

Ohio Storm Water Association Conference

# Log Pond Run Diversion Channel Restoration

May 10, 2018



G R E S H A M  
S M I T H   A N D  
P A R T N E R S

# Introductions

John Trujillo  
Stormwater Coordinator



City of Newark,  
Ohio

## Experience

- ◉ MS4 program
- ◉ Stormwater mgmt.
- ◉ Construction mgmt.

Subconsultant Partner:  
Wallace and Pancher, Inc.

Tom Dietrich, P.E., LEED AP  
Environmental Engineer



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## Experience

- ◉ Stormwater mgmt.
- ◉ Stream restoration
- ◉ Permitting
- ◉ Environmental services

Contractor Partner:  
King Environmental, Inc.



# Why was this project needed?

Impacted stream

- Public safety issue

Mosquito  
breeding ground

- Public health issue

Visual eyesore

- Aesthetics issue

Maintenance  
needed

- Water quality issue

Limited  
resources

- Budget issue



## Collaborative Solution



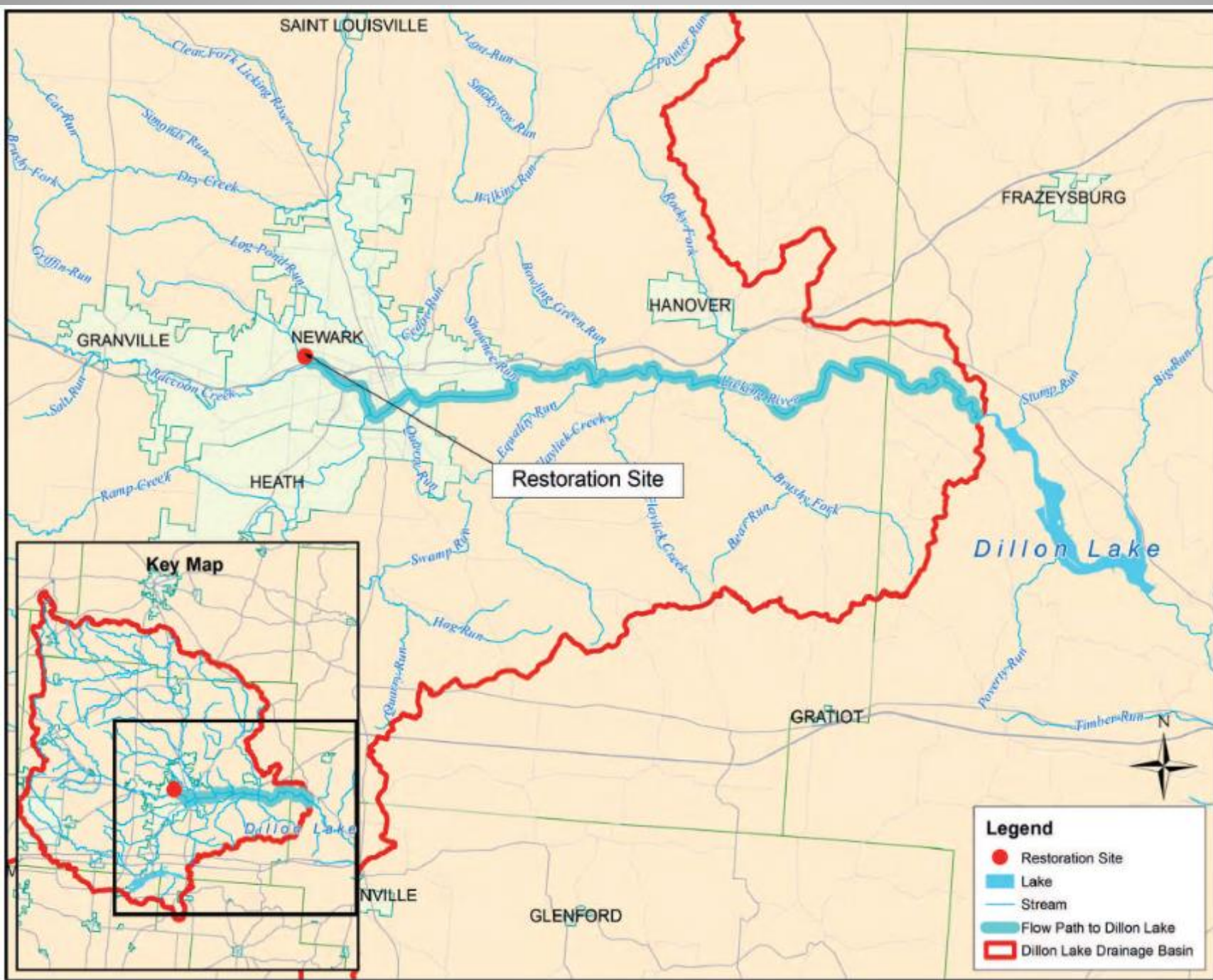
GRESHAM  
SMITH AND  
PARTNERS



Wallace and  
Pancher, Inc.

King  
Environmental, Inc.





# Project Overview

- ⦿ 1,200' of stream restored
- ⦿ \$500,000 in grant funding
- ⦿ 3 year project
- ⦿ 25% City matching funds
- ⦿ Stakeholders support





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# BEFORE

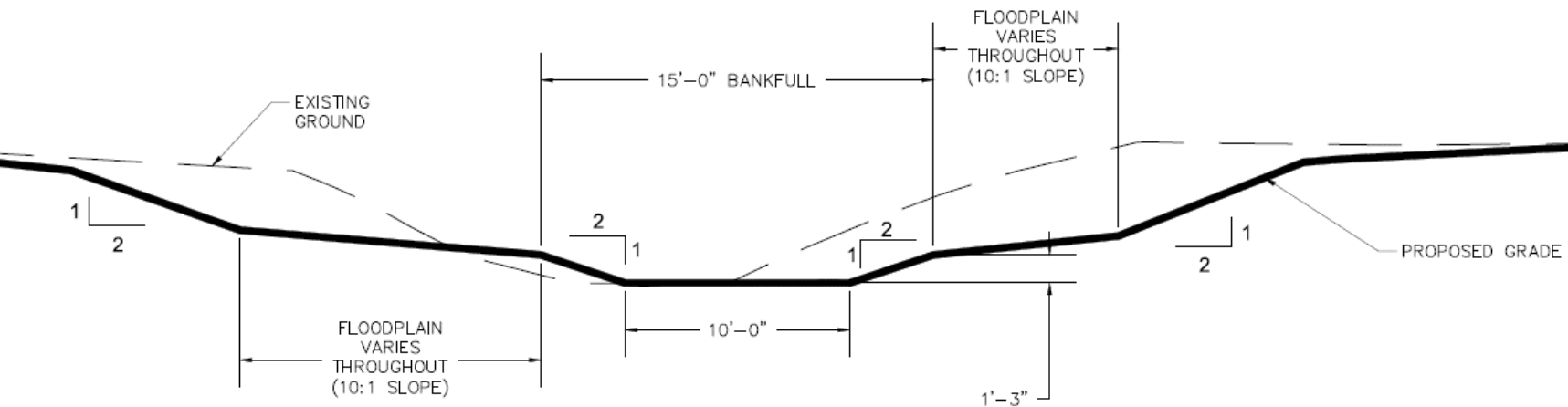


# BEFORE



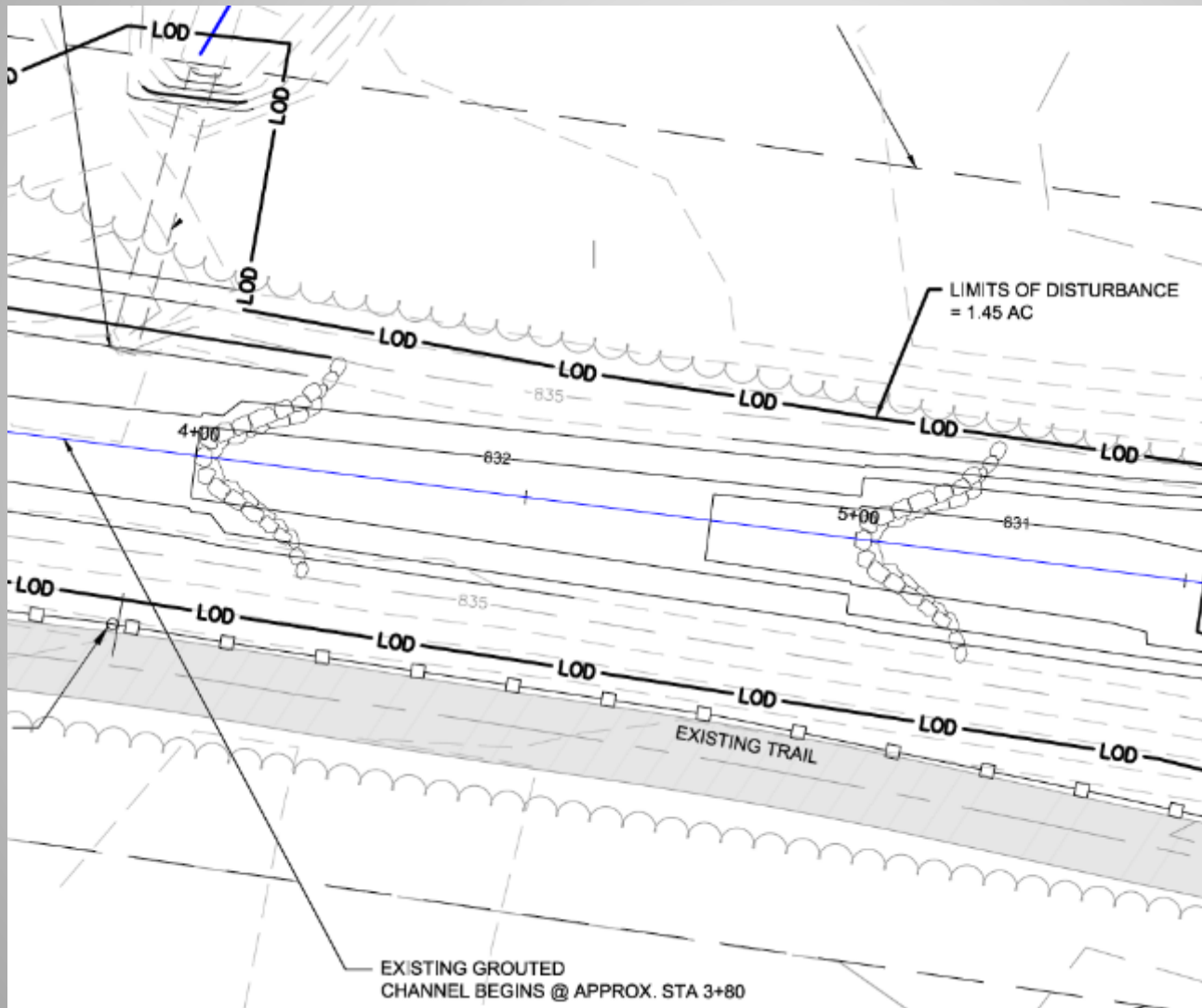


# DESIGN

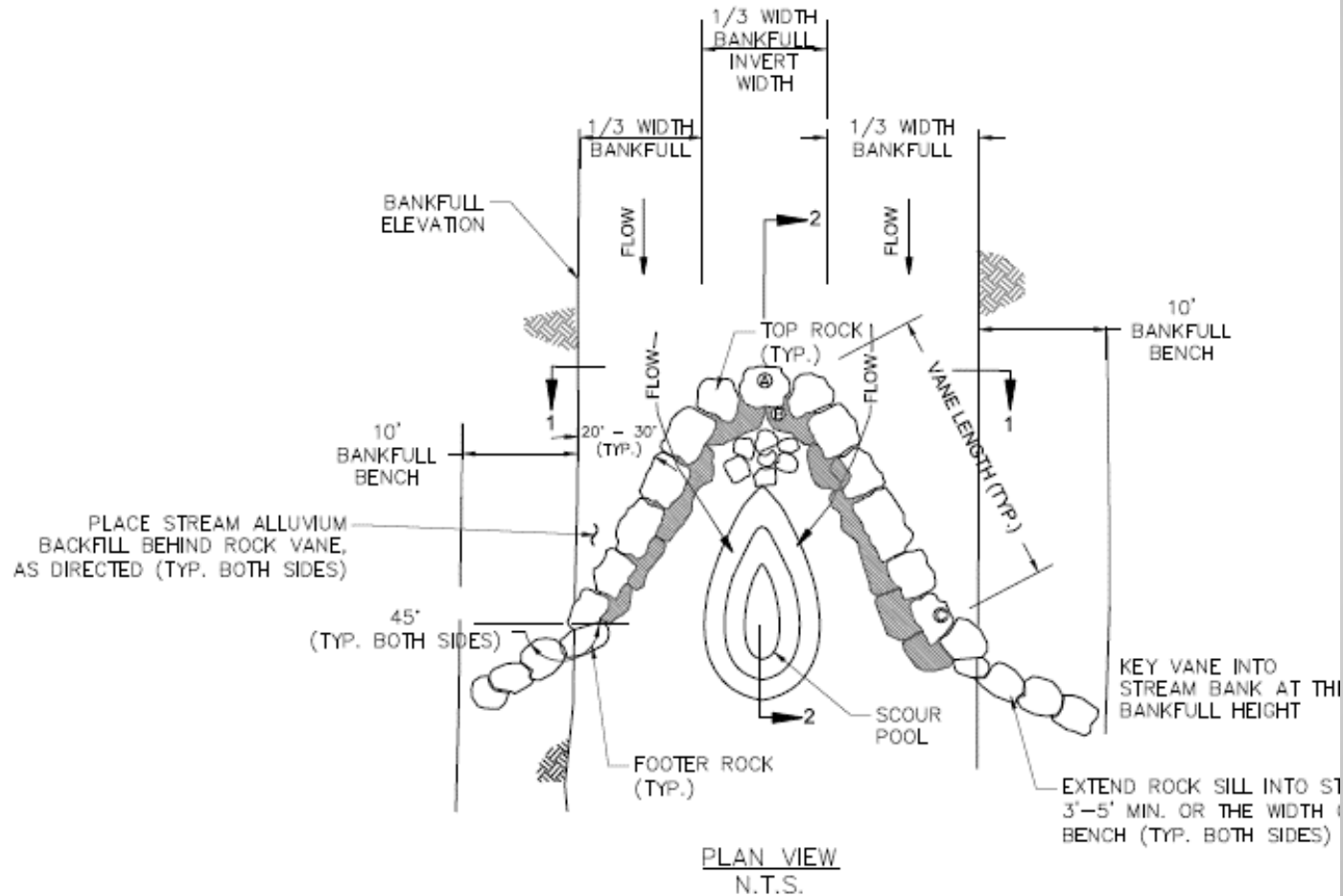




# DESIGN



# DESIGN



# CONSTRUCTION





# CONSTRUCTION





# RESTORATION COMPLETE





# RESTORATION COMPLETE







# Log Pond Run Stream Restoration

PROMOTING ENVIRONMENTAL STEWARDSHIP OF OUR NATURAL RESOURCES



Before

Concrete channel lining of stream bed



Before

Impaired stream habitat



Construction

Removed concrete, installed rock structures and regraded channel and floodplain



After

Banks seeded with native plants

Pool habitat for fish

Rock structures stabilize channel



After

Sediment will deposit outside channel

Floodplain area for higher flows

Stream restoration is an important tool for improving the environmental health of a watershed. This stream was reconstructed using natural channel design features to provide many benefits while protecting water quality.

## Benefits of Log Pond Run Stream Restoration

- Promotes wildlife, plant life and aquatic benefits for greater biodiversity
- Reduces potential for downstream flooding by allowing higher storm flows to spread over the natural floodplain
- Stabilizes natural stream banks to prevent erosion
- Reduces the sediment carried to Dillon Lake's Recreation Area
- Improves aesthetics and supports enjoyment of bicyclists and pedestrians

## Restoration Location and Stream Network to Dillon Lake



## City of Newark's Commitment to Our Water Resources

The City manages the local storm sewer system and is committed to reducing pollutants to receiving waters. This stream restoration project is one effort that improves water quality by providing pollutant removal through natural processes of filtration and sedimentation outside the main channel. In addition, this project ties into the City's stormwater management program as part of its public education and outreach.

THE CITY OF NEWARK COMPLETED THIS STREAM RESTORATION, WITH MAJOR FUNDING PROVIDED BY A GRANT FROM:



# Summary

- ⦿ Impacted stream with multiple issues
- ⦿ Collaborative solution
- ⦿ Addressed multiple objectives
- ⦿ Watershed perspective





# For additional information:



City of Newark  
*Stormwater Utility*

<http://www.newarkohio.net/city-services/stormwater>

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