3 Panther Hollow Lake

Pittsburgh Water & Sewer Authority

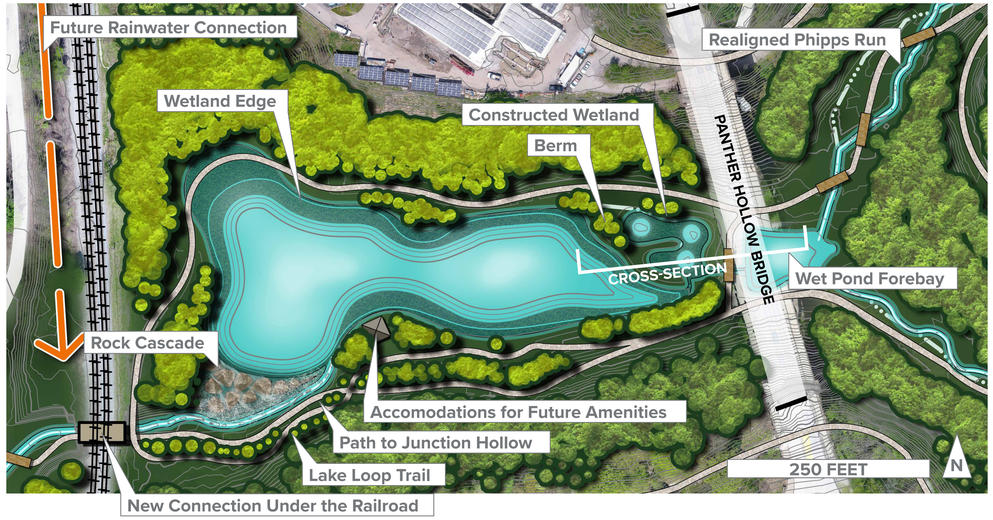
To achieve the project goals, PWSA needs to increase stormwater storage capacity within Panther Hollow Lake.

WHY ARE WE DOING IT?

- To control flows to decrease downstream risk of flooding and basement sewage backups
- To improve water quality in the lake

THIS PROJECT WILL...

- Improve trails around the lake and create opportunities for future amenities as recommended by the Parks Master Plan
- Improve habitats, biodiversity, and riparian ecology
- Increase effectiveness of rainwater controls
- Decrease rainwater in the combined sewer system
- Enable a new stream through Junction Hollow



SECTION THROUGH THE LAKE INFLOW TREATMENT TRAIN

IMPROVED LAKE FUNCTION

The lake will be deepened and given a vegetated wetland edge to provide riparian habitats, improve water quality, and create a floodable lake edge. The wetland edge of the lake allows for the lake to have dynamic capacity, giving PWSA more control over large volumes of rainwater during major rain events.

IMPROVED HABITATS

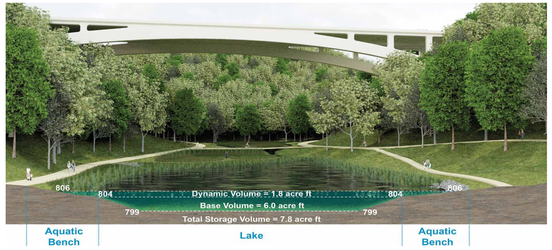
A meandering constructed wetland ecosystem will filter finer sediments and naturally process pollutants carried from park and neighborhood streets and lawns to protect lake water quality. Walking paths all around the lake will give park users an opportunity to see and learn about riparian ecology.

IMPROVED WATER QUALITY

The wet pond forebay will capture coarse sediment and woodland debris transported during storms by Phipps Run and Panther Hollow Run before they enter the lake. This protects the lake from damage and ecological disturbance while also making the entire lake inflow treatment train simple to maintain.

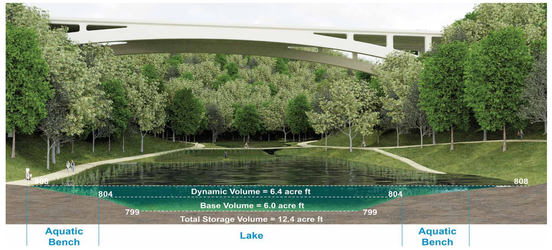
DYNAMIC LAKE CAPACITY

PWSA is evaluating active and passive techniques to maximize the rainwater storage capacity of Panther Hollow Lake. By storing high volumes of rainwater and slowly releasing it downstream after a rain event, PWSA can further decrease risk for downstream flooding, basement sewage backups, and combined sewer overflows.



Typical lake elevation

Planned drawdown lake elevation in advance of a major rain event



Lake elevation during a major rain event

A HISTORY OF CHANGE

Panther Hollow Lake has seen a lot of change over the years. In fact before industrialization in Pittsburgh, there was no lake at all! Our project intends to add new vibrancy and functionality to a key park landmark.

Late 1700s

European-Americans begin to settle in the Pittsburgh area with log cabins built in today's Schenley Park.
Source: fatherpitt.wordpress.com

1889 — Schenley Park is dedicated as a public park.

Early-1900s

Early-1910s

Panther Hollow before the lake was created.
Source: Pittsburgh Parks Conservancy

Mid-1950s

The cascade and Panther Hollow Lake were constructed in the early 1900s. The lake included a boathouse and walking trails.
Source: Pittsburgh Parks Conservancy

The last substantial modification of the lake was when it was given a modernist concrete edge during the mid-1950s.

1999 — The Parks Master Plan identifies the lake as a priority for local ecology and stormwater management.