

Westmoreland Conservation District

2013 Annual Report

WATERSHEDS



We work closely with watershed associations across the county. Shown here are (l-r): Mike Barrick and Patty Miller of Jacobs Creek Watershed Association; Larry Myers of Sewickley Creek Watershed Association; Susan Huba of Loyalhanna Watershed Association; Bev Braverman of Mountain Watershed Association; and Craig Barras of Turtle Creek Watershed Association.



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Dear Friends:

The theme of this year's annual report, watersheds, puts attention on the natural land divisions of our county.

But another way to think of watersheds is in terms of those major turning points in the course of history that change everything – the watershed moments. A few in the District's history that come right to mind are:

- October 21, 1949 when the Westmoreland County Commissioners unanimously passed a resolution establishing the entire county as a “soil conservation district” and the District was born.

- The day in 1968 when former, long-time District Chairman Roy Houston's boss at Peoples Natural Gas told him he was “going to a meeting” that turned out to be a District board meeting and the start of a 40-year friendship.
- The period of the late 1990s, when the prevailing philosophy for managing stormwater shifted from detention (merely holding the water in large man-made holes in the ground) to infiltration (rain gardens, porous pavement, infiltration swales).

Of course there are many others, including some that aren't as well-known or publicized. Like the decision in the mid-1990s to do something that few Districts even today do: Apply for grants from private foundations.

Since that watershed moment, we have applied for and received more than \$5 million in private funding, and that allowed us to do things we never otherwise could have done, including:

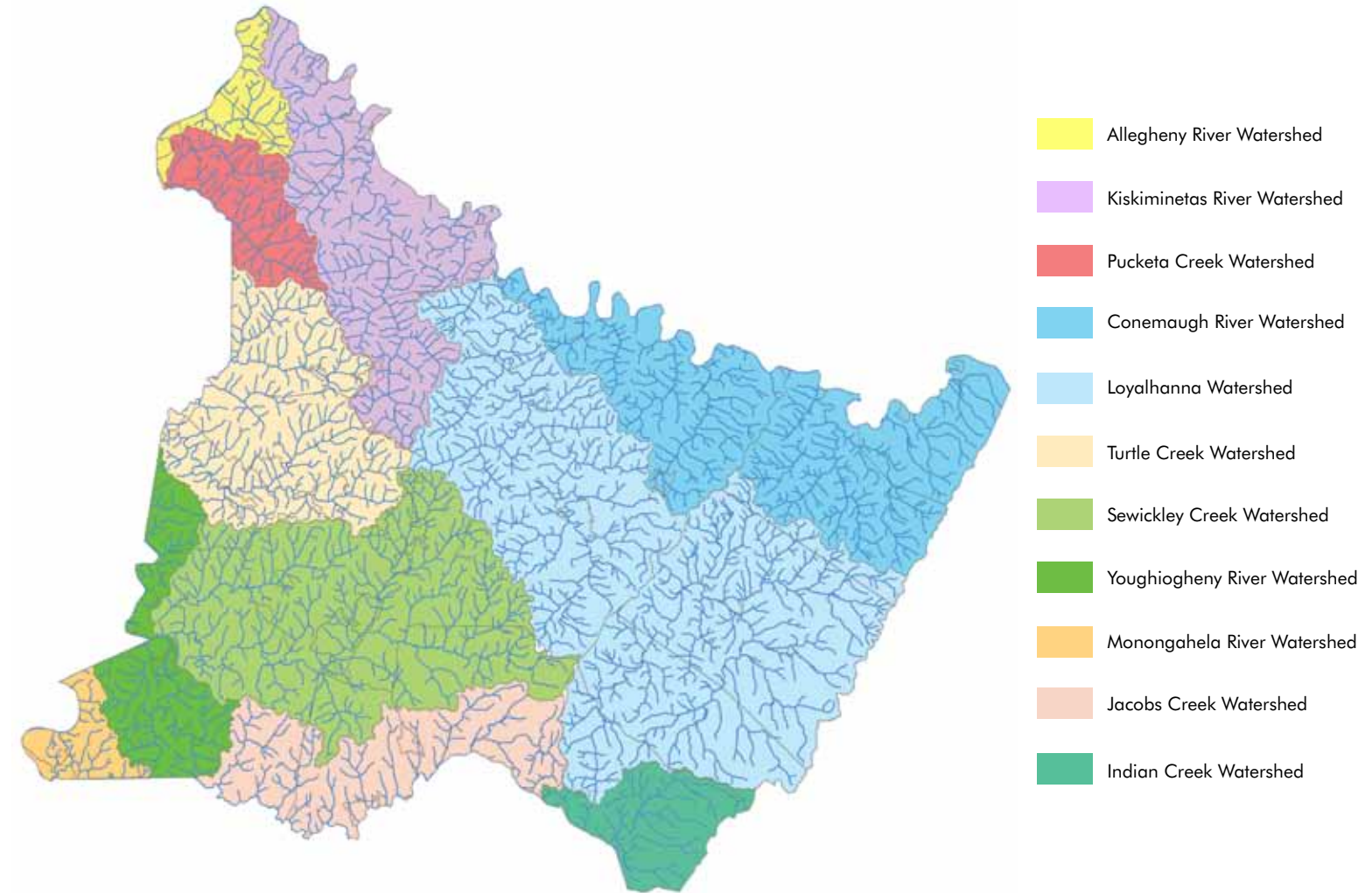
- building our barn headquarters,
- expanding our stormwater and education programs,
- establishing statewide and countywide annual conservation awards,
- revitalizing the GreenForge building,
- undertaking a comprehensive strategic plan with the respected Bayer Center for Nonprofit Management, and
- many other important projects that have strengthened our District and promoted conservation in our county.

Throughout the course of our history, we have been very fortunate to have had strong and consistent support from the Westmoreland County Commissioners, whose yearly budget allocation provides not only the foundation for our operations, but also the leverage to attract additional outside funding, including more than \$1.9 million in additional funds we secured for conservation projects that were put on the ground in 2013 and planned for 2014. We are very grateful to the County Commissioners, the private foundations and individual donors, and the businesses and government grantors who support the work of the District and partner with us to keep our streams clean, our soils stable, our farms productive, our forests healthy, and our communities sustainable.

Ronald J. Rohall
Chairman

Westmoreland County Watersheds

The size and shape of a watershed is determined by nature – by the way water flows across the land. The watershed boundary will more or less follow the highest ridgeline around the stream channels and meet at the bottom or lowest point of the land where water flows out of the watershed.



Watersheds are often named for the single waterway that water from the surrounding land and streams flows into.

Some Westmoreland County watersheds most often referred to include: Loyalhanna, Jacobs Creek, Sewickley Creek, Turtle Creek, and Indian Creek.

Each of these watersheds can be divided into smaller watersheds by isolating a smaller stream and the surrounding land that drains into it. Nine Mile Run Watershed, for instance, is a small watershed within the Loyalhanna Watershed.

Likewise, each watershed can be identified as part of a larger watershed. So...the Loyalhanna Watershed is a part of the larger, Kiski-Conemaugh River Watershed. And the Kiski-Conemaugh River Watershed is a part of the larger, Allegheny River Watershed. And the Allegheny River Watershed is part of the larger, Ohio River Watershed, and so on.

Want help locating the Westmoreland County watershed that you call home? View the major county watershed map on our website: <http://wcdpa.com/tech-services/watershed-restoration/>

Humans have found a lot of different ways to divide up the land.

They've used...

- Political subdivisions – Do you live in North Huntingdon Township or the City of Monessen?
- Post Office routes/ZIP Codes™ – Is your address in 15628 or 15083?
- School Districts – Are you a Cougar from Yough or one of the Bucs from Lower Burrell?

And even though these divisions give us a sense of place, all of them are man-made and most of them are somewhat arbitrary.

If you want a truly 100% natural way to identify your "place," you have to use watersheds.

A watershed is all the land that "sheds" or drains its water to the exact same place, such as to a single lake, stream, river, or ocean.

So, by this definition, if you –

- poured some water on the street at the Summit Drive home of a Greensburg-Salem Golden Lion in the City of Greensburg, ZIP Code 15601...and
- poured some more water on the street at the Sixth Street home of a Hempfield Spartan in the Borough of Youngwood, ZIP Code 15697...and
- poured some more water on the street at the Marguerite Road home of a Latrobe Wildcat in Pleasant Unity, ZIP Code 15676...and
- poured some more water on the street at the Brokers Lane home of a Norwin Knight in North Huntingdon Township, ZIP Code 15642...and
- poured some more water on the street at the Turkeytown Road home of a Yough Cougar in South Huntingdon Township ZIP Code 15089...

all that water would eventually end up in exactly the same place – in Sewickley Creek!

So even though all these places are on different streets, in different towns, in different school districts, and have different ZIP Codes, they actually are all part of the very same watershed – the Sewickley Creek Watershed.

Which means that watersheds sometimes connect us in ways we often aren't aware of. And what someone does in one part of our watershed affects many others downstream in that watershed.

Westmoreland County's Major Watersheds by Region

As you look at the maps on pages 6-11, you'll notice some place names (such as Mount Pleasant Township) stretch across more than one watershed. That's because that particular township (or municipality or borough) has more than one watershed in it. In the case of Mount Pleasant Township, parts of it are in two different watersheds – Sewickley Creek Watershed or the Jacobs Creek Watershed.

Each of the watershed maps on pages 6-11 also is keyed to show the variety of conservation work that occurred there in 2013.

The Westmoreland Conservation District is directly involved with most of this work, either because we initiated the project or because we are part of a partnership.

Of course, many other conservation projects other than those shown on the following maps have been implemented all across our county over the years, and more are planned for 2014 and beyond.



Westmoreland County Streams

All Streams

There are 2,307.5 miles of streams in Westmoreland County, according to the calculations of the Pennsylvania Department of Environmental Protection, whose definition includes brooks, creeks, and even a few wetlands and lakes.

As you can see from the map to the right, that's a lot of streams! You can't travel very far in Westmoreland County without encountering a waterway – which leads to a lot of interactions between humans and streams, and the need for good conservation practices.



Impaired Streams

The Pennsylvania Department of Environmental Protection classifies a stream as "impaired" when human activities have caused damage to the point where the ecological value of the stream is impaired.

The primary cause of impaired streams in Westmoreland County today is sediment. Sediment is essentially soil that has been dislodged and is now in the stream.

Sediment can get into waterways from earthmoving sites that don't have adequate erosion controls, agricultural or forestry activities that aren't employing conservation methods, eroding unpaved roads, or flooding.

Another serious source of stream impairment in our county is water that has drained through abandoned coal mines, picking up pollutants. This map shows clusters of impaired streams around Brush Creek, Turtle Creek, lower Loyalhanna Creek, and lower Sewickley Creek, where the major problem is abandoned coal mine drainage.

In all, about 677 miles of streams in Westmoreland County are considered "impaired," which is about 29% of our total stream miles.



High-quality Streams

There also are streams in Westmoreland County that have extremely good water quality.

By definition, a high-quality stream is one that supports a wide variety of aquatic organisms. It has a high level of dissolved oxygen, a low level of pollution, a balanced pH, a good food supply for invertebrates, and a range of habitats for aquatic organisms.

One of the biggest factors in affecting good water quality is forests. Forests serve as natural sponges, collecting and filtering rainfall and releasing it slowly into streams. Notice in this map how many of the streams with good water quality are in the eastern part of the county, along the forested ridges. Forest cover has been directly linked to lower drinking water treatment costs – the more forest in a source water watershed, the lower the treatment costs.

About 625 miles of streams in Westmoreland County are considered exceptional or high-quality streams or fisheries, which is about 27% of our total stream miles.



To learn more about the condition of a particular stream, contact our Watershed Specialist, Rob Cronauer, at rob@wcdpa.com.



PENNSYLVANIA



In this aerial photo, you can see the mixed land use in a six square mile area of the Sewickley Creek Watershed, just east of Greensburg: farm fields in the upper right corner (note the grass strips, a conservation measure that helps to reduce erosion)...housing developments, one of the fastest growing land uses in the county, in the lower left corner...and commercial development clustered along the major highways and the main line of the Norfolk Southern Railroad (bottom right). The yellow circle shows the location of the J. Roy Houston Conservation Center.

In this satellite view of Westmoreland County, you can see the different natural land formations – the two long, parallel ridges to the east, the highest points in the county and the greenest

because they're covered in forests...the winding rivers that outline parts of the borders of our county and the major streams that flow all through it (water absorbs light so it usually looks black or dark blue).

You can also see some of the ways the land is being used – the more urbanized areas, which show up as silver or gray because of the concentration of concrete and building materials, tend to track near

the county's major east-west highways...and the pockets of agriculture in the north central and south central areas, which often can be identified by the geometric shapes of the growing fields (see inset map).

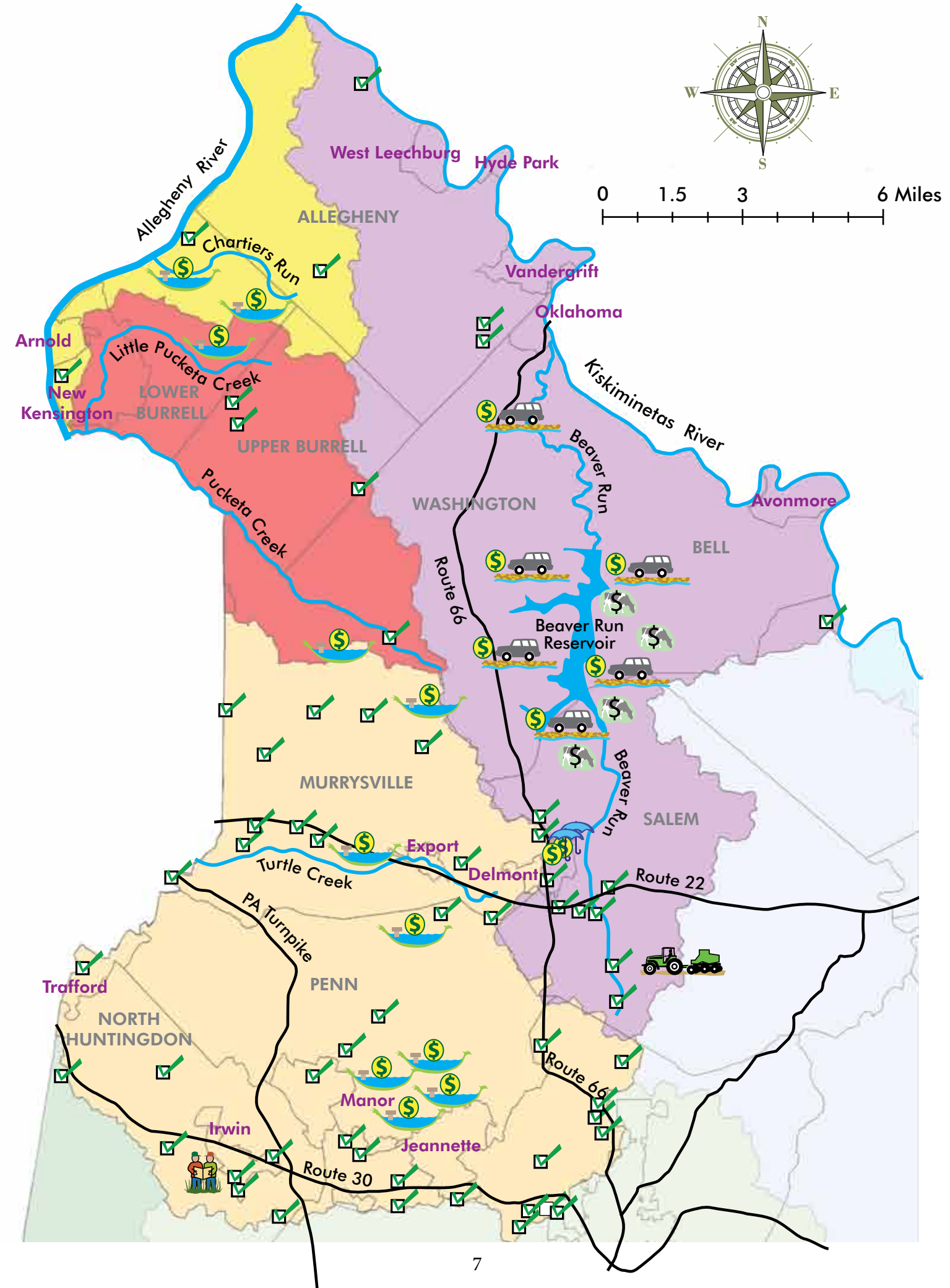
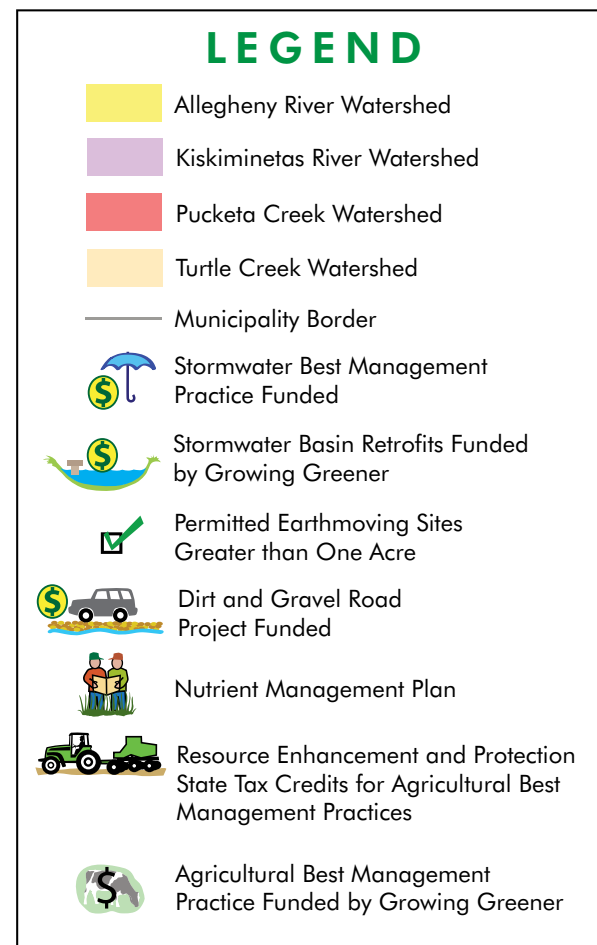
2013 Westmoreland Conservation District Projects in the Northwestern Westmoreland County Watersheds: Allegheny River, Kiskiminetas River, Pucketa Creek, Turtle Creek

Watersheds in this part of Westmoreland County include such features as:

- aging communities working to reinvent themselves, such as New Kensington, the former home of Alcoa (Allegheny River Watershed)
- the drinking water supply for some 150,000 people in our county, the Beaver Run Reservoir (Kiskiminetas River Watershed)
- historically flood-prone areas such as those near Valley High School in New Kensington (Pucketa Creek Watershed)
- a highly urbanized and growing commercial area along Route 22 through Murrysville, Export, and Delmont (Turtle Creek Watershed).

Watershed groups in this part of Westmoreland County include:

- Kiskiminetas Watershed Association – c/o P.O. Box 83, Leechburg, PA 15656
- Pucketa-Chartiers Watershed Association – Tony Farina, president, Victoriafarina@verizon.net
- Turtle Creek Watershed Association – Jim Brucker, president, Jbrucker@ftmsa.org



2013 Westmoreland Conservation District Projects in the South-Central Westmoreland County Watersheds:

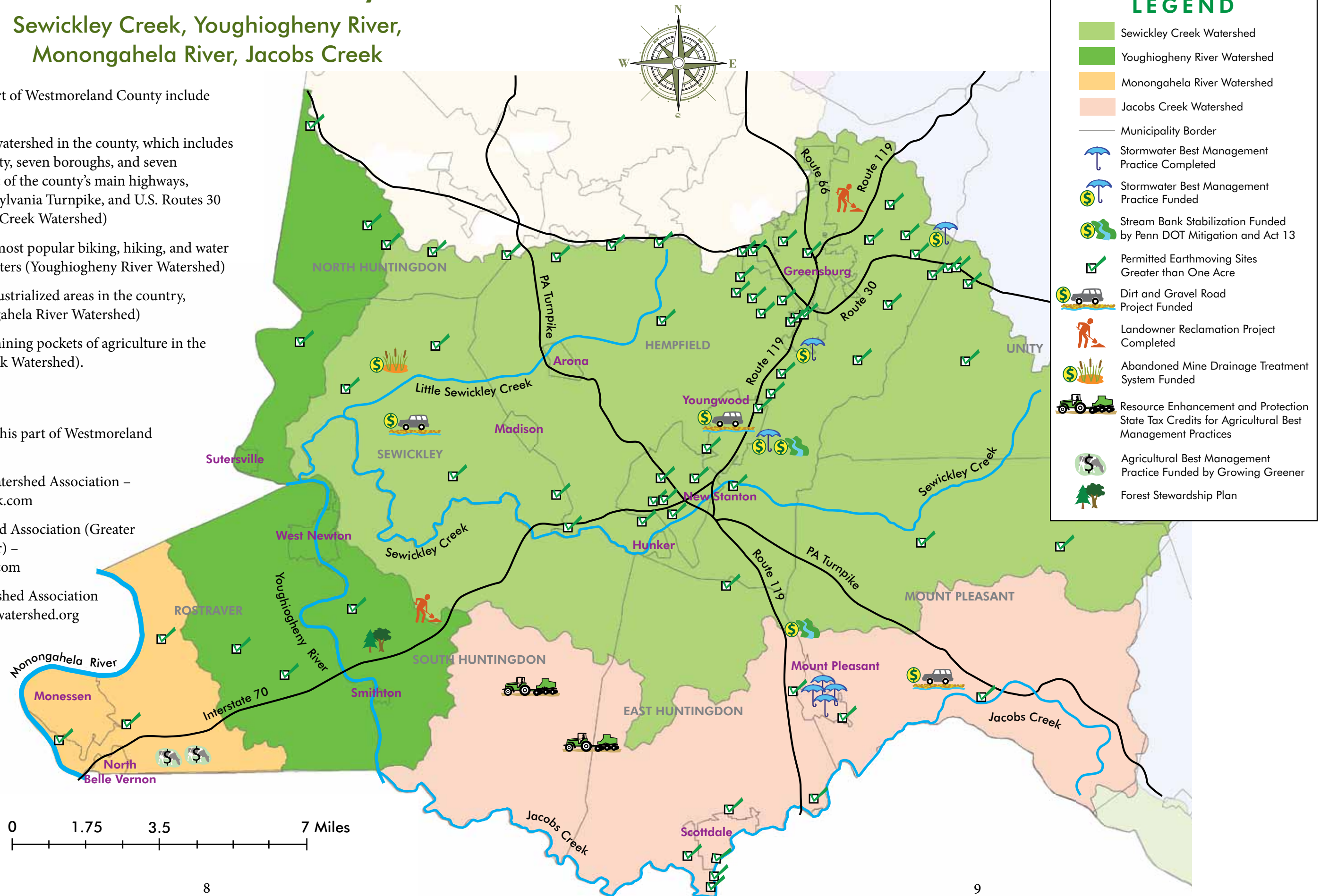
Sewickley Creek, Youghiogheny River, Monongahela River, Jacobs Creek

Watersheds in this part of Westmoreland County include such features as:

- the second-largest watershed in the county, which includes all or parts of one city, seven boroughs, and seven townships and most of the county's main highways, including the Pennsylvania Turnpike, and U.S. Routes 30 and 119 (Sewickley Creek Watershed)
- one of our region's most popular biking, hiking, and water sport recreation centers (Youghiogheny River Watershed)
- one of the most industrialized areas in the country, Monessen (Monongahela River Watershed)
- one of the best remaining pockets of agriculture in the county (Jacobs Creek Watershed).

Watershed groups in this part of Westmoreland County include:

- Sewickley Creek Watershed Association – www.sewickleycreek.com
- Mountain Watershed Association (Greater Youghiogheny River) – www.mtwatershed.com
- Jacobs Creek Watershed Association – www.jacobscreekwatershed.org



2013 Westmoreland Conservation District Projects in the Eastern Westmoreland County Watersheds: Conemaugh River, Loyalhanna, Indian Creek

Watersheds in this part of Westmoreland County include such features as:

- up until recently, one of the most polluted streams in Westmoreland County in the amount of sediment and nutrients it contained (Conemaugh River Watershed)
- the largest watershed in Westmoreland County, including 300 square miles of land and some of the largest expanses of forest in the county (Loyalhanna Watershed)
- more than 130 discharges from abandoned coal mines in a single, 125-square-mile watershed* (Indian Creek Watershed).

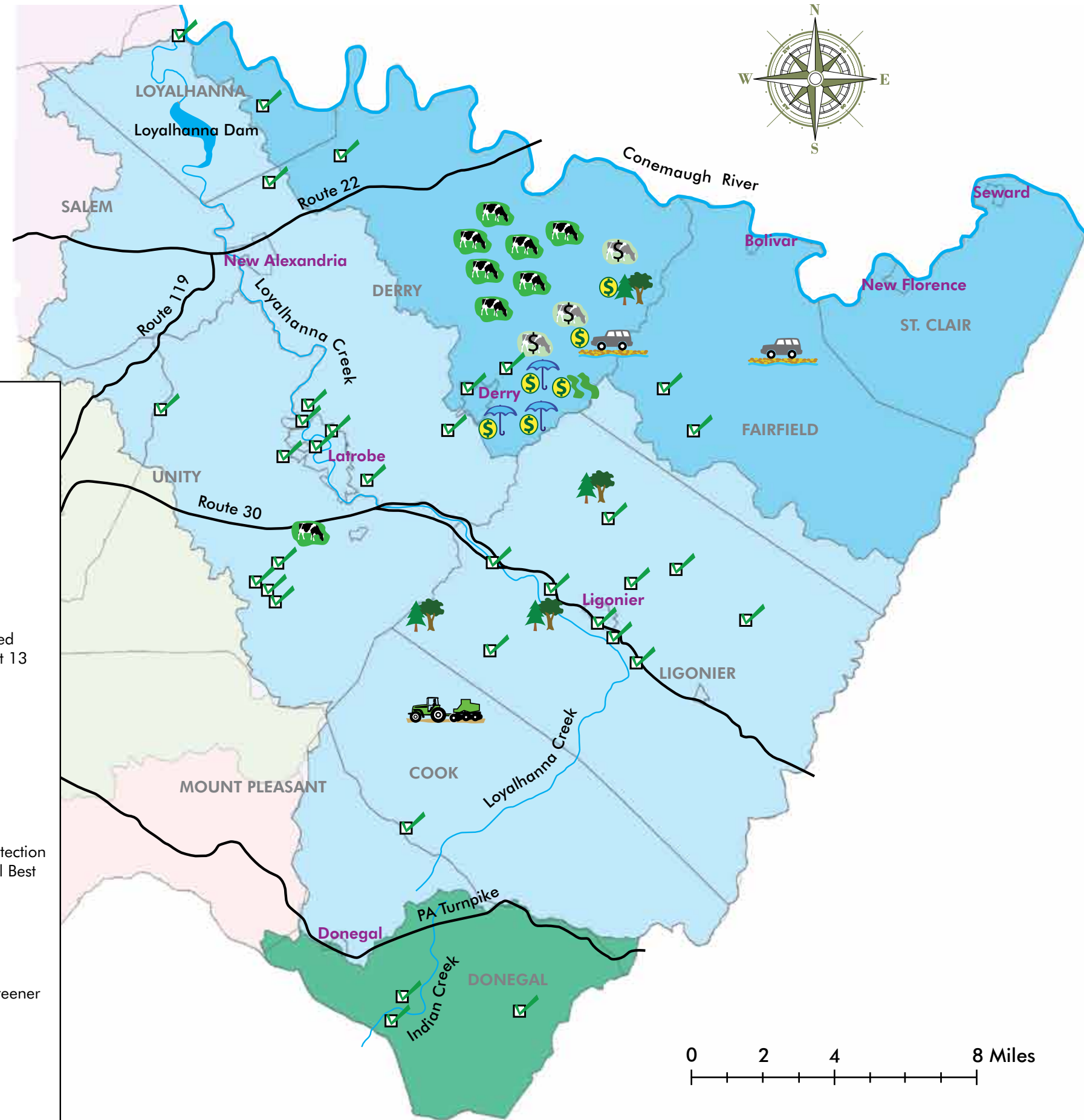
Watershed groups in this part of Westmoreland County include:

- Conemaugh Valley Conservancy (Conemaugh River) – <http://www.conemaughvalleyconservancy.org/conservation/kcst.html>
- Loyalhanna Watershed Association – www.loyalhannawatershed.org
- Mountain Watershed Association (Indian Creek) – www.mtwatershed.com

*Note: This watershed crosses into Fayette County and many of these discharges are located there.

LEGEND

- Conemaugh River Watershed
- Loyalhanna Watershed
- Indian Creek Watershed
- Municipality Border
- Stormwater Best Management Practice Funded
- Stream Bank Stabilization Funded by Penn DOT Mitigation and Act 13
- Permitted Earthmoving Sites Greater than One Acre
- Dirt and Gravel Road Project Completed
- Dirt and Gravel Road Project Funded
- Resource Enhancement and Protection State Tax Credits for Agricultural Best Management Practices
- Agricultural Best Management Practice Completed
- Agricultural Best Management Practice Funded by Growing Greener
- Forest Stewardship Plan
- Forest Stewardship Plan Funded





Dear Conservation Friend:

Like the satellite view of Westmoreland County on pages 4 and 5, when things are observed from a distance, overall patterns and trends are easier to see.

The theme of the District’s annual report this year, watersheds, presents this more global way to look at our county – the natural physical characteristics of the land (Are there mountains? Open fields? Lots of feeder streams?) ... as well as the domi-

nant ways that humans are using the land (Are there sizeable clusters of agriculture? Older towns with aging infrastructure? Miles of unpaved roads? Discharges from abandoned coal mines? Acres of open space or forest?).

By looking at these natural and use aspects, we can see the problems and potentials of each watershed “community,” and identify where conservation efforts can be most effective.

The watershed model is not a new approach to conservation. In fact, the very first conservation project in Westmoreland County was a watershed-wide effort on almost 200 farms in the Beaver Run Watershed. The enormous success of this effort in 1935 proved the efficacy of this approach – Beaver Run today is a source of drinking water for thousands of Westmoreland County citizens – and paved the way for many more to follow, including work in the Jacobs Creek Watershed to create one of the nation’s only watershed-wide flood control projects...and in the Stony Run Watershed to install conservation methods on seven farms and improve the quality of that stream, which until recently was one of the highest in sediment and nutrient pollution in Westmoreland County.

One of the many projects on deck for 2014 – the McGee Run Watershed project – will address the impaired streams in this portion of the Conemaugh River Watershed, and will be the most comprehensive conservation project ever undertaken in the District’s history, involving every one of our conservation programs (see page 22).

As you’ll see in the following pages, we did a lot of work in 2013 to obtain funding for conservation from a wide variety of sources, and I’m excited to say that 2014 is shaping up to be a record year in terms of the number of new conservation projects that we will be able put in place throughout our county.

Gregory M. Phillips
District Manager/CEO



The newly relocated section of Sherrick Run in Mount Pleasant Township, Jacobs Creek Watershed, is shown here just a few months after construction of a 100-plus-foot riparian buffer with micropools and plantings for habitat and wildlife, both of which also will help to protect water quality.

STABLE SOILS

The largest construction project in the county in 2013 was the work being done to improve the highway cloverleaf area where Routes 819 and 119 meet in Mount Pleasant Township.

This junction near major commercial shopping centers required many hours of District technical staff time to review and inspect the work on site, which also involved the relocation of Sherrick Run, a stream that flows along state Route 119 and that is one of two streams in the Jacobs Creek Watershed most heavily impacted with abandoned mine drainage.

This year, we began to initiate the state Department of Environmental Protection’s new “**permit decision guarantee**” initiative, which sets specific timelines that we and the engineers submitting plans must comply with in the process of issuing/obtaining permits.

The purpose of the new initiative is to insure that permit decisions are timely and to improve the quality of

applications.

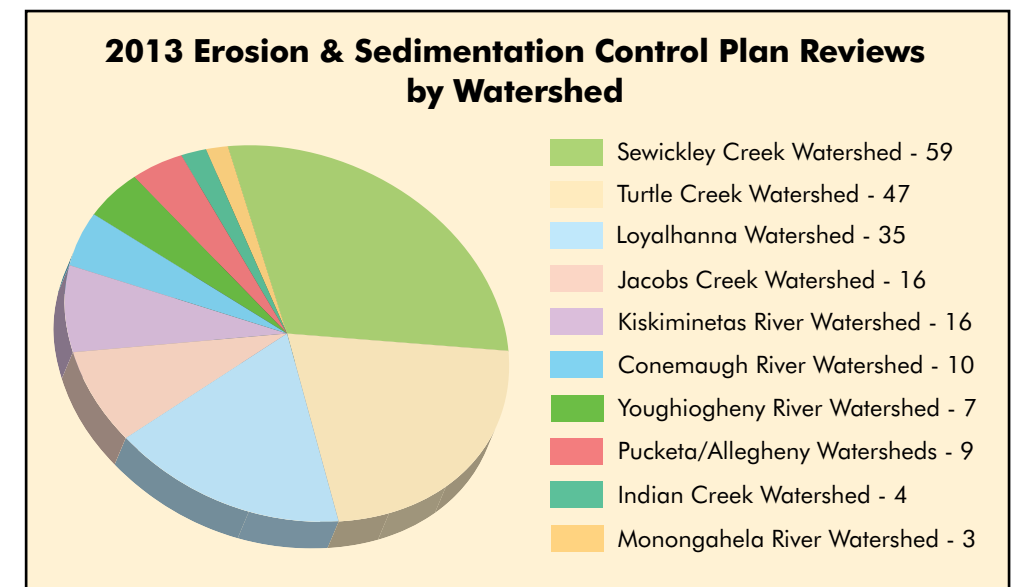
In the first months of enacting this initiative, we found that pre-application meetings were especially valuable to the new process. At these meetings, an engineer or architect presents a roughly sketched out plan of the project and discusses it with District technical staff members. By having this opportunity for input before formal plans are drawn up and submitted, we are reducing the number of reviews and revisions needed and encouraging

the incorporation of more site-appropriate best management practices.

Encouraged by the success of this new process, we also began this year to encourage more pre-construction meetings – not only for National Pollutant Discharge Elimination System permits – but for other earth-disturbance activities as well. These meetings are held on the project site after plans are approved and just before earthmoving begins. Especially for large or complex projects, pre-construction meetings help ensure that the work will be done in compliance with permits and regulations such as the Pennsylvania Clean Streams Law and so reduce the potential for violations.

These new initiatives have streamlined the permitting and inspection process, and have been very well received.

A proposed pipeline to carry ethane and propane from Western Pennsylvania’s Marcellus Shale region 300 miles eastward to a terminal near Philadelphia needed the District’s help in **obtaining permits to cross through central Westmoreland County**, and so our technical programs administrator coordinated with 24 different agency contacts to help get the necessary permits issued.



The pipeline, called Mariner East, will disturb about 204 acres in Westmoreland County. It is a multi-company project whose partners include Sunoco Logistics Partners LP and Range Resources. The companies plan to export half of the natural gas the pipeline carries to Europe.

The Pennsylvania Department of Environmental Protection conducted its **five-year evaluation of how well the District is carrying out the statutes in the Pennsylvania Code** that the state agency delegated to us for handling – specifically, the regulations in Chapter 102 (erosion and sediment control) and Chapter 105 (dams and waterways) – and found that we met all 19 of the required output measures.

State environmental protection officials looked at such things as the time it takes us to process plans, the completeness of our permit reviews, and the quality of our field inspections.

In their written evaluation, the officials commented that the District “does an outstanding job of handling complaints, achieving compliance, and making a positive difference in their county.” They also added, “[The District] use(s) unique and innovative methods of outreach and (is) always



Westmoreland Conservation District Technical Programs Administrator Kathy Fritz (center) stamps final approval on the erosion control plans for the Mariner East pipeline after our staff reviewed this comprehensive document, one of the largest erosion and sedimentation control plans the District has ever received. The Mariner East pipeline will cross through parts of the Youghioghenny River, Sewickley Creek, Turtle Creek, and Kiskiminetas River watersheds in our county. Shown with Kathy are project representatives Rob Simick, PE and Ellen Berklite, PE.

striving to be on the cutting edge of conservation practices.”

Some 30 members of the **Hempfield Township Public Works staff** attended a half-day training session

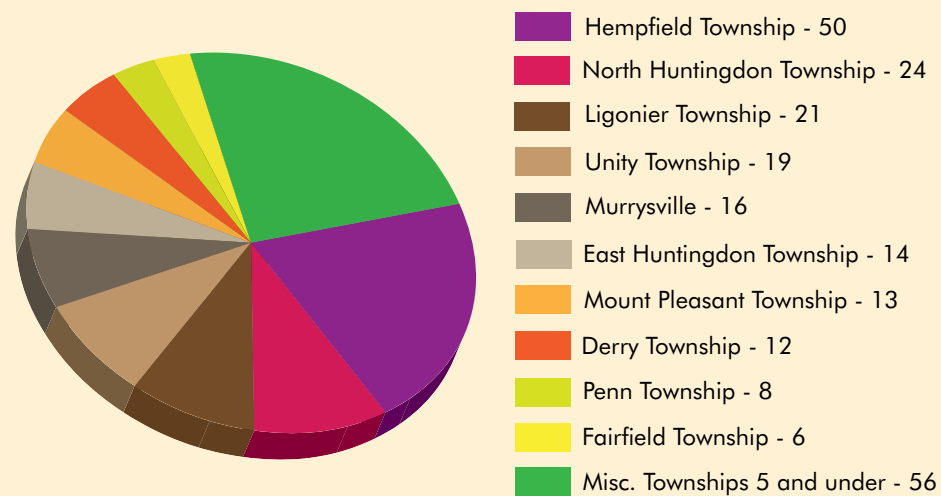
on proper erosion controls, cleaning out detention ponds, and permits required for specific projects.

The workshop was led by our technical staff and the information shared will no doubt have many positive conservation benefits, as Hempfield Township encompasses 90 square miles and is one of the largest townships in Westmoreland County.

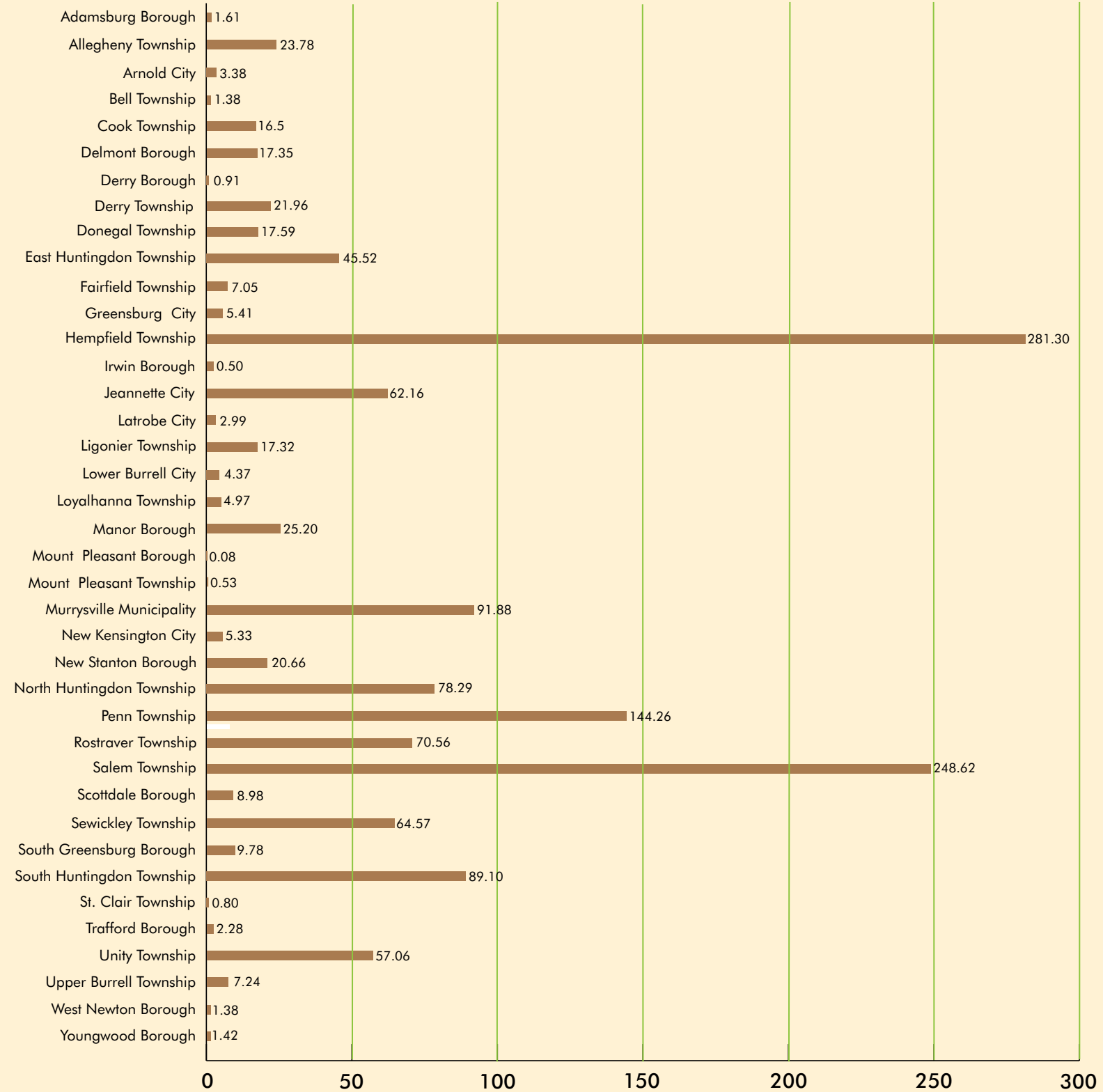
More than 300 people attended our 2013 **Engineers’ Workshop**, which focused on implementing the MS4 program, watershed monitoring, engineered soils, modeling with GIS for stormwater management, permeable pavements, and updates from the Pennsylvania Department of Environmental Protection.

The event was held in March at Saint Vincent College.

2013 Erosion & Sedimentation Control Inspections by Municipality



2013 Earth Disturbance Acres by Municipality



PRODUCTIVE FARMS

A five-year effort to **improve water quality in the Stony Run Watershed** in Derry Township – formerly one of the highest in Westmoreland County in the amount of sediment and nutrient pollution – was completed during the year.

Seven farms received a total of nearly 40 separate conservation improvements, including streambank fencing, animal walkways, stream crossings, stabilized pads, gutters and downspouts, spring developments with water troughs, diversion ditches, and heavy-use areas.

The improvements were financed with a Growing Greener II grant of some \$133,500, funding from the Natural Resources Conservation Service's Environmental Quality Incentives Program, and contributions by the farm owners.

Our nutrient management specialist/agricultural technician **provided technical assistance to some 48**



Bing Maps

The circle in this photo highlights the area of the Clevenger Farm in the Stony Run Watershed near Blairsville where conservation best management practices were installed to help control sediment and nutrient pollution. Farm family co-owners Helen Clevenger and Rick and Mary Duncan were awarded the 2013 Conservation Farmer of the Year award for their many conservation improvements.

farmers during the year, often suggesting specific measures they could implement on their property to improve animal health, production yields, and/or water quality.

Our nutrient management specialist/agricultural conservation technician also worked with more than 20 area farmers to explain **new state regulations that require any farm that has manure on the land – either from a production animal or**

from a manure spreader – to have and follow a written plan for how the manure will be managed.

Each of these farmers created a manure management plan according to guidelines in a manual developed by the state. This document is kept on the farm and, although it does not have to be reviewed or approved, it does need to be available if asked for.

The new shift to manure management plans, which are developed at no cost to the farmer, resulted in a **temporary decrease in the number of nutrient management plans submitted in 2013.**

The District board approved only two nutrient management plans during the year: one, a renewal for the 1,590-acre Heinnickle farm in the Loyalhanna Watershed, and the other, a newly developed plan for the 250-acre Craig Lash farm in the Sewickley Creek Watershed.

Nutrient management plans, once approved, are valid for three years. In addition to the two plans approved in 2013, there are 23 other approved nutrient management plans being followed on farms in the county.

The annual **Southwest Regional PA No-Till Conference** was held in January and included presentations



Reducing the amount of plowing done to a field before planting, a practice called "no-till," has many benefits for the farmer and for the land, including reducing erosion and so the amount of sediment that ends up polluting nearby streams.

Some 120 people attended the Southwest Regional PA No-Till Conference in January to promote and learn about this conservation farming method. Shown at the conference are (l-r): District Associate Director Bob Pore; District Director Fred Slezak; Keynote Speaker David Wolfskill; Farm Service Agency County Executive Director John Lohr; Natural Resources Conservation Service District Conservationist Tom Sierzega; Penn State Extension Agronomist Alicia Spangler; District Nutrient Management Specialist/Agricultural Conservation Technician Dan Griffith; and Natural Resources Conservation Service Soil Conservation Technician Mike Hamilton.

from the Pennsylvania Five-Acre Corn Club winner and the National Corn Grower winner for his soil type, David Wolfskill; from Sjoerd Duiker, the head Soil Management Specialist from Penn State; and from Farm Service Agency Director John Lohr and Natural Resources Conservation Service District Conservationist Tom Sierzega, who spoke on the intertwined Department of Agriculture programs that they oversee, plus how farmers need to be careful to prevent erosion in their crop fields.

Some 120 people attended the event at Saint Vincent College in Latrobe.

Conference sponsors were: Penn's Corner Charitable Trust, Penn State Cooperative Extension, Natural Resources Conservation Service, and the Westmoreland Conservation District and other conservation districts in the southwest region of Pennsylvania.

CLEAN STREAMS AND WATERWAYS

The final elements in the **Mount Pleasant stormwater retrofit** project were completed during the year, and included two rain gardens and a water-quality basin at Excelsa Health Frick Hospital, two rain gardens in Frick Park, and a porous concrete sidewalk along Diamond Street near Veterans' Park.

The new water-quality basin and rain gardens at Frick Hospital introduced the first-ever stormwater management on this 14-acre site. Now, instead of a 24-inch pipe channeling runoff from the hospital roof and parking lot directly into the neighboring township, it is directed to a forebay and then into a larger retention basin with a micropool. The new design covers about one acre, the same area a conventional basin for the site would, but provides much greater water



Contract workers install a porous concrete sidewalk over a stone and perforated pipe infiltration bed along Diamond Street in Mount Pleasant Borough, Jacobs Creek Watershed. Trees also were planted here and will be watered as rain and melting snow and ice infiltrate through the sidewalk.

quality benefits.

The Frick Park rain gardens were added to capture stormwater runoff and reduce icing problems caused by water from the park running down the sloped municipal parking lot next door.

Likewise, the new porous concrete sidewalk along Diamond Street was designed to capture downspout water from commercial businesses along West Main Street and to reduce winter icing in that heavily travelled area. Despite the harsh conditions in the winter of 2013-2014, neither of these locations experienced its historical icing problems.

As part of the Diamond Street project, trees also were replaced with small, fruited crabapples, which will provide color and beauty, can handle the volume of water runoff better, and won't grow so tall that they interfere with the overhead wires.

More than \$475,000 in government funding* was invested over the course

of the past few years in stormwater retrofit work in Mount Pleasant.

A late August storm travelled in a rare north-to-south route along the west side of Chestnut Ridge and dropped four to six inches of rain in just a few hours. Many streams flooded, and high amounts of erosion took place.

In the aftermath, our District staff met with state legislators and area citizens, and visited impacted sites in Mount Pleasant, Donegal, Salem, Loyalhanna, Unity, Derry, Ligonier, Latrobe, Hempfield, and South Huntingdon.

We were able to help design solutions and obtain needed permits to remedy many of the stream erosion problems, such as one along Slate Run

* Funding was provided by Growing Greener and the Pennsylvania Department of Environmental Protection through Section 319 of the Federal Clean Water Act administered by the U.S. Environmental Protection Agency.

near the Brookside Apartments in Hempfield Township.

For one of the more major site concerns, such as where Welty Run eroded to within three feet of a home, we enlisted the assistance of a stream specialist from the Pennsylvania Department of Environmental Protection because doing so would not only result in the design of a bank protection

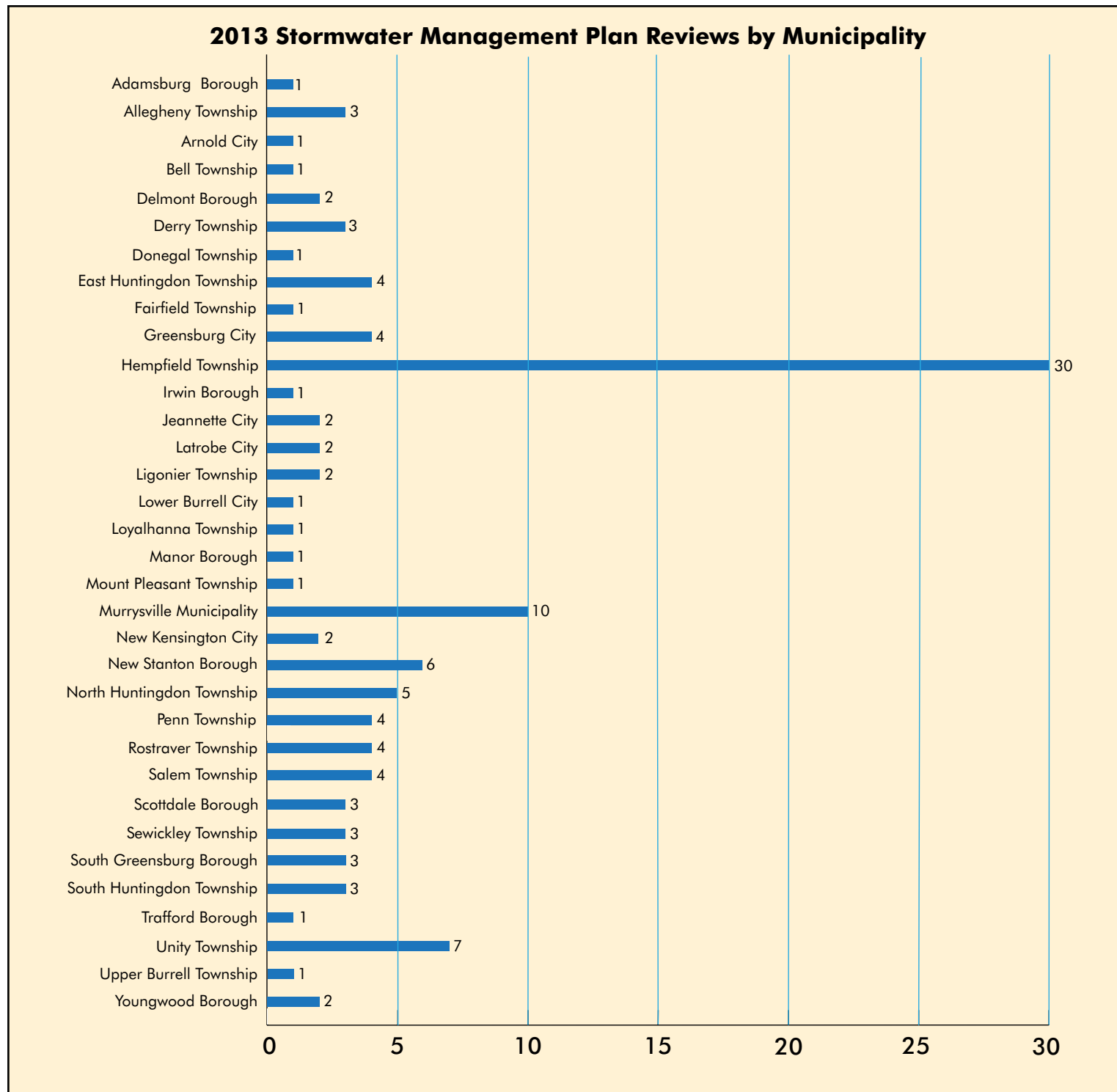
project, but also the resources to build it.

Plans for a **proposed natural-gas-fired power plant in South Huntingdon Township** and a legal challenge to the project from a local citizen required our technical staff to spend a good deal of time answering questions, visiting the 100-acre site, and doing several comprehensive reviews

of the project plans.

A company that builds power plants as an investment initiated the project, and also must obtain a number of federal and state permits before construction can begin.

During the year, we prepared and submitted a grant application for an **urban stormwater retrofit in the**



Located behind Excelsa Health Frick Hospital in Mount Pleasant Borough, Jacobs Creek Watershed, a newly installed basin improves water quality in nearby streams as well as manages stormwater.

The design was a collaboration between the District and the Borough Engineer McCormick Taylor Inc. and includes a number of features to enhance water quality, including an infiltration forebay, a flow-directing berm, and a micropool at the outlet riser, which prevents resuspension of sediment.

town of Delmont.

The proposal to Growing Greener Plus was successful and will provide \$128,000 to install grassy swales at Shields Farm, a recreation and festival site uphill from the residential area of Delmont.

The work we plan to begin in 2014 should significantly reduce erosion and flooding issues and improve water quality in the unnamed stream that runs through the historic town on its way to Beaver Run Reservoir, the source of drinking water for thousands of county residents.

We did some **design work** during the year for stormwater management projects that will get under way in 2014.

One of these projects will replace paved parking places at South Greensburg Commons (the former PPG site) with infiltration parking, and another will retrofit a detention basin at Westmoreland Industrial Park 3 in Penn Township with a sediment forebay

and a more restrictive outlet so that runoff is reduced.

We also made some inquiries into what other counties had been doing in regard to **preparing and adopting watershed-based stormwater management plans** and found that York County had taken the novel approach of using collected data on ground cover, soil types, rainfall rates, and other observable features to identify the specific stormwater management actions needed to create better quality of life, including less risk of flooding.

More traditional countywide stormwater management plans, prepared in response to Pennsylvania's stormwater management act (Act 167), use sophisticated computer models to identify stormwater management needs.

The Pennsylvania Department of Environmental Protection validated York County's approach as having the potential to be just as effective in

managing stormwater as the more traditional, and more costly, computer modeling.

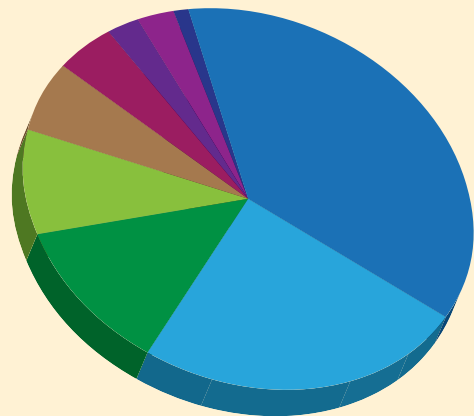
Because of this, we are planning to work with the state to see if Westmoreland County could also use the same approach and prepare a similar "Integrated Water Resources Plan." Our county has collected the same type of data used by York County for each watershed in Westmoreland County.

We sponsored several webinars, produced by the Center for Watershed Protection, on the latest innovations in stormwater management.

The webinars presented a variety of green applications and showed what communities such as Philadelphia, Portland, and Prince Georges County Maryland are doing to creatively manage stormwater.

In addition to being informative sessions for our technical staff, we opened these webinars to area engineers,

2013 Stream Encroachment Permits by Category



- Utility Line Stream Crossing - 41
- Temporary Road Crossing - 27
- Minor Road Crossing - 13
- Bank Rehabilitation, Bank Protection & Gravel Bar Removal - 10
- Fish Habitat Enhancement Structures - 7
- Intake & Outfall Structures - 5
- Agricultural Activities - 3
- Agricultural Crossings & Ramps - 3
- Small Docks & Boat Launching Ramps - 1

municipal officials, and others interested in stormwater treatments for water quality.

In all, 66 people attended the four events.

In conjunction with the Allegheny County Conservation District and Three Rivers Wet Weather, we hosted two stormwater management workshops for municipal officials, one in North Huntingdon in Westmoreland County and one in Greentree in

Allegheny County.

The events showcased projects that the Westmoreland Conservation District has implemented, and also featured a speaker from the Philadelphia Water Department who showed the major strides that historic city has been able to make in implementing green stormwater management.

In all, some 43 local officials attended.

Our shared water-quality educator reached more than 1,300 people

during the year through workshops, clinics, webinars, personal visits, and telephone technical assistance.

Some examples of this outreach include an onlot septic workshop that reached 90 people in Westmoreland County with information on the proper care of these necessary devices... three safe drinking water clinics that reached 75 residents with key ways to insure the quality of wells or springs... and three workshops on pond and lake management that reached a total of 89 individuals with ways to effectively care for these water features on their properties.

With the help of consultants, we expanded the original two-sided poster, "Bioretention in Clay Soils," to an 80-page, searchable web document that provides updated area rainfall data, detailed instructions for creating rain gardens, "lessons learned" with various types of bioretention applications, and photos of area stormwater projects.

The document is accessible through the District's home page at www.wcdpa.com.



New and expanded information on design, sizing, and benefits of rain gardens and other proven bioretention applications is available with a click on the "Bioretention in Clay Soils" graphic on the District's home page, www.wcdpa.com.

Bioretention is yielding major benefits to water quality in watersheds all across our county.



A brisk but sunny winter day brought some 30 people to our campus and nearby Ann Rudd Saxman Nature Park for a woods walk and tree identification program sponsored with the Westmoreland Woodlands Improvement Association, and led by District Forester Tony Quadro (shown) and Pennsylvania Bureau of Forestry Service Forester Mike DiRinaldo.

HEALTHY FORESTS

Our forester completed three forest stewardship plans in 2013, two benefitting the Loyahanna Watershed (Mill Creek, Fourmile Run, and Nine Mile Run), and one benefitting the Tubmill Creek/Conemaugh River Watershed.

One plan was for a seven-acre woodlot, one for a 232-acre forest, and the third was for a 234-acre forest.

One of the property owners who requested the voluntary plans is an individual who we have worked with before on forest stewardship, and two were first-time stewardship contacts.

A forest stewardship plan lays out a series of steps over a 10-year period that the landowner can take to systematically manage any or all of the interconnected elements that make up the woods – trees, wildlife, wildflowers, waterways, deer, insects, diseases, special features, deadwood, and even recreation potential – for not just our

immediate personal needs, but for future generations.

During the year, our forester participated with loggers in 18 pre-harvest meetings, reviewed 18 timber-harvesting plans, and visited logging sites 39 times.

These efforts are critical because, when good conservation controls are in place before a harvest starts, there is less impact on the soil and water.

Our forester also evaluated 12 privately owned woodlots and prepared written suggestions for their stewardship.

With the help of technology, we've come a long way since the early 1990s when we developed our first database of woodlot owners in the county... with each of its 3,000 names and addresses painstakingly obtained.

This year, with access to Westmoreland County's database and the help of

a very savvy intern, we have been able to update and expand our woodlot owner list to some 8,500 individuals, and to have the additional ability to further identify these owners according to the number of forested acres they hold.

Now that we have this comprehensive and sortable list of contacts, we plan to reach out with targeted information on the specific stewardship practices that are relevant for their properties. For instance, a small woodlot may benefit from a single timber sale while larger properties may want to have several sales, according to compartment or stands.

Working with property owners is critical to forest health, as 91% of the woodlands in Westmoreland County are privately owned, and forests make up about 50% of the land use in our county.

We began working with the Pennsylvania Department of Conservation

and Natural Resources Bureau of Forestry to **update our long-standing Memorandum of Understanding**. This document outlines how we will work together on conservation issues.

The District and the Westmoreland Woodlands Improvement Association hosted a **“Woods, Waters & Wildlife” conference** in October that, for the first time ever, provided two parallel tracks for attendees to choose from: one for woodland owners with larger tracts, and one for those with smaller woodlots and backyard forests.

Topics discussed included disease, insect, and other backyard tree problems; tackling invasive species in larger woodlots; attracting wildlife and birds while thwarting undesirables; young forest habitat, the golden-winged warbler, and other upland birds; and why it is important to have a forest management plan. The conference ended with participants’ choice between two field trips: Hannastown timber harvest or stormwater management around Donohoe Center.

The event was funded with a mini-grant from the Pennsylvania Association of Conservation Districts and presented with support from the PA Association of Conservation Districts, PA Department of Conservation and Natural Resources, PA Game Commission, Penn State Extension, and PA Bureau of Forestry. Thirty-eight people attended.

In March, our forester and Mike DiRinaldo, state Bureau of Forestry service forester for Allegheny and Westmoreland counties, led a **“Winter Woods Walk & Tree Identification”** program for the Westmoreland Woodlands Improvement Association. Some 30 people participated and spent a pleasant late winter afternoon in Ann Rudd Saxman Nature Park.

SUSTAINABLE COMMUNITIES

Late in 2013, we were awarded a **\$300,000 state grant to improve the water in the McGee Run Watershed**, which encompasses 27 square miles in Derry Township and Derry Borough and whose streams the Pennsylvania Department of Environmental Protection lists as being “impaired,” meaning they are polluted with sediment, siltation, and nutrient loading.

Over the next two years, this project will seek to improve this area by installing a variety of conservation measures from each one of the District’s programs – forestry, erosion control, stormwater management, agriculture, and dirt and gravel roads.

The McGee Run Watershed is notable in that it contains:

- the largest privately owned forested tract (approximately 6,000 acres) in the county;
- the longest and most eroded road in the county (the four-mile-long Fire Tower Road);
- the largest township by area in the



Improvements to Larimer Trail Road in Washington Township will not only make travelling easier for motorists but, by reducing erosion, will keep more than 40 tons of sediment out of waterways in the Kiskiminetis Watershed each year.

county with a need for stormwater management; and

- the township with the highest number of Marcellus Shale permitted and drilled sites.

The Foundation for Pennsylvania Watersheds, a non-profit, grant-making organization supporting the water quality needs throughout Pennsylvania, also has committed \$20,000 to this project.

Pennsylvania has more than 20,000 miles of unpaved public roads. Many of these contribute significant pollution, especially sediment pollution, to nearby streams and rivers.

In 2013, **one of the largest dirt and gravel road improvement projects in Westmoreland County was undertaken on Larimer Trail Road** in Washington Township. For many years, Larimer Trail Road, a horseshoe-shaped feeder road near Routes 66 and 356 in Washington Township, had been eroding badly, and was often muddy and difficult to travel.

Today, thanks to the work of a partnership that included state and



Top left: The Irwin Discharge is the largest abandoned mine drainage discharge in Westmoreland County in terms of flow – 9 million gallons per day into Tinkers Run, then Brush Creek, Turtle Creek and the Monongahela River. Top right: Craig Barras, a member of the Turtle Creek Watershed Association, in the clean, fishable waters of Brush Creek above the Irwin Discharge. Bottom right: Putting together a study to determine how to treat the Irwin Discharge are (l-r): Ted Weaver, Hedin Environmental; Scott Hamilton, Pennsylvania Department of Environmental Protection mining engineer; Pete Alfieri, landowner; Rich Beam, Pennsylvania Department of Environmental Protection geologist; Dr. Bob Hedin, president, Hedin Environmental; George Watzlaf, environmental engineer, Hedin Environmental; and Ron Horansky, Pennsylvania Department of Environmental Protection watershed manager.



local funding; local landowner, Ted Kuckuck; Washington Township; the Westmoreland Conservation District; the Foundation for PA Watersheds; and the Center for Dirt and Gravel Road Studies at Penn State University, not only is Larimer Trail Road significantly easier and safer for motorists to travel, but it also will be less costly for the township to maintain from this point forward.

An added bonus of the road-improvement partnership project is the significant decrease – a reduction of more than 40 tons of sediment a year – in pollutants that enter Beaver Run and then further impact the Allegheny River and other waterways downstream.

When the state transportation bill became law in late November, a significant increase in funds for Pennsylvania’s Dirt and Gravel Road Maintenance Program was set in motion, along with a broadening of

the program’s scope so that it also will include low-volume, paved public roads. These changes will be effective July 1, 2014.

The Irwin Discharge in North Huntingdon Township is the **largest abandoned mine drainage discharge in Westmoreland County** in terms of flow – 9 million gallons per day – and pollutants – 5,388 pounds of iron per day – all of which goes into Tinkers Run, which flows into Brush Creek, then Turtle Creek, and then the Monongahela River.

During the year, a Growing-Greener-funded \$279,000 study was completed to determine how much land and money it would take to treat this water and improve its quality.

Because the area around the discharge is highly developed with industrial buildings and infrastructure, the first step will be to move the discharge either by drilling a borehole and

forcing the discharge to occur somewhere else or by actively pumping the discharge to another location.

Cost estimates for construction and 40-year operation of the various treatment options range from \$12 million to \$53 million.

A five-year project to **reclaim some 59 acres of property in Wyano that had been both deep- and strip-mined was completed this year.**

The property, which essentially was a large coal-refuse pile, was systematically returned to a “green” condition by being covered over with soil from a nearby hillside and planted with grass.

An existing sediment basin on the property was retrofitted to capture sediment while the restoration work was going on and to protect nearby Hunter’s Run, a tributary of Sewickley Creek.

The landowner also created a tree-covered mound to visually shield the

property, where he stores his businesses' equipment, from the town.

In March of 2013, we worked with Jacobs Creek Watershed Association to **stabilize more than 2,000 feet of eroded stream banks along Shupe Run as it flows through Willows Park in Mount Pleasant.**

In all, the project stabilized six reaches of Shupe Run and added 2,000 feet of riparian buffers. Some 275 trees also were planted along the banks.

This project will prevent an estimated 33,000 pounds of sediment from eroding into Shupe Run each year.

For the third consecutive year, we hosted a **workshop to help people repair the heavy toll that rain, snow, runoff, and flooding can take on unpaved driveways, farm lanes, and other private access roads.**

Sixteen people, including a borough official from a nearby county, joined us for the March event, which offered solutions that have the added bonus of reducing maintenance and preventing recurring problems.

Our watershed specialist taught the class and offered to visit participants' locations to assess their specific conditions and to create a diagram showing the flow of water and the recommended placement of conservation solutions. Seven participants signed up for the follow-up visits this year.

The **2013 Envirothon** was held at Twin Lakes Park and 17 student teams from nine area high schools participated.

Yough Senior High School took first place in the competition, which tested students' knowledge of the natural world and the year's special topic, "Grazing livestock for improved herd health and land management."



The new exterior sign for the J. Roy Houston Conservation Center symbolizes our organization's heritage and current programs by combining once-working elements from agriculture (left and right moldboard plows, and two large farm wagon wheels) and forestry (a saw blade from a lumberyard in Champion).

ORGANIZATIONAL DEVELOPMENT

We held a reception at our barn headquarters in September to **recognize the year's outstanding conservationists and to dedicate the building in honor of our long-time chairman J. Roy Houston.**

Helen Clevenger, and Rick and Mary Duncan were honored as Farmer of the Year and the Jacobs Creek Watershed Association received the J. Roy Houston Conservation Partnership Award sponsored by Peoples Natural Gas.

Clevenger and the Duncans have installed many conservation measures on their 180-acre Derry Township beef farm, including a large, roofed heavy-use area, which provides a place for the herd to stay in inclement weather, and a dry-stack manure-

storage area, both of which significantly reduce erosion of the pastures (sediment) and the amount of animal contaminants (nutrients) that wash into the stream on the property, which is a tributary of Stony Run.

The Jacobs Creek Watershed Association was recognized for its decades of important conservation work, including helping to realize one of the most significant conservation improvements in Westmoreland County, the Jacobs Creek Watershed Protection and Flood Prevention Project. This project, which includes Acme Dam, Bridgeport Dam, Greenlick Dam, and the Scottdale Channel, has been protecting area residents and businesses from flooding and providing recreation opportunities since the early 1970s. It is one of only a few such efforts in the United States to address an entire watershed.

Also at the reception, our 1880s-

era barn headquarters was officially named The J. Roy Houston Conservation Center.

Roy was the guiding force of the District for 40 years; a level of service unparalleled in the organization's 64-year history.

Roy was an employee of Peoples Natural Gas Company in 1968 when the company encouraged its workers to volunteer with area organizations. He became a member of the District's board that year, and was elected chairman of the board in 1970. He held that volunteer post until November 2010 when he passed away at age 82.

Peoples Natural Gas generously funded a number of **interior improvements to the Houston Conservation Center**, including enclosing a former deck and incorporating it into our existing main meeting space, greatly improving our functionality and allowing us to accommodate bigger events and education workshops.

Funding from Peoples Gas also allowed us to improve the lighting, add a projector, speakers, and microphones; and create a serving area with cabinets and appliances.

Funding from Peoples Natural Gas also was used outside to update our signage, including the addition of a **new exterior monument sign** that is a one-of-a-kind sculpture, made from historical items used in agriculture and forestry.

The new sign includes a unique set of left and right moldboard plows, two large farm wagon wheels, and a saw blade from a local lumberyard.

In October, we entered into a formal **agreement with the Westmoreland County Industrial Development Corporation in which that organization will take over management of GreenForge**, further enhancing that building's operating independence

from the District.

GreenForge, a 1980s-era building located just steps away from the Houston Conservation Center, was retrofitted in the past decade with a variety of green and sustainable materials and practices.

In addition to innovating such things as the first green roof in Westmoreland County, the building provides working office space for a number of grassroots conservation organizations.

Our board presented a **budget to the Westmoreland County Commissioners that, for the sixth consecutive year, reflected no increase in the amount requested.**

We were able to continue to hold the line on the amount requested because of the success of our ongoing efforts to diversify our sources of funding (which include user fees for service and community sponsorships), by improving our cost-recovery of expenses related to the administration of grants, and by assuming additional responsibility for state regulatory

programs, which also bring cost-recovery funds (see chart on page 26).

The commissioners continued their history of strong support for conservation and approved this request, allowing us to keep up with the increasing demand for District services.

The strong show of support for our work that the **Westmoreland County Commissioners' allocation provides also was a key factor in our ability to obtain funding from other sources – state government, federal government, foundations, businesses, and individuals – for conservation projects.**

By leveraging Westmoreland County's previous allocations, we had in-hand about \$1,000,000 in additional state and federal governmental funding in 2013, and we used it to put many of the conservation projects highlighted in this annual report on the ground.

We also were able to use the **Commissioners' more recent allocation to apply for new grants and contracts**



(l-r) Members of J. Roy Houston's family — his sister Lou Houston, and his daughters Tracy Halleck and Kathy Heider — join Peoples Natural Gas Manager of Communications and Community Affairs, Barry Kukovich, in September for the official naming of our building after our long-time chairman.



Westmoreland County Commissioners (l-r) Ted Kopas, Charles Anderson, and Tyler Courtney in front of the main entrance to the county courthouse. The Commissioners have been staunch supporters of the District, consistently providing the foundational funding that allows us to serve the needs of our residents as well as to attract significant, additional sources of revenue to raise conservation efforts to the next level.

in 2013 and we successfully secured an additional \$940,000 in government funding that will be used beginning next year to put even more conservation improvements in place throughout the county.

In 2013, we were able to successfully secure:

- two grants – one for \$80,000 and one for \$128,000 from the State of Pennsylvania’s Growing Greener program – to install best management practices on dirt and gravel roads in the Beaver Run Watershed and to retrofit stormwater basins in Lower Burrell, Penn Township, and Murrysville;
- two contracts – one for \$231,000 and one for \$180,000 – from PennDOT for work in Sewickley Creek and Jacobs Creek watersheds, and
- two grants – one for \$20,000 from the Foundation for Pennsylvania Watersheds and one for \$300,000

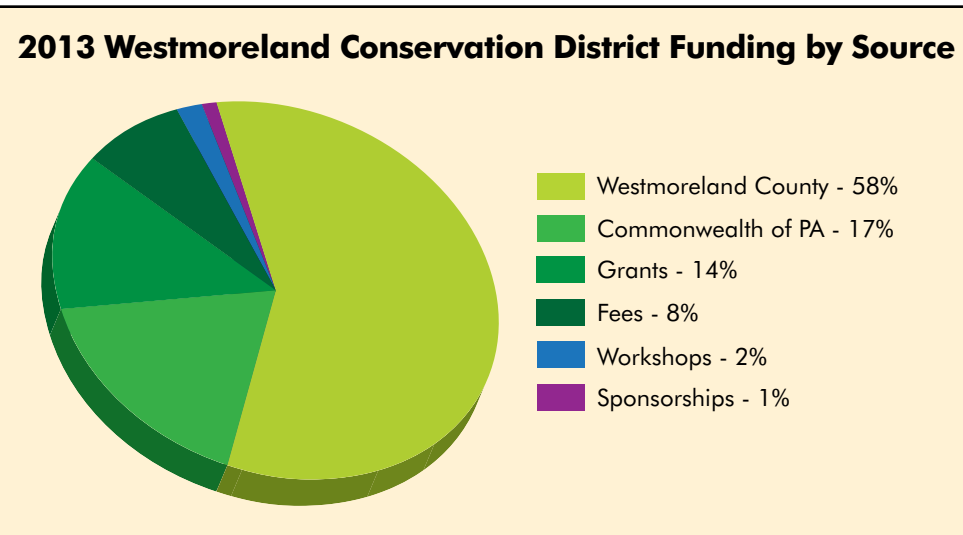
from the Act 13 Commonwealth Finance Authority – for the McGee Run Watershed project (see page 22).

With these robust resources, 2014 is shaping up to be a record year for conservation enhancements in our county.

The county’s allocation also helped us procure almost \$30,000

in additional, private funding from foundations, businesses, and individuals for conservation in 2013, including two donations from Peoples Natural Gas (see box on page 27).

The District’s allocation of Marcellus-shale-gas funds (distributed through the state) were used to **replenish the funds drawn from our**



operational reserve for the past few years to support daily operations and to restructure staffing (see staffing item on page 28).

We were involved in some preliminary meetings to discuss the **update to the Westmoreland County Comprehensive Plan** that will take place in 2014.

Extensive public input was gathered when the first-ever county comprehensive plan was developed some 10 years ago, and citizens overwhelmingly expressed their desire to maintain the pleasing rural character of the region and to conserve key natural resources.

In response, we developed a list of specific action steps and have been working on them steadily. These include: promoting good forest stewardship by offering workshops with the Westmoreland Woodlands Improvement Association and building a database of woodlot owners; promoting innovative stormwater management, especially in older communities such as the City of Greensburg and Mount Pleasant Borough; and helping to form a new organization, the Westmoreland Land Trust, which in just five years has preserved some 200 acres of open space in our county.

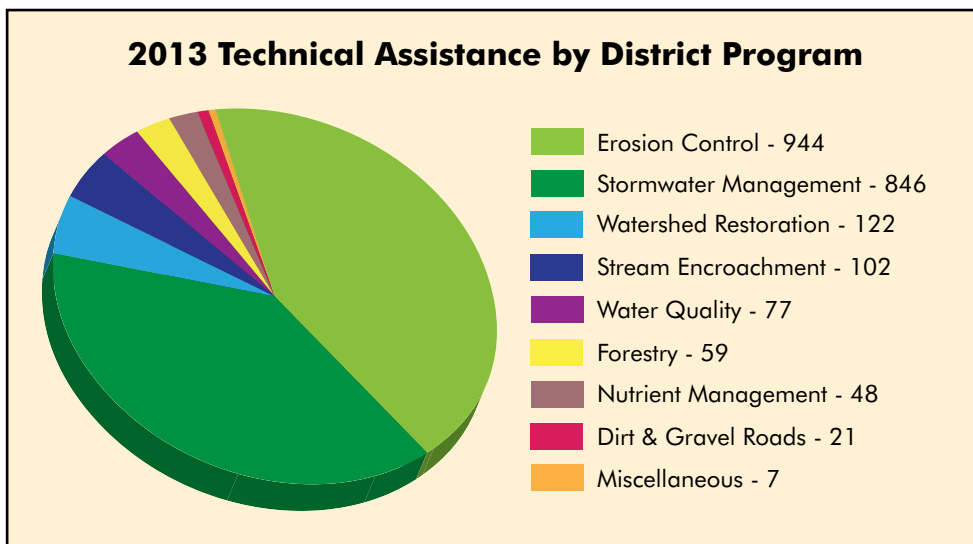
In the course of preparing the District’s 2012 audit, Delisi, Keenan &

Associates, P.C. of Greensburg **recommended that the District’s future audits come into compliance with the Governmental Accounting Standards Board Statement 34.**

The basic rationale behind GASB is that separate accounting and financial reporting standards are essential for governments because they operate differently from business enterprises. GASB contends, for example, that measures of net income have no meaning to users of governmental financial reports, who instead need information to assess the stewardship of public resources.

Although conservation districts are quasi-governmental agencies and, in Pennsylvania are not required to implement GASB 34 as long as it is addressed within their audit, the Westmoreland Conservation District board voted in December to convert its financial statements to conform to this standard, beginning with the 2013 year. This decision set in motion a number of significant changes, including the introduction of a management discussion and analysis, government-wide financial statements, and major fund reporting.

The numerous changes required by the conversion to GASB slowed the District’s 2013 audit process and is the reason why this audit was not completed before this annual report



was going to print. When the audit is complete, we will post it on the District website, www.wcdpa.com.

In December, we hosted our first-ever **Partner Breakfast**, in which we invited some 45 of the organizations and agencies that we work with most closely to join us for a few hours of networking and discussion about projects that we might work on together.

The event was very well-received and we are planning to host two more

2013 Private Donors

- Amcom
- Scott Churbock
- Community Foundation of Westmoreland County
- Conrad Donovan
- Charles Duritsa
- GAI Consultants
- Jennifer Halperin
- Hampton Office Plus
- Maryann Hibbs
- Karen Jurkovic
- Joseph Kalinowski
- Kensko Construction
- Keytex
- Nancy Page
- Peoples Natural Gas
- Jim Stossel
- Joseph Tarara
- Charlotte Tharp
- John Turack
- Corabelle Walter
- John Ward

such events during 2014.

New additions to our **associate board** in 2013 included Emil Bove, president of Bove Engineering Company; Christopher Bova, deputy director of the Westmoreland County Department of Planning; and area farmer Robert Pore.

Staff additions and realignments during the year included Jen Novak joining us as part-time conservation education coordinator, Christie Sebek moving to full-time secretary for technical programs, Sandy Donovan joining us as full-time receptionist/secretary, and Dana Rizzo shifting to full-time water-quality educator with our partner organization, Penn State Cooperative Extension Westmoreland County. Dana will continue to work together with our staff and provide information on pond management, on-lot septic systems, and safe drinking water to county residents.

Our adjustments in staffing will help meet the growing demand for conservation services and ensure long-term, quality organizational leadership by, among other things, creating a clear path for staff succession.

In reviewing our policies in 2013, the Board of Directors voted to pay the costs of **professional registration and certification** for our staff, such as our hydraulic engineer's professional engineer license renewal.

After reviewing health care expenses, our board also determined that it would save the District money to offer a reimbursement to staff members who transfer their coverage to their spouses' plan. This benefit will become effective in 2014.

Sun sparkles off the Loyalhanna Creek as it flows just east of Latrobe.

The water in this area of the stream is clear and cold, the perfect habitat for trout and other desirable sport fish that need these quality water conditions.

Water quality throughout the Loyalhanna Watershed benefits from the many acres of forest that surround its streams and act like filters to remove pollutants.

Photo by Stephen Simpson





J. Roy Houston Conservation Center

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Admin. FAX: 724-552-0143

Tech. FAX: 724-834-4127

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Christopher Droste
Senior Erosion Control Specialist

Jessica Thornton
Erosion Control Specialist

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Nutrient Management Specialist/Agricultural Conservation Technician

Kathleen Fritz
Technical Programs Administrator

Christie Sebek
Technical Programs Secretary

Educational Staff

Jen Novak
Conservation Education Coordinator

ADVISORY COMMITTEES

These committees are made up of community volunteers, District board members, associate board members, and staff members. We very much appreciate all the volunteers who provide their professional expertise and give their time to help develop and sustain the District's programs.

AGRICULTURE

Wayne Baughman

William Clouser

William Doney

Rita Coleman

Daniel Griffith

Dustin Heeter

Jim Kennedy

John Lohr

Kim Edward Miller

Gregory Phillips

Robert Pore

Betty Reefer

Paul Sarver

Gary Sheppard

Thomas Sierzega

Fred Slezak

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Karen Jurkovic

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Jen Novak

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David Uhrinek

Matt Zambelli

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Tim Fyock

Jen Novak

Ann Powell

Dana Rizzo

Theresa Rohall

Carol Wright

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Matthew Kauffman

Ron Rohall

Thomas Sierzega

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Robert Cronauer

Charles Duritsa

Kim Edward Miller

Anthony Quadro

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Robert Ackerman

Edward Callahan

Mike DiRinaldo

Tom Fitzgerald

Anthony Quadro

Ron Rohall

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Ted Kopas

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Lucien Bove

Kevin Brett

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Robert Cronauer

Joseph Dietrick

Christopher Droste

Kathleen Fritz

Larry Gasparato

Kathryn Hamilton

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Brian Lawrence

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Anthony Quadro

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Darl Rosenquest

Robert Scheib

Thomas Sierzega

Tamira Spedaliere

Matt Zambelli

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Joseph R. Dietrick, PE, PLS

Director of Engineering

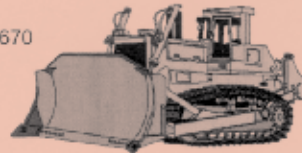
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Compost Silt Sock

nathan@pusupply.com



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Natural Farm & Bakery

Mailing Address: Box 505, Pleasant Unity, PA 15676
GPS address: 147 Friendship Farm Lane, Latrobe, PA 15650
Hours: Mon.- Fri. 10 a.m. to 6 p.m., Sat. 10 a.m. to 3 p.m.

Visit our farm for fresh bread right out of the oven

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And for our pasture raised, all natural, dry-aged beef.

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Mailing address: Box 505, Pleasant Unity, PA 15676

GPS address: 147 Friendship Farm Lane, Latrobe, PA 15650



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LANDSCAPE ARCHITECTS & ENGINEERS

1610 Golden Mile Highway

Monroeville, PA 15146

Phone (724) 327-0599

FAX (724) 733-4577

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AND

SURVEYORS

DOUGLAS P. REGOLA, P.E.

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Special Thanks

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On the Cover...

District technical staff are making increased use of sophisticated digital watershed maps as they plan on-the-ground conservation projects, including pasture management on farms, stormwater management in urban areas, and improvements to dirt and gravel roads.

Pictured looking at a close-up section of the digital Youghiogheny Watershed are District stormwater staff members Kathy Hamilton and Matt Zambelli.

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