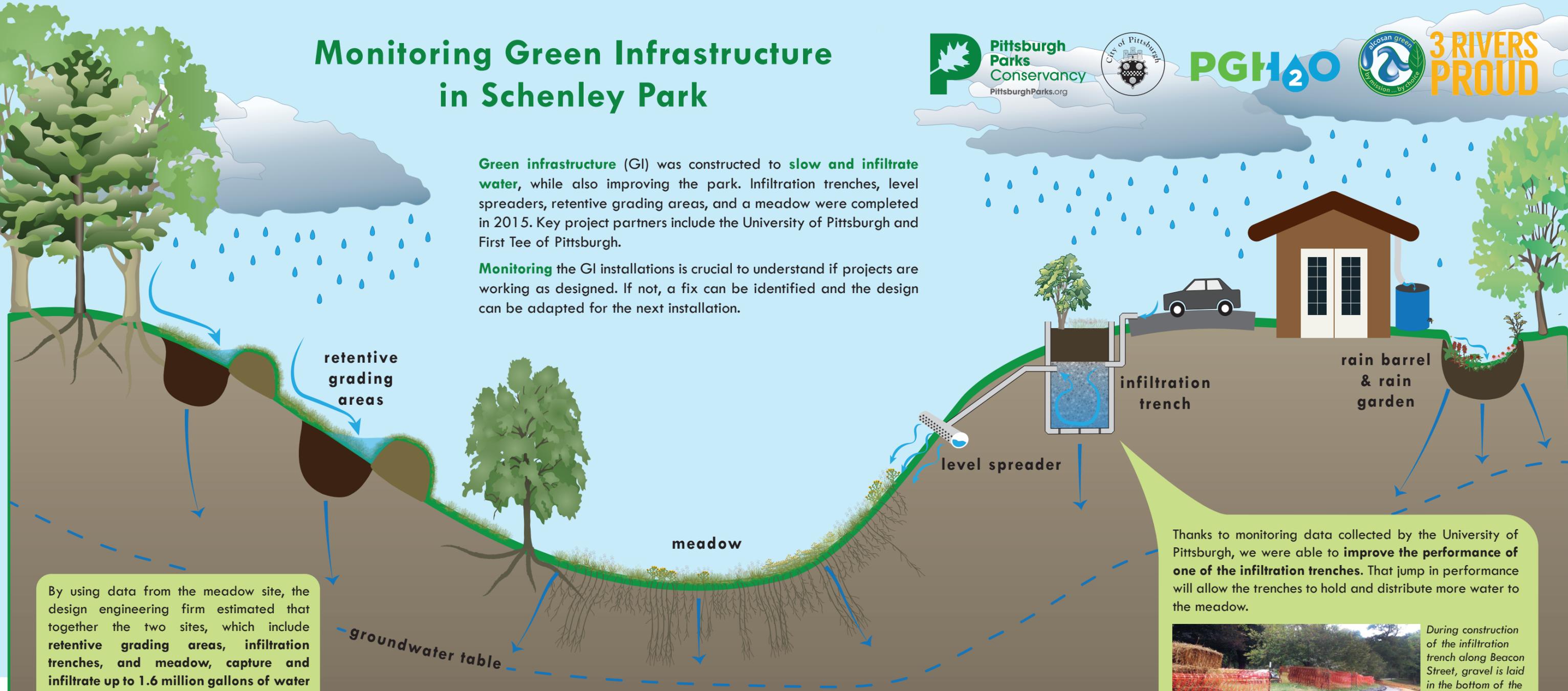


Monitoring Green Infrastructure in Schenley Park



Green infrastructure (GI) was constructed to **slow and infiltrate water**, while also improving the park. Infiltration trenches, level spreaders, retentive grading areas, and a meadow were completed in 2015. Key project partners include the University of Pittsburgh and First Tee of Pittsburgh.

Monitoring the GI installations is crucial to understand if projects are working as designed. If not, a fix can be identified and the design can be adapted for the next installation.



By using data from the meadow site, the design engineering firm estimated that together the two sites, which include **retentive grading areas, infiltration trenches, and meadow, capture and infiltrate up to 1.6 million gallons of water a year** – that’s equal to 32,000 bathtubs full of water!



Retentive grading installed on the Bob O'Connor Golf Course in Schenley Park.

In every GI project there is an anticipated rate at which water drains into the soil. By monitoring the difference between the amount of water in the soil before and after GI installation, we learned that water is often close to the surface and **drainage is slower than expected**. Also, **soils in the Beacon Street meadow stay consistently wet** at about 2–3 feet below the surface.

This discovery suggests the need for many different kinds of deep-rooted plants that can use that water.

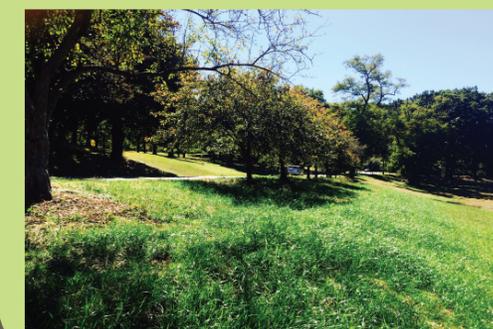


University of Pittsburgh researcher Dan Bain (left) installs groundwater monitoring equipment in Schenley Park.

Thanks to monitoring data collected by the University of Pittsburgh, we were able to **improve the performance of one of the infiltration trenches**. That jump in performance will allow the trenches to hold and distribute more water to the meadow.



During construction of the infiltration trench along Beacon Street, gravel is laid in the bottom of the trench and around the perforated pipe.



Once complete, the GI blends in seamlessly with the surrounding environment, in addition to increasing the volume of stormwater captured and infiltrated from Beacon Street.