



Fern Hollow to the Monongahela

Trace the elusive Fern Hollow stream to the mighty Monongahela River, with UpstreamPgh as your virtual guide! Click on the green points on the map to learn more at each stop. The full route is about 3 miles one-way. You may want to consider breaking it up, taking the bus back, or packing water and snacks to fuel you both ways!

MAP: [Fern Hollow to the Monongahela](#)

- **Entrance to Fern Hollow** - Welcome to Fern Hollow, a ravine through the East end of Frick Park with a stream of the same name. It's a bit of a mystery where the name comes from as you won't find too many ferns in this hollow, but records show the name used as far back as 1890. On this end of Fern Hollow, you'll find the Homewood Cemetery, a nondenominational cemetery established in 1878 that is home to the first Chinese burial plot in the Eastern United States.
- Sources:
 - <https://triblive.com/local/whats-the-origin-of-fern-hollows-name-even-pittsburgh-historians-say-its-a-mystery/>
 - <https://secretpittsburgh.pitt.edu/sp/node/566>
- **Tree Planting:** On your right, you'll see tree saplings planted by the Pittsburgh Park Rangers. You may also see thick patches of invasive Japanese Knotweed, which has bamboo-like stems and heart-shaped leaves with white flowers in the summer. There are many invasive species in Frick Park, and groups like UpstreamPgh, the Pittsburgh Park Rangers, Trail Pittsburgh, and the Pittsburgh Parks Conservancy lead efforts to remove them and plant natives in their place.

At this point, you may begin to see the Fern Hollow stream, collecting water down the steep slopes on both sides of the trail. Try to follow the flow as you walk along the trail - where is water coming from, and what barriers stop the flow?

- **Fern Hollow Bridge & Trail Meander** - In January 2022, the Fern Hollow Bridge collapsed into Fern Hollow stream in Frick Park. Multiple vehicles and a city bus fell,

causing injuries but no fatalities. The main cause? Clogged storm drains which led to corrosion, which the city failed to address despite multiple warnings.

The collapse highlighted an alarming backlog of maintenance needs among Pittsburgh's hundreds of bridges. It also inspired UpstreamPgh to look into restoring Fern Hollow stream!

Beneath the bridge, you'll find the art installation *Trail Meander* by Carin Mincemoyer. Find the plaque on a wooden post along the trail to learn more, and take a moment to stop and rest, observing movement in this area.

- **Detour: 400 Million Years of Water** If you're ready for an incline, walk up the rocky road that leads to Forbes Avenue above. Across the crosswalk, you'll see a sign for *400 Million Years of Water* by John Peña. If you make this trek, cross the bridge to travel back in time through the art. Then turn right, following the sign for the Braddock Trail through the playground, before turning right down the Biddle Trail and down the steps to return to the woods.
- **Hot Dog Dam** - (If you don't cross the bridge) At the beloved Hot Dog Dam, you'll find an exposed sewer pipe at your feet. This pipe carries both stormwater and sewage from surrounding neighborhoods through a network that eventually leads to ALCOSAN's water treatment plant. But when there's enough rain, increasing the volume of water, the pipe will overflow into Nine Mile Run 🤢 That's right; it dumps raw sewage right into the stream. The more we can direct water into Fern Hollow stream and wetlands instead of this pipe, the less sewage will end up in the Nine Mile Run!

In 2026, Pittsburgh Water repaired the sewer lining to fix holes in the pipe, which were causing Fern Hollow to leak right into the pipe.

- **Wetland Area** In this area, the wetlands of Fern Hollow are in their full glory. Take a moment to look down and observe the wetland species. You may see frogs and toads in the leaf litter, fish beneath the bridges, red-winged blackbirds on a migration, skunk cabbage welcoming in spring, or snails sliding across the trail. UpstreamPgh is working on a plan to modify the trail in this location to allow the wetlands to more naturally flow.
- **End of Fern Hollow** - Can you follow Fern Hollow until it merges with Nine Mile Run? Or has it dried out? While Fern Hollow is acting like an intermittent stream (a stream that only has water during parts of the year), it should be a perennial stream (one that flows year round). Surprisingly, it actually loses water as it goes. The reason why is complex, but a big factor is that rainwater from surrounding neighborhoods isn't able to reach the

stream, going into storm drains instead. UpstreamPgh's [Restore Fern Hollow plan](#) is working to increase Fern Hollow's flow and restore the natural functions of this stream.

Nine Mile Run

- **Large Wetland Area** - Did you know this area used to be a muddy field? In 2004, the restoration of Nine Mile Run began, and it included restoring 4.5 acres of wetlands, the largest of which is in front of you.

There're lots of great metaphors for wetlands, but we'll limit ourselves to two: nature's sponges, due to their ability to hold extra water during rainy seasons and release water during dry spells, and nature's kidneys due to their ability to filter out pollutants, purifying groundwater. If you're visiting during springtime, listen for the chorus of spring peepers, especially in the evening.

- **Nine Mile Run entrance:**

"If Pittsburgh was "Hell with the lid off", as it was famously called during its industrial heyday, then its River Styx was surely Nine Mile Run. Polluted into lifelessness, buried in culverts, insulted with trash, gouged by flash floods, and stripped of its floodplain by vast piles of slag, Nine Mile Run was as close to biological death as a stream could get."

- Peter Harnik, *Landscape Architecture Magazine*

You've made it to Nine Mile Run, the city's best aquatic oasis (we're biased)! Throughout most of the 20th century, as the quote above describes, the Nine Mile Run stream in Frick Park was little more than an open sewer. Called "stink creek" and worse, it was such a health and safety hazard that by the second half of the century, it was devoid of aquatic life. In 2001, the Nine Mile Run Watershed Association was founded, and in 2004, restoration of the stream began, led by the US Army Corps of Engineers. It was completed in 2007 with a total of \$7.7 million dollar investment, and is one of the largest urban stream restorations in the country.

- **Nine Mile Run meander:** One thing that the restoration included was adding meanders to the stream. Meanders give the stream a more winding and sinuous path, which makes the water flow slower than if it were traveling in a straight line. This reduces erosion (or crumbling) of the stream bank.

This section of the stream, which swings out closer to the trail, is one of those meanders. As it turns out though, streams have memories, and this stream still wants to

travel in its original course, closer to the hillside. As you walk, look for where the original course of Nine Mile Run reconnects with the new, more-meandered route.

- **Sewage and Stream Health:** Remember the sewage pipe at Hot Dog Dam? You've reached the end of it, where the pipe releases sewage into the stream. Because of this, Nine Mile Run is classified as *Impaired* and most of the time does not meet water quality standards for safe recreational use. UpstreamPgh conducts monthly stream monitoring, and we find that the stream often ranks high levels of fecal coliform, aluminum, lead, and nitrate, but has healthy levels of pH and dissolved oxygen. To keep ourselves safe, we always wear gloves when picking up trash from the stream or conducting sampling and wash our hands thoroughly afterwards.

What are we doing to improve the health of the stream? By capturing more stormwater in rain gardens and Fern Hollow, we are able to divert water away from the sewer network, lessening overflows. Regionally, ALCOSAN is working on a Wet Weather Plan to reduce annual combined sewage overflow volume from 9 billion gallons per year to less than 2 billion by 2036.

Source: <https://www.alcosan.org/clean-water-plan>

- **Pools and Riffles:** Pools and riffles are two parts of a healthy stream's anatomy. Pools are deeper, slow moving sections that provide habitat for fish and refuge during dry periods. Riffles are shallow, fast flowing areas where the stream bubbles over rocks, mixing in oxygen into the water, and creating habitat for aquatic macroinvertebrates like dragonfly larvae. The restoration included adding these large rocks to create pools and riffles. Some of the large rocks have fossils - take a look!
- **Live stakes:** Along the streambank, you may see rows of sticks planted into the soil—these are called live stakes. They're cut from native plants like willow and dogwood, and they can sprout roots and grow into new plants. As they take hold, they stabilize the soil, reduce erosion, and help create a strong riparian barrier along the stream. These livestakes were planted by UpstreamPgh's very own volunteers!
- **Greenway Project:**
In the 1990's, the City of Pittsburgh wanted to culvert Nine Mile Run from where you are at Commercial street down to Monongahela River. Students and faculty at CMU's STUDIO for Creative Inquiry heard about the plan and wanted to save the stream. Led by artists Bob Bingham, Tim Collins, and Reiko Goto, they planned workshops, tours, and a large art installation on the slag heap to your right to bring attention to the space. Their work led to the formation of the Nine Mile Run Watershed Association in 2001,

and the restoration of the stream, which began in 2004. In 2021, the Association changed its name to UpstreamPgh, and the work continues today!

Source: <https://studioforcreativeinquiry.org/project/nine-mile-run-greenway-project>

- **Summerset Housing Development:** Look up at the hillside dotted with homes towards the northwest side of the trail. This large hill is actually a giant pile of slag, or steel industry waste - this was a major contributor to the near-death of Nine Mile Run.

How did this giant pile come to be? In 1922, Duquesne Slag Company bought 94 acres along the stream. Over the next decades, they bought more and more land until they owned nearly the whole stream valley, despite campaigns from neighbors who dealt with pollution, noise, and the loss of this green space. It is estimated that 17 million cubic yards of slag now rest on the shore of Nine Mile Run. In October 1995, the Urban Redevelopment Authority paid \$38 million for the 238 acre site, and the site was covered in topsoil, allowing plants to grow, and then the Summerset Housing Development was built. This neighborhood includes over 200 homes and is one of the nation's first brownfield sites to be remediated for residential purposes.

Source:

<https://www.cmu.edu/steinbrenner/brownfields/case-studies/pdf/Summerset%20-%20Nine%20Mile.pdf>

- **Slag Heap - URA Solar Panels** On the other side of the stream, you'll find another slag pile. This was initially going to be the third phase of the housing development, but residents pushed back about that. It would mean more traffic, roads, and potentially a bridge across the stream to access the amenities at the Summerset housing development.

Instead, the URA is building Swisshelm Park Solar and expanding Frick Park. They are remediating 70 acres by adding an earthen cap composed of 8 inches of clean fill and 6 inches of topsoil, and several inches of soil and a meadow mix. They'll replant some areas with forest, adding 55 acres to Frick Park, with the remaining used for solar energy. The solar energy will add power to our grid, and produce enough energy for 250 homes.

Source: <https://www.ura.org/pages/swisshelm-park-solar>

- **Fish Surveys:** The earliest fish surveys recorded on Nine Mile Run are from the 1940s. Back then, surveys often found no or very meager signs of fish and other aquatic life.

UpstreamPgh began monitoring fish after the completion of the restoration in 2006, and each year, an electrofishing survey is led by Duquesne University. The fish survey is one

of the clearest markers of the improved habitat in Nine Mile Run. Today, over 45 species of fish have been identified in the stream, most of which live in this portion of this section of the stream below Commercial Street. Some of the species are rainbow darter, creek chub, white sucker, spotfin shiner, bluntnose minnow, western blacknose dace, green sunfish, and pumpkinseed sunfish.

- **Duck Hollow:** Congratulations - You've reached the end of Nine Mile Run, and the Monongahela River! How does the water change as it merges with the Mon?

Now's as good a time as any to tell you that Nine Mile Run isn't actually nine miles long! The actual length of the stream in Frick Park from where it "daylights" (comes out from underground) near Braddock Ave to this point is about two miles. The story goes that the stream gets its name because this point where you're standing is nine miles from the Point, where the Ohio River starts. Go on our watershed tour to catch a peak of the portion of Nine Mile Run that runs underground!

We hope you've enjoyed learning more about the history of this stream. The animal species and native plants you've seen on your walk are a symbol of nature's resiliency and a result of dedicated Pittsburghers who believed in a better future. Join us as we continue to learn about and steward this area:

<https://upstreampgh.org/get-involved/events/>

Wildlife to Look For on Your Tour

- Northern Cardinal
- Northern Flicker
- Red-bellied Woodpecker
- Owl
- Mallard
- Tufted Titmouse
- Dragonfly
- American Sycamore Tree
- American Hackberry
- Swamp Milkweed
- Joe Pye Weed
- Lichen
- Turkey Tail
- Fish
- Garter Snake
- Black Rat Snake
- Eastern American Toad

- Slimy Salamander
- Beaver
- Muskrat