

Langhorne Manor Borough Stormwater Management

Protecting our Manor, Preserving our Waters

May 26, 2026

What is Stormwater?

Rain and snowfall on ***impervious surfaces***, like asphalt or rooftops, creates stormwater flows.

An impervious surface is any hard, man-made or compacted area that ***prevents rainwater from soaking into the ground***, causing it to pool and flow as stormwater runoff.

The streaming water moves downhill picking up chemical, pathogenic, and trash pollutants along the way. ***The contaminated water makes its way into creeks, rivers, lakes, and bays.***



Municipal Stormwater | Department of Environmental Protection | Commonwealth of Pennsylvania

Minimum Control Measures | Department of Environmental Protection | Commonwealth of Pennsylvania

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What is Stormwater Management?

Stormwater Management is the practice of controlling the quantity and quality of rainwater and snowmelt runoff.

This involves capturing, directing, or treating excess water to ***prevent destructive flooding, erosion, and environmental pollution*** caused by runoff flowing over impervious surfaces.



Municipal Stormwater | Department of Environmental Protection | Commonwealth of Pennsylvania

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Why it Matters

When rain falls on natural landscapes, the soil absorbs it and filters out impurities. In developed areas, however, impervious surfaces prevent water from soaking into the ground leading to:

- **Flooding:** Water quickly overwhelms municipal drainage and sewer systems.
- **Pollution:** Runoff picks up debris, oil, fertilizers, and toxic chemicals, washing them directly into local streams and lakes.
- **Erosion:** High volumes of rushing water can destabilize riverbanks and natural habitats.

National Menu of Best Management Practices (BMPs) for Stormwater-Construction | US EPA

MCM 5: Post construction Stormwater | Department of Environmental Protection | Commonwealth of Pennsylvania

Where Does Our Water Go?

What is a Watershed?

The specific land area where all surface water and groundwater flows from higher elevations downhill to a common body of water.

Our Local Watersheds:

Langhorne Manor Borough is required by the Pennsylvania Department of Environmental Protection (PA DEP) to ***protect two distinct, legally "impaired" watersheds:***

- **Neshaminy Creek Watershed**
- **Mill Creek Watershed**



Explore the Watershed | Neshaminy Watershed Association



Where is the Watershed Line?

Two Directions:

Langhorne Manor is divided by a subtle topographic high point (a ridge line) that dictates exactly where rain travels once it hits the ground.

The Western & Southern Slopes:

- The vast majority of the Manor slopes toward Comly and Hulmeville Avenues, feeding directly into the ***Neshaminy Creek.***
- The Neshaminy Creek winds 40.7 miles through Bucks County before flowing into the Delaware River.

The Eastern Slope:

- The eastern edge of the borough tilts away from the center of town, draining downhill toward the ***West Branch of Mill Creek.***
- The Mill Creek flows into the larger Neshaminy Creek network, ultimately feeding the Delaware River.

Explore the Watershed | Neshaminy Watershed Association

The Big Picture: The Clean Water Act

A Federal Mandate: Clean water is a federal law. Every town in America is legally required to prevent pollution from washing into local waterways.

Our Local Permit: Langhorne Manor operates under a state-approved MS4 Permit (Municipal Separate Storm Sewer System). This is essentially our borough's mandatory "clean water license".

The Ongoing Goal: The Manor is working to achieve an initial ***10% total sediment reduction*** across both of our local watersheds.



Municipal Stormwater | Department of Environmental Protection | Commonwealth of Pennsylvania
Minimum Control Measures | Department of Environmental Protection | Commonwealth of Pennsylvania
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Why Continued Efforts Are Required:



Our Mandatory Dirt Quotas (Annual Targets)

To keep our state clean-water license, the Manor is obligated to trap and remove specific amounts of sediment (dirt and runoff pollution) every single year:

- **Neshaminy Creek Watershed:** We must stop 10,378 lbs of dirt/sediment per year from reaching the creek.
- **Mill Creek Watershed:** We must stop 7,326 lbs of dirt/sediment per year from reaching the creek.

That's over 17,000 pounds of pollution our small borough must successfully manage annually!

Municipal Stormwater | Department of Environmental Protection | Commonwealth of Pennsylvania

Minimum Control Measures | Department of Environmental Protection | Commonwealth of Pennsylvania

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The Birth of LMB Stormwater Commission

In July 2020, Langhorne Manor Borough Council appointed a ***6-member commission of resident volunteers*** to guide our community through these regulations.

Rather than relying on local tax increases, this proactive team has ***successfully secured major state, county, and conservation grants to fund*** the infrastructure upgrades and compliance requirements.





LMB Stormwater Project #1:
Comly Avenue
Dry Detention Basin

Comly Avenue Dry Detention Basin



What is a Dry Detention Basin?
A specialized Dry Extended Detention Basin engineered to hold storm runoff temporarily so it can slowly percolate into amended soils and trap loose sediment.

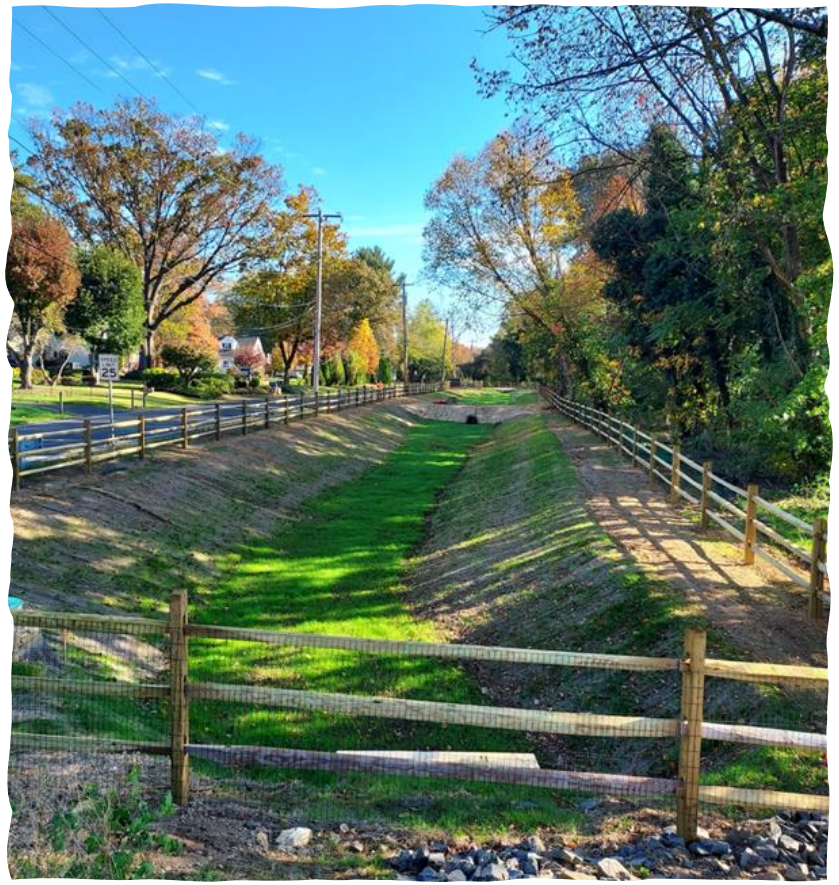
Why the Area Was Selected:
Topographically, much of the Manor's water naturally drains downhill toward Comly Avenue. This facility intercepts heavy flows before they hit the woods off Hulmeville Avenue, earning maximum PA DEP pollutant reduction credits for the Neshaminy Creek Watershed.

Key Metrics:

- **Drainage Area:** Captures runoff across approximately 16 acres of land.
- **State Credit:** Earns a 60% sediment reduction credit per PA DEP guidelines.
- **Impact:** Estimated to trap 6,800 lbs/year of sediment, satisfying 65.5% of the Borough's entire 10% reduction requirement for the Neshaminy Creek Watershed.

Comly Avenue Stormwater Project - Update 1-3

Comly Avenue Dry Detention Basin



Project Financing:

Total Project Cost: $433,276.95

Taxpayer Impact: $0.00 (100% covered by outside grants & relief funds)

Grant & Funding Breakdown:

- PA Growing Greener Grant: $230,000.00
- Bucks County RDA SWC Grant: $125,515.00
- American Rescue Funds: $60,193.95
- RDA Garage Grant (Residual Funds): $17,568.00

Project Status: The basin is fully completed and functional, marked by an official community ribbon-cutting ceremony on October 14, 2023.

Results: Successfully reduces sediment rushing into adjacent streams.

Grasses and plant life were intentionally installed to ensure effective basin functionality and anchor the soil, keeping eroded sediment and harmful elements out of our streams.

Comly Avenue Stormwater Project - Update 1-3



Comly Avenue Dry Detention Basin

This inaugural borough project also received a U.S. Capitol flag commendation presented by Congressman Fitzpatrick!



[Comly Avenue Stormwater Project - Update 1-3]



LMB Stormwater Project #2:
Pine Street
Infiltration Trench

Pine Street Infiltration Trench



What is an Infiltration Trench?
A series of subsurface stormwater storage chambers designed to capture runoff, manage volume, and filter pollutants as water naturally percolates into the underlying soils.

Why the Area Was Selected:
This project fulfills the Borough's strict requirement to reduce levels of sediment and other pollutants entering Mill Creek Watershed. Located on the east side of Pine Street in the public right-of-way bordering Cairn University, this trench intercepts runoff that previously ran full-speed along asphalt curbing, bypassing soil infiltration.

Key Metrics:

- **Targeted Impact:** Estimated to achieve 9,097 lbs/year of sediment reduction.
- **Runoff Modification:** Heavy asphalt curbing along the street line was cut away and removed to allow uninhibited water entry into the subsurface systems.
- **Compliance Success:** Single-handedly satisfies & exceeds the Borough's initial 10% regulatory reduction requirement (7,326 lbs/year) for the Mill Creek Watershed.

Pine Street Project Summary for Web - July 2024

Pine Street Infiltration Trench



Pine Street Project Summary for Web - July 2024

Project Financing:

Total Project Cost: $224,971.78

Taxpayer Impact: $0.00 (100% covered by outside grants & relief funds)

Grant & Funding Breakdown:

- **Bucks Country Conservation District:** $185,000.00
  Funded by Low Volume Roads Program
- **Pennsylvania DCED H2O Grant:** $39,971.78

Project Status: The project is fully completed, operational, and seamlessly integrated beneath the roadside landscape, with the earth replaced and surface grass fully established.

Results: Successfully captures, slows, and filters nonpoint source pollutants underground before they can reach and impact the Mill Creek Watershed.

Asset Protection Mandate: To protect the delicate underground system and ensure soil stability, parking vehicles on the grass along the east side of Pine Street is strictly prohibited by Borough Ordinance 2005-0006.

Note: NO Parking signs are being installed in the coming weeks.


CAT


STOP
3-WAY


CAT
CAT



Everyday Care Around the Manor

- **Basin Maintenance:** Repairs to the split-rail safety fence at the Comly Avenue Basin are underway to ensure proper infrastructure protection, resident safety and compliance.
- **Protecting Pine Street:** Look out for new ***"No Parking"*** signs along the grass on Pine Street, serving as friendly reminders to keep heavy cars off our delicate underground systems.
- **Storm Drain Cleaning:** We are proactively gathering estimates for professional storm drain cleaning to ensure our neighborhood intakes remain completely clear and ready for heavy rains.

What's Next?
Future Projects

EXPLORING WEST PROSPECT AVENUE

- **Careful Testing:** We are scheduling upcoming soil and site retests to see if West Prospect Avenue can safely host our next neighborhood stormwater project.
- **Keeping Neighbors Informed:** We are reaching out directly to nearby homeowners to ensure everyone is informed and up-to-date on project details as they develop.
- **Financing Wisely:**
  Our team has already secured a state grant thru the PA Dept of Community & Economic Development for partial project funding.

  We are also working with Congressman Fitzpatrick's office to secure previously awarded funding so we can complete this project solely via grant funding.

Neighborly Yard Care & Clean Streams

Langhorne Manor is blessed with ***beautiful, grass-lined roadside swales.***

Because these gentle ditches are completely open, they connect directly to nature, meaning whatever sits in our neighborhood swales behaves exactly as if it were placed right into the Neshaminy Creek.

A Surprising Fact About Our Waterways:

- Up to ***20% of the annual waste*** found in local streams comes from misplaced yard debris.
- During the high-maintenance summer and fall seasons, that volume routinely ***surges past 50% of total collected aquatic waste.***

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Friendly Reminders for Green Waste

- **Keep Our Woods Wild:** Please use Manor curbside collection for leaves and yard waste rather than placing them in shared woods or green spaces.
- **Protect Natural Growth:** Keeping woods free of lawn piles stops invasive weeds and helps native plants thrive.
- **Prevent Neighbor Flooding:** Keeping swales free of debris allows rainwater to flow smoothly, stopping local street ponding.

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Homeowner Action Plan:



DO...	DON'T...
plant trees since they absorb fertilizer and carbon, countering the effects of climate change	wash or blow grass onto streets, sidewalks or swales
pick up after pets and discard their waste in the garbage	put chemicals into storm drains, swales, or the ground
test soil and use only the amount of fertilizer needed	apply fertilizer to dormant lawns or on frozen ground
landscape with permeable surfaces instead of asphalt or concrete	over water your lawn or gardens which causes nutrient runoff
direct downspouts into permeable flower beds, and add splash blocks to reduce erosion	wash your car where runoff will enter drains or swales
consider a compost pile, rain barrel or rain garden	alter plant and animal biodiversity by dumping yard waste or Christmas trees in the woods

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THANK YOU!

A huge thank you to all of our current and previous members of the **Langhorne Manor Borough Stormwater Management Commission!**

Navigating state environmental mandates is an incredibly complex undertaking.

The outstanding structural milestones and grant funding successes achieved over the years are a direct result of this team's ***rigorous research, hard work, and unwavering dedication.***

Our community's incredible progress is wholly due to this group of neighbors generously volunteering their time and talents to protect our lovely Manor.

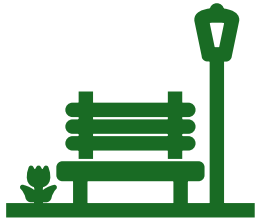
Current Members:

- Heather Palladino
- Lauren Shuke
- Teresa Weiser
- Barry Green

Past Members:

- Alicia Gasparovic (Chair)
- Jim Keba
- Fred Tomlinson
- Margie Gillies
- Kevin Oessenich
- Dave Bean

Protecting Langhorne Manor Together



Protecting our waterways relies on a combination of engineering by the Borough Council and daily habits by our homeowners.

Small changes in our yards make a massive difference for our local streams.

Resources & Learning:

Visit the official LMB Stormwater Commission Website for simple homeowner tips, current project statuses and annual reports.



RESOURCES

www.langhornemanor.org/boards-commissions/stormwater-commission/

Make Your Home The Solution To Stormwater Pollution (EPA)

Water Efficient Landscaping (EPA)

A Homeowner's Guide To Stormwater Management
(Philadelphia Water Dept.)

Where Does All The Dirty Water Go?
(EPA)