



CUMBERLAND COUNTY
CONSERVATION DISTRICT

2020 ANNUAL REPORT



Underground Stormwater Best Management Practices installed for Post Construction Stormwater Management



Animal Heavy Use Area and Manure Stack Pad installed through a grant from PA DEP's Water Quality Improvements Along the Mariner East 2 Pipeline



Social Distance Board Meetings
During a Pandemic



Cover Crop Planted in
Field Taken Off for Corn Silage



CUMBERLAND COUNTY

BOARD OF COMMISSIONERS



Left to Right: Commissioner Jean Foschi, Commissioner Gary Eichelberger, and Commissioner Vince DiFilippo

CUMBERLAND COUNTY CONSERVATION DISTRICT

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MEET OUR NEW STAFF

Charles Heberlig III

Hi my name is Charles Heberlig III but most people call me Chas. I am the new Chesapeake Bay Technician here at the District. I grew up on a small dairy farm in Newville PA. I graduated from Delaware Valley College with a B.S. in Agronomy and Environmental Science with a specialization in Crop Management. Upon graduation I started working for Four Seasons Crop Care. I worked for Four Seasons for 8 years full time and two years part time while I was in college as a summer intern. I am excited to work with farmers in the area that I grew up and bring the knowledge that I have acquired from school and working in the field to the Cumberland County Conservation District.



Michele Marsh

Hello! First I wish to express how blessed I am to be part of this wonderful conservation team.

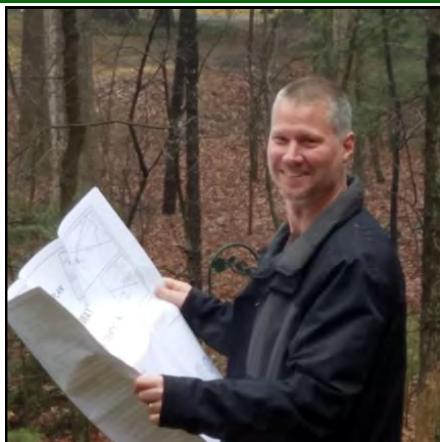
I also want to share a little bit about myself so everyone can get to know me virtually if not in person. I am a country girl who loves hiking, biking, kayaking, shooting sporting clays and spending time with great friends around a campfire. I also love sharing good food with my friends either at home or at a "Diner, Drive-in or Dive".

CONSERVATION DISTRICT STAFF



Carl Goshorn

District Manager



Vince McCollum

District Assistant Manager/E&S



Michele Marsh

Administrative Assistant



Kim Falvey

District Technician/E&S



Matt Stough

District Technician/E&S



Mike Lubinsky

District Engineer



Lori Glace

*Dirt & Gravel Technician
Watershed Specialist*



Charles Heberlig III

*Chesapeake Bay
Technician*



Dylan Varner

*Nutrient Management
Specialist*

2020 CONSERVATION DISTRICT AWARD WINNERS



Educators of the Year

Sarabeth Fulton & Sherisa Nailor

Mrs. Fulton and Mrs. Nailor teach agricultural courses at Big Spring High School. They received the Educator of the Year Award for demonstrating a strong commitment to conservation education programs and activities. Fulton and Nailor work with students who participate in the local Cumberland County Envirothon, have students who volunteer with the Annual Tree Sale, and have planted and maintained a riparian buffer. Mrs. Fulton and Mrs. Nailor show commitment, enthusiasm, and dedication to their students and conservation education as Educators of the Year for 2020.

Clean Water Award

John W. Gleim, Jr. Excavating

J.W. Gleim, Jr. is detail oriented at the pre-construction meetings and pays great attention to detail and sequencing. They are very conscious about the environment by ensuring that all the best management practices (BMPs) are installed first and by continual maintenance of those BMP's. They are always looking to improve the project when problems or unforeseen circumstances arise. If any BMPs need attention or maintenance, they are quick to fix them and immediately notify the District when they are completed. J.W. Gleim, Jr. always tries to make sure they are doing what is required to protect the natural resources and prevent any sediment pollution to the Waters of the Commonwealth. That is why they received the Clean Water Award for 2020.



Farmer of the Year

Greg Strayer & Family

Greg Strayer and family received the Farmer of the Year for demonstrating a concern for soil and water quality by implementing best management practices on their farm. The Strayer's run a beef operation in Hopewell Township, and they no-till wheat, soybeans and hay for crops. They have both a Manure Management Plan and a Conservation Plan, and they have participated in the Conservation District's Cover Crop Program. All of their conservation work has been beneficial at keeping the Conodoguinet Creek, which borders the western part of his property, clean. Greg and his family are well deserving of the 2020 Farmer of the Year for Cumberland County.



EROSION AND SEDIMENT CONTROL/NPDES PROGRAM

The goal of the Erosion and Sediment control (E&S) and the National Pollutant Discharge Elimination System (NPDES) programs is the protection of water resources. Through the implementation of these programs, the District strives to minimize accelerated erosion and sedimentation resulting from earthmoving activity and ensures the management of stormwater quantity and quality, after excavation is completed. The District is given the authority to administer the E&S and NPDES programs by the PA Department of Environmental Protection (DEP).

Program staff activities include conducting plan reviews, site inspections, complaint investigations, holding workshops and processing NPDES permits. The District is delegated Level III - Program Enforcement, by DEP, which makes the District responsible to prepare and execute enforcement actions in accordance with the program's Compliance Assistance and Enforcement Manual. Additionally, the District has the post construction stormwater management (PCSM) delegation with DEP, which enables the District to conduct engineering reviews of the PCSM plans for all Individual NPDES permits and General NPDES permits as staff resources allow. These delegations enable the District to provide technical assistance during the land development process at the local level to better serve Cumberland County residents and effectively protect our valuable natural resources.

This year PA DEP has been working on an ePermit system for Chapter 102 NPDES permits to try to go paperless and increase efficiency of the permit authorization process. Conservation Districts had the opportunity to test the system during the year and the ePermit system went live on January 25, 2021. More information, guidance, and instructions can be found on DEP's website at: www.dep.pa.gov/constructionstormwater

E&S/NPDES PROGRAM ACCOMPLISHMENTS

E&S Plan Reviews	109
Project Acres	3,455
Disturbed Acres	1,258
Inspections	584
General NPDES Permits	36
Individual NPDES Permits	11
Complaints	41
Civil Actions	1
E&S Plan Review Fees	\$ 204,300
NPDES Permit Fees	\$ 49,000
PCSM Fees	\$ 22,750
DEP Disturbed Acre Fees	\$ 48,600



This photo shows good temporary stabilization of a disturbed area with straw mulch. 25 PA Code 102.22 requires temporary stabilization of any disturbed area of the site that will be idle for 4 or more days.

TOWNSHIPS WITH MOST PROJECTS

Silver Spring	19
Hampden	17
South Middleton	15
Upper Allen	12
North Middleton	8

COVER CROP & CHESAPEAKE BAY PROGRAM



A cover crop field in the fall.

Cover Crop Incentive Program

Cover crops are used to increase soil health, reduce unwanted runoff, and protect surrounding streams from non-point source pollution coming from agriculture. To promote the planting of cover crops, the District has implemented a program that pays for the planting of both no-till and minimum-till acres. In 2020, 54 farmers participated in this program with a total of 3,318 acres planted and 2,860 of those acres no-till. If you are interested in this program or the benefits of cover crops please contact the office and we will be happy to assist you.



Chesapeake Bay Farm Inspections

The Cumberland County Conservation District, with the guidance of DEP, continued Chesapeake Bay Farm Inspections in 2020. These inspections are for all farms operations in the county. The inspections ensure farmers have their Manure Management Plans or Nutrient Management Plans and Chapter 102 Agricultural Erosion and Sediment Control Plans or Ag Erosion and Sediment Plans, where applicable. The inspections are also looking to make sure that plans are being followed to ensure that nutrients and sediment stay on the farm and not released into the Chesapeake Bay. Technicians with the CCCD completed 56 inspections in 2020.

NUTRIENT MANAGEMENT PROGRAM

Nutrient Management

The District continued 2020 as a participant in Pennsylvania's ACT 38 Program (Nutrient Management) as a Level 2 delegated District. The State Conservation Commission delegates the tasks of writing and reviewing Nutrient Management Plans and inspecting ACT 38 participating farms for compliance. The District reviewed 6 plans that were approved by our Board of Directors. In 2020, 12 on-site status reviews were performed on ACT 38 participating farms to ensure the practices outlined in each farm's plans were being implemented. In addition to those on-site status reviews, 17 Chesapeake Bay Initial Inspections were conducted. Nutrient Management Plans aid farmers by identifying a plants nutrient needs, and therefore the plans continue to be the best tool to help farmers prevent pollution by over application of manure, while maximizing crop yields. Pennsylvania encourages every farm to consider the benefits of a Nutrient Management Plan to be written, approved, and implemented. If you have interest in obtaining an ACT 38 Nutrient Management Plan, please contact the District and we can discuss options to have it written.



Manure Management

The Department of Environmental Protection (DEP) continued to delegate the responsibility of outreach, education, and complaint investigation of the Manure Management Program to the Conservation District through 2020. Manure Management Plans (MMPs) are required for every farm in Pennsylvania that generates or uses manure. The District has continued to assist farmers in writing plans and educating them on the requirements of manure management at local events. This year, 18 farmers had plans written, were assisted in writing or had plans written by commercial writers reviewed. If you would be interested in receiving assistance writing a Manure Management Plan please contact our office to attend a workshop or work with District Staff individually. In 2020, the District investigated 3 complaints regarding manure. As Cumberland County continues to be a leader in agriculture, we must work together to achieve high yields while protecting the natural resources of the county. Both are possible through careful planning and implementation of Best Management Practices outlined in Nutrient and Manure Management Plans.

LAND APPLICATION OF MANURE A supplement to Manure Management for Environmental Protection

Manure Management Plan
Guidance
361-0300-002



 pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Manure Hauling

The Conservation District was host to a Manure Hauler Level 2 Exam, where 7 haulers were tested and became certified. A certified commercial manure hauler is a person that transports and or land applies manure as a contract agent for an agricultural operator or commercial manure broker. Level 2 haulers can land apply manure based on application rates and adhering to any application restrictions noted in a current Nutrient Management Plan, Nutrient Balance Sheet or Manure Management Plan.



DIRT, GRAVEL, AND LOW VOLUME ROADS

Cumberland County's Dirt, Gravel, and Low Volume Roads Program is split into two separate programs, one program for public owned dirt, gravel, and/or stone roads and one program for paved and/or tar & chipped roads that have less than 500 cars per day. In order for a road to qualify for the program, the road owning entity must attend a two-day Environmentally Sensitive Maintenance (ESM) Certification Training.

Current Contracts			
Program	Municipality	Project Name	Amount
DGR	Dickinson	Cold Springs South	\$ 14,604.46
DGR	Cooke	High Mountain	\$8,013.80
LVR	Penn	Beetem Hollow 5	\$100,579.20
LVR	South Newton	Furnace Hollow	\$123,832.75



Before



After

Dirt & Gravel:

Cold Springs Road, Dickinson Township work completed in 2020 included an additional 0.42 miles of Driving Surface Aggregate (DSA) placement on Cold Springs Road in Dickinson Township, which completes this multi-staged project that spanned 2.4 miles. Work included installation of 43 cross pipes, 36 turnouts, over 1,200 ft. of underdrain, 10,000 tons of slate to build crown and road base, and 5,965 total tons of Driving Surface Aggregate (DSA).

Additional cross pipes and turnouts help to shed water off of the roads and distribute water throughout the watershed instead of concentrating it in one location. The underdrain is an underground pipe with perforations covered by geotextile and stone that keeps water from spring seeps clean and passes the water from the road base to lower sides of the road. Keeping the road base dry helps to preserve the structure of the road and prevents pot holes and soft spots in the road surface. Road base material was added to build up the road from bedrock and give the road shape to help shed water from the road. DSA is a specialized placement method made up of different size stones (no clay), placed at specific moisture and then compacted. This method creates a low dust surface that holds up to runoff. Total grant money awarded to Dickinson Township was \$471,000 and the Township contributed \$49,000. The total project value was \$520,000.

High Mountain Road, Cooke Township started in December 2020 and will finish up in 2021. This project will replace 4 existing cross pipes that are no longer functioning properly and add one additional cross pipe to help with drainage.

Future Projects:

Dirt & Gravel:

Dickinson Township: Cold Springs South. Project will add 9 new cross pipes, turnouts, and base stabilization.

Low Volume Roads:

Penn Township: Beetem Hollow Middle Box Culvert. Replace undersized 6 ft culvert with 12 ft concrete box culvert.

South Newton Township: Furnace Hollow Culvert. Replace 4ft undersized culvert with 14 ft metal arch culvert.



Furnace Hollow Road Culvert to be replaced in 2021.

WATERSHED PROGRAMS

Grants Activities:

Work Completed in 2020:

Growing Greener Plus: Two agricultural projects were completed in 2020 under Growing Greener Plus, which constructed heavy use areas to collect manure from congregating animals. These projects also installed roofed manure storages to allow storage of collected manure until it can be used at the most nutrient value for the farming operations in accordance with their nutrient management plans. These types of projects help keep our waterways clean from nonpoint source pollution like nitrogen, phosphorus, and sediment.



Roofed Waste Storage Area and Heavy Use Area Protection.

Future Work:

Growing Greener Plus: Yellow Breeches Trout Habitat and Stream Bank Restoration at Allenberry. This project is working with U.S. Fish & Wildlife Service, the Foundation for California University of PA, and landowners to stabilize and create habitat in a 3,900 ft. section of the Yellow Breeches Stream! Work is tentatively planned for 2021.



2020 Annual Rain Barrel Sale

Rain Barrel Program:

Due to COVID-19 impacts, the District had a small rain barrel sale for 2020. This year we partnered with Penn State Extension's Master Watershed Steward Program to construct 24 rain barrels.

Other rain barrel workshop events were cancelled in 2020.

The District has distributed over 1,500 rain barrels since the program began in 2002! Annual sale pre-orders for 2021 are currently being taken, contact the District to reserve your rain barrel!

Pennsylvania DEP Environmental Education Grant:

The Cumberland County Conservation District was awarded a 2020 Environmental Education Grant: Stream Tables and Rain to Drain Non-point Source Pollution Educational kits. These kits will focus on stream flow dynamics and nonpoint source pollution for Cumberland County educators.

Stream flow tables will be available for Cumberland County educators to demonstrate how flow volume and slope shape rivers and waterways.

This grant will distribute Rain to Drain, Slow the Flow kits created by Penn State Extension to area schools. The Rain to Drain kits give hands-on demonstrations of stormwater scenarios and best management practice examples that show examples of how rain gardens and other green infrastructure can help reduce nonpoint source pollution and can mitigate impacts to climate change.



Example of Penn State Extension's Rain to Drain, Slow the Flow Kit

ENVIRONMENTAL EDUCATION

County Envirothon

The 2020 Cumberland County Envirothon was cancelled due to COVID-19, however, the Pennsylvania State Envirothon was able to adapt the competition to an online platform, hosting one test per day as an individual event and were given the following unique names:

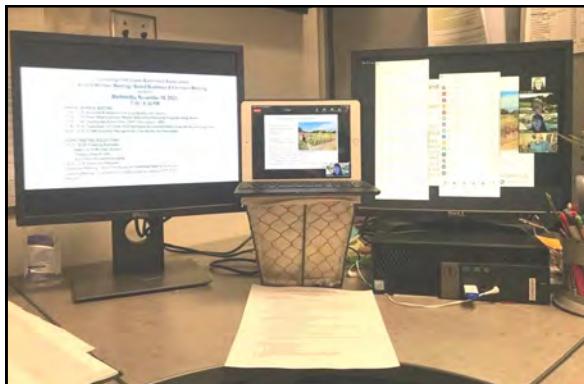
- Dirt Monday: Soils and Land Use Challenge
- Trending Tuesday: Current Issue Challenge
- Wildlife Wednesday: Wildlife Challenge
- Thirsty Thursday: Aquatic Ecology Challenge
- Forestry Friday: Forestry Challenge

Cumberland County had 3 local high schools participate with 7 students taking the daily challenges.

In 2021, the Cumberland County Envirothon will also be virtual, as a team event on Tuesday, April 13, 2021 with an awards ceremony to follow on April 14, 2021. The Cumberland County Envirothon is open to high school students (grades 9-12). If you are a student and are interested, please talk with your school's Envirothon Advisor. All participating students will receive a t-shirt sponsored by Adams Electric. The winning team will represent Cumberland County by advancing to the virtual State Competition on May 10-11, 2021.



GRAPHIC BY MADDIE STANISCH



Virtual Event Opportunities

When one door closes, another door opens. The Conservation District has been taking advantage of hosting trainings and meetings via online platforms. Several training opportunities conducted by CCCD included Chapter 102 Engineer's Workshop, Master Watershed Stewards introductions to Watersheds and Conservation Districts, and Cold Water Conservation Plan for the Letort in partnership with Cumberland Valley Trout Unlimited.

On the left is a photo from the Conodoguinet Creek Watershed Association's Annual Meeting that was held in November 2020.

Upper Allen Township Rain Garden Workshop

The Conservation District partnered with Upper Allen Township, Penn State Master Watershed Stewards, Penn State Extension, and the Pennsylvania Association of Conservation Districts (PACD) to provide a rain garden and nonpoint source pollution educational workshop. Virtual presentations were given by Andy Yencha, Penn State Extension Educator, Tamela Trussell and Mark White, Master Watershed Stewards, and an in-person presentation by Lori Glace, CCCD. Attendees received a booklet "Homeowners Guide to Stormwater Runoff" provided by a grant through PACD.

Financial and other support for this project is provided by the Pennsylvania Association of Conservation Districts, Inc. through a grant from the Pennsylvania Department of Environmental Protection under Section 319 of the Clean Water Act, administered by the U.S. Environmental Protection Agency.



2020 COLLEGE SCHOLARSHIP WINNERS



Emily Stambaugh

Wilbur E. Wolf Jr. Memorial Scholarship Winner \$1,000

Emily is a Freshman at Penn State University majoring in Agribusiness Management.
Emily graduated from Big Spring High School.

\$500 COLLEGE SCHOLARSHIP WINNERS

1. Kyle Richwine, currently attending Delaware Valley University majoring in Landscape Design/Build.
Kyle graduated from Big Spring High School.
2. Anna Pauletta, currently attending Penn State University, University Park, majoring in Forest Ecosystem Management and Fisheries Science. Anna graduated from Cumberland Valley High School.
3. Emma Stone, currently attending Mansfield University majoring in Geosciences: Environmental Science.
Emma graduated from Carlisle High School.
4. Morgan Bear, currently attending Penn State University, University Park, majoring in Agricultural and Extension Education. Morgan graduated from Big Spring High School.
5. Olivia Monismith, currently attending Delaware Valley University majoring in Animal Science. Olivia graduated from Big Spring High School.
6. Arianna Line, currently attending Juniata College majoring in Environment Science. Arianna graduated from Carlisle High School.
7. Angelica Brill, currently attending Penn State University, University Park, majoring in Spanish and Community, Environment and Development. Angelica graduated from Mechanicsburg Area High School.

GOLF TOURNAMENT



The 18th Annual Cumberland County Conservation District Golf Tournament was held at Rich Valley Golf on Friday September 25, 2020. We had a terrific turnout with 105 golfers that came out to enjoy a round of golf and support a good cause. This year's winning team shot an impressive 21 under par 50.

The District would like to thank everyone at Rich Valley Golf and Nolo's that helped make the day a success. Also a special thank you to all of our hole sponsors and Beverage Express (www.mybevexp.com) and Stan's Beverage (www.stansbeveragepa.com) of Carlisle for donating bottled water for the golfers! The contributions of our hole sponsors and all the golfers allow us to continue our efforts in providing scholarships to Cumberland County students. This year's event brought in over \$6,500 for scholarships and to date the tournament we have raised over \$35,000. And finally, thank you to all of the golfers that came out to enjoy the day with us. We hope to see you all again next September!

Congratulations to this year's winning team: Ron Snow, Mark Adams, Kirk Stoner, Gene Chabak



THE CUMBERLAND COUNTY CONSERVATION DISTRICT WOULD LIKE TO THANK
OUR HOLE SPONSORS FOR SUPPORTING THE 2020 GOLF TOURNAMENT

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