



Mill Creek Log Jams

Background

- In 2017, Union SWCD was contacted by the Union County Commissioners and the Paris Township Trustees to investigate recurrent flooding in Paris Township.
- Upon investigation, a massive log jam was discovered in Mill Creek. It was 1,600 feet long, 80 feet wide, and 5 feet tall at its highest point.
- A committee was formed to study this issue and to determine if this was an isolated log jam or if there were more of these along Mill Creek.
- The committee used drones, satellite imagery, and walking staff members to investigate the entire length of Mill Creek in Union County. They found multiple other log jams.
- Here are pictures showing some of what they found...

Paris
Township



Dover
Township



Paris
Township



Liberty
Township



Liberty
Township



Paris
Township



Background

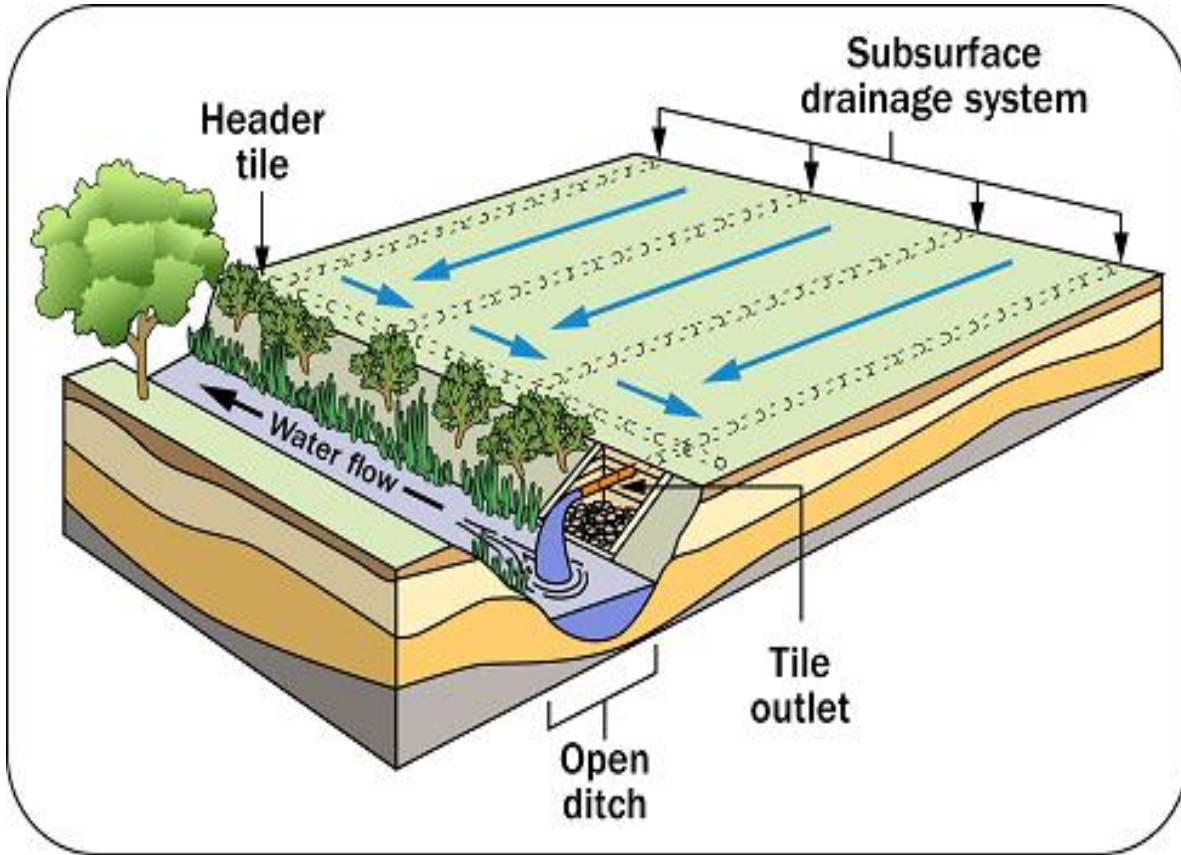
- The committee realized that a project to remove all of these log jams would be an incredibly large undertaking that would require funding, manpower, and detailed planning.
- Multiple public agencies (Union County Commissioners, City of Marysville, Paris/Taylor/Millcreek/Leesburg Townships) pitched in to fund a three-year position that would research Mill Creek and inventory the estimated number of log jams and dead trees along the banks. This individual was hired in 2018 and completed their work in 2021.
- Union County secured funds through the American Rescue Plan Act (ARPA) to cover the cost of removing these log jams and the City of Marysville also agreed to cover the construction costs for the section of the creek within its corporate limits.
- In 2023, work began on a petition process that was required to formally begin the work and cover long-term maintenance after the log jams were removed.

Agencies Involved

- Union County Commissioners
- City of Marysville
- Union County Engineer
- Union Soil and Water Conservation District (SWCD)



What's the Problem?



- Mill Creek is the outlet for all agricultural, residential, and municipal drainage within the watershed.
- The log jams act like dams, causing the water in the creek to back up.
- If the creek is backed up frequently:
 - Drainage systems don't work properly.
 - Crops and yards are flooded.
 - Repeated topping of the bank causes the river to re-route itself through adjacent properties.

What's the Problem? (Examples)



Standing water in adjacent fields caused by Mill Creek flooding.

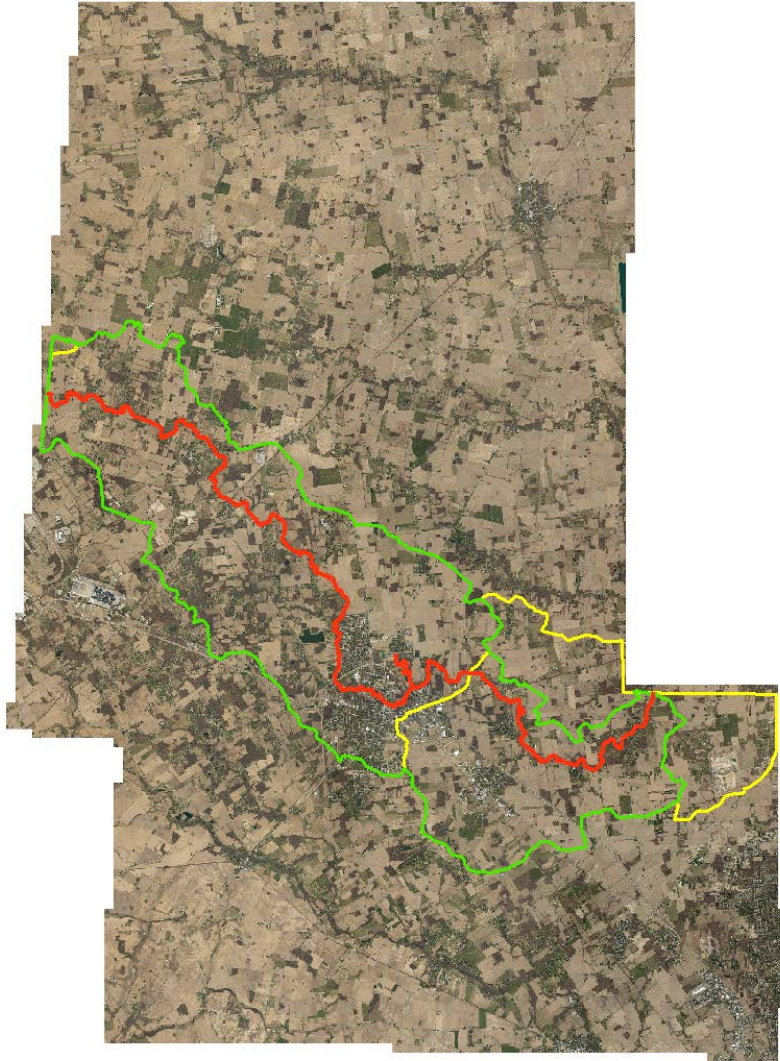


If this standing water starts flowing, it can actually cut a new channel, like we see on this local property.

Benefits of Log Jam Removal

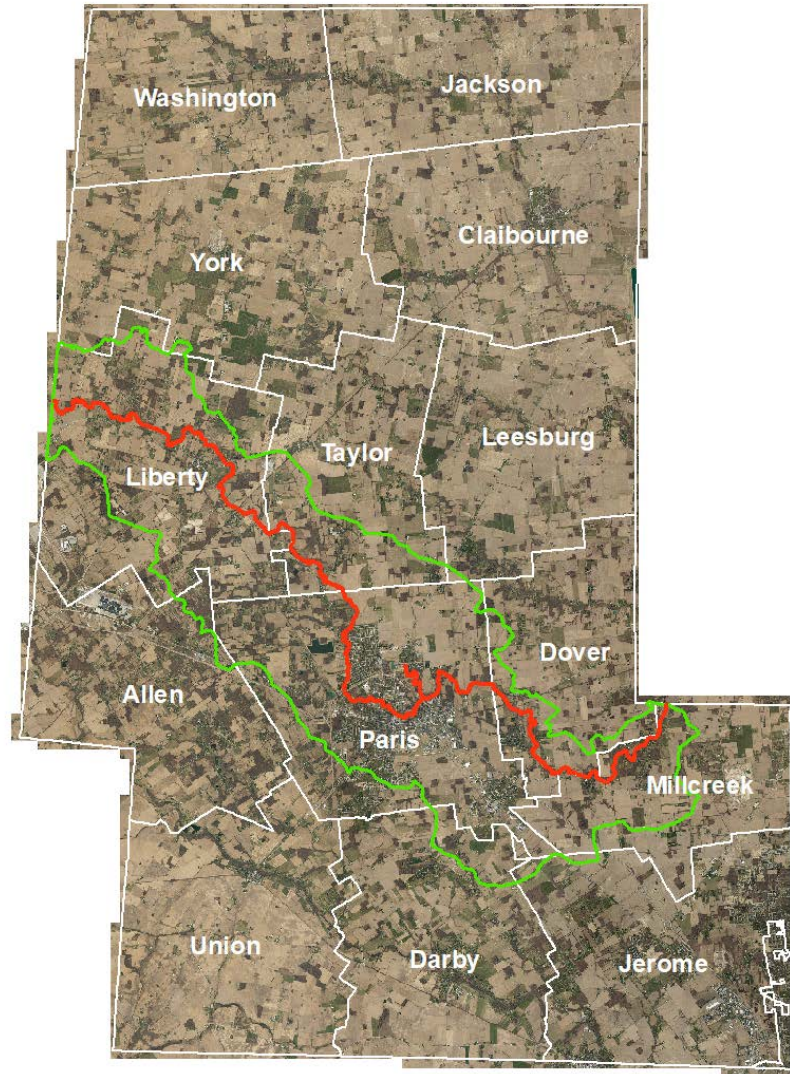
- Improve drainage throughout the watershed
- Alleviate streambank erosion
- Minimize re-routing of creek channels
- Reduce standing water in ag fields / residential properties
- Minimize crop damage due to flooding
- Increase recreational use

Mill Creek Watershed



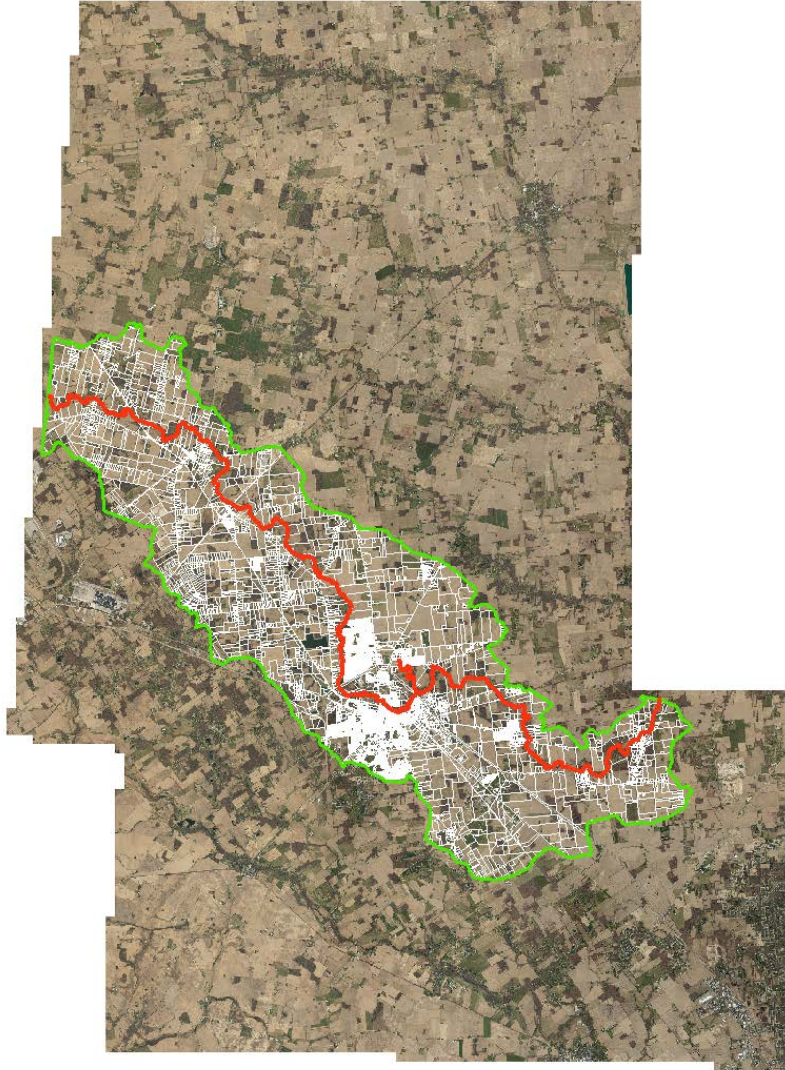
- 99.7 square miles (63,816 acres) of Union County land drain into Mill Creek (Yellow Line).
- Of that land, over 80% is agricultural.
- Some of this land does not drain into Mill Creek until after its water has crossed into Delaware County. Therefore, it is not benefitted by this project, which is confined to Union County. The “Benefitted Watershed” shows the land that will be benefitted by the project (Green Line).
- From its headwaters in Logan County, Mill Creek flows 37 miles through Logan, Union, and Delaware Counties before emptying into the Scioto River. Of those 37 miles, 33 are in Union County.

Mill Creek Watershed



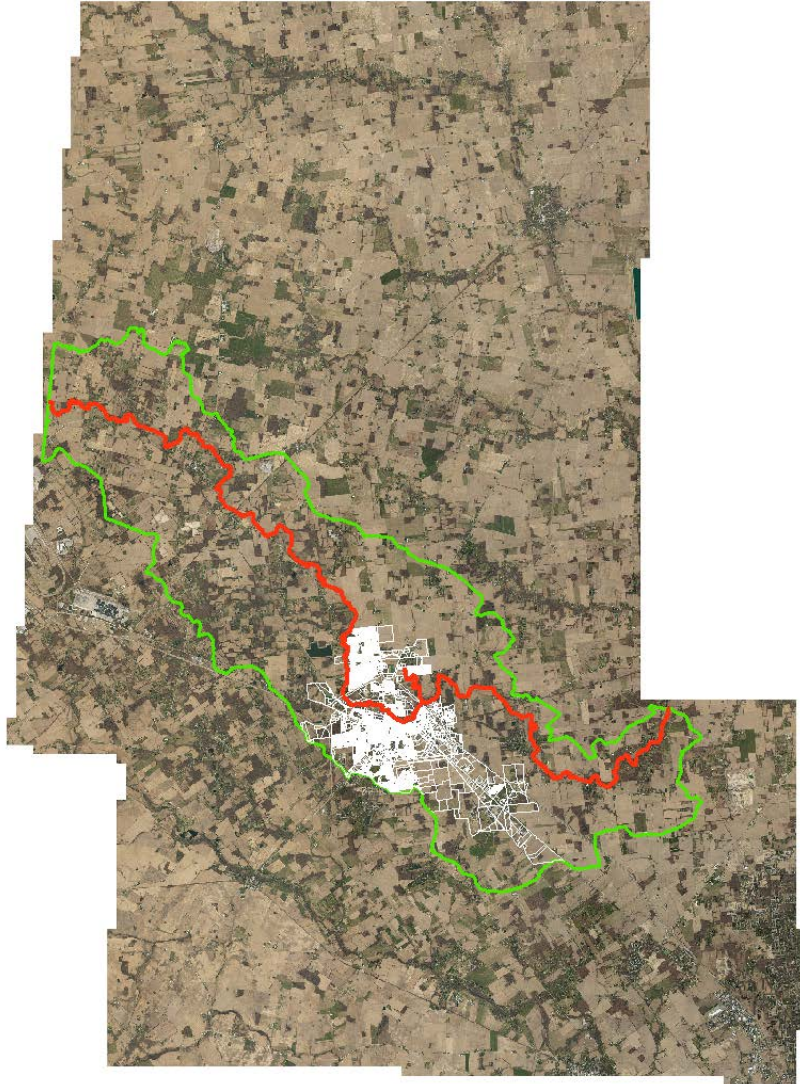
- In Union County, Mill Creek flows through the following townships:
 - Liberty
 - Taylor
 - Paris
 - Dover
 - Millcreek

Mill Creek Watershed



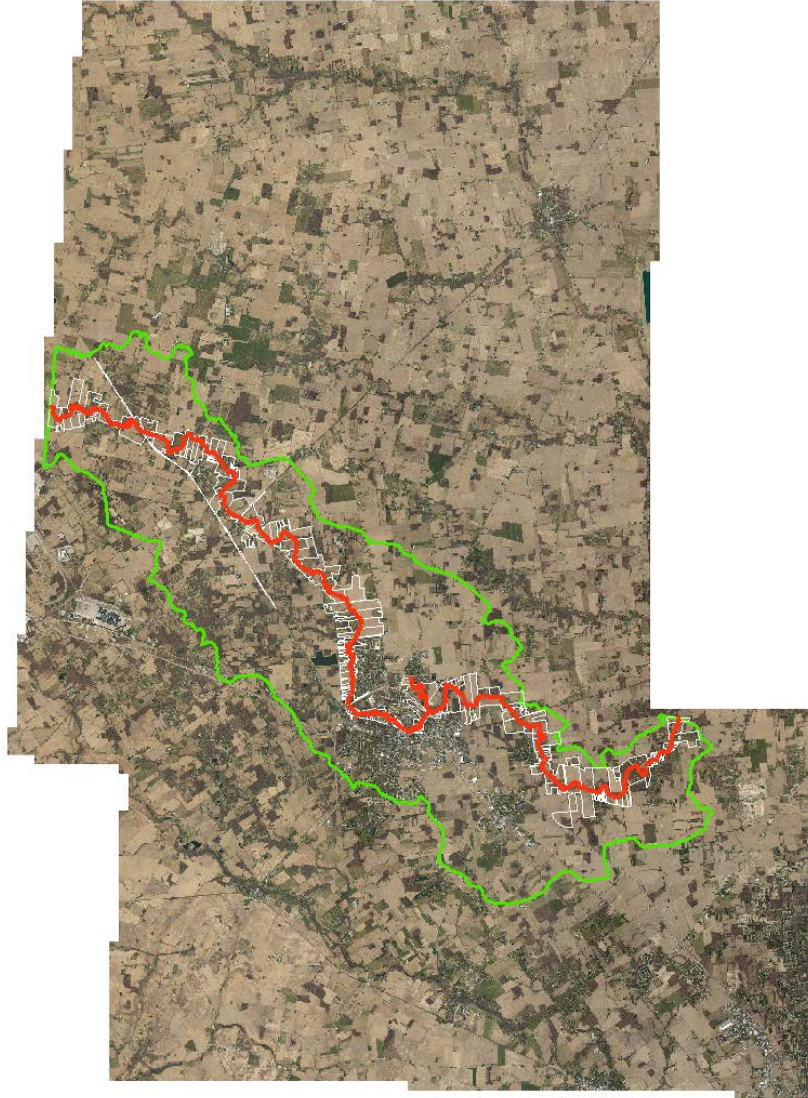
- Excluding right-of-way, the Mill Creek Watershed contains a total of 11,623 distinct benefitted parcels.

Mill Creek Watershed



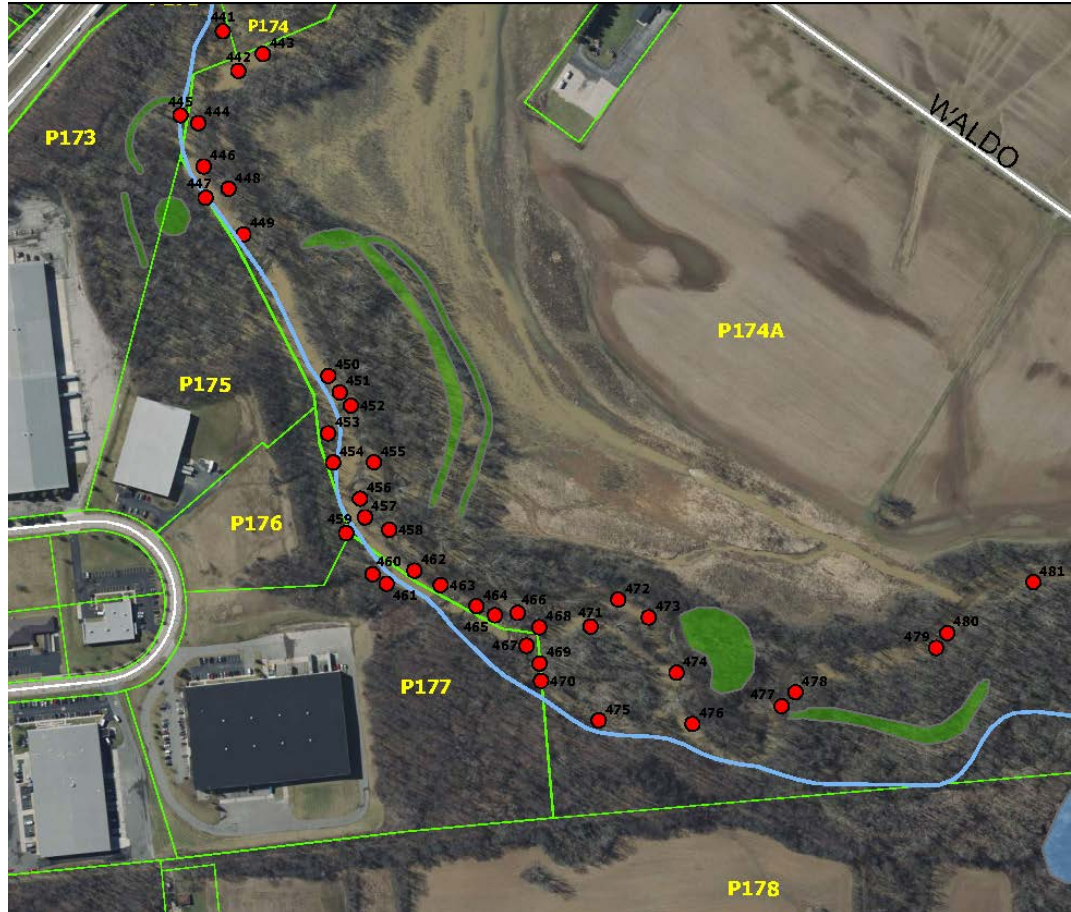
- Excluding right-of-way, the Mill Creek Watershed contains a total of 8,452 distinct benefitted parcels that are also within the corporate limits of Marysville.

Mill Creek Watershed



- Excluding right-of-way, the Mill Creek Watershed contains a total of 299 distinct benefitted parcels that border Mill Creek. These properties will be the most impacted by the project.

Mill Creek Watershed



- There are currently 759 identified log jams or piles of debris in Mill Creek. Most of these are smaller, but all of them either block a portion of the channel or could grow and do so in the future. The plan would be to remove all of them.
- It is estimated that 50 of these are larger log jams that completely block the channel.
- To the left is an image from the preliminary engineering plans that shows one area with many of these logjams or debris piles.

Tentative Timeline

- View (11/8/2023)
 - This is an official public meeting where the public will be presented with information about the project. This is expected to be held during three separate sessions. More information to follow.
- 1st Hearing (12/20/2023)
 - This is an official public meeting where the public and the County Commissioners can discuss the project together.
- Preparation of Plans and Final Assessments (1/15/2024)
 - County staff will finalize all plans, assessment, and maintenance information by this date.
- 2nd Hearing (Expected Late January to Early February 2024)
 - This is an official public meeting where the public and the County Commissioners can discuss the project together. The County Commissioners will also vote at the end of this meeting on whether to formally approve the project and progress to bidding.
- Bidding/Construction/Inspection (Expected Early to Mid-February 2024)
 - The County would seek out a company that they would hire to complete the project. Once hired, they would begin the work.
 - The contractor would have between 18 and 24 months to complete the project after signing the contract. If the process moved as expected, then **the project would likely be completed sometime between August 2025 and January 2026.**

Future Maintenance

- After the project is completed, Union SWCD would handle the future removal of logs and debris to prevent things from ever getting this bad again.
- To cover these costs, a maintenance fund would need to be created. To create this fund, approximately 10% of the project construction cost would be divided amongst acres in the benefitted watershed and assessed to property owners in the benefitted watershed.
- After that, the account balance for this maintenance fund would be examined annually. If there are adequate funds remaining for the year's upcoming work, then no maintenance assessments would be collected. Whenever the maintenance fund is running low, the County Commissioners would determine what maintenance collection is required. This amount would then be divided amongst the acres in the benefitted watershed and assessed to property owners in the benefitted watershed.
- This would appear on the tax duplicate as a "special assessment". The Ohio Revised Code mandates that the minimum assessment is \$2.00 per parcel.
- The City of Marysville currently collects stormwater fees from residents of the City and is expected to use funds from these fees to cover all costs for properties within the City limits.

Questions/ Comments ?

Joe Eads

Drainage Maintenance Supervisor

Union Soil & Water Conservation District

(937) 209-2236

jeads@unioncountyohio.gov

Dean Otworth

Project Engineer

Union County Engineer's Office

(937) 645-3018

dotworth@unioncountyohio.gov