Kirvin Memorial Park Floodplain/Wetland Restoration & Enhancement Project

A COOPERATIVE PROJECT OF THE HOUSATONIC RIVER NATURAL RESOURCE TRUSTEES, THE CITY OF PITTSFIELD, AND THE GENERAL ELECTRIC COMPANY

Project Overview

- Overall objective is to enhance the natural resources of Housatonic River Watershed.
- Under a 2000 agreement among GE, EPA, the State of Massachusetts, the City of Pittsfield, and others, this project is to consist of restoring at least 9.75 acres of floodplain forest habitat and approximately 2.25 acres of wetlands.
- A 2019 Site Selection Assessment prepared by the Housatonic River Natural Resource Trustees identified Kirvin Memorial Park as a preferred location for the restoration and enhancement activities.

Housatonic River Watershed Floodplain and Wetland Habitat Restoration Opportunities Final Site Selection Assessment

With the second secon

June 2019

Prepared By: The Massachusetts Department of Environmental Protection Prepared for: Massachusetts SubCouncil of the Housatonic River Natural Resource Trustees

Figure 2.4-29: Kirvin Memorial Park Restoration Concept

Kirvin Memorial Park Williams Street Pittsfield, MA 01201 42.425. -73.205

Restoration/ Floodplain Fo Palustrine W Total Acres 0 62.5 128 280 275 980 Floodplain Creation/Restoration: 10 Acres Remaining: 0 acres Wetland Creation/Restoration: 2.5 Acres Remaining: 0 Acres

Owner: The City of Pittsfield



	1 Adda	A COLUMN TWO IS NOT			
nation on this map is derived GIS sources. It should be used for planning purposes only; they do not represent regulatory determination.					
Creation Project	Potential Acres	Required Acres	Remaining		
orested Habitat	10.00	9.75	0.00		
etiand Habitat	2.25	2.25	0.00		

12.25

StreamRiver, Perennial

Open Space, Municipa

0.00

100 Year Flood

12.00

Project Overview and Background





Common buckthorn is main invasive plant. Spread of buckthorn since 1995:



1995

2011

2019

Legend



Invasive species infestation impact on floodplain ecology:

- Impairs plant succession and limits biodiversity/habitat functions.
- Impacts soil processes and development.
- Leads to soil erosion and water quality impacts.



Overview of Current Plan

- 17 total acres of restoration and enhancement
 - 10-acre floodplain restoration
 - 3-acre wetland creation/enhancement
 - 2-acre supplemental tree planting area
 - 2-acre pollinator habitat area





Detailed Site Surveys Wetland Delineation:

- Wetland delineation was performed in April 2022 in accordance with U. S. Army Corps of Engineers Guidance.
- Saturated soil determinations were made based on established criteria.
- Flags were placed in the field to delineate the wetland boundary.

Other Surveys

- Soils and vegetation.
- Groundwater levels.
- Threatened and endangered species.
- Archaeological potential.





Groundwater Monitoring for Wetland Design

- Important to document hydrologic conditions for wetland assessment and design of wetland creation/enhancement areas.
- Three monitoring wells have been installed and monitored for several years during the site investigation and project design phases.

Plant Community Data

- Aerial photographic interpretation of vegetation cover types.
- Mapping and data collection of all plant community cover types.
- Quantitative assessment of plant communities.
- GPS located large native trees





Plant Community Data : Invasive Plant Species

Species Present:

Goutweed Garlic Mustard Common buckthorn Multiflora rose Oriental Bittersweet Morrow's honeysuckle Japanese barberry Burningbush European Privet Dame's Rocket Purple Loosestrife Wild Parsnip



- 88 plant species were identified
 - 11 trees, 16 woody shrubs, 4 woody vines, and 57 herbs (sedges, rushes, grasses, forbs).
- 15 species of invasive plants were documented
 - 8 herbs, 6 woody shrubs and 1 woody vine
 - 90% of plant plots contained invasive species.

Floodplain Restoration

- Approximately 10 acres of floodplain restoration via invasive plant species removal and native plantings of woody trees, shrubs, and vines, and grassy cover seeding.
- Process:
 - Flag vegetation to remain (native tree species); screen for wood turtles.
 - Cut invasive woody plants (buckthorn, honeysuckle, bittersweet); chip on site for removal.
 - Apply targeted herbicide treatment to stumps.
 - Seed surface with temporary cover crop (annual rye) for soil stabilization.
 - After one year with cover crop, do follow-up spot herbicide treatment.
 - Plant after one year (assuming good buckthorn control).



Wetland Creation and Enhancement

- 1.23 acres of wetland creation plus 1.2 acres of wetland enhancement via grading, invasive species management, and native plantings
- Process:
 - Cut woody invasives; apply spot herbicide treatment.
 - Prepare portions to be re-graded (~2 ft removal on average).
 - Compact subsoils; add 12" of topsoil.
 - Seed with temporary moist/wet cover crop for soil stabilization.
 - After one year, do follow-up spot herbicide treatment for buckthorn control
 - Assess whether additional soil grading is warranted.
 - After any additional grading, seed with wetland mixture and plant woody species.



Proposed Plantings - Floodplain Restoration Areas

Tree Plantings				
Common Name	Total Number of Plants			
Cottonwood	1,158			
Silver maple	1,158			
Pin oak	232			
Red maple	232			
Box elder	927			
Black willow	927			

In addition: river grape and Virginia creeper vines will be planted, along with seeding of herbaceous ground cover.

Shrub Plantings		
Common Name	Total Number of Plants	
Silky dogwood	1,844	
Arrowwood	1,844	
Elderberry	1,844	
Pussy willow	1,844	



Proposed Plantings - Wetland Creation and Restoration Areas

Tree Plantings		
Common Name	Total Number of Plants	
Cottonwood	70	
Silver maple	348	
Speckled alder	348	
Red maple	348	
Black willow	278	

Shrub Plantings		
Common Name	Total Number of Plants	
Silky dogwood	548	
Arrowwood	330	
Winterberry	330	
Pussy willow	548	
Meadowsweet/steeplebush	438	

In addition: river grape, Virginia creeper vines and the rootstock of 3 fern species will be planted along with seeding of herbaceous ground cover.



Pollinator Habitat Creation

2 acres of pollinator habitat creation in currently disturbed area south of the floodplain.







- Pollinator Habitat
- Pollinators, such as bees, butterflies, and moths, are essential for the reproduction of many plants, which support food production and wildlife.
- Given the recent decline in many pollinator species due to habitat loss, pesticide use, and climate change, establishing a network of pollinator habitats in the valley is crucial for supporting local ecosystems and biodiversity.
- The pollinator habitat established in the southern staging area is anticipated to consist of a diverse assemblage of native wildflowers with scattered shrubs and small trees.

Supplemental Tree Planting Area

Two acres of open field on the northeast side of Sackett Brook will be enhanced with plantings of floodplain tree species.





Potential Wood Turtle Nesting Habitat



Wood Turtle

The project team will seek to create additional nesting habitat for the wood turtle, a species of special concern in Massachusetts.





Figure H4-1: Examples of Wood Turtle Nesting Habitats



Ashley Brook (left) at confluence with Sackett (in distance)



Sackett Brook looking south at Ashley Brook confluence



Community Outreach Plan*

- GE will disseminate a written project summary with basic project details to the local neighborhood.
- Project information will be available through a website that will provide the public with convenient access to such information.
- Public information on technical aspects of the project will include fact sheets with visuals that include a summary of the project and associated technologies.
- GE will post temporary signs at and adjacent to Kirvin Memorial Park.
- *See updates here: <u>Kirvin Park Floodplain</u> and Wetland Restoration | Mass.gov

Kirvin Memorial Park Ecological Improvements Public Information Meeting • 6-7:30 p.m. Wednesday, June 11 Herberg Middle School, 501 Pomeroy Ave., Pittsfield

Please join the Housatonic River Natural Resources Trustees, the City of Pittsfield and the General Electric Co. for a public meeting and discussion focused on a significant floodplain and habitat restoration and enhancement plan for Kirvin Memorial Park.

A primary objective of the proposed program is to eradicate the invasive species that now dominate the floodplain and replace them with a diverse, native plant community. Wetlands will be expanded and a two-acre pollinator meadow habitat created in a currently disturbed area of the park.

Work is expected to begin with invasive species removal in Fall 2025. The park will remain open and safe for public use during the duration of the project.

Restoring and Enhancing Natural Habitat

A team of specialists is working to improve the conditions of approximately 17 acres in the floodplain of Sackett and Ashley Brooks in the south end of Kirvin Memorial Park, largely by removing invasive plant species and establishing native vegetation, as well as expanding wetland conditions in a portion of the floodplain area. These invasive plants collectively impair the overall habitat diversity and functions of the ecosystem.

- PROJECT START DATE: Fall 2025
- LOCATION: 17 acres in the floodplain of Sackett and Ashley Brooks

MORROW'S HONEYSUCKI P

- ENHANCEMENTS: Nearly 7,000 trees and 17,000 shrubs will be planted following removal of invasive plant species
- PRIVATELY FUNDED

For more information, please contact parks@cityofpittsfield.org.











Sign for On-Site Notice

Existing Uses at the Park will be Maintained during Project Implementation

- Recreational fields will all remain open and unaffected.
- Dog walking and playing will remain open, except for the restoration and staging areas.
- Trail access south of Sackett Brook will be protected from the work activities.



Anticipated Schedule

- Submit Final Restoration Plan for review by the Trustees and the City approximately mid-July 2025 followed by 30-day public comment period
- Contractor selection: August-October 2025
- Revised Final Plan or Addendum based on contractor input: October 2025
- Post signs at site; notify abutters: October 2025
- Trustees' approval of Final Plan or Addendum: November 2025
- Construction: November 2025-January 2026
- Landscaping/plantings/maintenance: May 2026-May 2027
- Post-construction monitoring and maintenance conducted for five years in accordance with performance standards



AECOM

Revised Conceptual Restoration Design/Restoration Action Plan for Kirvin Memorial Park, Pittsfield MA

Williams Street, Pittsfield Massachusetts

September 2024

Prepared for General Electric Company Pittsfield, Massachusetts

For Ongoing/Updated Information, see:

22

https://www.mass.gov/info-details/kirvin-park-floodplain-and-wetland-restoration

Or Scan this QR Code:

