

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION GRANTS CENTER

NEW GRANT FUNDING FOR WATER QUALITY IMPROVEMENT PROJECTS ALONG THE MARINER EAST 2 PIPELINE CORRIDOR

GRANT APPLICATION

. Short Title: Goosetown Stormwater Improvement	nts
Applicant/Sponsor Information:	
APPLICANT	SPONSOR (Only If different from Applicant)
Organization: Cornwall Borough	
Street: 44 Rexmont Road	Street:
Lebanon, PA, 17042-9760	
City/State/(9 Digit) Zip:	City/State/(9 Digit) Zip:
Contact: Steve Danz	Contact:
Tel: (717) 274 - 3436 Fax: (717) 450 - 5	<u>5150 </u>
E-Mail: sdanz@cornwall-pa.com	
Federal Employer ID #/SAP Vendor # 23600284	19 Federal Employer ID #/SAP Vendor #
☐ Council of Governments ☐ Incorpora ☐ County or Municipality 501(c)(3)	rated Watershed Association rated Non-profit Organization rates? Yes No
(must pr	itable Organization status?Yes
Project Location:	M. Caladri Carl. Organish David
• • •	Municipality(ies): Cornwall Borough an aerial photo with the project limits clearly marked on all three er description of these required maps.)
Latitude: 40d 16' 28" Longitude: -76d 23' 58'	(III
Percent of Project in the Chesapeake Bay Waters	
Application/Project Category:	
a. Develop a watershed plan b. Education/outreach c. Design and/or construction d. Operation, maintenance and replaceme e. Technical Assistance f. Evaluation, Assessment or Monitoring g. Watershed group organization/support h. Water quality improvement/community i.	Tools
 Name of the DEP staff person with whom you cor R. Scott Carney 	nsulted about the proposed project (see the DEP Contacts):

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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
Salaries/Benefits	\$2,000.00
Travel	\$500.00
Equipment and Supplies	\$18,000.00
Administration (grant max 5%)	\$7,900.00
Contractual	\$23,000.00
Construction	\$112,000.00
Other	\$3,000.00
Total:	\$166,400.00

8.	Will your project be conducted on land you either own or co	Yes ⊠ I	No 🗌		
9.	Will your project be conducted on land owned by other Con	nmonwealth age	encies?	Yes 🗌 I	No 🖂
	Have you contacted the appropriate agency?			Yes 🗌 I	No 🗌
	If yes, identify the person and agency contacted:			Yes [] I	No 🗌
10.	Will your project directly or indirectly preclude access to o practice of sustainable forestry?	r use of any for	rested land for t	he Yes 🗌 I	No 🛚
11.	Is this project consistent with local comprehensive land under Acts 67 & 68 of 2000?	ise plans and a	zoning ordinand	es Yes 🛛 I	No N/A
12.	Will your project address Commonwealth Investment Criter	ia?		Yes 🗌 I	No 🛛
	If you answered "Yes" to #13, complete a and b below.				
		Permanent Full-time	Permanent Part-time	Temporary Full-time	Temporary Part-time
12a.	Number of NEW jobs created by project				
12b.	Number of jobs RETAINED resulting from project				
13a.	Is your project located in an area designated as an Environi	mental Justice o	community?	Yes 🗌 N	lo 🛛
13b.	Is your project located in an Act 47 Financially Distressed M	funicipality?		Yes□N	lo ⊠

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- 14. State the chapter 93 designation for the receiving waters of your project.TSF (Trout Stocking)
- 15. State the Impairment Source(s), Impairment Causes(s), and Reach Code listed for the receiving waters of your project. (Applicants are encouraged to navigate to http://data-padep-1.opendata.arcgis.com/ and use the 2016 Integrated Report App to secure this information).

Impairment Source	Impairment Cause	Reach Code (14 digit)
Crop Related Agric	Siltation	02050305001128

16. Briefly discus how the proposed project intends to address the listed Impairment Sources and Causes. Please limit your response to 500 words or less.

This project will directly address the impairments caused by siltation in the Snitz Creek watershed. These impairments are partially a result of crop related agriculture as specified on the Integrated List, but are also a result of discharges from storm sewers in Cornwall Borough.

When impervious surfaces are constructed over areas that were previously grass, meadow, or forest, the natural ability of the earth to absorb stormwater is reduced and stormwater runoff volumes and peak rates increase. Stormwater also picks up trash, debris, sediment, oil, fertilizers, pesticides, and other chemicals as it travels to surface waters. These man-made pollutants degrade water quality and harm the aquatic wildlife species that live in surface waters and depend on the waters for their habitat.

The proposed stormwater improvements in the Goosetown neighborhood will address each of the three problems listed above: excess stormwater volume, excess stormwater peak flow rates, and the transport of man-made pollutants in stormwater. The basins and vegetated swale will provide an additional opportunity for infiltration upstream of surface waters, thereby reducing the volume of stormwater that reaches local streams. Water that is infiltrated in these facilities will help recharge the subsurface aquifer and contribute to baseflow in the Snitz Creek. The basins will also reduce the peak flow rate of stormwater that runs off from tributary areas. This is the most important benefit of the basins and is the primary way that this project will address the siltation impairment. Reducing the peak flow rate of stormwater by retaining it in the basin for an extended period of time will help reduce the erosive velocity of the water in-stream during storm events, thus helping prevent erosion of the streambed and streambanks. Finally, the basins, vegetated swale, and riparian buffer will filter pollutants such as sediment, phosphorus, and nitrogen that pollute local waterways and affect the habitats of local fish and aquatic wildlife. Combined, the improvements are expected to treat 16.0 acres of land of which about 24.5% is impervious. Using the developed land loading rates contained in Attachment B of DEP's Pollutant Reduction Plan Instructions, this contributing acreage produces about 10,889 pounds of total suspended solids (TSS), 485 pounds of total nitrogen (TN), and 12.1 pounds of total phosphorus (TP) annually. Using DEP's BMP Effectiveness Values for the various BMP types proposed in this area and the various contributing drainage areas to each BMP, the projects would collectively produce pollutant reductions of 6,748 pounds of TSS, 120.2 pounds of TN, and 4.2 pounds of TP per year. The basins were all conservatively assumed to be dry extended detention basins. Soil conditions will be investigated as part of the design process to determine if infiltration can be supported at these locations, and if so, the pollutant reductions will be higher.

17. **Project Executive Summary**: (Please limit to 2,000 words). Use additional sheets if necessary.

This project proposes four stormwater management basins, a vegetated swale, and a riparian buffer on several properties owned by Cornwall Borough in the Goosetown neighborhood. The basins will capture and retain stormwater, allow for the infiltration of stormwater and recharge of the groundwater aquifer, and reduce pollution to local waterways by allowing pollutants to settle out of stormwater. This project is expected to provide pollutant reductions of 6,748 pounds of TSS, 120.2 pounds of TN, and 4.2 pounds of TP per year. The basins were all conservatively assumed to be dry extended detention basins. Soil conditions will be investigated as part of the design process to determine if infiltration can be supported at these locations, and if so, the pollutant reductions will be higher. This project will support numerous objectives of the Pennsylvania Department of Environmental Protection, including those contained in the 2014 update of the Commonwealth of PA Nonpoint Source Management Plan (the PA NPSMP) and those contained in the Growing Greener program guidance.

Goal #3 of the PA NPSMP is to "improve and protect the waters of the commonwealth from nonpoint source pollution associated with stormwater run-off, as well as streambank and shoreline degradation." This goal is further clarified by several objectives, two of which are met by this project. Objective #3.2 is to "continue to implement the Municipal Separate Storm Sewer (MS4) program through oversight and verification that MS4 communities abide by their permit requirements." This project will achieve reductions in Total Suspended Solids for the drainage area to each BMP, and therefore will help meet the pollutant reduction obligations of Cornwall Borough. Furthermore, this project will allow DEP to achieve its stated goal of "work(ing) with municipalities to effectively address nonpoint source pollution issues" as stated in section IV.A of the Nonpoint Source Management Plan, with a particular emphasis on working partnerships between the PA NPS management program and local governments.

Objective #3.4 of the PA NPSMP is to implement 40 new, state-funded stream restoration and/or stormwater management projects annually for the next five years. The primary objective of the Growing Greener program is similar, and it is to restore impaired waters or protect degraded waters within the Commonwealth of Pennsylvania. Sections V.A.4-5 of the PA NPSMP describes the rationale behind these stated goals: changes in hydrology that result from urban development. The proposed BMPs meet these objective as they will reduce stormwater runoff volumes, peak rates of stormwater runoff, erosion in the banks of the receiving stream, and pollutants suspended in stormwater. These benefits will be seen in the receiving stream for the project area, which is an unnamed tributary to the Snitz Creek that is impaired by siltation.

One of the new requirements of the 2018 Municipal Separate Storm Sewer System (MS4) permit is for eligible municipalities to develop a Pollutant Reduction Plan (PRP) that includes a list of stormwater Best Management Practices (BMPs) that, if implemented, will result in a minimum 10% reduction in Total Suspended Solids (TSS) pollution to local waterways from the MS4 planning area. Cornwall Borough developed a PRP in 2017 that represents a formal watershed-focused plan for much of the upper tributaries of the Snitz Creek, which is part of the Snitz Creek-Quittapahilla Creek HUC-12 watershed. This PRP was submitted to DEP in 2017 and included a preliminary list of seventeen (17) BMP projects including new basins (rain gardens, bioretention basins, extended detention basins), retrofits of existing dry detention basins, riparian buffers, streambank restorations, and other types of BMPs. The proposed group of BMPs in the Goosetown neighborhood are included as projects 4 through 9 in Cornwall Borough's Pollutant Reduction Plan.

There is a long history of watershed restoration activities in the Snitz Creek-Quittapahilla Creek HUC-12 watershed that involves many partners. Recently, a stream restoration project funded with nearly one million dollars in grant money was completed on approximately 3,450 linear feet of the mainstem of the Quittapahilla Creek in Annville Township. Construction concluded in 2016 and the project was a culmination of 16 years of work by organizations such as the Lebanon Valley Conservancy, the Quittapahilla Watershed Association, and Lebanon Valley College. The creation of a wetlands area at the headwaters of the mainstem of the Quittapahilla Creek was another significant accomplishment by many of the same partners. This project was substantially completed by 2005 and included the creation of the aforementioned 2.25-acre wetlands area, the construction of a pavilion, and the addition of educational signage. The entire area was designed as an educational facility to be used by the school districts of Lebanon County to learn about wetlands and the environment, and is currently maintained by the Lebanon County Conservation District. Other projects that are/were smaller in scope have been completed by other parties. Currently, the Doc Fritchey Chapter of Trout Unlimited is working on a 1,200-foot stream restoration project along the Snitz Creek that aims to stabilize the streambanks, provide livestock crossings and fencing, and enhance the in-stream habitat for trout.

The history of watershed restoration activities briefly described in the previous two paragraphs show that Lebanon County is gaining traction for enhanced environmental stewardship. The projects listed above all received significant media attention on local news stations and in the Lebanon Daily News, so residents are aware of the watershed restoration efforts. Water quality has become an issue that is located squarely in the public eye, and an opportunity for the education of residents of all ages now presents itself. The Mariner East II Pipeline has received similar media

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attention for many years (between the planning, legal battles, and actual construction) so the opportunity to draw attention to all water quality issues through news about the pipeline is also present. Cornwall Borough leaders, citizens, students, and volunteers are gaining an important capacity for knowing about and supporting watershed restoration efforts through the educational opportunities afforded by previous projects and media attention devoted to current and future projects.

As Cornwall Borough moves forward with the implementation of the projects proposed in the Pollutant Reduction Plan (PRP), partnerships with organizations such as the Quittapahilla Watershed Association and Trout Unlimited may be useful to all parties. Cornwall Borough has been in contact with the QWA regarding the overlap of the group's missions and divisions of labor that will enable as much work to be done in the Quittapahilla Creek watershed (which includes the Snitz Creek). Any funding received by a group supporting watershed restoration including Cornwall Borough, the QWA, Trout Unlimited, or the Lebanon Valley Conservancy will be amplified since it will in some way serve the needs of all the organizations. For example, should grant funding be received for these proposed BMPs in the Goosetown neighborhood, the pollutant reductions achieved will benefit not only Cornwall Borough for its Pollutant Reduction Plan, but will also benefit the QWA's mission of supporting cleaner water in the Quittapahilla Creek and all downstream water bodies and Trout Unlimited's mission of conserving, protecting and restoring North America's coldwater fisheries and their watersheds. To that end, the QWA has been working on applying for a grant under this Sunoco Penalty program for a 1,200-ft stream restoration project on a farm in Cornwall Borough. The Borough issued a letter of recommendation to the QWA to show support for this project, establishing a partnership for the implementation of this grant program.

Another benefit to this project would be in laying the groundwork for future restoration and conservation activities in the watershed. Cornwall Borough has yet to implement any projects contained in the PRP, as the PRP is still under review by DEP. The Borough wishes to get a jump on project implementation and therefore decided to apply for this grant in advance of final approval of the PRP by DEP. The Borough believes that having little lag time between the introduction of the PRP and the implementation of projects will be invaluable in the long run. Stormwater management is a new idea to many people who had not been thinking about conservation or stormwater BMPs before, and seeing an immediate impact through the implementation of this grant project would lead to the Borough having better support from its residents for future watershed improvement projects.

UPLOAD ALL REQUIRED DOCUMENTS ON THE ADDENDA TAB OF THE ELECTRONIC APPLICATION

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. Cornwall Borough Applicant Organization Printed Name Signature Signature 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

DEADLINE FOR SUBMITTAL IS JUNE 20, 2018

Please note - your project may also be eligible for funding under Growing Greener. You are encouraged to apply for both grants to maximize your chances to receive a grant. The Growing Greener Plus grant program opens May 14.



COMMONWEALTH OF PENNSYLVANIA BUREAU OF ENVIRONMENTAL PROTECTION GRANTS CENTER

TASK AND DELIVERABLE BUDGET WORKSHEET

Duplicate this worksheet for additional Deliverables

For each deliverable-identify title, associated tasks, and dollar amounts. Tasks listed should include quantifiable units (e.g. feet of stream restoration, miles of riparian buffer, number and type of BMP, etc.)

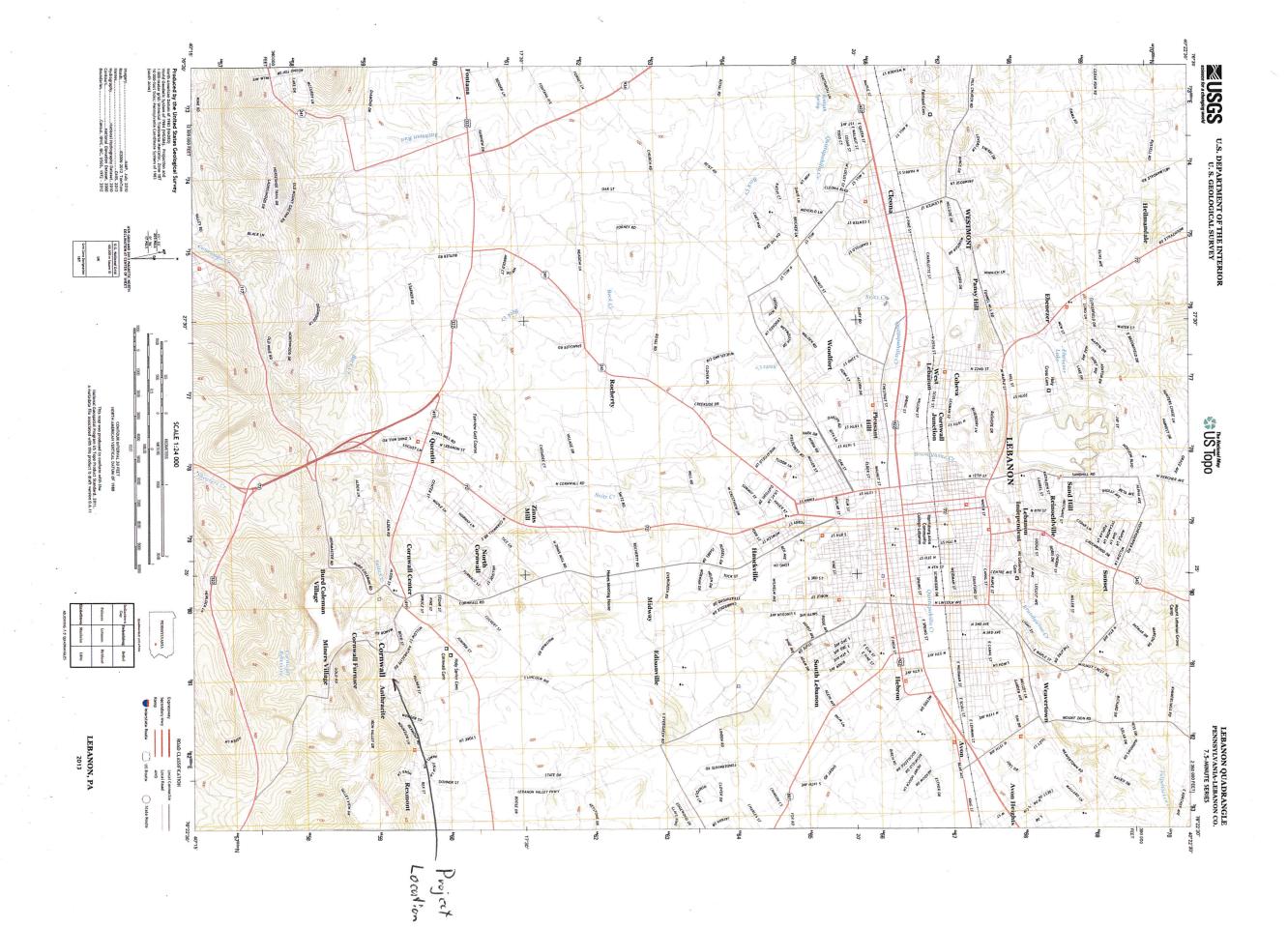
Category Individual, Staff, or Contractor Task or Item Costs G Salaries/Benefits – Grantee Staff Only Cornwall Borough Staff General project administration 50 hrs @ \$40/hr	\$2,000.00 \$ \$
	\$ \$
	\$
	\$
	Ψ
	\$
Subtotal Salaries	\$2,000.00
Travel	
Miles Grantee staff, contracted engineer Project site visits Miles934@.535/mile	\$500.00
Meals	\$
Lodging	\$
Subtotal Travel	\$500.00
Equip. & Supplies	
Contractor Trees for riparian buffer 60 trees @ \$300 ea	\$18,000.00
	\$
	\$
	\$
	\$
	\$
Subtotal Equip. & Supplies	\$18,000.00
Administration	
Grantee staff or coctracted engineer General grant administration 5% of project total	\$7,900.00
	\$
	\$
	\$ \$
Subtotal Admin.	\$7,900.00

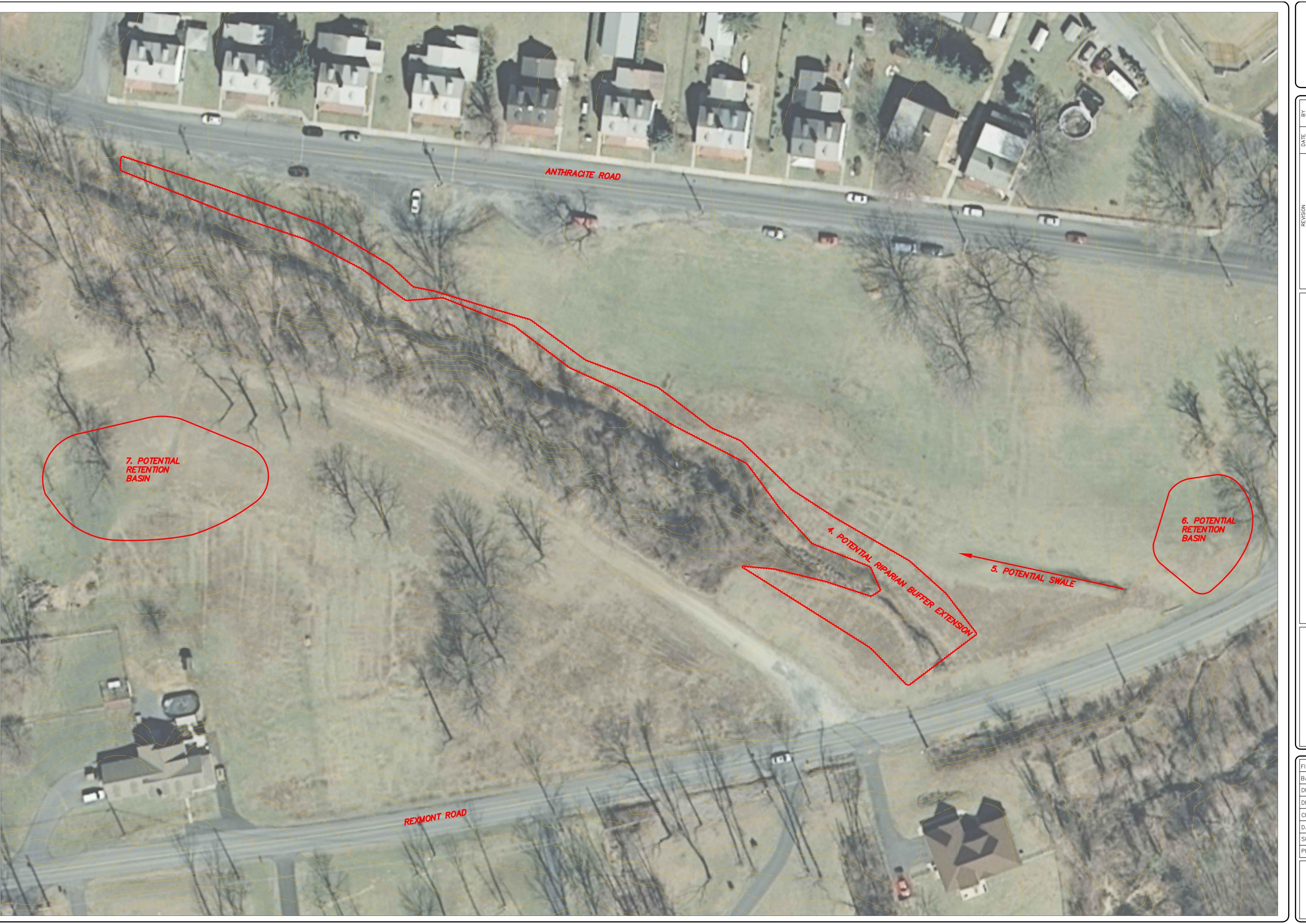
Deliverable #1 Title: Goosetown Stormwater Improvements Est. Date of Completion: Fall 2020

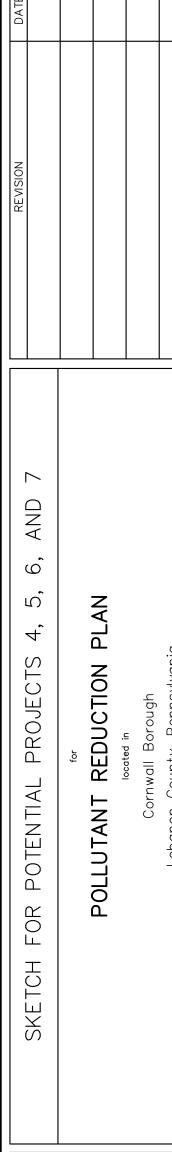
Category	Individual, Staff, or Contractor	Task or Item	Costs	Grant Request
Contractual				
A. Contractor Salaries				\$
Engineering	To be determined	Project design, construction permit applications	200 hrs @ \$100/hr	\$20,000.00
Borough solicitor	Horgan, Hallgren, Crosswell, and Kane, PC	Review of grant and easement agreements	10 hrs @ \$300/hr	\$3,000.00
				\$
				\$
				\$
B. Other Contractual				\$
				\$
				\$
				\$
				\$
				\$
Subtotal Contractual			04/1 1:4	\$23,000.00
Construction A. Materials	T		Cost/Unit	\$
Engineered soil mixture	Contractor to install	Soil amendment mixture in the bottom of each basin/swale	5 BMPs @ \$3,000 ea	\$15,000.00
Outlet structure/underdrains	Contractor to install	Outlet structure for each basin	4 basins @ \$1,500 ea	\$6,000.00
Vegetation	Contractor to install	Vegetation to be established in each basin and swale	5 BMPs @ \$2,500 ea	\$12,500.00
Earthmoving	Contractor to install	Earthmoving cost for each basin and swale	5 BMPs @ \$8,000 ea	\$40,000.00
B. Labor	Contractor to instan	Lantimoving cost for each basin and sware	3 DIVIFS @ \$0,000 ea	\$40,000.00
General	Contractor to provide	Contractor's labor force in excess of above items	500 hrs @ \$50/hr	\$25,000.00
Mobilization	Contractor	Mobilization/demobilization for each project	6 projects @ \$1,000 ea	\$6,000.00
Tree Planting	Contractor/volunteer	Tree planting	150 hrs @ \$50/hr	\$7,500.00
				\$
Subtotal Construction				\$112,000
Other				
Permit fees	Engineer	NPDES and E&S permit fees	Est. \$3,000.00	\$3,000.00
				\$
				\$
				\$
				\$
Subtotal Other				\$3,000.00
Total				\$166,400

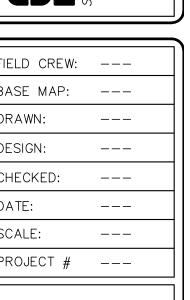
BUDGET SUMMARY (COMPLETE ONCE SUMMARIZING ALL DELIVERABLES)

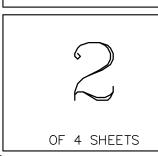
1.	Salaries/Benefits	\$ <u>2,000.00</u>
2.	Travel	\$500.00
3.	Equipment and Supplies	\$ <u>18,000.00</u>
4.	Administration	\$7,900.00
5.	Contractual	\$23,000.00
6.	Construction	\$112,000.00
7.	Other	\$3,000.00
То	tal	\$ <u>166,400.00</u>











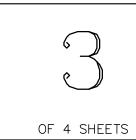


6, 6	REVISION	DATE	

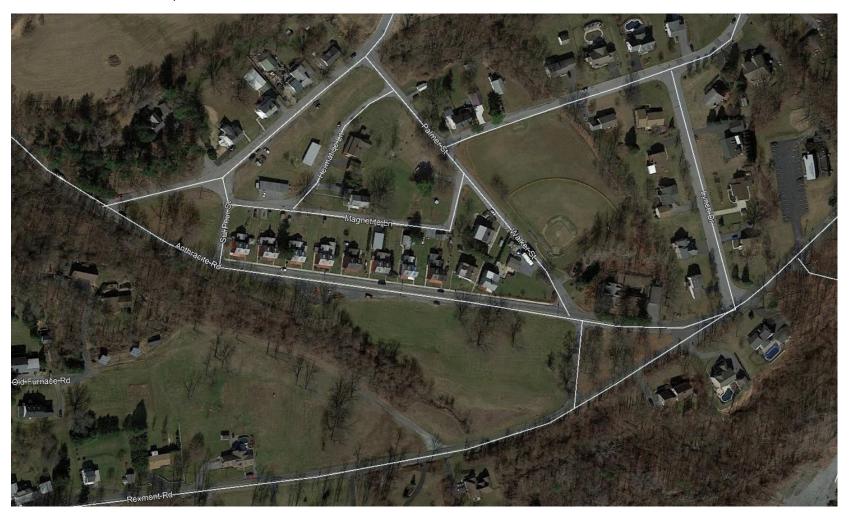
for
POLLUTANT REDUCTION PI

Steckbeck Engineering & Surveying Inc.
279 North Zinns Mill Road / Suite A
Lebanon, Pennsylvania 17042
Phone: (717) 272-7110
Fax: (717) 272-7348

1 (
Ш	FIELD CREW:	
Ш	BASE MAP:	
Ш	DRAWN:	
	DESIGN:	
	CHECKED:	
	DATE:	
	SCALE:	
	PROJECT #	
	1	



Goosetown Stormwater Improvements Aerial Photo



pennsylvania

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF ADMINISTRATION

APPENDIX A

LAND USE PLANNING FORM (LPF)

Directions. This form is to be used by applicants submitting grant applications under with the Policy for Consideration of Comprehensive Plans & Zoning Ordinances in DEP Review of Grants and Funding for Facilities or Infrastructure and meeting the requirements of either the §§ 619.2 and 1105 MPC. Please answer the appropriate questions relating to the policy that applies to your grant application on the form provided. If you need additional space, please attach additional page(s) as necessary, identifying the applicant and the question being answered.

MPC Criteria:

	ations		on comprehensive plans and zoning ordinances when evaluating grant or funding d in areas of the state meeting the conditions described in any of the following three
1.		ou applying for one d for in the space p	of the affected grant programs listed in this policy? Please indicate the grant program rovided.
		YES	□NO
		GRANT PROG	RAM: Water Quality Improvement Projects along the Mariner East 2 Pipeline
		ase proceed to que policy does not ap	estion 2. ply to your application.
2.	Unde	r § 619.2(a) of the N	MPC:
	(a)	Is the municipality comprehensive pla	where the proposed project will be located in a county where there is a county n?
		YES	□NO
	(b)		ty where the proposed project will be located adopted a comprehensive plan or is it icipal comprehensive plan?
		YES	□NO
	(c)	Has either the coordinances?	unty or municipality where the proposed project will be located enacted zoning
		YES	□NO
	(d)	Are the municipal aplan generally cons	zoning ordinances, the municipal comprehensive plan and the county comprehensive sistent?
			□NO
			of these questions, please proceed to question 5. these questions, please proceed to question 3.
3.	Unde	r § 619.2(c) of the N	MPC:
	Has t	he municipality whe	re the proposed project will be located adopted a joint zoning ordinance? ☐ NO
16			weeting along a proceed to associon 5

If you answered YES to this question, please proceed to question 5. If you answered NO to this question, please proceed to question 4.

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4.	Under § 1105 of the MPC:
	Has the municipality where the proposed project will be located entered into an implementing cooperative agreement with the municipalities participating in the multi-municipal plan and adopted generally consistent zoning ordinances?
	☐ YES ☐ NO
If yo	u answered YES to this question, please proceed to question 5. but answered NO to this question, this policy does not apply to you. For questions 5 to 11, provide a collete answer in the space provided. Attach additional pages to this form if needed.
5.	Please provide a brief description and specific citation to each relevant section of the elements of the county, multi-municipal, or municipal comprehensive plan that relate to the proposed project. Citations should include the title and date of the plan, section, subsection or paragraph number, and page number.
The	most recent Lebanon County Comprehensive Plan was adopted by the County Comissioners on December 13,
2007	. The document intends to provide a framework for logical land use development patterns across the County
by se	etting 32 program goals and numerous objectives for each goal. By reducing pollutants to local waterways, this
proje	ect supports the following goals established in the Comprehensive Plan: Chapter 5, Goal 4 - Protect sensitive
envir	conmental resources from the direct and indirect impacts of development (page 5-40); Chapter 9, Goal 1 -
Main	tain and enhance the quantity and quality of water resources (page 9-45); and Chapter 9, Goal 2 - Protect and
pres	erve Lebanon County's diverse ecologically sensitive areas (page 9-52).
6.	Are there county, multi-municipal or municipal zoning ordinances that are generally consistent with the comprehensive plan?
7.	Please describe and explain how the proposed project is consistent with relevant zoning ordinances implementing the comprehensive plan in the space provided below. Identify each relevant zoning ordinance by title and date of enactment and by appropriate section, subsection or paragraph number.
The	projects are located on properties which are zoned either Low Density Residential or Village Residential. These
zone	es are described in Chapter 14, Articles 8 and 11 of the Borough of Cornwall Code of Ordinances, dated June 9,
2008	3. The properties on which the projects are proposed are currently used as public park areas with improvements
such	as baseball fields and open recreational space. The riparian buffers, vegetated swales, and retention basins
on th	nese properties will be accessory to the primary uses of the properties (which are public parks and recreational
spac	ee) in accordance with Section 14-2203.4 of the Borough of Cornwall Code of Ordinances.
8.	Will the proposed project serve more than the local community where the project will be located? ☐ YES ☑ NO

9. If YES, please indicate the additional communities that will be served in the sp provided below and indicate if you have provided notice of the proposed projec these communities?	
N/A	
10. Will the proposed project be consistent with the requirements of the relevant zoning ordinances, incluplans for community facilities and utilities? Please explain in detail. Identify each relevant zoning ordinance title and date of enactment and by appropriate section, subsection or paragraph number.	
As stated in item #7, the projects are located on properties which are zoned either Low Density Residential or	
Village Residential. These zones are described in Chapter 14, Articles 8 and 11 of the Borough of Cornwall Code	of
Ordinances, dated June 9, 2008. The properties on which the projects are proposed are currently used as public	
park areas with improvements such as baseball fields and open recreational space. The riparian buffers, vegetate	ed
swales, and retention basins on these properties will be accessory to the primary uses of the properties (which a	re
public parks and recreational space) in accordance with Section 14-2203.4 of the Borough of Cornwall Code of	
Ordinances.	
11. Verification. Applicants are required to obtain the signature of the Director of the county planning agence multi-municipal planning agency, if one has been designated, prior to submitting this form to the Departm County Planning Directors or directors of the relevant multi-municipal planning agency are to verify the applicant's answers on the LPF accurately describe and reflect the multi-municipal comprehensive plan zoning ordinances.	nent. It the
(signature)	
Executive Airector	
Executive Sirector (title) 6/18/18	
(date)	