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# 12 Mile Creek Restoration

850' of natural stream channel design/bank stabilization completed through the PA VinES Program in Erie County, PA



**Ryan Nageotte – Field Technician**  
**Tom McClure – District Manager**

# What is PA VinES?

PA VinES (Vested in Environmental Sustainability) is a voluntary program that promotes sustainable viticulture practices through a grower Self-Assessment Workbook. The workbook looks at the economic and environmental impacts of grape production on each operation and serves as an educational resource for the grower.

PA VinES was originally launched through a partnership between the District, PA DEP, Penn State and Cornell Extension, NRCS and PA Farm Bureau.



After the participant completes the workbook, they are eligible to apply for potential Growing Greener and Great Lake Restoration Initiative grant funds to install best management practices (BMP's) on their operation, such as cover cropping and stabilized access roads.

The goal of the program is to reduce the environmental impact of the approximately 10,000 acres of vineyards in the county by limiting the amount of sediments and excess nutrients that enter our Lake Erie tributaries.

# PA VinES ~ Sustainable Viticulture Practices for Concord and Niagara Production in the Lake Erie Region Grower Self-Assessment Workbook



**VinES**  
**PROGRAM**  
Pennsylvania Vested in  
Environmental Sustainability

**Andy Muza**

*Extension Educator, Lake Erie Regional Grape Program  
Penn State Extension – Erie County*

**Tim Weigle**

*Senior Extension Associate in Grape IPM,  
NYS IPM Program, Cornell Cooperative Extension*

**Luke Haggerty**

*Viticulture Extension Specialist, Lake Erie Regional  
Grape Program, Cornell Cooperative Extension*

**Kevin Martin**

*Associate Extension Educator (Business Management)  
Penn State Extension/ Lake Erie Regional Grape  
Program*

**Bryan Hed**

*Research Technologist (Plant Pathology), Penn State  
University, Lake Erie Regional Grape Research &  
Extension Center*

**Jody Timer**

*Research Technologist (Entomology), Penn State  
University, Lake Erie Regional Grape Research &  
Extension Center*



## Topics within the Self-Assessment Workbook

Vineyard Soil and Erosion Management

Vineyard Management

Integrated Pest Management (IPM)

Nutrition Management

Weed management

Pesticide Management

<https://www.erieconservation.com/pavines>



# Some of PA VinES Accomplishments

58 PA VinES workbooks delivered to farmers to date

Landowner Workshops/Education

3,153.5 acres of cover crop planted

2,357' feet of grassed & rocked diversion installed

4,180' of stabilized access roads constructed

2,000' of underground outlets deployed

Over 1,900' over natural stream channel restoration





# 12 Mile Stream Restoration Project - The Partners

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**It Takes a Village...**

**Natural Resources Conservation Service**

**Erie County Conservation District**

**Pennsylvania Department of Environmental Protection (PA DEP)**

**BluAcres, LLC**

**Foundation for California University of PA – Partners for Wildlife**

**Local Contractors**

**Growing Greener**

**Great Lake Restoration Initiative**

# 12 Mile Stream Restoration Project - The Process

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**Landowner Contact/Contract – Fall 2020**

**Design – Winter/Spring 2020-2021**

**Permitting – Spring 2021**

**Construction Delayed until July 2022**



**Pandemics and Storms and Restrictions OH MY!**



# 12 Mile Stream Restoration Project - The Location



**Unnamed Trib to 12  
Mile Creek**

**Located on the border  
of the CMZ**

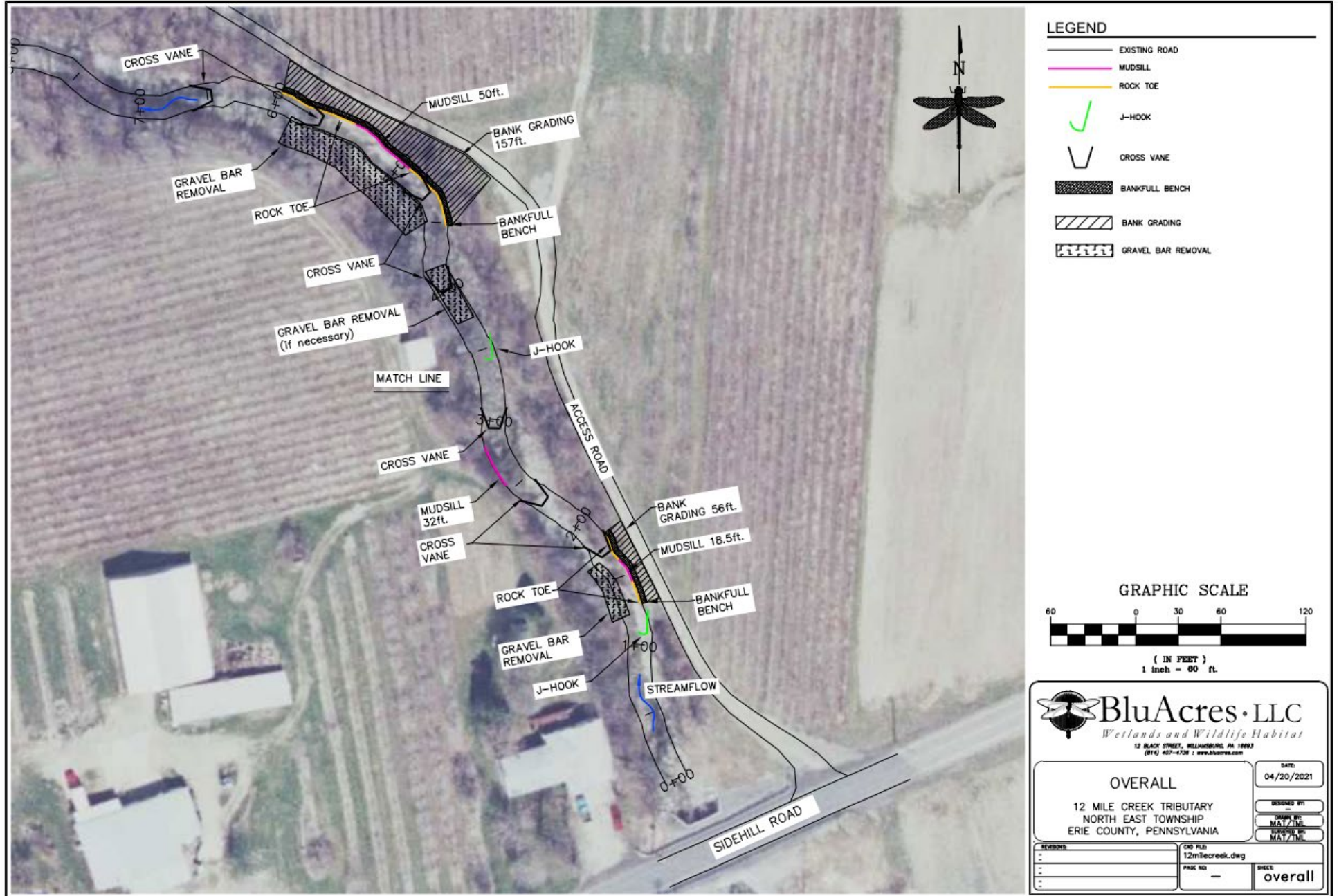
**Subject to Flashes**

**Mixed Fruit Production**

**In-stream erosion and  
risk of access road  
collapse**

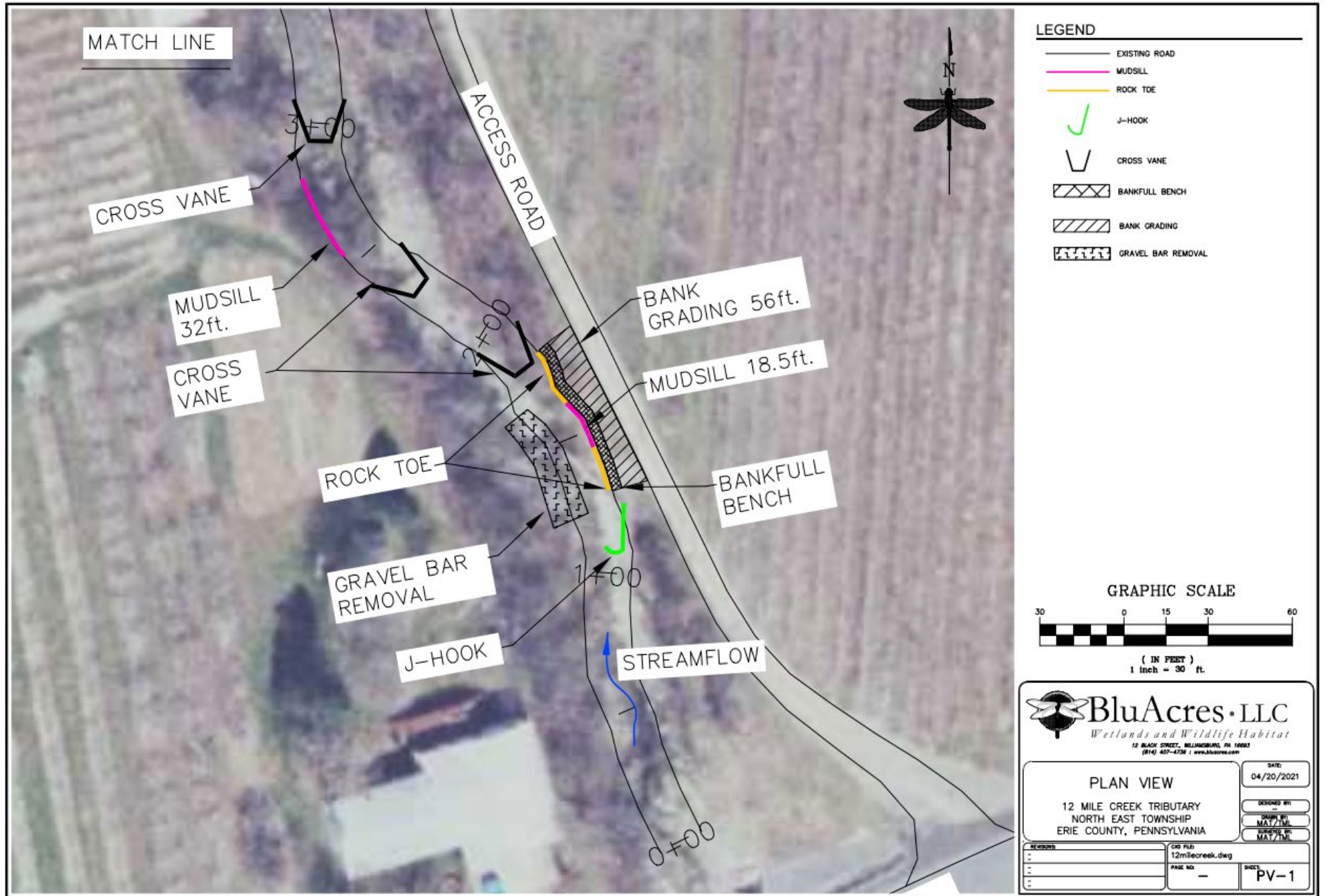


# 12 Mile Stream Restoration Project - The Overall Plan

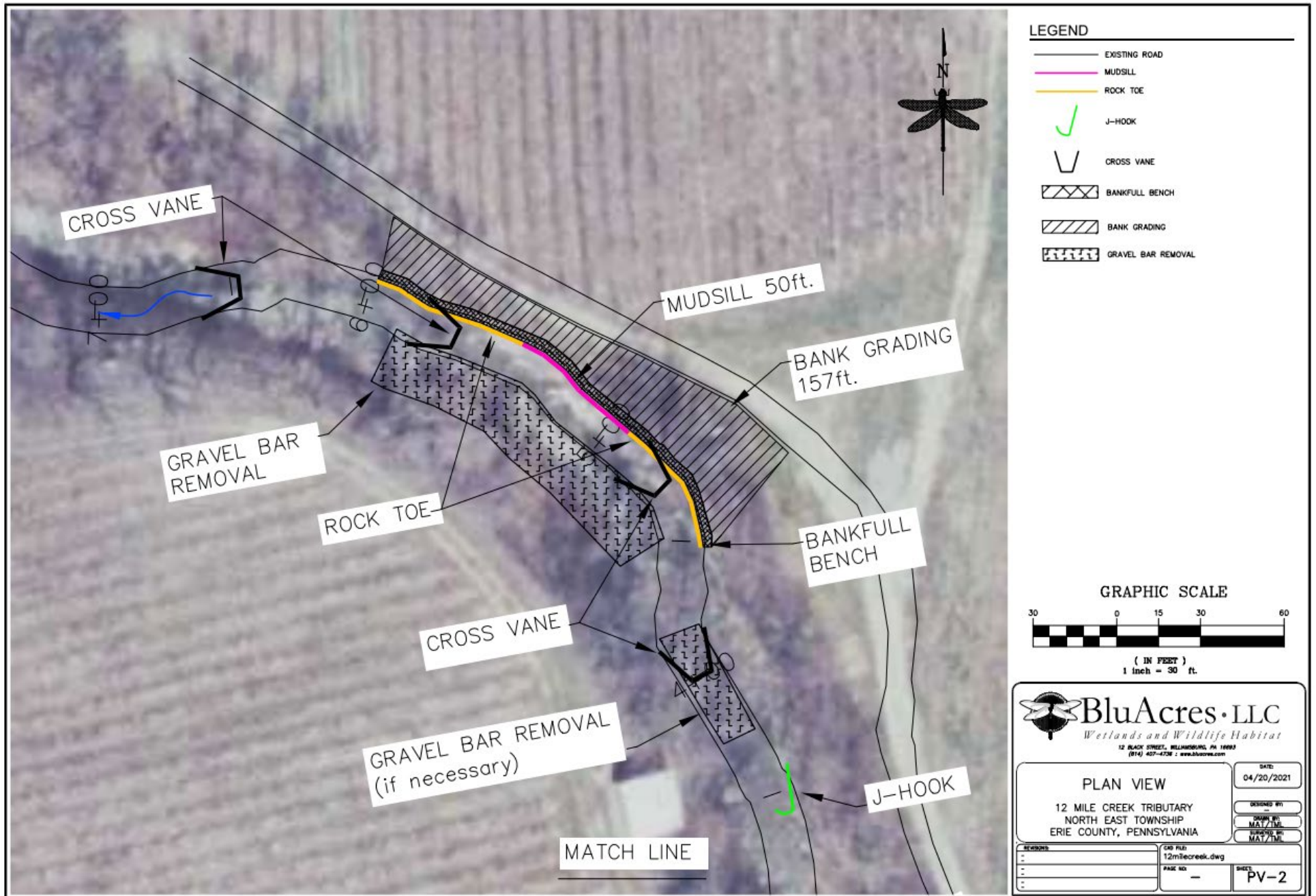




# 12 Mile Stream Restoration Project - The Plan Upstream



# 12 Mile Stream Restoration Project - The Plan Downstream





## Before Restoration....

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## Before Restoration...

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## Before Restoration...

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Looking south, upstream towards Sidehill Road



## After Restoration...

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Looking south, upstream towards Sidehill Road



## After Restoration...

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Looking east, upstream towards former vertical bank



## After Restoration...

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Looking southeast, upstream, end of project



## 12 Mile Stream Restoration Project – The Results

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- 850 LF of Streambank Restoration
- Saved the access road and improved safety
- 140 tons of sediment reduced/yr
- 125 lbs of phosphorus reduced/yr
- 271 lbs of nitrogen reduced/yr
- Created a blueprint for future projects



**VINES**  
**PROGRAM**

Pennsylvania Vested in  
Environmental Sustainability

# 12 Mile Stream Restoration Project

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## Questions?

**Ryan Nageotte**  
**[rnageotte@erieconservation.com](mailto:rnageotte@erieconservation.com)**

**Tom McClure**  
**[tmclure@erieconservation.com](mailto:tmclure@erieconservation.com)**

