


# MICHAEL J. NERVINE MEMORIAL PARK POND DAM REMOVAL

BOROUGH OF BERNARDSVILLE,  
SOMERSET COUNTY  
NEW JERSEY

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A decorative graphic consisting of several parallel white lines of varying thicknesses, slanted diagonally from the bottom left towards the top right, set against a blue gradient background.

## Michael J. Nervine Memorial Park

122-180 US 202  
Bernardville, NJ 07924

122 US-202

Google Earth

Image Landsat/Copernicus

100







- ▶ Long-term maintenance costs are minimized
  - ▶ Maintenance dredging ever 8-10 years (estimated \$500k cost each dredging)
- ▶ Liability associated with dam ownership is removed
  - ▶ Engineering inspections
  - ▶ Maintenance
  - ▶ Risk
- ▶ Restoration of fish habitat of the Mine Brook
- ▶ Improved water quality (reduced temperature)
- ▶ Free-flowing movement of sediment and debris through the stream
- ▶ Subject to long-term regulation changes
  - ▶ Dam Safety – potential for increased spillway design storm standards and overtopping protection
  - ▶ Freshwater Wetlands
  - ▶ Flood Hazard Area

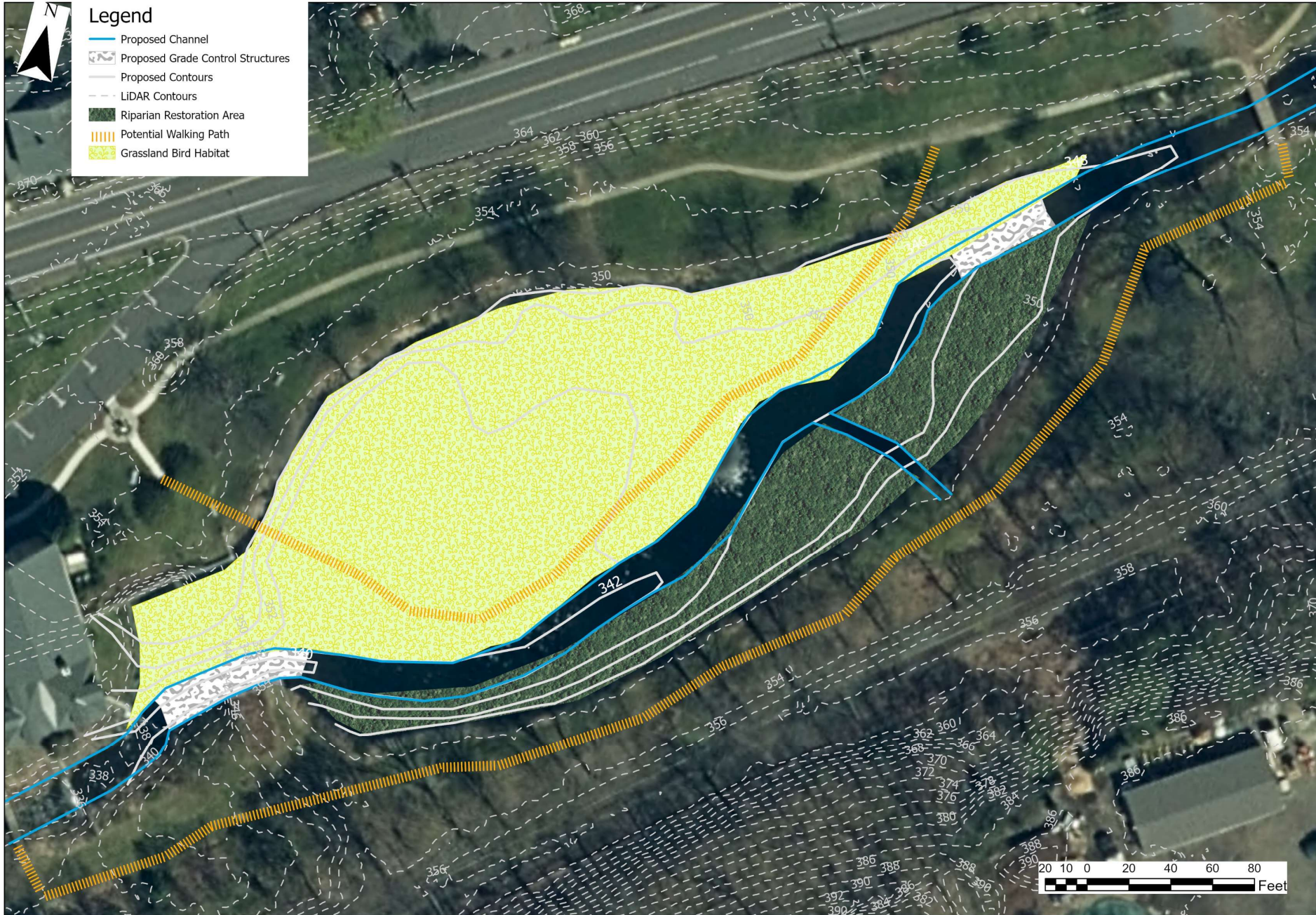
## **BENEFITS OF DAM REMOVAL**

# DAM REMOVAL CONS:

- ▶ Temporary sediment migration during removal
- ▶ Loss of pond aesthetic
- ▶ Potential higher cost for construction than dam repair
- ▶ Potential time for dewatering/restoration area to establish vegetation



# REMOVAL RESTORATION CONCEPT



Rippled Waters  
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Conceptual Dam Removal  
Restoration Concept  
Boro of Bernardsville,  
Somerset County, NJ  
March 2022

Project Notes:  
1. Aerial photo obtained from NJ-GIN from 2020.  
2. Stream reaches depicted based on the field visits and surveys completed between June and September 2021.  
3. It is anticipated that the entire project area is located within the Flood Hazard Area of the Mine Brook.



# REMOVAL RESTORATION PHOTOS



| Description  | Approximate Quantity | Unit | Unit Price                 | Total Price   |
|--|----------------------|------|----------------------------|---------------|
| Mobilization (20%)                                 | 20                   | %    | \$ 357,110.00              | \$ 357,110.00 |
| Survey & Layout                                    | 1                    | LS   | \$ 7,500.00                | \$ 7,500.00   |
| Staging area                                       | 21780                | SF   | \$ 2.50                    | \$ 54,450.00  |
| Clearing and Grubbing                              | 0.50                 | AC   | \$ 15,000.00               | \$ 7,500.00   |
| Access Roads                                       | 250                  | LF   | \$ 20.00                   | \$ 5,000.00   |
| Soil Erosion and Sediment Control Measures         | 1                    | LS   | \$ 50,000.00               | \$ 50,000.00  |
| Dam Removal  | 800                  | CY   | \$ 300.00                  | \$ 240,000.00 |
| Impoundment Grading                                | 30000                | CY   | \$ 10.00                   | \$ 300,000.00 |
| Hauling (disposal site within 10 miles)            | 8100                 | TON  | \$ 40.00                   | \$ 324,000.00 |
| Bank stabilization (armored toe)                   | 1500                 | LF   | \$ 200.00                  | \$ 300,000.00 |
| In-stream Grade Control Structures                 | 2                    | EA   | \$ 25,000.00               | \$ 50,000.00  |
| Fishing Habitat Features                           | 1                    | LS   | \$ 150,000.00              | \$ 150,000.00 |
| Erosion Control Matting                            | 3400                 | SY   | \$ 12.00                   | \$ 40,800.00  |
| Seeding (Grassland Bird Habitat and Forested Area) | 68082                | SF   | \$ 0.50                    | \$ 34,041.00  |
| Native tree planting #7 container                  | 40                   | EA   | \$ 125.00                  | \$ 5,000.00   |
| Native tree planting #2 container                  | 150                  | EA   | \$ 45.00                   | \$ 6,750.00   |
| Proposed Walking Trail                             | 1220                 | LF   | \$ 25.00                   | \$ 30,500.00  |
| Replacement Footbridge and abutment protection     | 2                    | EA   | \$ 75,000.00               | \$ 150,000.00 |
| Removal of small dams                              | 2                    | EA   | \$ 10,000.00               | \$ 20,000.00  |
| As-built survey                                    | 1                    | LS   | \$ 10,000.00               | \$ 10,000.00  |
| Contingencies                                      | 10                   | %    | \$ 214,266.00              | \$ 214,266.00 |
|  |                      |      | Total Construction Cost \$ | 2,356,917.00  |

# ANTICIPATED COSTS FOR DAM REMOVAL





- ▶ Potential Funding available from multiple sources
  - ▶ Infrastructure Investment and Jobs Act of 2021
    - up to \$800M for dam removals
  - ▶ NJDEP Office of Natural Resource Restoration
  - ▶ USFWS
  - ▶ USDA NRCS
  - ▶ NFWF
  - ▶ Corporate Wetlands Restoration Partnership
  - ▶ Atlantic Coastal Fish Habitat Partnership
- ▶ Potential Project Partners
  - ▶ Raritan Headwaters Association
  - ▶ Trout Unlimited
  - ▶ The Nature Conservancy

## POTENTIAL FUNDING SOURCES



# THANK YOU

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