

# Mine Drainage Reclamation in Lambert Run, Harrison County, WV

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WVWRI Seminar Series



# Agenda

## Background

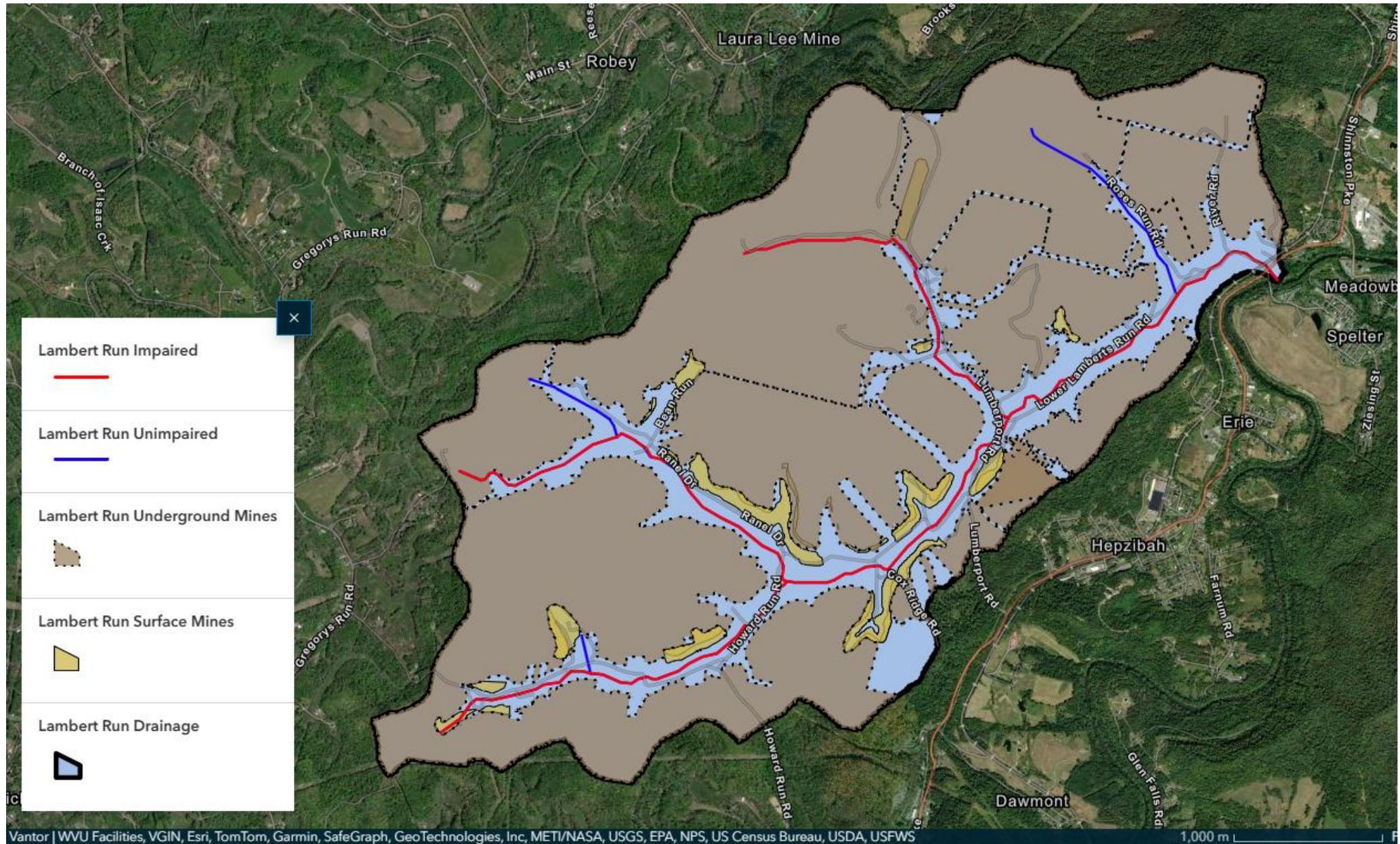
- **Location**
- **Abandoned mine drainage overview**
- **Impairments in the watershed**

## Current Projects

- **Lambert Site 4 (Completed)**
- **Lambert Site 7 (Upgrading)**

**Background**

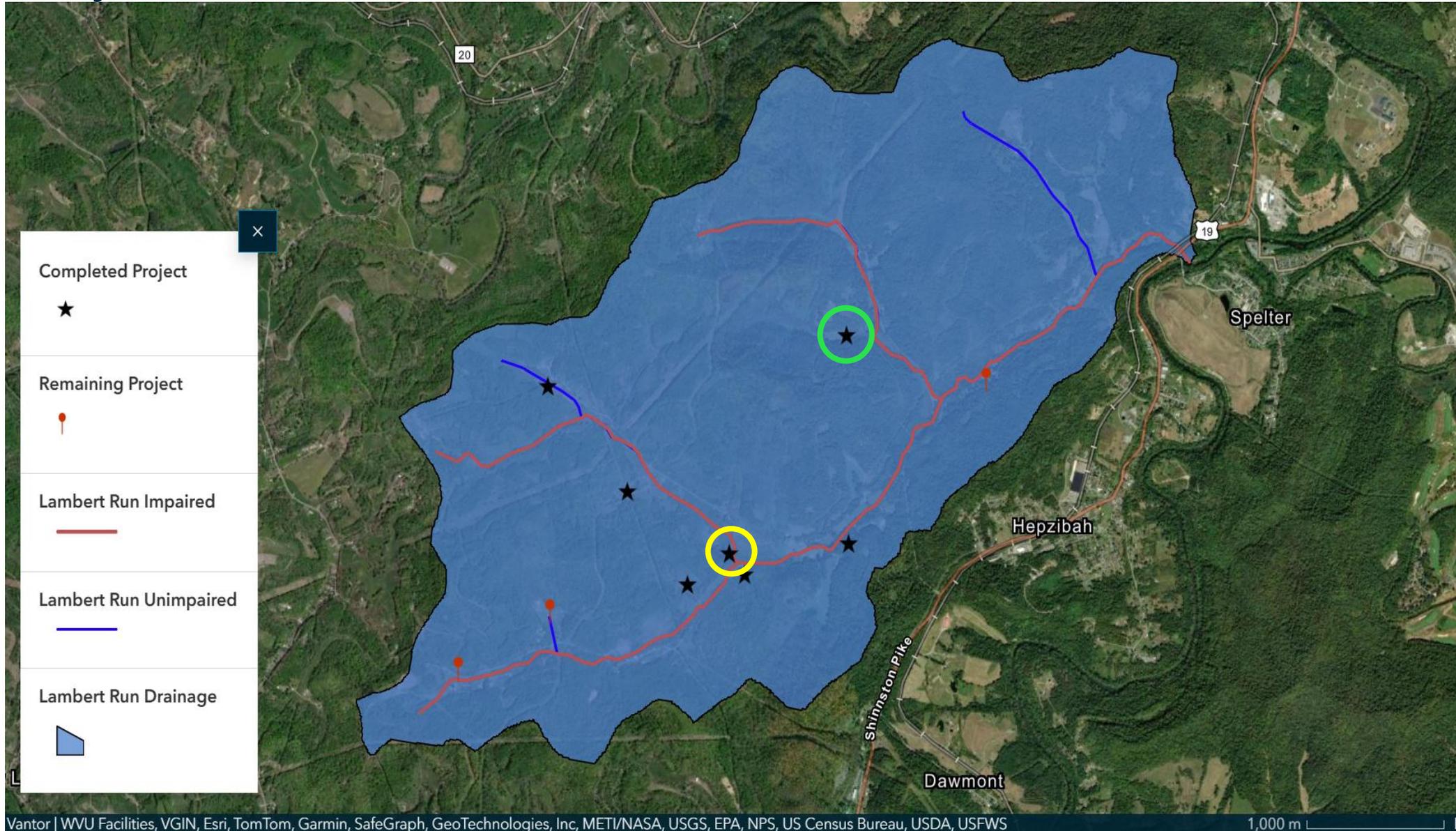
# Lambert Run Drainage



Ab  
Mine



# Projects in Lambert Run



# **Current Projects**

# Lambert Site 4

## Pre-treatment data

- pH=7.64
- Iron contribution of 0.5 tons/year



## Construction

- September 2025
- The system was designed by WVWRI and consists of a wetland (Ernst-376 grass mixture) with a 71,500-gallon capacity.

June 2023



September 2025

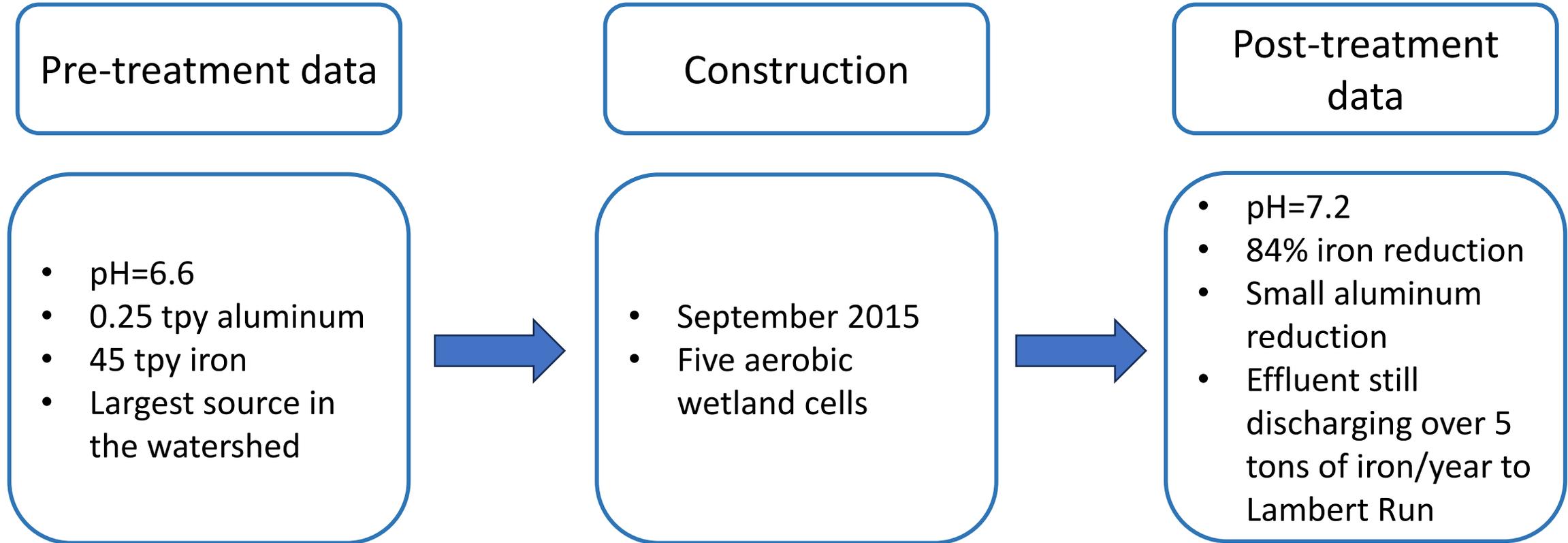


December 2025

- 10 total samples since construction
- Currently have four months of data of effluent and influent locations
- 70% reduction in total Iron (tpy)
- Influent Iron = 2.88 mg/L
- Effluent Iron = 0.97 mg/L



# Lambert Site 7



**Lambert Site 7 Aerial View**



## Site 7 Upgrades

- Goal of 95% iron reduction
- Wetland #1 will be transitioned to 2 ponds to increase retention times
- Other wetlands will be expanded
- Extra soil used to fill steep slopes and recover nearby highwall
- Designed to be virtually maintenance-free
- Construction anticipated in fall 2026
- Projected to cost \$1.113 M
- Contributions from §319 program and Abandoned Mine Lands (AML) program

## Things to check out!

[WVDEP Lambert Site 7 Drone Flyover](#)

[Lambert Run Storymap \(WVWRI\)](#)

EXISTING WETLAND WILL BE EXCAVATED AND IMPROVED TO CREATE WETLANDS 1, 2, AND 3

WETLANDS WILL BE PLANTED WITH SUITABLE GRASSES TO CAPTURE IRON

### SOLIDS DISPOSAL AREA

EXISTING TREATMENT WETLAND WILL BE EXCAVATED TO CREATE A STORAGE AREA FOR SOLIDS PRODUCED BY THE SYSTEM

### WETLAND 3

### WETLAND 2

### WETLAND 1

1

2

3

### EARTHWORK FILL AREAS

EARTHWORK FILL AREAS WILL BE USED TO STORE FILL MATERIAL EXCAVATED FROM THE SOLIDS DISPOSAL AREAS

AREA 1 (POND FILL AREA) WILL BACKFILL THE EXISTING TREATMENT POND

AREA 2 (HILL FILL AREA) WILL REGRADE A NEARBY HILLSIDE AND BACK FILL AN OPEN WELL

AREA 3 (HIGHWALL FILL AREA) WILL RECLAIM AN ABANDONED HIGHWALL

AREA 4 (MEADOW FILL AREA) WILL ELEVATE THE LAND BETWEEN THE ROAD AND STREAM TO APPROXIMATELY ROAD LEVEL

4

### STREAM RELOCATION SEGMENT 2

### STREAM RELOCATION SEGMENT 1

### POND 2

### POND 1

EXISTING WETLAND WILL BE EXCAVATED TO CREATE PONDS 1 & 2

INCREASED VOLUME WILL CREATE LONGER RETENTION TIMES AND IMPROVE IRON REMOVAL.

### PROJECT OVERVIEW MAP FIGURE 2



SCALE: 1" = 100'

### PROPOSED

LAMBERT RUN SITE 7  
WETLAND TREATMENT UPGRADE  
HARRISON COUNTY, WV

# Acknowledgements

- **West Virginia Water Research Institute (WVWRI)**
- **West Virginia Department of Environmental Protection (WVDEP)**
- **Guardians of the West Fork Watershed (GWF)**
- **Local landowner support**

**Questions?**

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