The Dirt and Gravel Low Volume Road Program’s purpose is to provide funding to municipalities for the improvement and maintenance of unpaved roads, and now paved roads that have traffic volume of 500 cars or less, with the goal of protecting water quality.

The Indian Hannah Road project (pictured) will be improving water quality in Newlin Township. Please visit our website at http://www.chesco.org/1992/Dirt-GravelLow-Volume-Road for more detailed information on our ever growing program.

Newlin Township – Indian Hannah Road: A low volume road tributary to the West Branch of the Brandywine that has the following proposed work elements: ditches improved, ditch outlets added, road banks improved, road base improved, road surface stabilized, stormwater improvements, and stream crossings improved. Grant allowance - $218,812.00

In addition to the above completed project, we have one dirt and gravel road project in Newlin Township that will kick off in 2022 on Oak School Road. The grant total for that project is $23,844.00. This D&G project has the following proposed work elements: ditches improved, ditch outlets added, road banks improved, road base improved, road surface stabilized, stormwater improvements. In 2022 we have seen several new municipalities jump on board the program with newly proposed projects to improve water quality to their streams.

Pictured: A pipe to be replaced on Indian Hannah Road in Newlin Township. This is a Low Volume Road project that is set to kick off in late May. Proposed work elements for this project include ditches improved, ditch outlets added, road banks improved, road base improved, road surface stabilized, stormwater improvements, and stream crossings improved.
**Backyard Composting**

- It is the perfect time to consider starting or jumpstarting your backyard compost pile.
- Compost is a vital tool in the farmer or gardener’s toolbox. Compost is made from organic wastes like coffee grounds, garden trimmings, paper, grass clippings, fallen leaves, straw, kitchen scraps and more. It is a very effective way to recycle while naturally creating a valuable byproduct that can help to grow healthy plants.

To start composting you will need four basic components:

1) Water   
2) Oxygen  
3) Nitrogen  
4) Carbon

*Water* is needed for maintaining microbial life in the compost pile, while *oxygen* helps to maintains aerobic conditions. *Nitrogen* rich materials include grass clippings, coffee grinds, as well as other kitchen scraps. *Carbon* rich materials are referred to as the “browns”, for example leaves, newspaper, and wood chips. The ideal ratio for a well-balanced compost pile is 2:1 green to brown and keeping the pile wet similar to the consistency of a rung-out sponge will ensure active decomposition.

Finished compost can be used as a soil amendment, mulch, lawn topdressing, potting mix, and worked back into the garden.

*For more information or tips on composting visit the Chester County Solid Waste Authority website at www.chestercountyswa.org or contact the Chester County Conservation District.*

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**Little Things Anyone can do to Improve Water Quality**

Sometimes starting with a small project is the best way to begin improving local water quality. Below are a few things you can do on your property to make a difference.

**Car Maintenance**

When vehicles or other machines leak chemicals (oil, antifreeze, power steering fluid, etc.) onto the ground in your driveway or yard, these chemicals eventually end up in our streams. Take some time to repair leaks in your equipment. If repairing that slow leak is on the bottom of your to-do list because it doesn’t seem that important, move it up! Your natural resources thank you!

**Plant a Tree**

There are so many good reasons to plant trees and shrubs on our landscape. They reduce stormwater runoff, provide wildlife food and habitat, improve soil health, provide shade on hot days, and much more. If you have a place on your property that sits a little too wet to support turf, or you just have some turf you are willing to give up, planting a tree or shrub might be just the thing to do! If you don’t have space on your property, consider helping out with a local tree planting - volunteers are always needed!

**Protect Storm Sewers**

Most people know that storm sewers (also known as storm drains) are not the same as trash cans, but not everyone knows that they often lead directly to the stream. If you see someone dumping chemicals, concrete, paint, kitty litter, or anything other than water down the storm drain, stop them! Let them know that they are polluting our shared natural resource. Sometimes it helps to even use the name of the local stream. There is a good chance they have enjoyed recreation on, in, or by that stream at some point.

**Responsible Winter Salt Use**

Using salt as a deicer in the winter can lead to safer conditions for walking and driving. However, excessive use of salt has led to degraded local water quality. It’s important to use only as much salt as is necessary to create safe walking and driving conditions. Here are a few tips:

- Shovel first. Remove the snow first and then apply salt if there is still a layer of ice left.
- Distribute the salt evenly – not in clumps or patches
- If there is salt left on the surface when the snow and ice are gone, you’ve used too much. Sweep up and discard or store excess salt to prevent it from running off.
- Only use as much as you need. According to the "Salt Smart" initiative, twelve ounces of salt — about as much as would fill a coffee mug — is enough to treat a 20-foot-long driveway or about 10 squares of sidewalk.
Greener Pastures, Blessing or a Curse?
Pasture management vs. Horse management

How do we balance the need for good pasture management practices such as erosion control, manure management, and weed control with the need for good horse health management?

We are blessed in Chester County to have some of the most beautifully productive fertile soil in Pennsylvania, and perhaps comparable to some of the best areas in the country. This time of year, the green grass explodes in fields, lawns, and pastures, but that also creates a big health concern for a large portion of the equine population as well. Whether the concern is metabolic, laminitis, or just plain overweight horses, giving them ample turnout time without giving them access to large amounts of grass is a conservation conundrum.

Horses can very easily graze an area down to less than an inch of grass growth, but the roots can only grow as deep as the plant is high. Without the green above the ground to do their job, the roots die back and cannot hold the soil in place in high traffic areas and overgrazed pastures. If we allow our pastures to be overgrazed, bare soil without the minimum of 3 inches of green cover is very susceptible to erosion. It lacks the growing vigor to take up nutrients from the manure deposited on the pasture and does not have the residual biomass to protect soil through the winter.

So now what? There are many answers to this question depending on your own personal level of management and style, type of property and pastures available, and individual needs of the horses you have.

Structural and management style conservation best management practices that the Conservation District can assist with work hand-in-hand. Both are needed for meeting both our animal health and conservation goals:

♦ **Pasture Management.** If you have more horses than your pasture can handle without over grazing acres and acres of land, learn about pasture management and ways to balance forage production and animal feeding needs.

♦ Install a **heavy use area.** The Conservation District can assist in the layout and design of a small stone lot. This is a great area to use instead of a stall, allowing more socialization. It is a great place for animals to be when pastures are too wet, and you do not want to create mud. Its also easy to keep clean and remove manure regularly.

♦ Stone and stabilize gate areas and **animal trails and walkways** too. Reducing mud is better for you and your animals!

♦ **Forage Management.** Feed hay! Use a slow feeder to make sure your horse has access to hay throughout the day. Horses need to be constantly grazing, so if they aren't grazing they need to have access to low sugar hay such as timothy. The fuller their stomach are when they are turned out on pasture the better. This reduces stress from the muzzle and takes the edge off the hunger. Avoid throwing hay along the fence to minimize traffic and mud! An added benefit of any uneaten hay is that it will protect soil, acting as a mulch, and as it breaks down it adds to the soil organic matter, promoting good grass growth and healthy soil!

♦ **Weed Management.** Muzzles are a great way to allow lots of exercise, socialization, and still keep pastures growing and healthy, reducing weed take over by allowing grass to keep growing with vigor to suppress weed growth. Limiting the use of muzzles to 12 hours or less to reduce stress and knowing there are horses that will never keep one on means we can't stop there. There isn't a one size fits all approach.

♦ **Minimize over grazing.** If your only option is to over graze an area, try to keep the area small, with lots of grass below the area to filter any soil or nutrient runoff that may occur. Divert any water coming from upslope to minimize the quantity and speed of water and try and keep animals off during wet weather to reduce mud.

<table>
<thead>
<tr>
<th>Pasture Management Conservation Goals</th>
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<tbody>
<tr>
<td>• Minimum 3 inches of grass cover</td>
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<tr>
<td>• Weed control</td>
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<tr>
<td>• Erosion control</td>
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<tr>
<td>• Nutrient uptake from manure</td>
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<tr>
<td>• Reduce muddy areas</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Equine Management Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ample amount of turnout and exercise</td>
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<tr>
<td>• Ability to socialize with other horses that may not be on the same diet plan</td>
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<tr>
<td>• Minimize boredom</td>
</tr>
<tr>
<td>• Minimize stall time</td>
</tr>
<tr>
<td>• Reduce stress from confinement, lack of exercise, lack of socialization, and hunger</td>
</tr>
</tbody>
</table>
Farmer Outreach Program Announced in Upper Oxford Township

CCCD is pleased to announce an innovative partnership with Upper Oxford Township to provide enhanced outreach and service to farmers within the municipality. CCCD will conduct farm visits, provide planning services, and work with farmers to help install best management practices (BMPs).

The first step will be to conduct one-on-one farm visits to learn about the needs on each farm. The visits will be voluntary and will not focus on regulatory compliance. What we learn from the farmers will help CCCD to determine how we can use our resources to help farmers meet their goals. This could include writing or updating conservation plans and manure management plans, providing engineering assistance if BMPs are needed, and helping to secure funding for project costs if requested.

In addition, CCCD will verify existing BMPs on farms so that farmers are getting the proper credit for work they’ve already accomplished. CCCD will also look for opportunities to complete farm projects that would count towards the Township’s municipal separate storm sewer system (MS4) permit.

The program will kick off with an open public meeting to be held in the upcoming weeks. Farmers in Upper Oxford Township should be on the look-out for more information coming soon!

Funding Still Available!

**Operation & Maintenance Program—*extended to December 2023***

**Purpose:** repairs and improvements to agricultural best management practices (BMPs) in select locations of the Chester County Delaware River Watershed.

* eligible projects may include: barnyard concrete and fencing, roof gutters, outlet pipes, diversions, grassed waterways, and terraces

**Details:**
- A maximum of $30,000 is available to each eligible landowner
- Funding agreements are based on NRCS payment rates
- CCCD will reimburse landowners to pay their contractors as BMPs are completed

**Progress:** To date, outreach for this program has reached more than 100 landowners, resulting in 11 applications and over $75,000 in cost-share funding allocated.

For additional information please contact:
Gaye Lynn Criswell, Outreach Coordinator (610)-455-1365

This grant is administered by CCCD through the National Fish and Wildlife Foundation. Partners include: Brandywine Conservancy, Brandywine Red Clay Alliance, Green Valleys Watershed Assoc., French and Pickering Creeks Conservation Trust, and Stroud Water Research Center.
Four More County Conservation Districts Begin Inspections for Agricultural Best Management Practice Implementation in Chesapeake Bay Watershed

The Chesapeake Bay Agriculture Inspection Program (CBAIP) announces that as of early 2022, four more County Conservation Districts have completed Phase 1 and begun Phase 2 inspections: Clinton, Columbia, Montour, and Sullivan counties. They join Lancaster, Chester, and Adams County Conservation Districts and the DEP Southcentral Regional Office, working in Bedford and York counties, which began Phase 2 inspections in 2020-2021. All other counties in the watershed are in Phase 1 inspections.

The Pennsylvania Department of Environmental Protection (DEP) launched CBAIP in 2016 to verify that operations that aren’t a Concentrated Animal Feeding Operation or Concentrated Animal Operation comply with agriculture erosion and sediment control and manure management planning requirements that include best management practices (BMPs) for water quality improvement.

Phase 1 inspections in the watershed, ensure that farmers have their required manure management and/or erosion and sediment control plans. Phase 2 inspections focus on the progress farmers are making in installing the BMPs in their plans. Barnyard runoff controls, heavy use area protections, waste storage facilities, fencing, grassed waterways, terraces, and diversions are examples of BMPs typically included in plans.

If an agricultural operation is out of compliance because BMP maintenance or implementation is needed, a range of funding options may be available to support the project, including:
- DEP Countywide Action Plan Implementation Grants
- Pennsylvania Department of Agriculture (PDA) Conservation Excellence Grants
- Growing Greener Grants
- Section 319 Nonpoint Source Management Grants
- PDA Resource Enhancement & Protection Grant Program
- U.S. Department of Agriculture Programs

Farmers can contact their County Conservation District or DEP Regional Office for information on Phase 2 inspections and funding available to support implementation of BMPs.

Best management practices to reduce nitrogen, phosphorus, and sediment pollution are key to the long-term viability of Pennsylvania’s farm operations and the local streams and rivers on which they depend. Agricultural compliance is a top priority in Pennsylvania’s Chesapeake Bay Phase 3 Watershed Implementation Plan.

Regional Stormwater Management Maintenance Workshop for Landscaping Professionals

On April 1, 2022 CCCD gathered with Bucks, Delaware, and Montgomery County Conservation Districts to host a regional Stormwater Management Maintenance Workshop for Landscaping Professionals in Perkiomen Township, Montgomery County, PA. Recognizing that maintenance is one of the most critical, and often neglected, aspects of post-construction stormwater management, the goals of this workshop were to reach out to and educate the businesses on the ground contracted by homeowner’s associations (HOAs) and property management companies to maintain their stormwater management practices and landscapes. The workshop was well attended, although many registrants also included design professionals and HOA board members. Participants learned about the importance of routine stormwater management maintenance, beneficial and attractive native plants that work well in stormwater basins. They also toured a bioswale and rain garden at the Perkiomen Township park with the designers and public works director to discuss the design, construction, and maintenance of those facilities. Registrants also left with some maintenance related educational materials, including a new bi-lingual rain garden maintenance brochure. Financial and other support for this project is provided by the Pennsylvania Association of Conservation Districts, Inc. through a grant from the Department of Environmental Protection under Section 319 of the Clean Water Act, administered by the U.S. Environmental Protection Agency.
New PAG-01 Permit

The new PAG-01 permit from DEP went live on March 1st, 2022. It is for projects that are under 5 acres of total disturbance and less than 30,000 square feet of impervious surface proposed within the earth disturbance area. The sites cannot be located in a high quality or exceptional value watershed and cannot be used for gas pipelines. PAG-01 will be utilizing the charts that have already been included on Module 1 pages 4 and 5. Below are some aspects that are specific to the PAG-01:

- Site must be kept on the same tax parcel.
- Accelerated review timelines.
- Concentrated flow standards.
- PNDI must have all clearance letters before submission.
- Pre-application meetings must be requested.
- Site cannot have contaminated soils or within areas of known sinkholes.
- Only BMPs listed in the NOI instructions can be utilized for Post Construction Stormwater Management.
- Stormwater from off-site cannot flow into the PCSM BMPs implemented under the Concentrated Flow and Sheet Flow Standards.
- All stormwater discharges cannot be directed for a combined sewer system
  - MS4 is allowable.
- Regulated fill that requires a Waste Management permit cannot be used for PAG-01.

STAFF UPDATE

TOM D’LAURO - Although it has only been nearly four months since I started at the Conservation District, I already feel as if I’ve come a long way in building a strong foundation as the Mushroom Farm Resource Conservationist. Over the last few months, I have been lucky enough to learn from my excellent colleagues and assist in various project designs. This spring and summer, I look forward to getting more field implementation experience under my belt and eventually stepping out on my own to work with farmers and producers in the Chester County mushroom community!

KARA SCHOCH - Spring marks my fourth month at the Chester County Conservation District, and with the support and mentorship of my colleagues I’ve truly begun to understand our role in supporting operators across Chester County. In these past few months, I’ve met with operators during Manure Management and Nutrient Management Planning visits, assisted in the survey and design of BMPs like mortality compost structures and grassed waterways, and begun attending formal training to prepare for my role as Nutrient Management Specialist! It has been exciting to take steps toward working more independently, and I look forward to furthering my skills in the warmer months to come.

Manure Happens

C O N S E R V A T I O N F A
P I U V H R O T C A R T N N
I H N F A R M H O U S E I N
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SILO
LIVESTOCK
FIELDS
BARN
CROPS
FARMER
SEEDS
TRACTOR
IRRIGATION
NITRATES
PASTURE
CONSERVATION
TOOLSHED
HAYSTACK
ENVIRONMENT
WATERSHED
FARMHOUSE
MANURE
HARVEST
Get the **Nutrients** from **Source to Plant** Without Degrading Surface or Drinking Water!

**START**

Oh no! Your well water is testing high in Nitrates! Try again!

**WELL**

**FINISH**

Oh no! The cows pooped in the stream! Let's change how we manage animal access to water!

Oh no! The storage is leaking! Prevent leaks with regular monthly inspections and proper maintenance!

Oh no! While filling up the spreader, a line burst and manure got into the stream! Follow your Emergency Response Plan to clean it up!

Oh no! Manure entered the stream from spreading too much too close to the stream! Follow the rates and setbacks in your manure management plan!
The Back 40
CHESTER COUNTY
CONSERVATION DISTRICT
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chesco.org/conservation

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