

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



Google Earth

Image Landsat/Copernicus

100



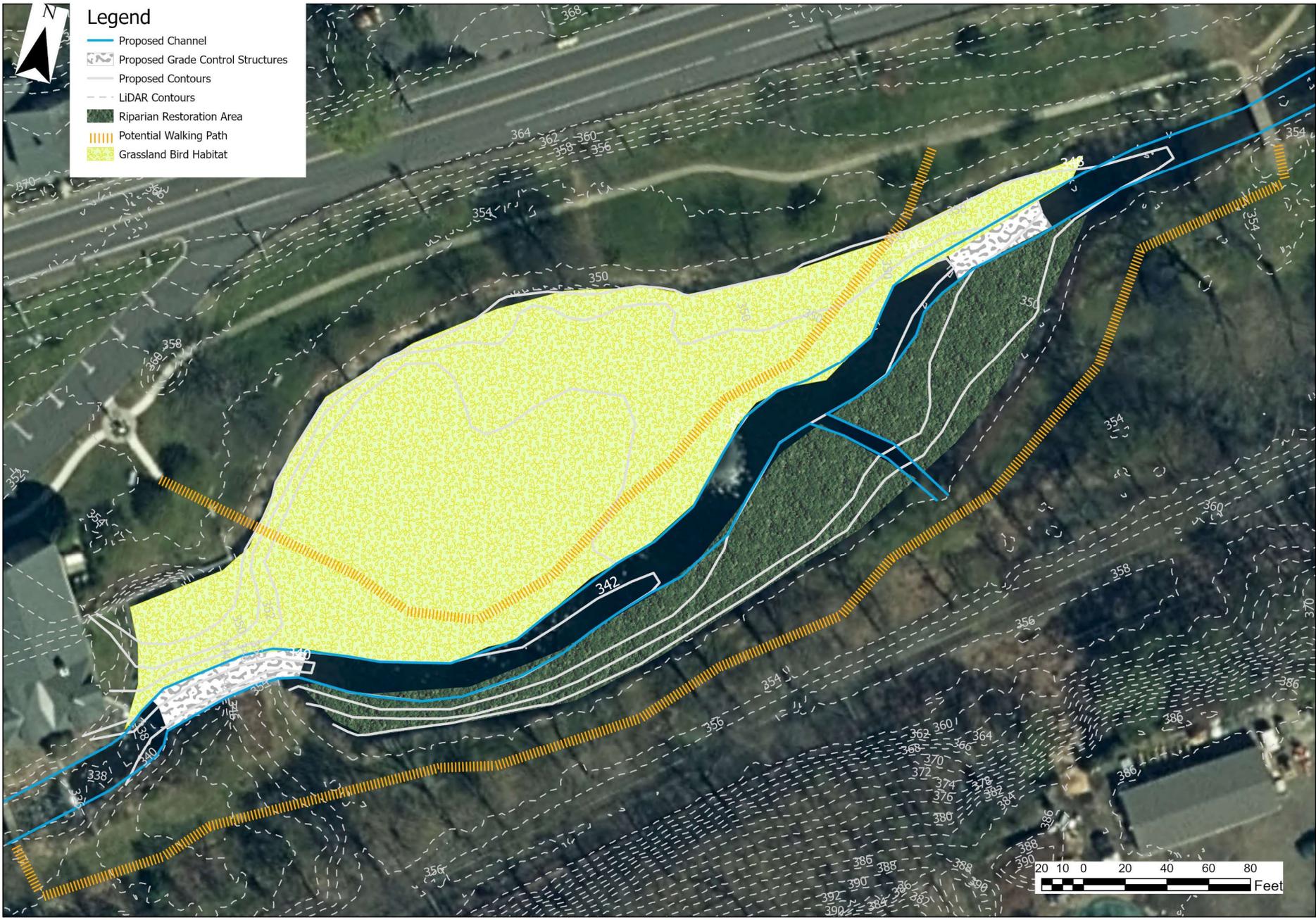
- ▶ Long-term maintenance costs are minimized
 - ▶ Maintenance dredging ever 8-10 years (estimated \$500k cost each dredging)
- ▶ Liability associated with dam ownership is removed
 - ▶ Engineering inspections
 - ▶ Maintenance
 - ▶ Risk
- ▶ Restoration of fish habitat of the Mine Brook
- ▶ Improved water 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



Legend

- Proposed Channel
- Proposed Grade Control Structures
- Proposed Contours
- LiDAR Contours
- Riparian Restoration Area
- Potential Walking Path
- Grassland Bird Habitat

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Conceptual Dam Removal Restoration Concept
Boro of Bernardville,
Somerset County, NJ
March 2022

Project Notes:

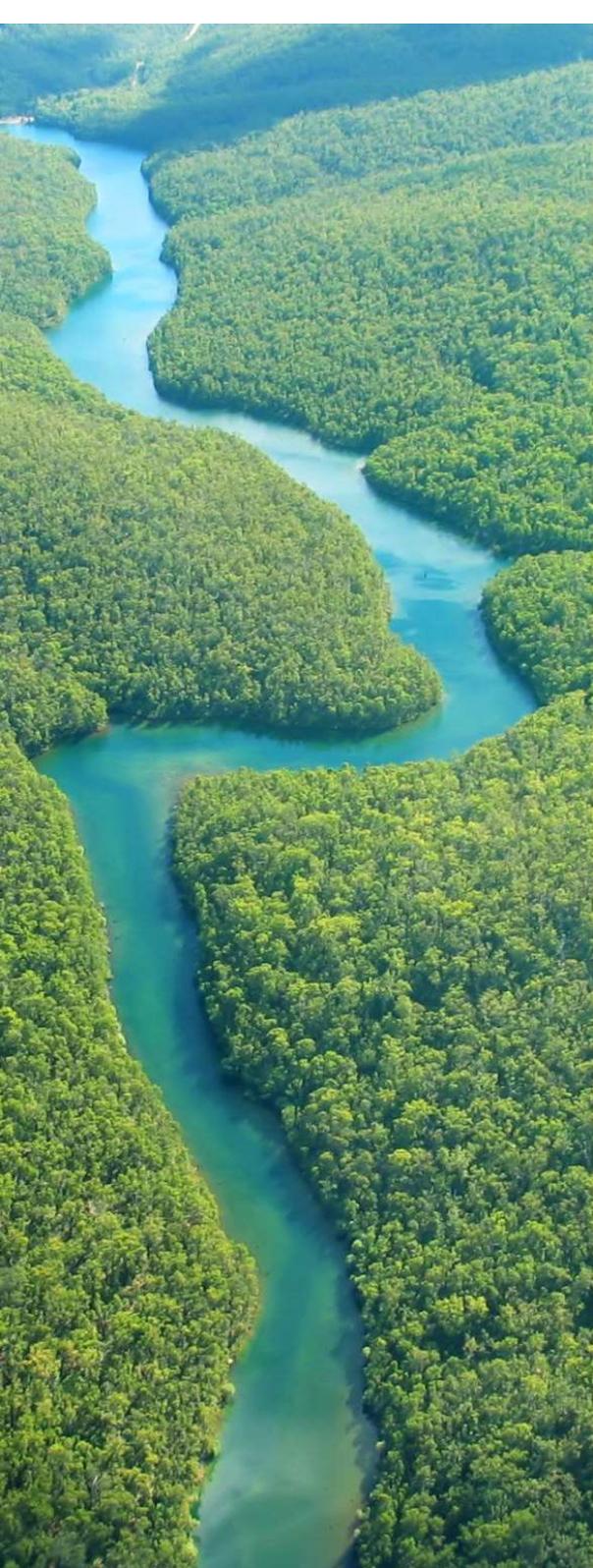
1. Aerial photo obtained from NJ-GIN from 2020.
2. Stream reaches depicted based on the field visits and surveys completed between June and September 2021.
3. It is anticipated that the entire project area is located within the Flood Hazard Area of the Mine Brook.

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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