

CURRENTS

A net zero energy home, designed with stormwater in mind!



Rich soils surround a rain barrel and serve as an absorbent base for rain garden planting.

Lucyna de Barbaro and Ayres Freitas, property owners in Squirrel Hill, know how actions taken at the homeowner and neighborhood level can benefit our urban watershed. Before building a duplex consisting of two attached single-family homes with shared green infrastructure, a shared driveway, and a 3-car garage on Fernwald Road, they determined how to retain stormwater on their property to reduce the impact on the sewer system. Their efforts ultimately resulted in a 50% credit on their monthly PWSA stormwater bill for each individual home of the duplex.

To address stormwater issues, their design team,

Common Ground Design, considered the runoff from the two properties as well as run-off from a neighboring driveway, which drains onto the duplex property.

Each home of the duplex shares an access way, and Lucyna de Barbaro and Ayres Freitas chose to reconstruct a portion of the shared driveway with permeable pavers and a sub-base that allows stormwater to infiltrate into the ground. These pavers reduce runoff at the site and filter pollutants from the water. As the duplex sits at a higher elevation than neighboring parcels, the design of the driveway and the base underneath the driveway was considered to ensure that water seeps into the ground vertically.

In addition, each attached home utilizes an oversized 250-gallon rain barrel at the rear of their property to collect the water that is conveyed from the sloped rear roof. Excess water is directed to a shared sump, or depression in the ground which is lined with rocks. This sump or “dry well” is double-lined on its vertical sides to prevent water from seeping out horizontally.

One oversized gutter directs all flow from the front, street-facing roof to a sump and a rain garden.

A rain garden near the rocky sump has deep-rooted native plants and grasses, whose roots “hold on” to the water that is directed there. At first glance, a rain garden looks like any attractive, ordinary garden. It attracts birds and butterflies and can be incorporated into a variety of landscapes and yard designs. But beneath the surface, a number of things are occurring to mimic water management in nature. Through the use of specially selected rain garden plants and soils, stormwater can also be cleaned before it enters the sewage system.

Next Board Meeting: September 22

For more information and to join a PWSA Board Meeting, please visit pgh2o.com/board

For a complete list of PWSA’s community meetings and events, please visit pgh2o.com/events-meetings.

To further manage stormwater, 12 inches of a specially formulated soil mix was installed in the front and back yards. This specialized soil mix is 40% compost, 20% sand, and 40% topsoil. Loose soils like those used in the front and back yards are excellent at slowing stormwater and infiltrating compared to harder packed clays and silts.

The sustainable design of the attached family homes on Fernwald Road, including permeable paving, rain barrels, rock sumps, rain gardens, and specialized soils ultimately benefits not only the two homes, but also the neighborhood and the urban watershed as a whole.

Stormwater Credit Program

Installing stormwater management systems such as a rain garden or an underground stormwater system on private property are examples of how a private property owner may earn a credit towards your stormwater fee.

To learn more about our credit program and how to apply, Please visit pgh2o.com/stormwater-fee.

Join our email list to get the latest news and updates.
Signing up is simple at pgh2o.com/subscribe.





Additional Stormwater Resources

Explore the resources below for additional information about the stormwater fee, the stormwater credit program, and a searchable map to understand the amount of hard surface on your property.

Stormwater Credit Program: Property owners choosing to manage stormwater on site may reduce their monthly stormwater charge by installing stormwater management systems such as a rain garden or an underground stormwater system on their property. For information about the stormwater credit and to apply visit pgh2o.com/stormwater-fee.

Fee Finder Website: Use our searchable map to view the amount of impervious surface on your property and understand your stormwater fee. To use the site:

- Launch the [Fee Finder Website](#)
- Enter your address in the search bar and press enter
- Click inside the boundaries of your property for the amount of impervious surface and Equivalent Residential Units (ERU's)
- To determine your fee amount, multiply the number of ERU's by the current stormwater rate and subtract any credits that may apply

Disputing Stormwater Fee: If you have questions about the amount of impervious surface calculated for your property or believe there is a discrepancy, please contact our Customer Service department by calling 412-255-2423 (Press 5), to start the process.

Questions: Please call PWSA Customer Service at [412-255-2423 \(Press 5\)](tel:412-255-2423) or email info@pgh2o.com for questions about the stormwater fee or general questions about the credit program. For more information about our plans to manage stormwater, please visit pgh2ostormwater.com.

Neighbors Helping Neighbors

Your donation to PWSA's Hardship Grant Program will directly benefit PWSA customers having difficulty paying their bill. Donate online at pgh2o.com/give.

Enroll in eBilling

Convenient and easy to use, our online billing and payment portal ensures timely delivery of bills and payments. Visit pgh2o.com/ebilling to enroll.

Penn Liberty Plaza 1
1200 Penn Avenue
Pittsburgh, PA 15222

Customer Service*

T 412.255.2423 (Press 5)

info@pgh2o.com

**translation services available*

Emergency Dispatch*

412.255.2423 (Press 1)

Available 24/7

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PGH₂O
WATER WISE

Help Our Rivers by Preventing Illicit Discharges



Across approximately 25 percent of Pittsburgh, stormwater and wastewater are routed into separate underground sewer pipes. In these municipal separate storm sewer system (MS4) areas, **primarily located in Pittsburgh's Saw Mill Run neighborhoods**, storm drains on the street carry rainwater directly to our streams and rivers through storm sewer pipes.

That means any materials that enter a storm sewer will not have a chance to be removed at a wastewater treatment plant before they reach our many rivers. This pollution can harm local water quality, fish, wildlife, and recreation. Any unauthorized discharge from our MS4 system that is not composed entirely of stormwater is considered an illicit discharge and is prohibited.

We can all do our part to protect water quality and keep our rivers clean! Follow these best practices to prevent illicit discharges:

- Never dump vehicle fluids, grass clippings, leaves, household chemicals, paint, animal waste, car washing soaps, litter, or fats, oils, and greases into storm drains.
- Contact us about any sanitary, restaurant waste, or industrial wastewater line connected to the storm sewer system to coordinate proper disconnection and rerouting.
- Only the following uncontaminated water sources are permitted to enter a storm sewer: water used for firefighting, dechlorinated fire hydrant and water line flushing, lawn watering, uncontaminated groundwater, residential car rinsing (no cleaners), and condensation from heating and air conditioning.

If you discover an illicit discharge, please report it to us at 412-255-2423 (Press 1) or use the **Report an Issue Form** on our website so that we can investigate.

Learn more at pgh2o.com/ms4.