

Final Report

Enhancing Adaptability of Habitats at Valley Creek to Sustain Migratory Birds, Bats, and Pollinators City of Port Washington, Wisconsin

Organization: USFWS Coastal Program

Grant Number: F23AC02509

Project Period: 07/01/2023 – 12/31/2025

Reporting Period: 10/1/2025 – 12/31/2025

Project Overview

The Valley Creek corridor, located in the City of Port Washington, is a 1.8-mile degraded urban greenway comprised of nine public parks, which provide access for various recreational uses such as hiking, wildlife viewing, community gardening, birding, picnicking, fishing, running, and biking. The City has initiated a large-scale planning and restoration project to restore a significant portion of Valley Creek to reduce health and safety concerns from flooding and erosion, while improving public access and quality of the natural communities. The corridor provides habitats for birds, wildlife, and pollinators, including habitat for several federally and state-listed species. Valley Creek contains a diversity of plant communities, including coastal clay bluffs, mesic forests, meadow, and wetlands. However, the value of these habitats to migratory birds and wildlife is increasingly vulnerable due to habitat fragmentation, invasive species, loss of canopy from Emerald Ash Borer (EAB), urban and agricultural stormwater runoff, erosion, and sedimentation. The City is prioritizing restoration and enhancement of the natural communities, for the benefit of imperiled species including Northern Long Eared Bat (NLEB) and other at-risk bats, Rusty Patched Bumble Bee (RPBB), Monarch butterfly, and other native pollinators, and migratory birds that rely on the corridor for migratory stopover and breeding habitat. Habitat loss and fragmentation has contributed to declines in these focal species, and actions are needed to enhance and restore suitable habitats for NLEB, RPBB, Monarch, and migratory birds that are present within Valley Creek.



The two park sites for this project, Birchwood Hills Nature Preserve (BHNP) and Upper Lake Park (ULP), were selected as priority areas to initiate ecological restoration that fulfill a need for restoring and enhancing critical habitat, while complementing the larger vision for restoring the entire corridor.

Forest habitats in the 24-acre Birchwood Hills Park, at the northern end of the Valley Creek corridor, are highly degraded due to canopy loss from EAB, and invasive species such as Japanese barberry, tartarian honeysuckle, multiflora rose, garlic mustard, and reed canary grass. This City proposes to control invasive species and restore the canopy to promote long-term regeneration of a diverse, native forest community that can support NLEB, pollinators, and migratory birds.

Final Report

Enhancing Adaptability of Habitats at Valley Creek to Sustain Migratory Birds, Bats, and Pollinators City of Port Washington, Wisconsin

Within Upper Lake Park, at the southern end of the corridor, developed areas and mowed turfgrass have limited habitat for pollinators, and impervious surfaces and compacted lawn contribute to runoff and gully erosion threatening the stability of the creek and forested slopes. This project will fund creation of a 0.5 acre pollinator meadow habitat that will provide diverse native nectar sources and increase stormwater infiltration and reduce runoff from the blufftop to the creek.



This project will complement ongoing planning and implementation of a multi-phase restoration and green infrastructure initiative within the corridor. In collaboration with a variety of capacity-building stakeholders, the City will leverage a growing watershed-focused effort using nature-based solutions, to improve ecosystem and watershed conditions within this coastal community. Funding from USFWS has been instrumental to building momentum for this watershed-wide effort and its ongoing success.

Objectives and Completed Project Activities

Project Objectives:

- Control priority invasive species on 20.9 acres of public parkland
- Restore native plant community diversity and coverage on 20.9 acres of public parkland
- Mitigate EAB impacts and reduce threats of future canopy loss through planting of at least 15 species of native trees and shrubs
- Restore high-quality meadow habitat for native pollinators by installing seed of at least 25 species of native forbs and grasses
- Enhance upland infiltration, reducing stormwater runoff and erosion, recharging groundwater, and supporting spring-fed wetlands/stream baseflows
- Increase the long-term viability of habitats to sustain native bats, birds, and pollinators
- Develop and implement short-term and long-term site management programs which provide for ongoing environmental monitoring, invasive species control, site stewardship, and vegetation enhancement.
- Reduce flooding risk, absorb and attenuate surface water runoff, reduce erosion, and sediment reaching Lake Michigan, improve stormwater infiltration, increase stormwater capacity, improve water quality, and improve fish habitat.
- Kick-start the restoration of native communities, habitats, and water quality throughout the Valley Creek watershed

Final Report

Enhancing Adaptability of Habitats at Valley Creek to Sustain Migratory Birds, Bats, and Pollinators City of Port Washington, Wisconsin



Activities Completed:

The City contracted Stantec Consulting Services Inc. (Stantec) to complete the restoration scope of work, under the USFWS grant and matching grants. With support from Fund for Lake Michigan (FFLM), the City completed a draft Restoration Plan for the Valley Creek Corridor, which encompasses both ULP and BHNP. The Plan is intended to address ecosystem challenges and protect key ecological resources with a focus on terrestrial habitats and plant communities. The Plan will provide complementary benefits to watershed and water quality improvements, and is designed to be complementary to, and developed in coordination with, separate stream restoration and stormwater management planning initiatives that are also being undertaken by the City. FFLM funds were also used to develop concept plans for a variety of green infrastructure projects, which discharge stormwater to Valley Creek. This portion of the project has been completed as of December 2024.

In addition to the Restoration Plan, the City secured grants from the National Fish and Wildlife Foundation – National Coastal Resiliency Fund and the Wisconsin Coastal Management Program to support design plans for a comprehensive stream restoration in the Valley Creek Corridor. This will play a significant role in the restoration of the Valley Creek Corridor and will directly benefit BHNP and ULP through improved habitat, increased water quality, and reduce risk of future erosion. Stream restoration design is expected to be completed in 2026.

In partnership with American Bird Conservancy (ABC) and Glacierland RC&D, funds were provided from a National Fish and Wildlife Foundation – Sustain Our Great Lakes (SOGL) grant and a US Forest Service (USFS) grant to fund continued restoration along the Valley Creek Corridor with an emphasis on enhancing wetland, forested, and riparian habitats to benefit a variety of waterfowl, shorebirds, landbirds, waterbirds, pollinator species, and bats. Work funded through these grants will expand on work planned for BHNA and ULP and continue to increase habitat connectiveness throughout the Valley Creek Corridor. The SOGL-funded project started in January 2024 and is expected to last 2 years, while the USFS-funded project is expected to start in April 2025.

Final Report

Enhancing Adaptability of Habitats at Valley Creek to Sustain Migratory Birds, Bats, and Pollinators City of Port Washington, Wisconsin

POP1: Implementation activities during the 10/01/2023 - 03/31/2024 grant reporting period consisted of invasive woody clearing across BHNP. Invasive woody clearing in BHNP started on December 12, 2023 and was completed on December 21, 2023. Approximately 19.2 acres of invasive woody clearing was completed during the reporting period. Invasive woody clearing was completed through a combination of hand and mechanical clearing. Hand clearing consisted of cutting woody material using brush saws and chainsaws followed up by herbicide stump treatments. Mechanical clearing consisted of using a forestry mulcher attached to a tracked skid steer to mulch up undesirable or invasive species. Multiple habitat trees were preserved across the site during woody clearing efforts and scattered habitat piles were also created across BHNP. Implementation activities for ULP are expected to occur in May 2024 and will begin with site preparation activities, which includes an herbicide treatment of the mowed turf.



POP2: Implementation activities during the 04/01/2024 – 09/30/2024 grant reporting period consisted of vegetation management across BHNP (approximately 19.2 acres) and site preparation, native seeding, and vegetation management at ULP (approximately 0.5 acre). Vegetation management at BHNP involved re-sprout control across the invasive woody clearing areas reported on during the previous reporting period, as well as herbaceous invasive species management. Re-sprout control was completed through herbicide spot treatments using a combination of broadleaf selective and non-selective herbicide. Herbaceous invasive species management was completed through a combination of hand pulling and herbicide spot treatments based on site conditions. Site preparation activities were completed at ULP at the beginning of May using broadcast, non-selective herbicide application. Following site preparation activities, native seed and cover crop was installed in late-May to begin native pollinator habitat establishment. Native seed establishment was monitored in June, July, and August for vegetation management needs to support establishment. The 0.5-acre pollinator planting is establishing nicely with established cover crop and multiple native seedlings establishing across the ULP pollinator area.

Using ABC SOGL funds, the project partners completed approximately 4.1 acres of additional invasive woody clearing within the corridor. Following the invasive woody clearing, re-sprout and herbaceous invasive species management was completed within the corridor during the 04/01/2024 - 09/30/2024 reporting period. Re-sprout spot treatments were completed with backpack sprayers using a combination of broadleaf and non-selective herbicide. Herbaceous invasive species were targeted with a combination of hand pulling and broadleaf selective herbicide. Follow up re-sprout treatments and herbaceous invasive species control will be conducted using spot herbicide treatments and hand pulling techniques.

Final Report

Enhancing Adaptability of Habitats at Valley Creek to Sustain Migratory Birds, Bats, and Pollinators City of Port Washington, Wisconsin



POP3: Implementation activities during the 10/01/2024 - 03/31/2025 grant reporting period were limited due to the timing of seasonally-dependent activities. The ecosystem restoration consultants met with the City Forester at BHNP in late March to review planting goals for the upcoming tree planting and walking trail configuration. In addition, the City Forester and consultants reviewed the planned project area for the ABC Forest Service grant that will fund additional invasive removal and future tree planting along the Valley Creek Corridor.



Final Report

Enhancing Adaptability of Habitats at Valley Creek to Sustain Migratory Birds, Bats, and Pollinators City of Port Washington, Wisconsin



POP4: Most of the remaining ecosystem restoration implementation activities occurred during the 04/01/2025 – 09/30/2025 grant reporting period. Based on planting plans developed in partnership with the City Forester, the contracted restoration consultant installed 264 native trees/shrubs at Birchwood Hills in late April 2025. Native trees/shrubs of 20 different species were planted across 19.8 wooded acres of the BHNA Project Area to promote resilience and restore canopy coverage and diversity. Planted trees/shrubs were caged to protect against deer-browse.

Follow-up invasive species management was performed at BHNP in mid-June 2025 (targeting regrowth of Japanese barberry, multiflora rose, buckthorn, and honeysuckle), as well as at ULP in late May and mid-August. Supplemental grant funds (in partnership with ABC) were leveraged to perform additional ecosystem restoration/management tasks within non-forested habitats at these parks during the performance period.

POP5 (Final): Final activities during the 4/1/2025-12/31/2025 grant reporting period included remaining tree planting and overseeding at ULP which was completed in October 2025. The contracted restoration consultant installed 150 native trees/shrubs at Birchwood Hills in late April 2025. Native trees/shrubs of 10 different species (White Oak, Red Oak, Chinkapin Oak, Canadian Hemlock, Downy Serviceberry, Ironwood, Pagoda Dogwood Common Ninebark, Basswood, and Bur Oak) were planted across 19.8 wooded acres to promote resilience and restore canopy coverage and diversity. Planted trees/shrubs were caged to protect against deer-browse.

Final Report

Enhancing Adaptability of Habitats at Valley Creek to Sustain Migratory Birds, Bats, and Pollinators City of Port Washington, Wisconsin



Status of Future Project Activities: Grants secured in partnership with ABC will support ongoing maintenance and the addition of low-impact park amenities such as the planned walking trail. Future native tree planting and additional re-sprout control is planned in the Valley Creek Corridor using separate funds from project partners in 2026/2027.