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2022**

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servation Technician,*  
Alicia Ramsey *DGLVR/ES  
Technician*  
Hannah Bequeath, *Educa-  
tion/Outreach Coordinator*

# Clarion Conservation District Annual Report 2022



## Our Role in Clarion County

*From its inception in 1937, the Clarion Conservation District's goal has been the promotion of wise land use in agriculture and the developing community through education or technical assistance. Over the years, meeting the needs of the residents of Clarion County has expanded the role of the District into areas of water quality, erosion and sediment control, environmental education, dirt and gravel road maintenance and nutrient management. The duties delegated by the State Conservation Commission are administered by a volunteer board of directors. The board members, a vital part of this organization, offer years of experience in agriculture, business, science, technology, education and public policy.*

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Clarion Conservation District



# Erosion & Sediment

The Clarion Conservation District is delegated Level 2 for Chapter 102 administration and review responsibilities in the Erosion & Sediment (E & S) pollution control program by the Department of Environmental Protection for the discharge of storm water associated with construction activities. A federal regulation that works in conjunction with the state E&S program is the National Pollution Discharge Elimination System (NPDES) Program. This regulation requires earthmoving activities disturbing one acre or more to obtain an NPDES permit which is reviewed by the District. Chapter 102 program applications and the current fee schedule are posted on the District's website, [www.clarionconservation.com](http://www.clarionconservation.com)

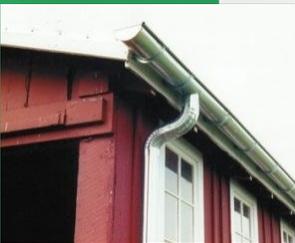
*§ 102.5 Other than agricultural plowing or tilling activities, animal heavy use areas, timber harvesting activities or road maintenance activities, a person proposing an earth disturbance activity that involves equal to or greater than 1 acre (.4 hectare) of earth disturbance, or an earth disturbance on any portion, part or during any stage of, a larger common plan of development or sale that involves equal to or greater than 1 acre of earth disturbance, shall obtain an individual NPDES Permit or coverage under a general NPDES permit for Stormwater Discharges Associated with construction activities prior to commencing the earth disturbance activity.*

## 2022 Activity

- ◆ 13 General NPDES Permits Issued, 258 acres
- ◆ 1 Individual NPDES Permit Issued, 28 acres
- ◆ 17 E&S Plans Reviewed, 11 acres

In addition to processing NPDES permits and reviewing E&S plans, the District fields complaints, conducts site inspections, provides technical assistance and develops outreach to landowners and the regulated community on earth disturbance and storm water topics.

An educational workshop was held for landowners and business owners to encourage the establishment of rain gardens on private property to manage storm water. Planted with grasses and flowering perennials, rain gardens can be a cost effective and beautiful way to reduce runoff from impervious surface. Rain gardens can also help filter pollutants in runoff and provide food and shelter for butterflies, song birds and other wild-life.



# Dirt & Gravel/Low Volume Roads Program

Pennsylvania's Dirt & Gravel Road Maintenance/Low Volume Road Programs provide dedicated and earmarked funding to eliminate stream pollution caused by dust and sediment from paved and unpaved roads. The DGLVR technician assists townships to develop work sites and reviews projects with members of the Quality Assurance Board to rank and select for funding under DG or LV programs in Clarion County.

The Dirt & Gravel Road Program emphasizes environmentally sensitive road maintenance practices to design drainage systems that reduce sediment loading and stabilize road surfaces. Townships must have ESM certified project supervisors to be eligible for program funding.



2022 LV		
Township	Road	Cost
Foxburg Boro	N Palmer Rd	\$12,895.50
Highland Twp	McCleary Rd	\$42,000.00
Porter Twp	Smith Rd	\$50,000.00
<b>Total Low Volume</b>		<b>\$104,895.50</b>

2022 DGR		
Township	Road	Cost
Washington	Gowdy Rd	\$100,000.00
Beaver Twp	Attleberger Rd	\$10,427.00
Farmington	Thompson Dr	\$63,956.00
Beaver Twp	Dengler Rd	\$20,434.00
Millcreek Twp	Old State S Rd	\$65,000.00
Knox Twp	Fairview Rd	\$59,628.36
Limestone Twp	Love Rd	\$15,751.24
<b>Total Dirt &amp; Gravel</b>		<b>\$335,196.66</b>



A stream crossing project was completed on **Gowdy Road located in Fryburg, PA**. The failing, undersized culvert was replaced with a prefabricated modular bridge set on spread footer abutments and stream restoration was completed to allow continuity of McCauley Run, an Exceptional Value (EV) stream, through the road profile.

# Agriculture

## Nutrient Management

The Nutrient Management Act is a Pennsylvania law that passed in 1993 whose regulations became effective in October 1997. The purpose of the Act is to minimize surface and groundwater nutrient loads from agricultural operations and to increase farm profitability by practicing good nutrient management.

The Clarion Conservation District is delegated by the State Conservation Commission to review nutrient management plans written for operations in Clarion County. The District can provide educational assistance to the agriculture community on best management practices for handling nutrients on farms to minimize water pollution. Every farm in Pennsylvania that land applies manure, whether they generate the manure or import it from another operation, is required to have a written Manure Management Plan. The difference in need between a Nutrient Management Plan and a Manure Management Plan is animal density.



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## Grazing Field Day—“Improving Land While Lowering Costs”



Approximately one hundred people gathered at the Wilson Land & Cattle Co. in Tionesta, PA on October 14th, 2022 for a grazing field day focusing on “improving land while lowering costs”.

Participants listened to several experts discuss methods to improve soil health through grazing practices.

Topics included,

- Monitoring soil health in a grazing system
- Profit benefits of silvopasture and alley cropping in pastures
- Importance of soil health as a climate change solution to adapt to weather extremes. Included was a demonstration of a rainfall simulator to emphasize different management strategies and their effect on soil health and performance under intense rainfall events.

Information on nutrient management and funding/assistance available to producers was presented by Tricia Mazik, Resource Technician, Clarion Conservation District (CCD), Jane Price, Agricultural Technician and Resource Conservationist, Venango Conservation District (VCD), and Geri Montgomery, NW Pennsylvania Grazing Specialist, USDA/NRCS. Farm owner, Russ Wilson gave a field tour highlighting methods and results of intensive rotational grazing and ways to lower costs. The event was planned in partnership with neighboring conservation districts and agency partners and was funded by a Non-point Source Pollution (NPS) Mini-grant awarded by the Pennsylvania Association of Conservation Districts (PACD).

# Acid Mine Drainage Remediation

## Clarion County Park AMD System Rehabilitation

Growing Greener project funds total: \$93,000

Matching funds by Clarion Conservation District, Clarion County and Hedin Environmental: \$19,846

**Total project cost:: \$112,846**

The Clarion County Park system treats an artesian flow of water that is acidic and contaminated with high concentrations of iron. The discharge is collected and piped into an anoxic limestone drain. The effluent is piped to a channel that flows into an iron oxide settling pond before reaching a constructed wetland. The system was installed in 1991, and since that time the system's performance functioned as expected and significantly improved the water chemistry of the Clarion River and surrounding tributaries. The purpose of the passive treatment system is to raise the alkalinity and precipitate iron so that high levels of acidity and metals do not reach the Clarion River.

After 31 years of successful treatment of water, the system had operational problems due to being undersized and lacking adequate maintenance. This project's goal was to rehabilitate the system and regain the proper function as originally designed. To function properly the iron sludge needed to be cleaned out of the settling pond, the vertical flow pond needed to be rehabilitated, and a 13,000 square foot settling pond had to be constructed. Additional work will need to be done to complete the project, including a second settling pond and a constructed wetland, but the success of this phase of the project was a big step to restoring the aging, failing treatment system.



**Above:** Construction at the Clarion County Park AMD passive treatment system.

**Left:** Completed settling pond and vertical flow pond (VFP) outflow to pond.

# Education/Outreach



**Education Programs: 35**  
**Outreach Events: 9**  
**Attendance Total: 946**  
 (832 kids, 114 adults )

## Topics:

- Wildlife & Plant Adaptations
- The Water Cycle & Science of Snow
- Food Webs
- Wildlife Courtship
- Protecting Water from Pesticides and Fertilizers
- Nature Photography
- PA Wildlife
- Forests for Fish
- Watersheds & Water Pollution
- Pollinators
- Invasive Species– terrestrial & aquatic
- How Plants Grow
- Watershed Wednesday Program Series (Streams, Wetlands, Lakes, Rivers),
- Fun on the Farm Program Series (Beef Cattle, Fruits and Veggies/Hydroponics, Dairy Cows, Pumpkins & Berries)
- Rain Gardens, Native Plants, & Climate Change
- CCD Ag Assistance Topics
- Autumn Leaves
- Coniferous trees

