



BRADFORD COUNTY CONSERVATION DISTRICT

Stoll Natural Resource Center - 200 Lake Rd., Suite E - Towanda, PA 18848

Telephone (570) 485-3144

ANNUAL REPORT FOR 2023

Manager's Message

DISTRICT DIRECTORS

Chairman
KEITH HEIMBACH
Windfall

Vice-Chairman /
County Commissioner
DARYL MILLER
Towanda

Secretary/Treasurer
ALVIN HERMAN
Canton

NICOLE HARRIS
Troy

BRIAN ZEIDNER
Wysox

ROBERT MILLER
Columbia Cross Roads

ANTHONY VENTELLO
Towanda

ASSOCIATE DIRECTORS

NEAL HALSTEAD
JOHN SULLIVAN

JIM LACEK
JOHN CHAPMAN
WARREN SINGER

JOSH FORD
BRUCE CHASE

STAFF

District Manager
CATHY S. YEAKEL

Education Coordinator
DAN RHODES

District Engineer
PATRICK CULLEN

Watershed Specialist
JOSEPH QUATRINI

Dirt & Gravel Roads Specialist
TIMOTHY ROBSON
MATTHEW SHOEN

Conservation Technician
BRAD CUMMINGS

Natural Resource Specialists
JONATHAN VANNOY

Ag. Team Leader
KEVIN BROWN

Agricultural Resource Specialists
MIRANDA NEVILLE
ISAAC WALKER

Administrative Assistant
CHERI HOLECEK

District Accounts Supervisor
JENNY MARINO

Secretary/Receptionist
KYLEEN DINELLI

2023 was a busy year at the Conservation District. We had many projects going on including Dirt, Gravel and Low Volume Roads, Stream projects, Agriculture projects, permit reviews, events, and education. This Annual Report will highlight and summarize these accomplishments.

Last year we began our Agriculture Conservation Assistance Program (ACAP) within the County. We created an advisory committee of local leaders in Agriculture to assist in creating policies and ranking projects within the County.

With the cooperation of our partners, we completed 17 stream projects, which resulted in nearly 1 mile of stabilized streams. These projects prevented approximately 2717 tons of sediment, 5724 lbs. of N (nitrogen), and 2988 lbs. of P (phosphorus) from entering Bradford County waterways, and subsequently, the Chesapeake Bay.

Under our Dirt and Gravel, Low Volume Roads Program, construction was completed on 10 Dirt and Gravel Road projects and 1 Low Volume Road project in 2023 addressing 3.91 miles of road, which in turn, provided environmental improvements to local water resources.

Our seedling sale distribution will again be a 3-day distribution with the last day being at our earth day event, we will also have some seedlings for sale at that time.

We always welcome new ideas and ways to serve our public to address the natural resource concerns in our County and urge you to reach out to us if you have any.

I hope you enjoy reading our accomplishments outlined in this annual report and we look forward to serving our community again in 2024!

As always, our mission is to lead, educate, and empower people to manage resources wisely. The Board and Staff of the Conservation District are what keeps the strength of this organization going and without them we would not be able to provide such professionalism and expertise in the programs we promote.

Yours in Conservation,

THE MISSION of the Bradford County Conservation District is to lead, educate, and empower people to manage resources wisely.

WHO WE ARE:

Conservation Districts in Pennsylvania have their roots firmly planted in a rich past, and their eyes focused on a productive future. Created under the Conservation District Law, Districts are the local unit of State government that provides the link between you, the citizens, and the multitude of local State and federal natural resource management programs.

A Board of Directors, appointed by the County Commissioners from nominations received from County-wide organizations serve as your voice. A staff of professionals provides information, technical assistance, financial assistance and educational programs and support at the direction of that Board.



DISTRICT DIRECTORS

Keith Heimbach, *Chairperson*
Daryl Miller, *County Commissioner/Vice Chair*
Alvin Herman, *Secretary/Treasurer*
Brian Zeidner
Anthony Ventello

Nicole Harris
Robert Miller

DISTRICT MANAGER/EDITOR

Cathy S. Yeakel

EDUCATION COORDINATOR

Daniel Rhodes

DISTRICT ENGINEER

Patrick Cullen

AG TEAM LEADER

Kevin Brown

AG RESOURCE SPECIALIST

Miranda Neville

AG RESOURCE SPECIALIST & AG LAND PRESERVATION

Isaac Walker

TECH TEAM LEADER

Joseph Quatrini

CH. 102/105 MANAGER/CONS. TECH.

Brad Cummings

NATURAL RESOURCE SPECIALISTS

Jonathan VanNoy

DIRT & GRAVEL ROAD SPECIALISTS

Timothy Robson

Matthew Schoen

WEST NILE VIRUS COORDINATOR

Breanna Ameigh

ADMINISTRATIVE ASSISTANT

Cheri Holecek

ACCOUNTS SUPERVISOR

Jenny Marino

SECRETARY

Kyleen Dinelli

ASSOCIATE DIRECTORS

Warren Singer

James Lacek

John Chapman

Neil Halstead

John Sullivan

Brice Chase

Bradford County Conservation District Profit & Loss Budget vs. Actual January through December 2023

	<u>Jan - Dec 23</u>	<u>Budget 2024</u>
Income		
CDFAP	420,178.66	468,742.00
Contracts	3,299,314.03	2,076,951.34
Delegated	1,210,454.12	1,242,984.00
Donations	22,283.93	10,000.00
Events Income	1,640.30	2,000.00
Fees	50,701.00	40,000.00
Grants	14,436.16	0.00
Interest	73,365.16	20,000.00
Miscellaneous Income	1,151.00	0.00
Reimbursable Expenses	2,283.04	0.00
Rent	54,630.00	54,630.00
Sales	16,362.79	10,000.00
Total Income	<u>5,166,800.19</u>	<u>3,925,307.34</u>
Cost of Goods Sold		
Sale Purchases	25,634.50	20,000.00
Total COGS	<u>25,634.50</u>	<u>20,000.00</u>
Gross Profit	5,141,165.69	3,905,307.34
Expense		
Administrative Costs	39,869.19	28,000.00
Advertising and Promotions	2,251.90	6,000.00
Auto Fuel & Maintenance	4,962.55	5,000.00
Building	58,310.39	100,000.00
Contract Agreements	4,095,056.16	2,444,366.33
Contributions	2,637.95	1,500.00
Directors Expenses	1,956.75	2,500.00
District Projects	27,320.11	317,421.87
Dues & Subscriptions	3,444.00	4,000.00
Education	6,016.94	5,000.00
Equipment	60,200.65	40,000.00
Events/Workshops	32,474.40	20,000.00
Insurance	16,714.00	16,000.00
Operating Expenses	4,678.92	8,000.00
Salaries & Benefits	741,697.31	873,019.14
Staff Development	2,230.47	2,500.00
Telephone/Internet	1,137.20	2,000.00
Travel	37,828.28	30,000.00
Total Expense	<u>5,138,787.17</u>	<u>3,905,307.34</u>
Net Income	<u><u>2,378.52</u></u>	<u><u>0.00</u></u>

2023 District Committees

Ag. – Keith Heimbach (Ch), Daryl Miller, Josh Ford, Rob Miller, Chad Spencer, Mark Madden, Ron Harris, Al Herman; Staff Advisors: Kevin Brown Miranda Neville, Patrick Cullen, Isaac Walker

Building & Grounds – Brian Zeidner (Ch), Bruce Chase, Daryl Miller, Anthony Ventello, Chad Spencer, Cathy Yeakel, Joe Quatrini, Kevin Brown, Jonathan VanNoy

Dirt & Gravel, Low Volume Roads Program – Daryl Miller (Ch), Chad Spencer, Jeremy Yohe, Matt Williams, Rob Miller; Staff Advisors: Joe Quatrini, Matt Schoen, Tim Robson, Tori Welliver

District Operations/Employees – Keith Heimbach (Ch), Al Herman, Bruce Chase; Staff Advisor: Cathy Yeakel

Donations/Memberships – Cathy Yeakel (Ch), Rob Miller, Daryl Miller

Education & Youth – Nicole Harris (Ch), Bruce Chase, Dan Rhodes, Joe Quatrini, Isaac Walker, Cathy Yeakel

Energy Conservation & Air Quality – Brian Zeidner (Ch), Bruce Chase, Keith Heimbach, Anthony Ventello, Chad Spencer; Staff Advisors: Cathy Yeakel, Kevin Brown

Equipment – Keith Heimbach (Ch), Bruce Chase; Staff Advisor: Cathy Yeakel

Erosion & Sedimentation Pollution Control – Anthony Ventello (Ch), Bruce Chase, Chad Spencer; Staff Advisors: Cathy Yeakel, Joe Quatrini, Brad Cummings

Forestry Committee – Nicole Harris, Al Herman, Bruce Chase; Staff Advisors: Adam Chorba, Cathy Yeakel, Joe Quatrini, Dan Rhodes

Manchester Scholarship Award – Keith Heimbach (Ch), Bruce Chase, Nicole Harris, Cathy Yeakel

PACD Executive Council – Daryl Miller (Delegate), Cathy Yeakel (alternate), Al Herman (2nd Alternate)

Public Relations and Outreach – Al Herman (Ch), Brian Zeidner, Cathy Yeakel, Dan Rhodes, Miranda Neville, Jenny Marino, Cheri Holecek

Strategic Planning – Cathy Yeakel (Ch), Rob Miller, Daryl Miller, Anthony Ventello, Joe Quatrini, Kevin Brown, Dan Rhodes

Watersheds, Waterways & Wetlands – Al Herman (Ch), Rob Miller, Anthony Ventello, Warren Singer, Chad Spence; Staff Advisors: Cathy Yeakel, Joe Quatrini, Brad Cummings, Adam Chorba

Salary Committee – Cathy Yeakel, Brian Zeidner, Al Herman, Kevin Brown, Jenny Marino

2023 OBJECTIVES

CRITICAL NATURAL RESOURCE ISSUES

- 1) Handle at least 90% of all farmer requests for assistance with Agricultural Best Management Practices within 6 months of their request and provide advanced nutrient management services to farm operators through agronomic crop management services.
- 2) Have a comprehensive plan to preserve Agricultural Communities in coalition with organizations of similar intent.
- 3) Provide evaluation, design and funding support to watershed groups for stream rehabilitation as requested.
- 4) Providing technical and organizational development assistance to Bradford County Watershed groups.
- 5) Develop an informational and educational strategic plan to increase public awareness by 50%.
- 6) Develop a comprehensive plan, with organizations of similar interest, to educate loggers and landowners on proper timber management.
- 7) Provide technical, informational, and educational assistance to protect the County's natural resources from impacts of natural gas resource development by developing cooperative relationships with gas industry representatives.
- 8) Reach 50 new farm/ag clients per year through outreach and education efforts.
- 9) Be a current source of agricultural odor issue information and assistance.

CRITICAL OPERATIONAL ISSUES

- 1) Develop a maintenance plan for Stoll Natural Resource Center with annual inspection.
- 2) Develop and maintain a stable, professional and adequate staff to address County needs.
- 3) Evaluate and review public assessment system for all District services.
- 4) Find the financial resources to meet the identified critical needs, continue improving accounting system, and develop long term fiscal management objectives.

EROSION AND SEDIMENT CONTROL

- 1) Close cooperation with the public, local officials, units of government and businesses.
- 2) Continue active involvement in, and inspection authority for, State Erosion and Sedimentation Program (Chap. 102); encourage adequate DEP Regional Office technical, compliance, and enforcement support.
- 3) Public Education of the importance of erosion control.
- 4) Encourage conservation on the land through Cooperator program and Cooperating Agencies.
- 5) Continue participation in Dirt and Gravel Roads Program.

EDUCATION AND YOUTH

- 1) Education of youth in forestry conservation.
- 2) Conservation education in County schools through competitions, outdoor labs, field days, newsletter, committee guidance, etc.
- 3) Public education of conservation practices accomplished in Bradford County
- 4) Support youth groups dedicated to conserving natural resources.
- 5) Continue Manchester Memorial Scholarship.
- 6) Work to educate target groups as to availability of District resources in identification of environmentally sensitive areas and pertaining regulations.
- 7) Develop a reliable funding base for environmental education activities.
- 8) Continue plan and develop Beers Family Wetland Education Area.
- 9) Develop strategy to Tell the Story of Agriculture.
- 10) Increase energy conservation awareness and develop Volunteer Energy Corps.
- 11) Seek partnership to develop an educational summer camp series.

DISTRICT IMAGE AND PUBLIC RELATIONS

- 1) Keep the public informed of the District's accomplishments.
- 2) Involve agencies, their families, and individuals interested in conservation in the District's activities.
- 3) Enter state and national contests for recognition of accomplishments.
- 4) Review District Awards/Recognition Program.

- 5) Maintain and expand District road sign coverage.
- 6) Seek methods to improve District staff visibility.
- 7) Organize and plan a yearly Earth Day Celebration

LAND USE

- 1) Actively encourage sound land use management.
- 2) Conserve/Protect agricultural land.
- 3) Public awareness of the importance of forests to Bradford County.
- 4) Greater use of Soil Survey.
- 5) Support conservation measures and activities of Cooperating Agencies.
- 6) Work for solid waste management.
- 7) Assist and educate the public in the value and proper management of wetlands and provide input to State on local conditions.
- 8) Continue Chap. 105 delegation program.
- 9) Promote enhancement of wetland resources.
- 10) Participate in river conservation planning for watersheds.
- 11) Promote proper floodplain management through education of municipal officials and participation in DCED Floodplain Outreach Program.
- 12) Explore opportunities for agriculture's role in energy and energy conservation.

WATER RESOURCE MANAGEMENT

- 1) Better water quality through proper management.
- 2) Promote proper utilization of soil amendments.
- 3) Promote proper stormwater management.
- 4) Actively participate in Chesapeake Bay Project.
- 5) Promote proper management and development of water impoundments.
- 6) Work with homeowners on proper use and management of pesticides, herbicides, fertilizers and other household wastes.
- 7) Continue working with interested landowner to establish Bio-Solids site.
- 8) Seek solutions to water quality influences for Stephen Foster Lake.
- 9) Participate in Nutrient Management Delegation Program.

DISTRICT OPERATIONS AND PERSONNEL

- 1) Secure equipment necessary for the proper operation of the District.
- 2) Continue personnel training & evaluation for better management of District Program & cooperating agency offices.
- 3) Involve individuals and local businesses in the District's conservation program.
- 4) Enhance the professionalism and leadership skills of District Directors and staff.
- 5) Organize tours of local industries utilizing natural resources.
- 6) Evaluate potential for increased efficiency of District record keeping/data storage through GIS, e-mail, web page, digitized electronic data management, etc.
- 7) Evaluate ongoing maintenance needs of Stoll Natural Resource Center.
- 8) Each District committee meet at least once a year.
- 9) Establish expectations and review job description for each staff position.
- 10) Develop funding contingency plan, including fees.
- 11) Implement conservation measures to make District "Greener".
- 12) Increase District's ability to assist with Energy Issues.
- 13) Formalize the structure for a Volunteer Corps.
- 14) Secure professional personnel as needed.
- 15) Develop and Employee Recognition Program

LOCAL, REGIONAL, STATE, AND NATIONAL ACTION

- 1) Keep abreast of legislation, projects in conservation, and support the National and State Associations of Conservation Districts by regularly attending conservation meetings and voicing the District's opinions on legislation, etc. that affect our natural resources.

Ag Team Annual Report- 2023

It has been an extremely busy year this year in the Ag team. First off, we had hired a new team member just before the start of the year. He went through all the Nutrient Management training to become fully certified, and then left us in November. I think his experience will be invaluable in his new opportunity, but we will miss his help. This has left us with 2 people to keep up with the work, something that used to be a 4-person team. However, we are managing fairly well. The reasons we are so busy will be explained in the rest of the report.

We have our normal duties that do not change. This would be reviewing and approving Act 38 Nutrient Management Plans (NMP), writing Manure Management Plans (MMP), writing 590 plans, writing Ag E&S Plans, helping NRCS with any number of things to keep projects on track (writing plans, QC work for projects going in, etc.), writing articles for the local paper, taking complaints, and many other “duties as assigned”. One interesting note is that SCC ran their formula for how much money they would be giving counties for the next 5 years, and another .25 positions was taken away from us. Shortly after that, the new CAO/CAFOs starting piling in. We are now up to at least 2 more CAOs and 2 more CAFOs in the county. That would mean that we should probably have gone up by a half a position instead of down. More work, less money, and employees. Manure Management plans are mostly written for people who come in after they have had a DEP farm inspection. We wrote 36 of those and 6 Ag E&S plans. Ag E&S plans can be fairly lengthy and take some time to do. We had 3 complaints this year. That is about normal. One even self-reported an issue when something went wrong.

Excitement from the last few years stems from some of the new things that we are doing. We have received CAP money for a couple years now, and ACAP is a 3-year grant that we are working through. Both grants have given us some needed monies to put toward some really good BMPs in the county.

ACAP has allowed us to not only work on installing some of our own BMPs, but we have also partnered with NRCS on a number of theirs also. Because of inflation, project costs have really skyrocketed. NRCS has been able to cover in the neighborhood of 50-60% of the costs, but that still leaves at least 40% for the customer. If the project is \$300,000, the farmer is still having to come up with \$120,000. Most cannot do that. ACAP has been a lifeline to reduce those costs to a manageable amount. For the year of 2023, we partnered with them on a project for Nate Stoddard and Robert Jenkins. Both were quite large projects, financially. In the coming year, we are already looking at 6 new, larger projects including Heavy Use Area Protections (HUAP) and a number of other BMPs on those farms. Plus, we have one Milkhouse Waste project and a roof going over a previous NRCS HUAP project.



CAP is another program that we are working with. We have directed CAP funding to more of the smaller, individual, much needed projects where maybe only one thing needs to be done instead of a whole host of things. CAP, for the most part, has been a stand-alone funding source for projects. We have partnered with

NRCS on two projects- Nicole Harris and Jermey Slater. These were larger, full-blown projects that needed some help pushing them over the top to get done. The rest of the money was spent on smaller projects. We did a bunch of fencing, over 20,000 feet worth. We did places that needed to fence the animals out of what we call “sensitive areas”, those areas that have some kind of surface water associated with them.



We purchased a small, no-till drill with this money. This drill is available to rent from the District for putting in food plots, renovating small hay fields or pastures, maybe planting small fields, and the like. If the program works well, we may invest in a larger seeder for people with larger fields to do. It has been out to a number of sites already. To make this easier for residents to use, we purchased a trailer to haul the drill on, and we designed the seeder so that it could be used with only the aid of something to pull it with. It has its own hydraulic system to raise and lower the unit. All it needs is a larger UTV or small tractor to pull it. The drill can do the rest.

We also helped install 2 water systems at a farm. Because the water sources were fenced out, they needed a way to get the animals some water. We installed a source for them so there was no need to go to the stream or pond.

We have received approval for CAP 2024 money and will be looking at installing 3 more small HUAPs, a manure stacking area, a composting facility, and a Milkhouse Waste system. As previously mentioned, we (the two Ag Team members left) have not had a lot of experience with actually having money, trying to get it encumbered and spent, and making sure that all the reporting is done on all of it. It has been challenging, to say the least. Patrick, our District Engineer, and Jenny, accounting, have been instrumental in trying to make this all work.

ACAP is a 3-year grant for the years of 2023-2025. They are, however, gearing up to make this an annual thing. There will be an allotment of money each year handed out to the CDs for our role in getting BMPs on the ground. It is going to be run much like the Dirt and Gravel Roads program. Everyone seems pretty happy with that, so I think we will be in good shape for the foreseeable future getting projects on the ground that people want.

Summary for 2023:

- 2 designs: 1 HUA and 1 Water Pond Retention
- 3 I&Es (Inventory and Evaluations)
- 3 Construction Projects & Inspections on the Following Farms: Nathan Stoddard, Jerry Slater and Robert Jenkins.

WATERSHEDS PROGRAM

2023 ACCOMPLISHMENTS

AT A GLANCE

Corbin Creek- Warren Twp
Culvert Replacement



Golf Creek- Granville Twp
Stream Bank Restoration



TEAM HIGHLIGHTS



This year the Bradford County Conservation District (BCCD) has assisted 17 landowners and 7 municipalities in completing projects that helped conserve and protect their properties while also improving water quality in our watersheds. These projects would not have been possible without the strong partnerships that have been formed between BCCD, Local, Federal, and State agencies, as well as the cooperation of Bradford County landowners.

Rehabilitation



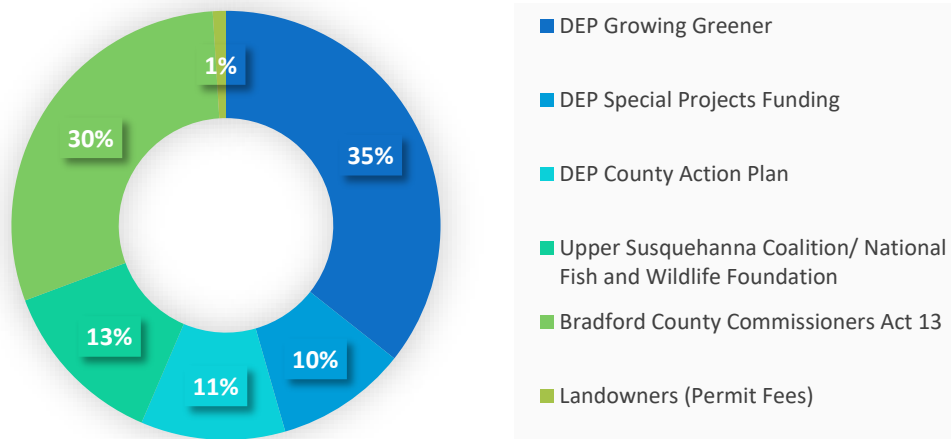
With the cooperation of our partners, the 17 completed projects resulted in nearly **1 mile** of stabilized streams that prevented approximately 2,717 tons of sediment, 5,724 lbs. of N (nitrogen), and 2,988 lbs. of P (phosphorus) from entering Bradford County waterways, and subsequently, the Chesapeake Bay.

Funding

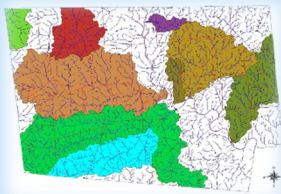


Funding for the completed stream work in 2023 was provided by Department of Environmental Protection (DEP) Growing Greener Program, the DEP Stream Improvement Program, the Bradford County Watershed Program (BCWP), and the Upper Susquehanna Coalition (USC)/ National Fish and Wildlife Foundation (NFWF). In total, nearly \$1 Million was secured by BCCD to assist landowners in Bradford County with watershed projects.

Funding Breakdown



Watersheds



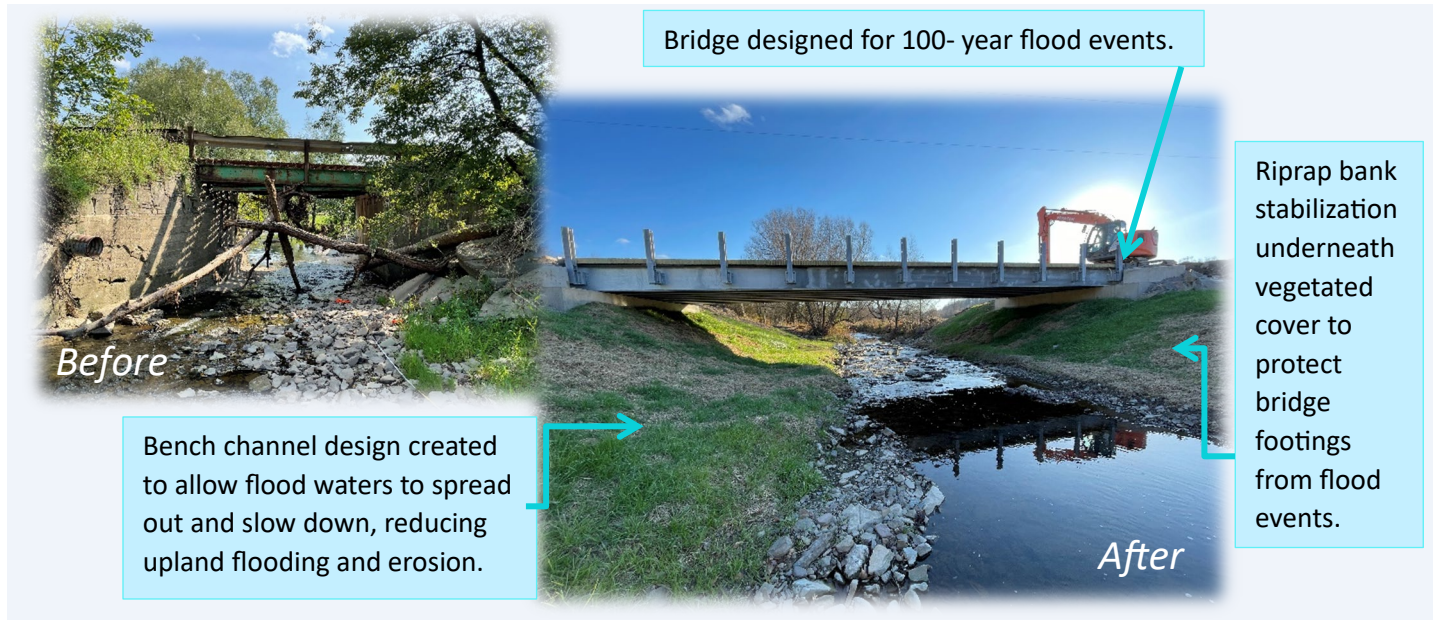
The BCCD watershed team was able to complete restorative projects in eight watersheds in Bradford County. These watersheds include Satterlee Creek, Susquehanna River, Laning Creek, Wysox Creek, Towanda Creek, Wappasening Creek, Seeley Creek, and Sugar Creek. Best management practices included riprap streambank protection, rock barbs, rock weirs, stacked rock, and implementation of a stormwater retention basin.

ACCOMPLISHMENTS

Stream Crossings

BCCD has been working with our local municipalities to survey, design, and help implement new stream crossings within the county. In 2023 the BCCD was able to complete 10 stream crossing projects that will not only help the flooding issues in our area, but also allow for stream continuity as we continue to implement more ecologically beneficial crossing designs. These new structures recreate a natural stream bed which again connects the stream for aquatic passage and habitat that was previously not present with the prior structures. In response to our more frequent flood events, crossings are designed to allow passage of flood stage waters without overcoming the structures during such events. This minimizes damage to the structure and surrounding area and reduces flood severity.

Kelly Road Bridge Replacement- Smithfield Township- Tomjack Creek



Patten Hill Road- Pike Township



Rowley Hill Road- Wells Township



BCCD Watersheds Program Teaming with Stroud Research Center

In 2023 the BCCD established a contract with the Stroud Research Center for the creation of a Forested Riparian Steward position within the watersheds program. This position is responsible for connecting with landowners in our community that may wish to participate in the forested riparian buffer program. This position was filled by Jen Johns, a past employee of the BCCD and who formerly worked with the Chesapeake Bay Foundation. She is bringing her years of experience back to her local community. Since fully taking her position in July, she has helped the BCCD work directly with roughly 20 landowners and currently has seven projects waiting for implementation in 2024 that will total 25 acres of forested riparian cover. We are happy to have gained her knowledge and experience to our team and are excited to continue working beside her for these upcoming years.

Streambank Rehabilitation

The BCCD had a successful year with landowners and partners in the survey, design, permitting, and construction of streambank rehabilitation projects. Most of the projects completed were in the Satterlee Creek and Sugar Creek watersheds due to allocated funding and stream risk priorities. This year we also received funding for survey and design work for projects located within the Tomjack Creek watershed. A number of these designs are planned to be implemented next year with 2024 funding. The projects completed this year were able to assist landowners who had high risk of structural damage due to stream degradation and areas of severe bank erosion that leads to sedimentation within our waterways.

Streambank Rehabilitation- Litchfield Township- Satterlee Creek



Laning Creek- Wysox Township

Satterlee Creek- Litchfield Township



BCCD STREAM RELATED PROJECT ACCOMPLISHMENTS FOR 2023:

<i>Watershed</i>	<i>Stream Name</i>	<i>Length (ft)</i>	<i>Sediment Savings (Tons/yr)</i>	<i>Nitrogen Savings (lbs/yr)</i>	<i>Phosphorus Savings (lbs/yr)</i>	<i>Funding Source</i>
Satterlee Creek	Satterlee Creek	240	115	253	16.5	Growing Greener
Satterlee Creek	Satterlee Creek	400	46	101.2	50.6	Growing Greener
Satterlee Creek	Satterlee Creek	350	421	926.2	463.1	Growing Greener
Satterlee Creek	Satterlee Creek	365	105	231	115.5	Growing Greener
Satterlee Creek	Satterlee Creek	340	204	448.8	224.4	Growing Greener: BCWP
Susquehanna River	Snyder Creek	180	169	371.8	185.9	DEP: BCWP
Laning Creek	Laning Creek	170	70	154	77	DEP: BCWP
Wysox Creek	Bullard Creek	248	29	63.8	31.9	DEP: BCWP
Towanda Creek	Golf Creek	50	12	26.4	13.2	DEP: BCWP
Towanda Creek	Towanda Creek	110	199	437.8	218.9	DEP: BCWP
Sugar Creek	Fall Brook	150	22	48.4	24.2	DEP: BCWP
Sugar Creek	Sugar Creek	175	121	66.2	133.1	DEP: BCWP
Sugar Creek	Sugar Creek	370	312	686.4	343.2	DEP: BCWP
Sugar Creek	Sugar Creek	160	463	1018.6	509.3	DEP: BCWP
Sugar Creek	Sugar Creek	85	5	11	5.5	DEP: BCWP
Wappasenning Creek	Prince Hollow Run	767	202	444.4	222.2	USC: NFWF
Seeley Creek	Seeley Creek	435	150	330	165	USC: NFWF
Wysox Creek	Bear Creek	100	72	158.4	79.2	Growing Greener
Totals		4695	2717	5724.4	2988.7	

Upper Susquehanna Coalition (USC)

The BCCD was contacted by the Upper Susquehanna Coalition at the beginning of the fourth quarter with leftover funding for rehabilitation work within the Upper Susquehanna watershed. Any projects using this funding were to be surveyed, designed, implemented, and reported all by the end of the year. The watershed team was up to the task and were able to fully complete two projects within the timeframe and before the funding would be lost to the new year.



Lake and Pond Monitoring

The BCCD has continued to work with our local lake and pond owners to help manage the sometimes-complicated ecosystems and work together to find solutions or resources from their pond related needs. In 2023 we collaborated with two lake associations to provide information to their members and build stronger relationships as we continue to develop our pond and lake program. We received numerous calls from the public in relation to pond management, construction, and aquatic weed control.

CONSERVATION IMPACT

STREAM PROJECT CONSERVATION ACCOMPLISHMENTS SINCE 2006:

20.9	+38,049	+88,789	+38,789
Total Rehabilitated Stream Miles	Sediment Savings (Tons/Year)	Nitrogen Savings (lbs./Year)	Phosphorus Savings (lbs./Year)

While rehabilitation and protection of our local waterways is extremely important to the health and quality of our communities, these projects are also a steppingstone to the collective attempt to improve and rehabilitate the Chesapeake Bay. The BCCD is committed to the protection and conservation of our natural resources and will continue its efforts to reduce sediment and nutrient pollution to our waterways and the Chesapeake Bay.

FUTURE PLANS

The BCCD watershed team is continuing our efforts of improving waterway and water quality health into the 2024 year. Future areas of focus for our watershed program are improving stream crossings and creating more flood resilience in our community. A large amount of our stream crossings in Bradford County have created “pinch-points” that hinder the natural flow of water. This is causing unnecessary flooding and streambank degradation during flooding events, which in turn is costing municipalities and communities more money for cleanup and repairs. By having a greater focus on modernizing outdated stream crossings and educating the public on the streams need for floodplain connection, it is our hope to help reduce the severity of flood events within our county.

We also plan to revitalize our pond and lake program in 2024. Due to employee changes and the pandemic our program has continued, but at a diminished state. This coming year we plan to reinstate the newsletter and have planned events to engage with and serve the pond community. It is our hope to spend the next year reconnecting with pond/lake owners within our county and receiving feedback on the things they feel will assist and educate them the most.

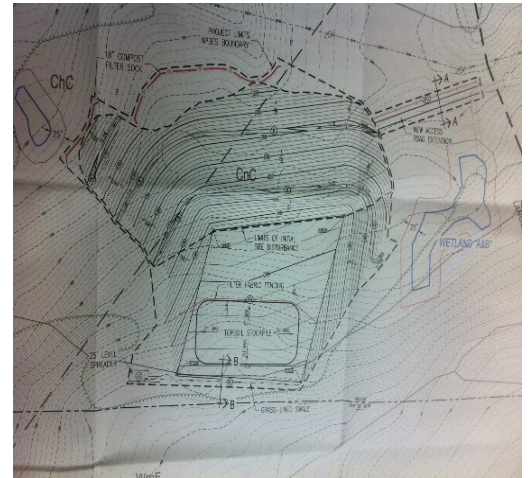
CHAPTER 102/105 Programs – 2023 Accomplishments



2023 was another productive year for our delegated Chapter 102 and 105 programs. We are thankful for all who have partnered with us this past year.

Related to the Chapter 102, Erosion and Sediment Pollution Control and Stormwater Management Program, our staff conducted **58** plan reviews which helped prevent sediment

runoff from **529** disturbed acres, processed **13** National Pollutant Discharge Elimination System (NPDES) General Permits, performed **429** construction site inspections, terminated **23** NPDES permits, handled **24** complaints, led **30** educational outreach events involving **1478** participants, published **2** news releases and provided technical assistance to **1315** individuals.



Concerning the Chapter 105, Waterway and Wetland Protection Program, our staff processed **37** General Permit (GP) 3's, **1** GP-5, **12** GP-7's and **4** GP-8's, handled **17** complaints, performed **7** non-complaint site inspections, educated **293** people through **7** outreach events, published **5** news releases and offered technical assistance to **217** individuals.

The entire staff of the Bradford County Conservation District looks forward to continuing our good relationship with you during 2024 as we seek to meet your Chapter 102 and 105 permitting needs.

Dirt, Gravel, and Low Volume Roads Program - 2023 Accomplishments

The Dirt, Gravel, and Low Volume Roads Program continues to provide significant funding to municipalities and other eligible road owning entities within Bradford County in order to achieve county and statewide environmental milestones. Bradford County's annual allocation for the Dirt and Gravel Roads Program is \$1,375,000 (\$1,100,000 for project implementation) and the Low Volume Roads Program allocation is \$102,220 (\$81,776 for project implementation).

Bradford County Conservation District (BCCD) received 21 Dirt and Gravel Road applications from 11 municipalities for projects to be constructed in 2024. These funding requests tallied approximately \$4.25 Million (386% over our allotted implementation funds) and applicants pledged approximately \$32,000 to in-kind equipment, materials, and labor. Typically in-kind commitments average approximately 20% of projects. Under new local policy adopted in 2023 the in-kind requirement is completely waived for those projects where a stream crossing replacement meeting our standards has already been finished. These stream crossing replacements previously would have been done during the project and counted as in-kind. So, while our recorded in-kind contributions from townships is lower than in previous years, the level of financial participation from our townships remains largely unchanged.

BCCD received 3 Low Volume Road applications from three municipalities during the April application period in 2023. The funding request was around \$248,000, which is nearly two and a half times our allotted implementation funds. The applicants pledged \$14,000 (nearly 6%) to in-kind contributions. One low volume road project was completed in Canton Borough in 2023.

Below are photos of Rowley Road in Wells Township.



Above: Rowley Rd in Wells Township required numerous solutions to address a wide range of issues. Establishing sheet flow, underdrain, and road fill were the primary methods of eliminating water from the road, with cross pipes regularly spaced to disperse rain water into the surrounding woodlands. Flexamat was used to stabilize a long section of ditch. A new stream crossing accommodates even peak high flow events.

Construction was completed on 10 Dirt and Gravel Road projects and 1 Low Volume Road project in 2023 addressing 3.91 miles of road, which in turn, provided environmental improvements to local water resources. Through completion of municipal contracts, the following is a list of primary techniques or Best Management Practices (BMPs) that were installed to achieve program goals: raising the existing road profile to promote sheet flow and prevent water from concentrating on the road surface; establishing vegetative ditch linings to reduce scour and filter sediment and nutrients; addition of cross pipes to reduce volume of water treated in ditches; addition of headwalls and end walls to prevent excessive erosion at culvert inlets and outlets; select pruning and thinning; sloping banks; installation of Flexamat in newly shaped ditches to promote vegetation; replacement of undersized stream crossing with a bottomless arch structure complete with headwall and endwall, and reshaping of streambed; and other off site drainage improvements. The following table is a breakdown of Bradford County’s Dirt, Gravel, and Low Volume Road Program accomplishments for 2023:

Dirt and Gravel Road Activity	2023	Total to Date
Number of Completed Projects	10	186
Total Grant \$\$ in Completed Contracts	\$1,605,918	\$13,602,157
Total \$\$ Provided by Townships	\$325,93	\$3,655,516

Completed Dirt and Gravel Road Project Statistics for 2023:

Turn Outs Installed	8
New Cross Pipes Installed	22
Cross Pipes Replaced	9
Road Fill Added (Tons)	56,685
Underdrain Installed (Feet)	15,457
# of Stream Culverts Replaced	5
Sq. Yd. Vegetative Management	7,616

Low Volume Road Activity	2023	Total to Date
Number of Completed Projects	1	11
Total Grant \$\$ in Completed Contracts	\$68,761	\$793,325
Total \$\$ Provided by Townships	\$11,193	\$454,565

Completed Low Volume Road Project Statistics for 2023:

Turn Outs Installed	0
New Cross Pipes Installed	1
Replaced Cross Pipes	1
Road Fill Added	0
Underdrain Installed (Feet)	174
Sq. Yd. Vegetative Management	331
# of Stream Culverts Replaced	0

The following photos are from two Dirt and Gravel Road projects located in Columbia Township (top) and Leroy Township (bottom) where drainage was improved by: adding cross-pipes with appropriate headwalls, end walls, and inlet and outlet protection; shaping and vegetating ditches; installing Flexamat in ditches to stabilize; stream crossing replacements; opening tree canopy; addressing offsite drainage issues; raising the road profile to promote sheet flow; and crowning the road surface to prevent water from remaining on the driving surface.



Before: Large scour pools, undersized culverts, ditch scouring and large deposits of sediment from flood damage.



1.25 Bank full & reconstructed streambed



After: final surface placement at end of dirt work.



On this project tree removal provided room to establish a Flexamat stabilized ditch along the right side of the project, while establishing sheet flow on the left. Banks were sloped gently enough to allow for easy mowing to provide low-cost maintenance as well. We were also able to utilize an existing diversion swale to break up runoff from the project thanks to landowner cooperation.

Orwell Township, Bonin Rd

Before: Severely entrenched road trapped water on driving surface creating several deep meandering trenches along the road surface.



After: Significant road fill forces water off the road. Underdrain and several cross pipes break up the discharge of water, providing stable outlets that minimize stream impacts.

Warren Township, Bowen Rd

Before: Entrenched road trapped water on the surface resulting in road scouring and sediment carried to the stream, as well into a field along the road.



After: Sheet flow is accomplished through road fill, while underdrain on the uphill slope eliminates the need for a ditch, with regularly spaced cross pipes to carry water away from the road.

Education – 2023 Accomplishments

New programming opportunities, grants and exciting educational accomplishments highlighted the 2023 environmental education season at Bradford County Conservation District this past year. The following is a compilation of our major educational efforts for the year and how those efforts impacted the community.

Bradford County Envirothon

In 2023 the Bradford County high school Envirothon contest was held successfully at Mt. Pisgah State Park where roughly 80 students representing five school districts including Athens High School, Northeast Bradford High School, Wyalusing High School, Canton High School, and Troy High Schools competed at our event. In the end, a team from Canton high school ended up taking first prize and went on to represent Bradford County at the State Envirothon contest this year where they placed 4th out of all 67 PA winning county event teams that competed. This was the highest placing team we've ever had at the state Envirothon competition in the 30+ years of the contest! We look forward to hosting this event again at Pisgah State Park in April of 2023 and we hope to continue this trend of excellence at the state contest in 2024 and beyond!



FFA Soils and Land Use Contest

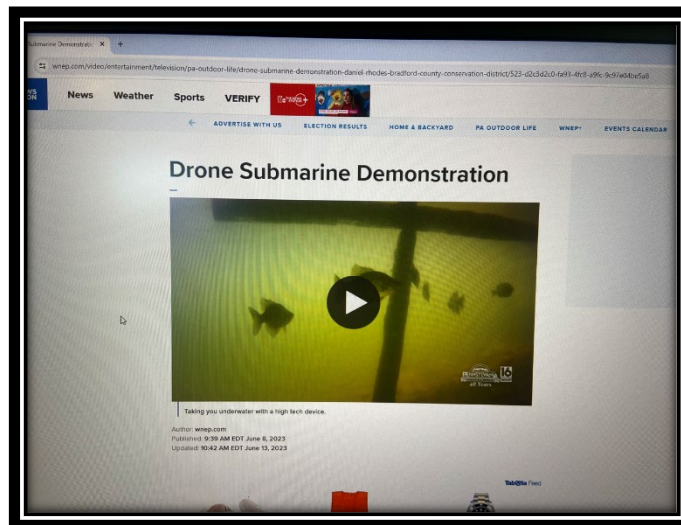
Every year for the past several years, the BCCD education program has partnered with the USDA Natural Resource Conservation Service (NRCS), and the PA State Department of Conservation and Natural Resources (DCNR), to plan, coordinate, and facilitate this annual contest for Bradford County's FFA students. Much like the Envirothon, this competition highlights four main natural resource conservation topics including soils, wildlife, aquatics, and forestry. Through a more detailed analysis of the properties and capabilities of local natural resources, students attain a much more complete understanding of how every citizen must manage resources wisely over time to maximize agricultural, urban, commercial, residential, and/or recreational land uses. 85 students from four school districts competed.



Underwater Drone Aquatic Education Video Series

In 2023 our underwater drone education platform reached new heights as it was featured on a segment of the PA Outdoor Life television show! We look forward to using our drone for underwater water quality testing, education, and more adventures in 2024!

<https://www.wnep.com/video/entertainment/television/pa-outdoor-life/drone-submarine-demonstration-daniel-rhodes-bradford-county-conservation-district/523-d2c3d2c0-fa93-4fc8-a9fc-9c97e04be5a8>



2023 Stoney Point Camp Nature Education

2023 marks the seventh consecutive year that Stoney Point Camp and the BCCD environmental education program have partnered to provide nature education activities during Stoney Point's junior day camp summer program series. Annually, BCCD education coordinator Dan Rhodes helps facilitate activities including fun nature games and challenges with titles like 'owl eyes,' 'weasel tree,' 'stick drag tracking challenge,' nature scavenger hunts, 'where's mama bear,' 'Atlatl spear chuck challenge,' group friction-fire challenge, the 'thicket game', primitive pottery craft challenge and others.

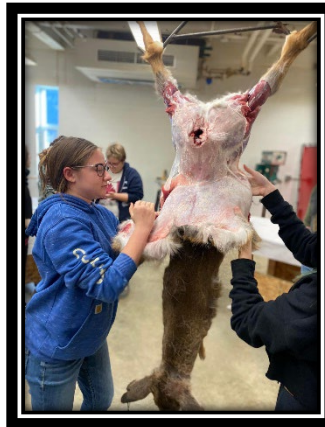
BCCD will be looking forward to partnering with Stoney Point camp in the summer of 2023 to assist in offering new activities and challenges for all age groups. This camp does an excellent job at getting kids outside to learn about, have fun with, and appreciate nature. We look forward to another great year at camp in 2024!



Hide Tanning and Deer Processing at Athens Middle School

In addition to the planned-out, annual programming efforts involved with the Envirothon, FFA land use contest, conservation days, etc...there are also always some programming collaborations that are more spontaneous in their origins. Along these lines, in 2023, Athens Middle School and BCCD partnered to spearhead a couple of new programs involving traditional hide tanning and deer processing that began as unconventional opportunities for education and turned into wildly successful platforms. Each of these educational programs highlighted for students the value of natural resources such as furs and venison meat that is procured by hunting and trapping. By learning how to process and preserve hides and venison themselves, students gained a much greater sense of self-reliance and learned to place a much greater personal value on resources that used to have a much more direct connection for society in the past compared to what it has become in today's modern but disconnected world.

Since the photos and description were posted on the Athens Middle School FFA chapter page on facebook for our deer processing program on November 30, 2023, a record 41,100 people shared it across the entire USA with 13,300 'likes' and 'loves' and at least 2,500 positive comments were received from parents, teachers, and the general-public for this program. The consensus from the entire group of people that commented all agreed that real-world skills and direct connection to natural resources are what kids need most in today's world. We here at BCCD couldn't agree more and look forward to partnering with Athens Middle School on similar programming opportunities in the future!



Eels in the Classroom

After teaming up with the Susquehanna River Basin Commission in 2022 to finish writing an interdisciplinary K-12 environmental education curriculum called The Great American Eel Adventure, 2023 saw the curriculum and all the work associated with it come to fruition. Through a grant written by Dan Rhodes and funded by the PA department of environmental protection, BCCD was able to purchase seven whole classroom aquarium sets to install across Bradford County's school districts to jumpstart local classroom involvement and participation in the Eels in the Classroom program. In addition to the tanks, filters, eel food, gravel and water treatment sets, each classroom eel tank setup came with seven or eight live American eels that students would use as an educational resource along with the free curriculum throughout the 2023/2024 school year. In May 2024, each participating classroom will attend a special eel release education day where students will rotate around to different hands-on aquatic education stations at Towanda riverfront park and release their eels into the Susquehanna River. We look forward to working with more classrooms around the county as demand and involvement in this program grows!



Bradford County Green Career Day

This past fall, BCCD was able to host another Green Career Day at Sunfish Pond County Park. Nine school districts from Bradford, Tioga and Sullivan Counties bussed 183 students to the event where they rotated through 20 stations set up to highlight different outdoor career themes including energy, agriculture, forests & wildlife, management of the land, and aquatics. Many thanks to the station leaders, teachers, and park personnel who volunteered their time to share with students what a ‘day in the life of’ their career is like, what skills are needed and how a student could go about pursuing a career in their field. We hope the event can serve even more students in the fall of 2024!



Other 2023 BCCD Education Programs of Note:

- Summer wildlife and aquatics education programming at SRU elementary school
- Pre-school children’s bat and wildlife education programming at Wyalusing, Wysox, Sullivan County and Cherub’s nest preschools.
- Troy Farm Museum’s 1866 Farm Days traditional hide tanning demonstrations served roughly 900 students.
- Conservation youth field days programming served 7 school districts and roughly 750 students.
- Bradford County Earth Day Public Program at BCCD

Anyone interested to learn more or get involved with volunteering or internship opportunities, please contact Education Coordinator Dan Rhodes at the Bradford County Conservation District office at (570) 265-6969 or Daniel.Rhodes@pa.nacdnet.net

A special thanks to our 2023 Education program partners and sponsors!

Chesapeake Energy
Repsol Oil and Gas USA, LLC
PA Trappers Association
Claverack Rural Electric Cooperative
Towanda Rod and Gun Club
Arrow United
GTP Towanda
Williams Field Services Group, LLC
Stoney Point Camp
Henderson Consulting
National Energy Foundation
First Citizens Community Bank
RK&K
Kellogg Mountain Gun Club
Pennsylvania College of Technology
Penelec Energy
New Fortress Energy
Tioga County Conservation District
Panda Liberty Power
Mansfield University
Bradford County Parks
NTSWA
PA DCNR
Bradford County Community Planning and Mapping Dept.
PA Game Commission
Western Alliance Ambulance & EMT
PA Fish and Boat Commission
Greener Pastures Farm & Greenhouses
NRCS
Northern Tier Career Center
Horizon Farm Credit
SWN Energy
PS Bank
Bradford County Humane Society
Energy Transfer
American Legion

Troy Vets Club
Canton Moose Club
DuPont
First Energy Corp
Cabinetworks Group
Cogentrix Energy Power Management
Vesper Energy

Forestry



Tree Sale

This year's tree sale was unique in the way that we pulled the majority of our stock from new nurseries in order to keep providing the public with a quality product at a reasonable price. The sale consisted of 6 evergreen species, 7 hardwood species, 4 shrub species, 5 domestic fruits, 2 food plot seed blends, and a wildflower mix. During our presale we sold over 8,000 trees and shrubs, over 1,200 domestic fruit, 40 acres of food plot seed, and 12 pounds of wildflower mix. We also ordered some extra stock to be sold at our earth day event for people that may have missed out or would like more. Any stock left over after the week following the sale will be incorporated into various planting projects, so nothing goes to waste. Another new practice we incorporated this year was to use shredded paper from the office to reduce the amount of peat used for packaging and reduce cost.

Educational Outreach

Forestry Symposium - This event is to provide an in-person forestry education to private landowners, loggers, and forestry professionals, to continue and expand their knowledge and understanding of forestry practices, sustainability, and forest health. This event will include forestry presentations from local professionals on topics such as managing your woodlot for wildlife, forest disease, invasive species, and forestry best management practices. The symposium also includes a guided forestry tour to showcase different practices and entice group discussion on things like; what could be currently worked on, what would some have done differently, and how it may look in the future.

Additional Outreach – We also assist with FFA, Envirothon, In-classroom events, and many other programs set up by our educational coordinator or other co-operating organizations like.

Public Assistance – Bradford County Conservation District also serves the public daily by answering many different forest health and management questions. Sometimes this consists of a simple phone call or a stop by the office for an in-person discussion, and some require an in-persons site visit to make sure we are providing them with the best information as possible.



Reforestation

This year's Reforestation Program will consist of 7 different sites located across Bradford County. These sites all together will equal about 20 acres which will allow for about 13,600 evergreens to be planted. This program seeks out sites where landowners have openings such as old pasture and crop land that has been taken out of production and the landowners have no future plans of utilizing this area for that purpose again. These plantings are important for meeting a variety of environmental goals such as reforestation, future timber value, carbon storage, erosion, water infiltration, wildlife benefits, invasive suppression and more.



Forested Buffer Installation and Maintenance

We are continuously involved in installing new and enhancing existing buffers for streams across the county. Whether it's through project funding, technical support, or helping landowners acquire resources like plants, shelters, and stakes. These projects are often completed in the spring and can be in direct relation with stream restoration work or just in areas of need. We also help landowners with continued maintenance of their buffers for the best results. In order to maximize efforts, we've teamed up with the Upper Susquehanna Coalition to fund a buffer steward program. This program uses college interns to help us inspect, monitor, and preform maintenance on previously installed buffers while providing education and real-world experience to college students. This year we have 70 acers of forested buffer scheduled for this.



Other Projects

Some projects may not necessarily meet the criteria for specific funding but we deem very beneficial for the environment and the county. When this occurs, we can often assist landowners with general funding and assistance from us and other organizations that see the same potential in the project.

Happy Tails Trails - This past fall the Conservation District started a project with assistance from Repsol to design, plant trees and begin construction of a small trail system on Happy Tails no kill animal shelter property. The nonprofit organization was seeking assistance with this project after their back lot was severely disrupted due to them having to replace their septic system. This will be a long-term project with the goals of providing a small trail system for the volunteers and animals to enjoy while also providing erosion control, shade, pollinators, protection, and an educational environment.

Bare Root Box – The bare root box was a project we started for research, education, and resource availability purposes. Using some rough cut and scrap wood we built what is essentially a raised bed with features to grow healthy seedlings that can be removed easily from the soil for replanting. With this, we can use local, hard selected seed sources for the desired species and characteristic, while being able to protect and monitor them as they grow. These seedlings can then be used in different projects and educational programs.



West Nile Virus Program – 2023

The West Nile Virus program began in 2023 with the purchase of necessary supplies and research to determine the needs of the area to properly establish an organized and successful program. Regular meetings with the Department of Environmental Protection’s Vector Management division took place at the beginning of the season to learn the basics of how to run this program and the guidelines that needed to be met. I received my Public Applicator’s License to conduct population control as needed. Additionally, I attended DEP’s Mosquito Academy and Kick Off meetings to prepare myself for the upcoming season. Larval mosquito surveillance began in both Bradford and Tioga County in April with adult surveillance beginning in May. A set minimum number of traps were set in both fixed and varying sites throughout the season which ended in October. After the traps were set and collected after approximately 24 hours, the samples were sorted and shipped to the DEP lab for identification and testing for pathogens. Through the 2023 season, zero samples of mosquitoes tested positive for West Nile virus or Jamestown Canyon virus. Educational events took places at BCCD’s Earth Day, Green Career Day, and the Troy Fair as well as numerous educational encounters with residents and municipality workers.

In addition to mosquito surveillance, tick collection and surveillance was conducted between April and August, and again beginning in October until completed. Ticks were collected in Bradford and Tioga County at state parks or public uses areas through the use of tick drags. These collected ticks were prepared and shipped to DEP’s laboratory to be identified and tested for a variety of pathogens.

BRADFORD COUNTY	# of traps	TIOGA COUNTY	# of traps
BG Sentinel (Adult)	39	BG Sentinel	28
Light Trap (Adult)	5	Gravid Trap	117
Gravid Trap (Adult)	111	Dipping	102
Dipping (Larval)	105	Light Trap	2
Unique Species	21	Unique Species	21
WNV Positive		WNV Positive	
Samples	0	Samples	0
JCV Positive Samples	0	JCV Positive Samples	0

