area is laterally and vertically unstable. Stability problems include significant bank erosion, lateral adjustments creating tight meanders, an overwide channel with heavy sedimentation and aggradation throughout. The sediment deposition has formed mid-channel bars and vegetated islands that split the flow directing storm flows into adjacent banks and undercutting mature trees. The landowner along the upper section has attempted to stabilize the banks closest to his house with concrete slabs, cinder blocks, rubble and stone. Gabion baskets were installed by the Township along the left bank in the lower section when a sanitary sewer line was installed.

The Snitz Creek 18 and Upper 19 Stream and Floodplain Restoration Project will restore approximately 2,208 linear feet of unstable stream channel; repair a failing low head dam to maintain the water supply to adjacent farm pond and maintain the hydrology for the 15.82 acre permanently flooded wetland system along the adjacent and upstream floodplains; excavate a small baseflow channel along the right

floodplain to divert a small percentage of the flow around the dam and provide fish passage to upper stream reaches; plug and/or modify existing drainage ditches to restore full hydrologic conditions to the existing 4.26 acre emergent wetlands along the right floodplain. It is estimated that the project will reduce nitrogen, phosphorus and sediment loadings to Snitz Creek from streambank erosion by 224.2 lbs./yr., 203.3 lbs./yr. and 134,146.3 lbs./yr., respectively.

3. Applicant/Sponsor Information

Applicant Entity Type: Non-Profit Corporation
Applicant Name: Doc Fritchey Trout Unlimited
NAICS Code: 8134
FEIN: 237355295
CEO: Russ Collins
CEO Title: President
SAP Vendor#: 140471
Contact Name: Howard McGarvey
Contact Title: Treasurer
Phone: (860) 367-1516
Email: trip@dftu.org
Mailing Address:
Doc Fritchey Trout Unlimited
PO Box 227
Palmyra, PA 17078

4. Organization Type

Choose the organization type for the applicant/sponsor.

5. Project Location

Address -
1697 Quentin Road
Lebanon, PA 17042
County – Lebanon
Municipality – North Cornwall Township
PA House, PA Senate and US House – These fields will be auto-populate based on the information entered above.
Designated Area – Prime Agricultural Area

Other Information Requested in Grant Guidance Document

DEP South Central Region
Indicate latitude and longitude coordinates. Latitude 40.312642°, Longitude – 76.430479°
Percentage of the project occurring in the Chesapeake Bay watershed – 100%
A project location map, aerial maps, site maps and photos are required – See PDF attachments

6. Project Type

Choose the appropriate box. - Design and Construction
Design and Permitting Only

7. Tier Level – Tier 2

8. Impairment Sources and Causes and Environmental Benefits

a. List the impairment

1. Source(s) – Agriculture
2. Cause(s) – Nutrients
3. Reach code(s) – NHD Flowline – 02050305001124; Assessment ID – 17168
4. Assessment GIS - 20130814-0949-jeremmille
5. Assessed Use Category – Aquatic Life
6. Designated Use – TSF (Trout Stocking)
7. Attains ID - PA-SCR-56399547
8. Attains Name - Snitz Creek-56399547
9. HUC8 Code - 002050305

b. Measurable Environmental Benefits

1. Restore approximately 2,208 linear feet of Snitz Creek as a stable E4/C4 stream channel.
2. Repair a failing low head dam to maintain the water supply to an adjacent farm pond and maintain the hydrology for a 15.82 acre permanently flooded wetland system along the adjacent and upstream floodplains.
3. Excavate a small baseflow channel along the right floodplain to provide fish passage around the dam and into upper stream reaches.
4. Plug and/or modify existing unstable drainage ditches to restore full hydrologic conditions to a 4.26 acre emergent wetland along the right floodplain.
5. Currently mowed for hay, an area along the right floodplain and adjacent slopes will be taken out of production, allowing it to revert to wetland and riparian buffer providing an additional 1.3 acres of protected area.
6. The overall project will restore, create and protect a total of 18.9 acres of wetlands and riparian buffer.
7. Estimated Pollutant Load Reductions and Reference the Model – Pollutant loading reductions were estimated utilizing the same methodology used in our approved Watershed Implementation Plan, the revised default removal rates per linear foot of restoration of 0.075 lbs. /yr. TN, 0.068 lbs. /yr. TP, and 44.88 lbs. /yr. TSS (Schueler, T. and B. Stack. 2014). Using this method, we estimate that the 2,208 linear foot stream channel restoration component of the project will result in pollutant removal rates of 165.6 lbs. TN/year, 150.1 lbs. TP/year, and 99,095.0 lbs. TSS /year, respectively. This estimation method does not take into consideration the significant additional pollutant reductions in sediment and associated nutrients captured and retained in the large 15.82 acre permanently flooded wetland system our project will restore and protect.

To provide additional documentation of the project's environmental benefits, the results of a Model My Watershed analysis will be included in our Final Report.

9. Contacts

DEP Regional Watershed Manager – Stephen Chervenyak (See attached Email)

Lebanon County Conservation District CAP Coordinator – Mary Kate Gallagher (See attached CAP Form)

10. Budget Summary

There are two tabs on this page, Spreadsheet and Basis of Cost.

Budget Spreadsheet Tab

Category	Growing Greener Plus Grant Request	Match	Total
Administration	\$11,965.00	\$14,000.00	\$25,965.00
Contractual	\$241,558.00	\$25,500.00	\$267,058.00
Total	\$253,523.00	\$39,500.00	\$293,023.00

Basis of Cost Tab

Provide the basis for calculating the costs that are identified in the Project Budget – Engineer’s Estimates

In Budget Narrative Section located on the Basis of Cost Tab, indicate the following:

- Amount of cash-match that has already been received by project applicant - \$0.00.
- Amount of cash-match applied for, but not yet received by project applicant - \$0.00.
- Amount of match that is expected as in-kind services - \$39,500.00

Note - Included under Basis of Cost Tab is a budget narrative where you can provide a more detailed description of budget line items. See table on next page.

Budget Narrative

Deliverable 1 – Final Design and Construction Documents

Administrative

DFTU - Grant Administration, Contract Management (**Grant Request**) – \$8,310.00

Contractual

Clear Creeks Consulting - Topographic Survey, Field Studies and Design Criteria, Preliminary Design, Final Design, E&S Plans, Assessment/Design Report, Construction Documents (**Grant Request**) – \$29,280.00

Ecosystem Planning and Restoration (EPR) – Base Map Preparation, Geomorphic Assessment, H&H Analysis, Preliminary Design CAD, Final Design CAD, E&S Plans CAD, H&H Report, Construction Documents (**Grant Request**) – \$123,670.00;

Resource Restoration Group (RRG) - Topographic Survey and Base Maps. (**Grant Request**) – \$13,248.00.

Total Contractual – \$166,198.00

Deliverable 1 - Grant Request – Admin - \$8,310.00; Contractual – \$166,198.00; Total – \$174,508.00

Deliverable 2 – Permitting and Construction Bid-Assistance

Administrative – DFTU - Grant Administration, Contract Management **(Grant Request)** – \$3,655.00

Contractual – Clear Creeks Consulting – Pre-Application Meeting, Erosion & Sediment Control Application Package, Joint Permit Application Package, Bid-Documents, Pre-Bid Site Showing for Contractors **(Grant Request)** – \$14,000.00

Ecosystem Planning and Restoration (EPR) – Environmental and Cultural Assessments, Erosion & Sediment Control Application Package, Joint Permit Application Package, **(Grant Request)** – \$17,110.00;

Bull Enterprises, LLC – Phase 1 Bog Turtle Habitat Survey and Findings Report (\$3,000). In anticipation of a positive finding, conduct a Phase 2 Habitat Pocket Survey for Turtles (\$18,000) and Phase 3 Trapping of Turtles (\$21,000). Does not include any required field work before and during construction. **(Grant Request)** – \$42,000.00; Total Professional Fees Grant Request – \$73,110.00

Permit Fees - \$2,250.00

Total Contractual Grant Request - \$75,360.00

Deliverable 2 - Grant Request – Admin - \$3,655.00; Contractual – \$75,360.00; Total – \$79,015.00

Total Grant Request – \$253,523.00

Match

Administrative

DFTU – Coordination with Landowners, Access Authorization, Letters of Commitment, and Landowner-Grantee Agreements **(Match)** – \$7,000.00)

QWA – Coordination with Landowners, Access Authorization, Letters of Commitment, On-Line Grant Application Submission. **(Match)** – \$7,000.00. Match Subtotal – \$14,000.00

Contractual

Clear Creeks – Funding Assistance – Conduct site visits, preliminary evaluation & photo-documentation of project stream reaches; review historic records; prepare multiple alternative restoration concepts for landowners' review & approval; prepare grant proposal including detailed project description, exhibits, task and deliverable worksheets, budget summaries and on-line application guidance outline; Project Management and Administration – Track project schedule and budget, process subcontractor's invoices and submit team invoices to DFTU, schedule and direct team meetings, coordinate with DFTU, attend and present project updates at landowner meetings, prepare project Status Reports, Final Report and OM&R Plan.. **(Match)** – \$17,500.00.

EPR - Funding Assistance – Conduct preliminary evaluation of project stream reaches; review watershed plans & historic records; participate in alternative and final restoration concepts for landowners' review & approval; assist in development of grant proposal; Project Management and Administration – Track project schedule and budget, process and submit invoices to Clear Creeks, participate in team meetings and site visits, coordinate with Clear Creeks and DFTU, attend and present project updates at landowner meetings. **(Match)** – \$8,000.00.

Total Match - \$39,500.00

Grant Request Summary – Administrative - \$11,965.00; Contractual - \$241,558.00 – Total - \$253,523.00

Match Summary – Administrative – \$14,000.00; Contractual - \$25,500.00 – Total \$39,500.00

- 11. Prevailing Wage - NA**
- 12. Project on Non-Grantee Land – See Following Attachments**
 - Landowner Access Authorizations
 - Landowner Letters of Commitment
 - Landowner-Grantee Agreements
- 13. Project on State Owned Land – No**
- 14. Sustainable Forestry – Does not preclude access to forested land**
- 15. Land Use Planning – See attached Land Use Consistency Letter from Lebanon County Planning Department**
- 16. Common Wealth Investment Criteria**
 - Increases Job Opportunities
 - Fosters Sustainable Businesses
 - Restore and Enhance the Environment
- 17. Environmental Justice – No**
- 18. Act 47 Financially Distressed Municipality Act – No**
- 19. AMD Treat Output – NA**
- 20. Worker Protection and Investment Certification – See attached Form**
- 21. Attachments**
 - a. Growing Greener Grant Application Completeness Checklist
 - b. Location Map
 - c. Aerial Map
 - d. Site Map
 - e. Existing Conditions Photos
 - f. Detailed Project Description
 - g. Task and Deliverable Worksheet
 - h. Landowner Forms (Waiting on GBR and Target)**
 - 1) Landowner Access Authorization Forms
 - 2) Landowner Letters of Commitment
 - 3) Landowner-Grantee Agreements
 - i. Land Use Consistency Letter from Lebanon County Planning Department
 - j. Notice of Intent to Submit Growing Greener Grant Application Email
 - k. Chesapeake Bay Countywide Action Plan Project Category Form (Waiting on CAP Coordinator)**
 - l. Worker Protection and Investment Certification Form
 - m. Partners Letters of Commitment