



WRAP

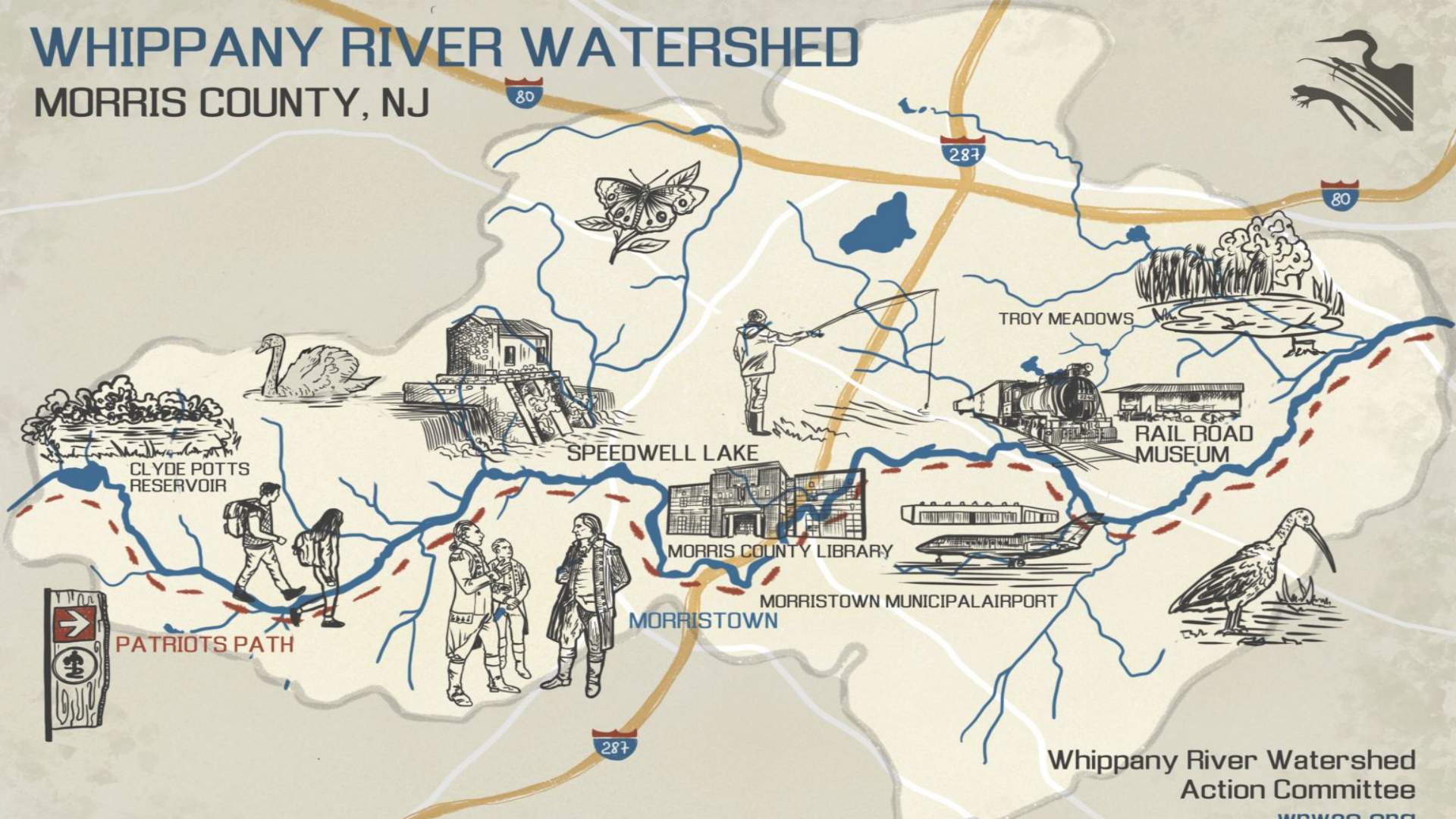
Whippany River Action Plan

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WHIPPANY RIVER WATERSHED

MORRIS COUNTY, NJ



CLYDE POTTS RESERVOIR



SPEEDWELL LAKE



TROY MEADOWS



RAIL ROAD MUSEUM



MORRIS COUNTY LIBRARY



MORRISTOWN MUNICIPAL AIRPORT

MORRISTOWN



PATRIOTS PATH

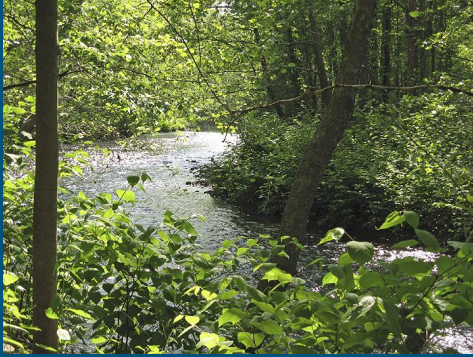


Whippany River Watershed
Action Committee
www.wrwa.org

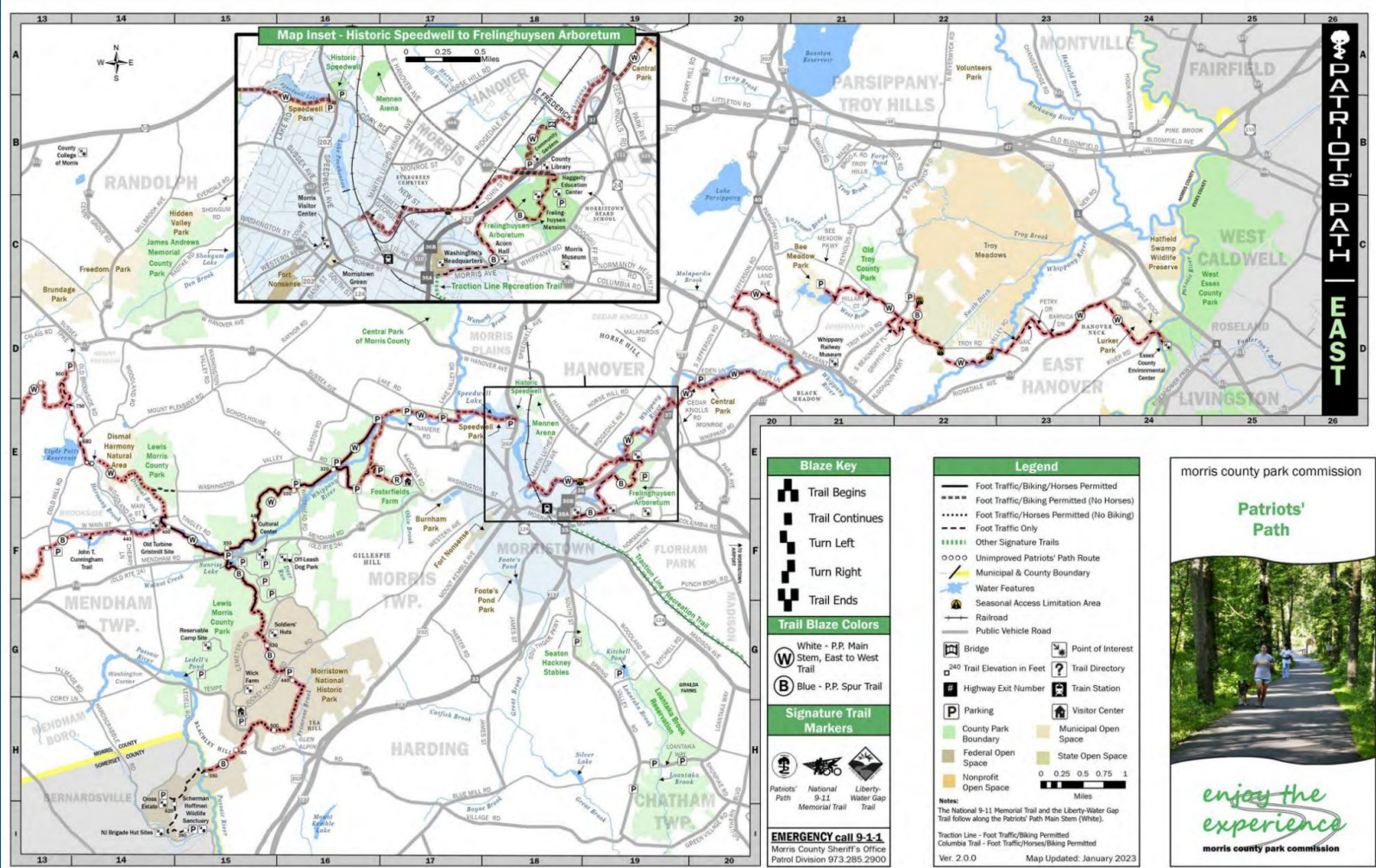
Mission Statement

WRAP aims to improve the health of the Whippany River by understanding and targeting sources of fecal coliform, mitigating erosion, and improving the health of the riparian zone. Located in Morris County, New Jersey, the Whippany River proximity to urbanized areas presents unique challenges. By working off of reports and framework established by the Whippany River Watershed Action Committee (WRWAC), and utilizing a \$1.5 million grant pledged to the watershed as of January, 2023, we hope to realize our goals by 2030.

Background



- 19 mile long river in New Jersey
 - Has a drainage area of 69.3 sq. miles
 - Tributary of the Rockaway River
 - Part of Passaic River Basin
 - Whippany is mainly used for recreational activities such as fishing and walking “Patriots Path”.
 - Patriots path is a trail that was made in an effort to preserve Whippany River
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Blaze Key

- Trail Begins
- Trail Continues
- Turn Left
- Turn Right
- Trail Ends

Trail Blaze Colors

- White - P.P. Main Stem, East to West Trail
- Blue - P.P. Spur Trail

Signature Trail Markers

- Patriots' Path
- National 9-11 Memorial Trail
- Liberty Water Gap Trail

EMERGENCY call 9-1-1.
 Morris County Sheriff's Office
 Patrol Division 973.285.2900

Legend

- Foot Traffic/Biking/Horses Permitted
- Foot Traffic/Biking Permitted (No Horses)
- Foot Traffic/Horses Permitted (No Biking)
- Foot Traffic Only
- Other Signature Trails
- Unimproved Patriots' Path Route
- Municipal & County Boundary
- Water Features
- Seasonal Access Limitation Area
- Railroad
- Public Vehicle Road
- Bridge
- Point of Interest
- Trail Directory
- Highway Exit Number
- Train Station
- Parking
- Visitor Center

Scale

0 0.25 0.5 0.75 1 Miles

Notes:
 The National 9-11 Memorial Trail and the Liberty Water Gap Trail follow along the Patriots' Path Main Stem (White).
 Traction Line - Foot Traffic/Biking Permitted
 Columbia Trail - Foot Traffic/Horses/Biking Permitted
 Ver. 2.0.0 Map Updated: January 2023

morris county park commission

Patriots' Path



enjoy the experience
 morris county park commission

Policies and Mandates

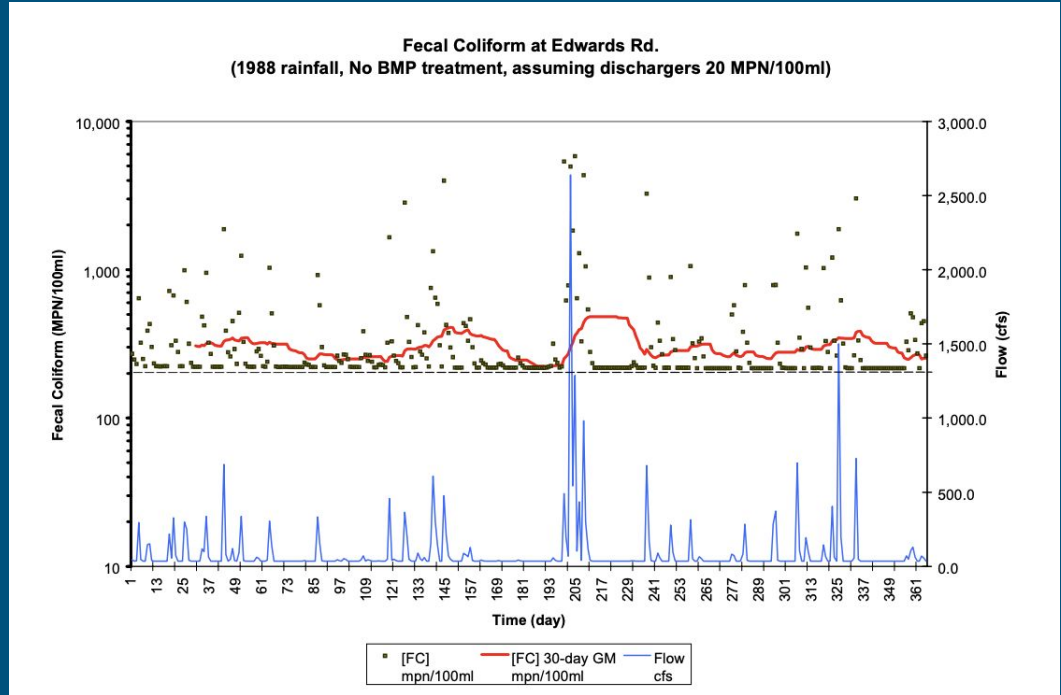
- Clean Water Act- regulation of pollution and maintenance of water quality standards
- National Historic Preservation Act- protects land with historical, cultural and archeological value
- Endangered Species Act- set of limitations on activities that threaten endangered species
- New Jersey P.L.1977, c.74- restricts discharge of pollutants into waterways without a permit

Governance Structure

- Since it's located in Morris County, watershed governance falls upon federal statutes, and state, county, and municipal oversight
- **The Whippany River Watershed Action Committee (WRWAC):**
 - Pushes community input to local and state legislations, and is comprised of:
 - Individuals in the community
 - Civic and business partners
 - Conservation groups

Problem 1: Fecal Pollution

- Fecal coliform in the waterway consistently exceeds a total maximum daily load of 200 counts per 100 mL
- Sources of this fecal pollution are 99.9% nonpoint



Sources of Fecal Pollution

- Major examples of sources include:
 - Malfunctioning old septic systems in the upper region of the watershed
 - Wildlife such as canadian geese and waterfowls
 - Pet waste
 - Stormwater basins that act as an accumulation point
- The increase of fertilized turf being used in areas near the waterway leads to an increased amount of wildlife grazing on the land

Recommendations to Reduce Fecal Pollution to Compliant Levels

- Implementing surveys to diagnose the state of faulty septic systems
- Minimizing the amount of turf grass for wildlife to graze on
 - Altering habitats by planting native trees and shrubs
 - Installing wire grids and fences to restrict access to water
 - Implementing no feeding ordinances to keep wildlife away from human populated areas
- Adding proper signage and disposal areas for pet waste
- Implementing fines for improper disposal of pets waste
- Regular cleaning of stormwater basins to minimize fecal matter accumulation.

Problem 2: Erosion and Flooding



- The Whippany River has been subjected to flooding which then causes streambank erosion
- This erosion then causes the river to be more likely to flood

Causes of Erosion and Flooding

- Debris, obstructions, and obstacles in the River causing a change of the river's flow
- Erosion makes it easier for the water to overflow the banks causing floods.
- Flooding is causing the banks to erode, which causes more debris to fall into the river

Recommendations to minimise erosion and flooding

- “Desnagging”, or removal of fallen trees and tree branches, is one way to help mitigate the erosion and reduce the flooding of the river.
- Removing the big dumpster in the River would also benefit the river.



Problem 3: Narrow Riparian Zone

- Extensive human development in proximity to the waterway facilitates
 - Loading of nutrients, bacteria, salts, and other toxins
 - Increased water temperature
 - Higher peak flow rate; flooding and erosion.



Recommendations for mitigating narrow riparian zone

- Advocate prevention of development near the waterway.
- Advocate to replace a parking lot on Bishop Nazery Way with a public green space / rain garden.
- Plant native trees and shrubs along to the riverbed to increase time of concentration to limit peak flow rates and curtail erosion

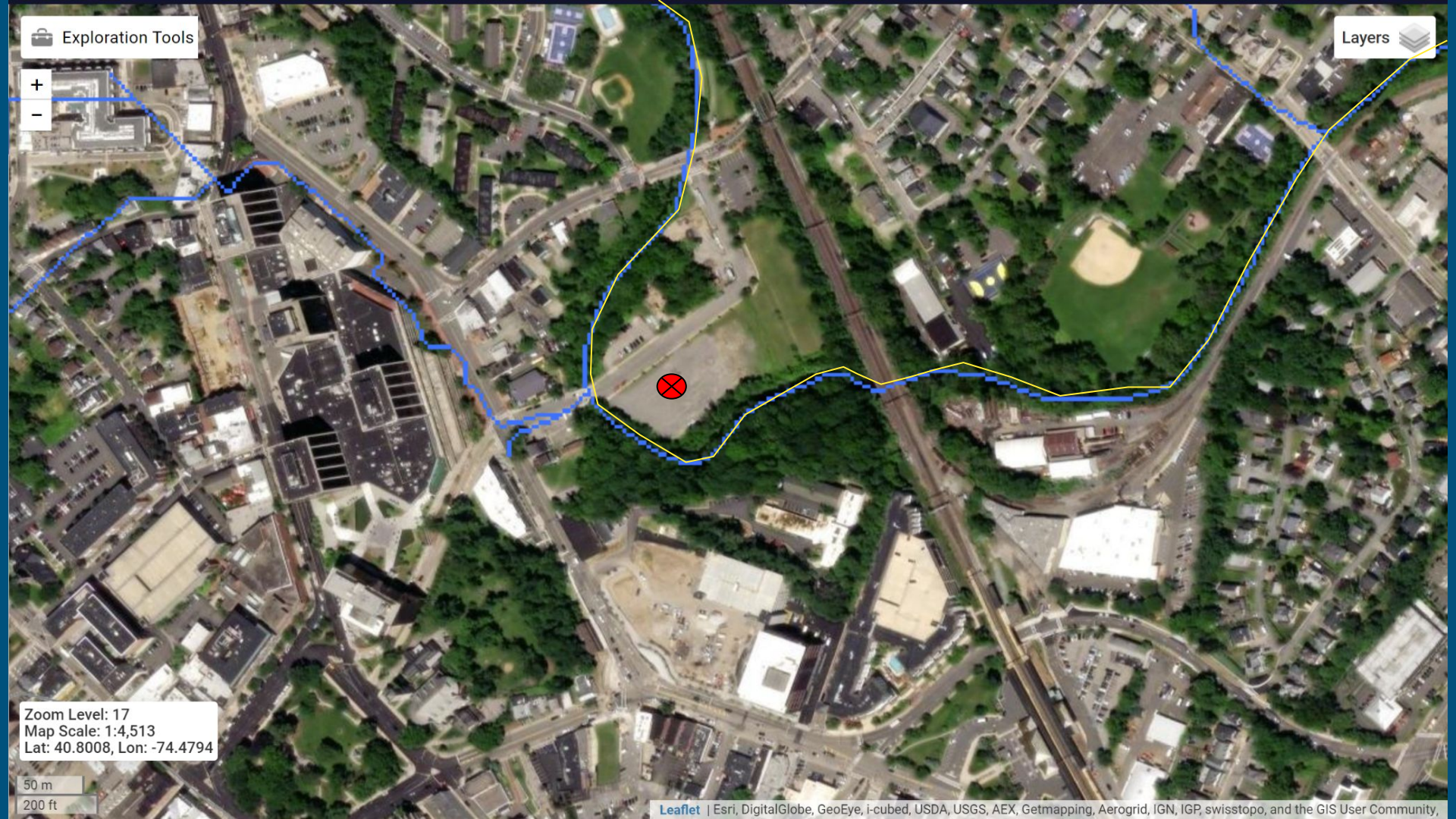
Exploration Tools

Layers



Zoom Level: 17
Map Scale: 1:4,513
Lat: 40.8008, Lon: -74.4794

50 m
200 ft



Native Vegetation

River Birch



Flowering Dogwood





Common Hackberry



Swamp Milkweed

Hot Lips Turtlehead



Switchgrass



Conclusion

- Initiatives have a greater chance of success with community involvement, facilitated through WRWAC.
- Fecal Pollution
 - Goose deterrence, pet waste
- Erosion & Flooding
 - Desnagging foreign objects
- Riparian Zone
 - Prevent further development, create new rain garden
- We should follow WRAP's recommendations in order to maintain the health of the Whippany River.

