



# MIFFLIN COUNTY CONSERVATION DISTRICT

## 2022 Annual Report

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The Mifflin County Conservation District (MCCD) was organized in 1956 as a legal subdivision of state and local government, under the authority of Act 217, to assist the county's landowners with natural resource related concerns, and provide the technical and financial assistance to implement conservation practices on their land. There are 66 conservation districts in Pennsylvania, representing every county except Philadelphia, and nearly 3,000 nationwide, dedicated to conserving our soil and water resources.

The MCCD continues to administer many state and regional programs for local natural resource conservation. New activities for 2022 included Countywide Action Plan (CAP) implementation funding and Spotted Lanternfly outreach and education. See all of the accomplishments and activities for each program highlighted in the next few pages of our 2022 Annual Report.

- Trevor Weaver, District Manager

### Board of Directors:

Cathy Haughwout, Chair  
David Glick, Vice Chair  
Murray Laite, Treasurer  
Raymond Snyder  
David Filson  
Rebecca Harrop

### Commissioner Director

Mark Sunderland

### Associate Directors

James Hostetter

### **Conservation District Mission Statement**

*The mission of the Mifflin County Conservation District is to conserve the county's natural resources through coordinated and professional guidance, technical assistance, and education to the landowners, public agencies, and residents of Mifflin County.*

## Countywide Action Plan

The Mifflin County Conservation District joined a four county group in completing state required Countywide Action Plans (CAP) for nutrient and sediment reductions. CAPs were completed in the fall of 2021 and efforts to start implementation began immediately. Herbert Roland Grubic (HRG) served as the CAP Coordinator with grants managed by the Tri-County Regional Planning Commission (TCRPC). Dauphin, Perry, Juniata, and Mifflin (DPJM) counties completed many projects as part of a four county grant from the Pennsylvania Department of Environmental Protection (PA DEP) in 2022.

### CAP Implementation

The MCCD proposed completing five stream restoration projects in 2022 with the PA Fish & Boat Commission (PFBC), and the US Fish & Wildlife Service (USFWS). The MCCD also proposed piloting a turf conversion program aimed at planting native meadows in replacement of traditional lawns on residential and commercial properties.

During 2022, the District installed the following BMPs through the 2022 CAP implementation grant:

- **Project #1:** 1,150 linear feet of stream restored on Kishacoquillas Creek outside of Belleville. The project, in conjunction with the Pennsylvania Fish and Boat Commission, was completed in August of 2022. Rock and log structures such as mud sills, rock framed deflectors, single log vanes, and log throated cross vanes were implemented to combat streambank erosion. Structures centered flow within the channel and connected the

stream to a more natural floodplain. These structures also serve as important habitat for fish and other aquatic organisms. The Mifflin County Conservation District also partnered with the local Trout Unlimited Chapter (Penn's Creek) and the Environmental Club from the Mifflin County Junior High School to expand and enhance a riparian buffer along the restored section of stream. Native species such as Sycamore, Tulip Poplar, Basswood, and various maple and oak varieties were planted to provide shade, food for macroinvertebrates (in the form of leaves), overhead cover, and streambank stabilization.

- **Project #2:** Construction broke ground in August 2022 on a massive stream restoration project along Jacks Creek. The project – located within the approximately 8,000 acres of State Game Lands 107 - was a collaborative effort between the US Fish and Wildlife Service, the Pennsylvania Game Commission, the Mifflin County Conservation District, and the Penn's Creek Chapter of Trout Unlimited. The 3,890 foot section of Jacks Creek (a cold water fishery) was restored by implementing rock and log structures aimed at reducing streambank erosion while simultaneously enhancing habitat for fish and aquatic organisms. Pre-project sampling data was obtained in the form of electrofishing and benthic macroinvertebrate sampling with the help of PA DEP biologists and local Trout Unlimited members. This restoration effort is the first of its kind in the Jack's Creek

watershed and is aimed at controlling excessive erosion and providing the local wild brown trout population with clean spawning substrate and overhead cover.



- **Project #3:** An approximately 1,330 foot section of Honey Creek has been restored at the Reedsville Playground upstream of Bender Park in July of 2021. The Mifflin County Conservation District partnered with the Pennsylvania Fish and Boat Commission to implement rock and log structures including rock and log framed deflectors and random boulder placement to help narrow the section of stream and provide habitat for local wild brown trout. This section – uncharacteristically wide, straight and shallow – had been bulldozed after the flood of 1972 and an earthen dyke was built downstream to combat flooding.





- **Project #5:** The MCCD completed approximately 2 acres of turf conversion projects at two sites in Mifflin County. These projects were pilot projects in an effort to convert traditional lawn or pasture into native meadow. These projects were planted in the fall of 2022 with a native seed mix including native grasses and wildflowers. The MCCD also took pre-project soil samples to compare with future samples to analyze changes in soil chemistry.

Additional site assessments and evaluations for future projects were completed with hopes of future CAP implementation funding. Major planning was completed on furthering a feasibility study for trails and greenways along the Juniata River and Kishacoquillas Creek. HRG completed site plans and cost estimates for a river trail extension between Victory Park and the Stone Arch Bridge. MCCD, HRG, and the Lewistown Country Club are also working on a conservation site master plan to guide future golf course improvements such as turf conversion, stream restoration, and green stormwater infrastructure (bio-swales, rain gardens, wet meadows, etc.).

### BMP Verification

The MCCD also utilized funds through the CAP Coordinator grant to complete BMP verification, conduct remote sensing of undocumented best management practices (BMPs), and complete education and outreach visits.

To directly assist the MCCD in tracking progress on nutrient and sediment reductions, an intern was hired in 2022 to complete site assessments, update an online database with project data, and assist with ongoing projects.

The Chesapeake Conservancy was also contracted to conduct remote sensing and analysis of undocumented BMPs. The conservancy focused on the Kishacoquillas Creek watershed in Mifflin County.

Finally, Lancaster Farmland Trust completed outreach and education visits to several farms throughout the county to explain the Countywide Action Plan to landowners and promote nutrient and sediment reduction goals. These visits also served to identify future projects and water quality priorities.

## Dirt & Gravel Roads Program

The Dirt and Gravel Road (D&GR) Program was created in 1997. The purpose of the program is to provide training and funding to local road owning entities to mitigate stream pollution from dirt roads. To date, the District has received and administered as grants a total of over \$1.3 million for funding, administering, and educational events related to dirt and gravel road improvement projects in Mifflin County. The District has completed 39 projects involving 7 different townships, with an additional \$81,000 committed to pending projects. Through the District's Dirt and Gravel Roads Program, more than 17 miles of Mifflin County's dirt roads have been improved to demonstrate the use of environmentally sensitive road maintenance practices. In 2015 the traditional D&GR Program was expanded to include some low volume, paved and/or tar-chip roads under the Low Volume Roads (LVR) portion of the program. The purpose and mission of the Dirt, Gravel, Low Volume Roads (DGLVR) Program remains the same: provide training and funding to local road owning entities to mitigate

stream pollution from dirt and low volume roads. To date, the District has received approximately \$500,000 for low volume road improvements. The District has completed a total of 17 projects and has committed over \$58,000 toward future projects. Projects have been or are being completed in 7 different municipalities totaling over 4.5 miles.



## Erosion and Sediment Control Program

The District, under delegated authority from the Department of Environmental Protection (DEP) and the State Conservation Commission, administers the Erosion and Sediment Pollution Control Program at a Level II authority under the Chapter 102 regulations and the Pennsylvania Clean Streams Law. This involves technical review of erosion control plans for earthmoving activities, project inspections, compliance activities, complaint response and public education. The purpose of this program is to protect our land and waters from accelerated erosion and resulting sedimentation during any earth disturbance. The scope of projects reviewed by the District can range from single building construction disturbing a minimal area to massive highway projects involving hundreds of acres of disturbance.

In the past year the District performed 13 initial and 57 follow-up

E&S plan reviews encompassing 120 project acres and 80 disturbed acres. Our staff performed 28 site inspections, responded to 279 requests for technical assistance and investigated 8 E&S related complaints.

Construction sites involving more than 1 acre of earth disturbance must apply for and receive a National Pollution Discharge Elimination System (NPDES) permit prior to commencing any earthmoving activities for the discharge of stormwater from those sites. Anyone that expects to begin a project that may involve more than 1 acre of earth disturbance over the life of the project is urged to contact the Conservation District to determine whether or not NPDES permit coverage is required. The Conservation District is delegated to administer the NPDES program for construction sites in Mifflin County. This includes processing and technical review of applications and accompanying E&S plans, and regular inspections of permitted sites to ensure compliance with permit conditions. Individual NPDES permits are issued for those sites located in Special Protection watersheds, and General Permit coverage is given to all other sites. The District processed 2 Individual and 5 General NPDES permits in Mifflin County in the last calendar year.

## **Watershed Assessment and Restoration**

### **Upper Kish & Hungry Run Section 319 Grants**

The District continued focus on two priority watersheds for water quality improvement in Mifflin County through the EPA Section 319 Funding Program. These watersheds

were identified as priority areas after the completion of the Pennsylvania Department of Environmental Protection's surface water assessment in 2001. Watershed assessments and restoration plans were completed for both the Upper Kishacoquillas Creek watershed and Hungry Run watershed in Mifflin County.

The Upper Kishacoquillas (Kish) Creek watershed includes the main stem of Kish Creek from Belleville to Allensville and all of the tributaries in-between. The Hungry Run watershed, a tributary of Kishacoquillas Creek, flows through the village of Vira and meets the Kish below Burnham. Each watershed contains a majority of streams with an aquatic life use impairment. Sediment and nutrients are the cause of impairment in both watersheds and the implementation plans addresses reductions of both agricultural and urban sources of sediment and nutrients.

Grant money is available to projects in impaired watersheds that have EPA approved Watershed Implementation Plans through the Section 319 Nonpoint Source Pollution Program. To date, the District has received more than \$3 million in 319 and Growing Greener funds for agricultural BMPs and watershed restoration efforts in the Upper Kish and over \$1.4 million for the Hungry Run Watershed. The MCCD submitted an updated Watershed Implementation Plan to the US EPA for the Upper Kish Watershed in 2019. This update included new cost estimates, updated watershed modeling and reduction estimates, and included an expanded area of the impaired watershed (extended downstream to Applehouse Road). The updated plan was approved in February of 2020. During 2022, the District installed the following BMPs in cooperation with local landowners:

- **Project #1:** Construction of the following BMPs: 1-36 ft. x 60 ft. Roofed Heavy Use Area, 1 – 36 ft. x 24 ft. Roofed Manure Stacking Structure, 132 ft. of rain gutters and downspouts, and extension of 1 livestock stream crossing.

### **Town Run**

The MCCD met with staff from the PA DEP to discuss future watersheds for focus under the 319 program. The MCCD and PA DEP are starting preliminary work on an Alternative Restoration Plan for Town Run in McVeytown. This watershed is an ideal size for restoration efforts since it only involves a few tributaries and landowners. It is expected that this plan will take 1-2 years to complete.

### **Riparian Buffer Management**

In 2017, the MCCD received a \$25,000 grant to maintain and revive existing riparian forest buffers in Mifflin County. This grant purchased equipment, and contracted services to complete supplemental management of riparian buffers (mowing, trimming, mortality planting, etc.). In 2022, the District was able to continue assisting multiple landowners in maintaining over 20 acres of riparian forest buffers. The MCCD replanted trees, removed tree tubes and stakes, completed establishment mowing, and assisted with invasive species control. The MCCD was also able to secure additional mowing equipment through the Countywide Action Plan grant.

Maintenance and management is vital to long-term project success!



### Surface Water Assessment Program (SWAP) Monitoring

In light of the extensive work completed by the District and its partners in the Upper Kish & Hungry Run watersheds, the possibility of removing these waters from the 303(d) impaired waters list is a key goal and distinct possibility in the future. The District has been sampling water quality in these watersheds since 2014. Surface water assessments are conducted each year during the month of April or May and collect a snapshot of water quality conditions through biological, physical, and chemical data. Samples taken in April of 2022 continued to show water quality improvement across many sites, most notably in the Hungry Run watersheds. Improving waters data was submitted to PA DEP for further consideration. The Foundation for Pennsylvania Watersheds partially funded the 2022 sampling season. Sampling is planned to continue in 2022 through a partnership with local PA DEP biologists and the MCCD. Sampling in 2023 will complete a 10-year data set in these watersheds.

Additional sites were sampled in 2023 on Hungry Run tributaries in December by PA DEP with the hopes of de-listing the watershed from the state's impaired waters list. Several sites on the Kishacoquillas Creek and Jacks Creek were also sampled via electrofishing in order to collect pre-

project data prior to several stream restoration efforts that took place in the late summer of 2022 (see *CAP Implementation* section).



### Chesapeake Bay Program

2022 marked the 33rd year for the Conservation District's administration of the Chesapeake Bay Program. The Bay Program is a unique regional partnership leading and directing restoration of the Chesapeake Bay and its tributaries. The program works with landowners who would like to reduce sediment and nutrient runoff from their farms.

District personnel performed 63 farm inspections as part of a new requirement with the "reboot" of the Chesapeake Bay Program. The purpose of these visits was to ensure that Mifflin County Ag producers have the required Ag Erosion & Sediment Control (E&S) plans and Manure Management plans to be in compliance with relevant environmental regulations. The District also assisted 7 farmers in developing Manure Management plans covering 926 acres and assisted 10 farmers with the development of 15 Ag E & S plans covering 1,091 acres.

### Nutrient Management Program

2022 completed the 25th year of the conservation district's delegated agreement with the State Conservation Commission to administer Pennsylvania's Nutrient Management (Act 38) Program. The District's primary responsibility is the technical review and approval of nutrient management plans that are prepared and submitted by commercial or individual planners for farms that are considered Concentrated Animal Operations (CAOs). A concentrated animal operation is a farm with more than two animal equivalent units (AEU's) per acre of land suitable for manure application (animal equivalent unit defined as 1,000 pounds of animal weight). In addition, farms that are not legally required to comply with Act 38 may do so voluntarily. Nutrient management planning is done with nitrogen and phosphorus as the nutrients of concern. Other features of the program include odor emission regulations for certain size livestock operations and a certification program for commercial manure haulers.

In 2022, the Conservation District reviewed and approved 8 nutrient management plans. Additionally, the District completed 24 annual status reviews of previously approved nutrient management plans.

### Farmland Preservation

The Conservation District serves as the administrator of the Mifflin County Agricultural Conservation Easement Program. This program preserves the future of productive farmland in the county by purchasing the development rights to participating farms. Farm owners are paid a percentage of the easement



value, or difference between the agricultural and market values of the land, to keep their farms in productive agriculture. Funding for easement purchases is provided by the PA Department of Agriculture, the Mifflin County Commissioners, and in some cases, United States Department of Agriculture.



In order to be eligible, a farm must meet the following minimum criteria: (1.) be located within a recorded Agricultural Security Area that has at least 500 acres enrolled, (2.) contain at least 50% of soils which are available for agricultural production and are Capability Classes I through IV, (3.) contain the greater of 50% or 10 acres of harvested cropland, pasture, or grazing lands, (4.) be contiguous acreage of at least 50 acres, unless the tract is at least 10 acres and is utilized for a crop unique to the area or is contiguous to a property which has a perpetual conservation easement in place. Farms that meet this criteria are competitively ranked according to the Land Evaluation and Site Assessment (LESA) process. The LESA assigns points to each farm according to soils, farm productivity, development pressure, and clustering or proximity to other farms in the program. Depending on funding available, the highest ranked farm(s) receives an offer for easement purchase based on certified appraisals of the farm's agricultural and market value. Once the easement is purchased, that farm

must remain in agricultural production in perpetuity.

Statewide, there have been 6,076 farms preserved in 59 counties totaling 613,884 acres. In Mifflin County, there are now 29 farms preserved totaling 3,202 acres at a cost of \$3,601,257.

## Environmental Education

### Envirothon

The District continued its sponsorship of the Envirothon, an environmental education competition for senior high school students that tests their knowledge of natural resource issues. The 2022 Mifflin/Juniata County Envirothon was held at the Lost Creek community park. Two teams from Mifflin County High School attended the event. The winning team went on to represent Mifflin County at the Pennsylvania State Envirothon held at Camp Mounty Luther.



2022 Mifflin County Envirothon winning team

Names of team members in no particular order, Cara Huerbin (Advisor), Seth Hartman (Advisor), Janae Potutschnig, Jade Vance, Zoe Green, Gracee Tate, Nadine Neavling.

### Field Days and Events

The District participated in several other youth education events. The MCCD staffed a stream health

station at the Reeds Gap Fall Fest (Reeds Gap State Park) in October and had a Cleanup Day with students from the Belleville Mennonite School and members of the Mifflin County Cleanways Chapter. MCCD staff also led a healthy streams presentation to the Juniata Valley YMCA preschool class. Erica Smith presented to the local cub scouts at their Blue & Gold banquet and had wildlife pelts/furs available as well as a paw print identification activity. The wildlife kits were donated by the PA Game Commission for environmental education.

The wildlife kit is available for future presentations and to check out of the Districts lending library. The District also has two Enviroscape models available to teachers to check out of our environmental lending library. If you would like more information about what material is available, please contact our office. Education was not limited to youth. The MCCD assisted with and/or participated in several educational and outreach meetings for the Ag community and the general public. Mike Stuck and Erica Smith did one on one Manure Management manual trainings at the MCCD district office. Trevor Weaver provided presentations to the Mifflin County Farm Bureau and presented at the PA Statewide Annual 319 meeting.

### Spotted Lanternfly

In 2022 the MCCD received a grant from the State Conservation Commission and engaged in several Spotted Lanternfly (SLF) Control Program activities. Main activities included education and outreach related to SLF. Other activities included distributing and monitoring SLF circle traps as well as fielding general inquiries related to SLF identification and control.

The MCCD set up a SLF educational display in the MCCD office. This display included several SLF specimens (provided by PA DCNR) as well as fact sheets and pamphlets. The MCCD also worked with the local Penn State Extension office and PSU Master Gardeners to utilize their display materials at a local Agribusiness meeting hosted in Mifflin County in January 2022.

## Other District Activities in 2022

In 2022, the MCCD continued their annual tree seedling sale. The 2022 sale included evergreens, shade trees, flowering trees and shrubs, and wildflower seed. The MCCD sold 947 trees/shrubs. Proceeds from the annual seedling sale fund environmental education efforts in Mifflin County.

The MCCD also adopted planters in downtown Lewistown as part of the Downtown Lewistown Adopt-A-Planter program. Planters were planted with native flowers and perennials to help display plants that are native to our region.

District personnel also participated in the following resource-related activities: PA Envirothon Board of Directors, the DG&LVR Quality Assurance Board, the PA Agroforestry Brain Trust, PA Riparian Forest Buffer Advisory Committee, Mifflin County Farm Bureau Nominations Committee, Kish Park Study Committee, the Countywide Action Plan Leadership Committee,

Mifflin County Solid Waste Authority Advisory Committee, and the Juniata Watershed Management Plan Update Committee. The District welcomes opportunities to form partnerships with local agencies, organizations, and governments to further promote conservation, and ensure the protection of our natural resources for future generations.

## District Staff

District Manager:  
**Trevor Weaver**

Administrative Assistant:  
**June Morningstar**

Ag Conservation Technician:  
**Erica Smith**

Ag Resource Conservation:  
**Mike Stuck**

Resource Conservation:  
**Floyd Ciccolini**

Watershed Specialist:  
**Bailey Coder**

Part-time Secretary:  
**Cathy Yohn**

### Mifflin County Conservation District

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MCCD staff (l to r): Floyd Ciccolini, June Morningstar, Mike Stuck, Trevor Weaver, Bailey Coder, Erica Smith, (Missing from photo: Cathy Yohn)

