



REUSE ASSESSMENT

GE-Pittsfield/Housatonic River Site

NOVEMBER 2024

OVERVIEW

At the GE-Pittsfield/Housatonic River Site (the Site) in western Massachusetts, the Environmental Protection Agency is overseeing cleanup at the former General Electric manufacturing facility and along the Housatonic River. The EPA has issued a *Final Resource Conservation and Recovery Act Permit* and remedy selection for the “Rest of River” part of the Site. The EPA’s cleanup plan consolidates some of the sediments and floodplain soils from a 12-mile section of the Housatonic River in an Upland Disposal Facility on a property owned by GE in Lee, Massachusetts.

In 2024, the EPA’s Superfund Redevelopment Program supported a reuse assessment for the UDF property. This reuse assessment report identifies future use opportunities based on existing conditions and remedial design considerations, community planning and reuse goals.

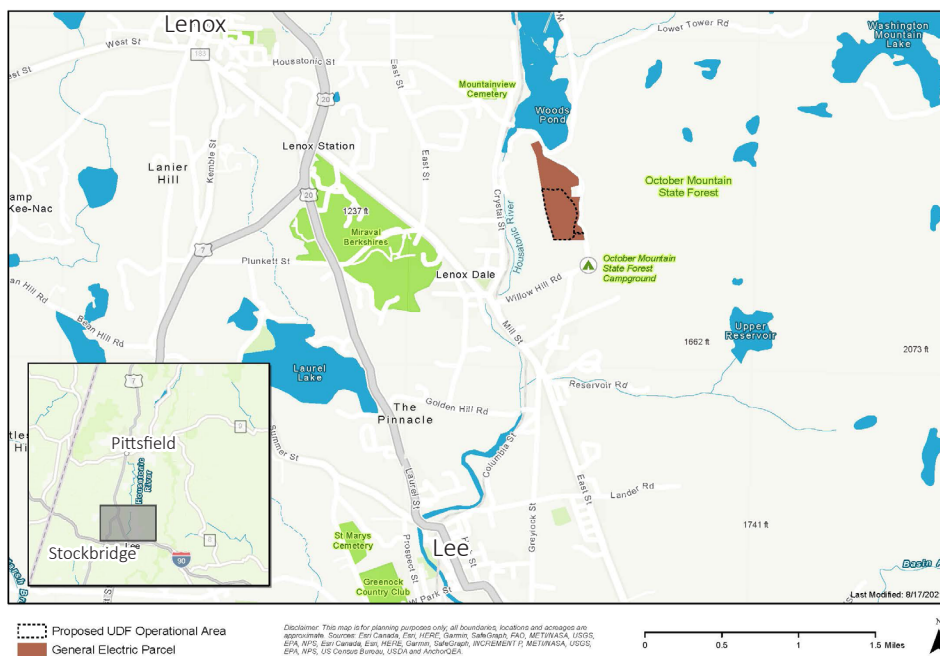


Figure 1. Site location

CONTENTS

- Overview.....1
- Site Background.....2
- Existing Condition Analysis.....3
- Open Space Planning in Lee.....7
- Community Reuse Goals.....8
- Reasonably Anticipated Future Land Uses.....9
- Site Reuse Framework.....11
- Conclusions and Next Steps16

SITE BACKGROUND

Since the 1900s, GE manufactured and serviced power transformers, ordnance and plastics at its Pittsfield Plant. Improper use and disposal of electrical transformers containing polychlorinated biphenyls (PCBs) resulted in contamination around the GE Pittsfield Plant and downstream along the Housatonic River. PCB cleanup began in 2000. Cleanup has been completed at about 20 contaminated areas near the Pittsfield Plant, including residential properties and Silver Lake, as well as the first two miles of the Housatonic River.

Rest of River Cleanup Status

Cleanup is ongoing for other areas of the Site including the ROR area. This includes nearly 125 miles, from the confluence of the East and West Branches of the River in Pittsfield to the end of Reach 16, just before Long Island Sound in Connecticut.

On December 16, 2020, pursuant to the 2000 Consent Decree for the Site, the EPA issued a revised final permit modification to GE's RCRA Corrective Action Permit for the ROR. The modification includes a provision for GE to construct and utilize a UDF on a 75-acre property that was formerly part of an active sand and gravel quarry and that GE acquired from the Lane Construction Corporation in April 2021. The UDF will be used for the disposal of certain sediments, soils and associated debris removed as part of the ROR Remedial Action. Figure 2 shows

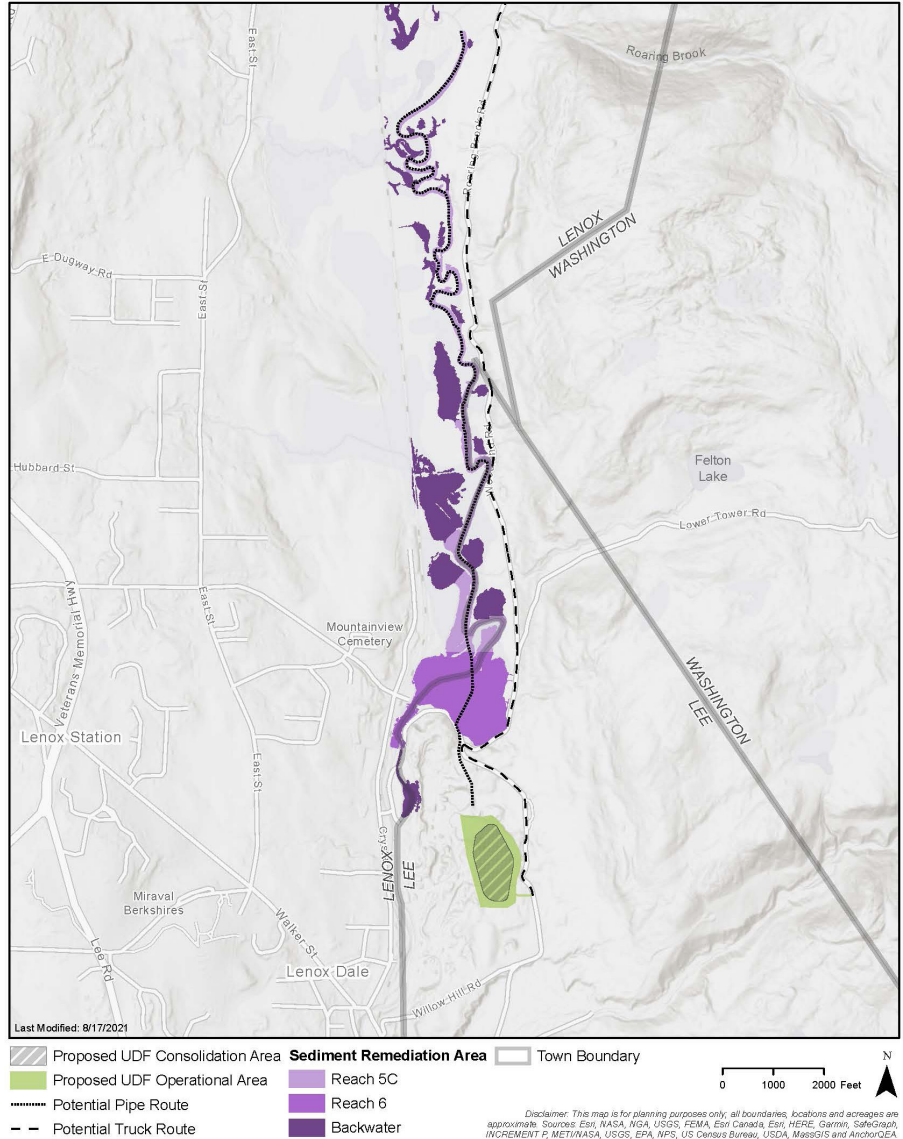


Figure 2. Site context

the Housatonic River and remediation areas in shades of purple, and the UDF location highlighted in green. GE will construct the remedy and be required to perform ongoing operations and maintenance in accordance with the remedial design.

Community members in the surrounding area have concerns about the plan to construct the UDF at the Site because of health, environmental and aesthetic concerns. The town of Lee appointed a PCB Advisory Committee to provide oversight of the GE cleanup and to understand and comment on plans to construct the remedy.

EXISTING CONDITION ANALYSIS

LAND USE CONSIDERATIONS

Location

The UDF property is in the town of Lee in Berkshire County, Massachusetts, bordering the towns of Lenox and Washington. It is east of the Housatonic River and bordered to the north by Woods Pond, a shallow open water and wetland part of the river. Woodland Road borders the property to the east, while the town of Lee landfill and an electric substation are located to the south. To the west, there is a gravel pit. The area is also bordered by October Mountain State Forest land and recreational area.

Physical Features

The land owned by GE includes a transmission corridor and has exposed soils, remnant patches of vegetation, undulating topography and ponds as a result of prior quarry operations. It currently provides limited ecological value due to its land use history as a gravel and sand quarry. The future UDF will comprise about 20% of the property, or 15.5 acres (Figure 3), about 92% of which has been impacted by the quarry and is currently either in a denuded condition (2.66 acres or 17%) or composed of recently established grassland with some scattered woody shrubs and grassland (11.58 acres or 75%). Just over 1 acre of the future consolidation area (7.9%) consists of intact forested cover habitat.

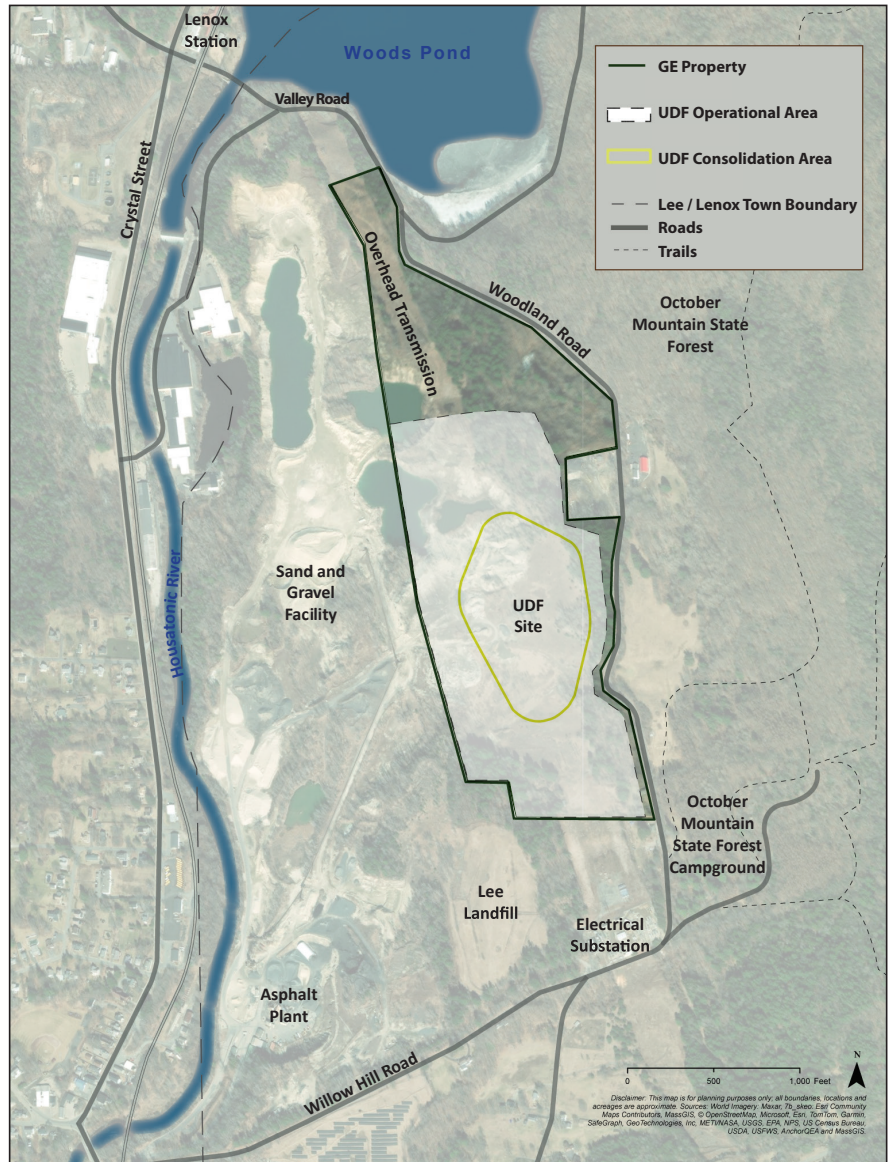


Figure 3. UDF footprint



Figure 4. Exposed soils and rocks at the Site



Figure 5. Patchy vegetation and small trees

Access

The UDF property is isolated from paved roads and accessible via a narrow gravel road. The property has frontage on secondary town roads called Valley Road (north) and Woodland Road (east). The nearest major road is the regional highway U.S. Route 7 and U.S. Route 20, located about 2 miles west. The property is next to a vast tract of state forest land with hiking routes throughout October Mountain and Washington Mountain state forests.

Woodland Road borders the eastern boundary of the UDF property, from Woods Pond to the north to October Mountain State Forest Campground to the south. The road is a popular destination for local residents to walk or exercise, or to access Woods Pond from areas to the west. From the road, pedestrians can also access trailheads that lead into October Mountain State Forest or simply travel the backroads that lead along the western boundary of the state forest.

Parking for pedestrians along the road is currently limited to two informal parking areas at the former Scenic Railroad Museum at Lenox Station (about six parking spaces) and outside the gated entrance to October Mountain State Forest Campground (about two parking spaces).

Elevation and Topography

The UDF property is at an elevation of about 1,030 feet in the center of the anticipated UDF footprint. Surrounding elevations range from the low point on the Housatonic River to the west at about 980 feet to the high point on the October Mountain ridgeline to the east at about 1,700 feet. Woodland Road, the nearest public road, lies at about 1,040 feet to 1,050 feet. Due to the property's isolated location, the UDF footprint is mostly hidden from public roads.



Figure 6. Woodland Road east of the Site



Figure 7. Panoramic view of the Site

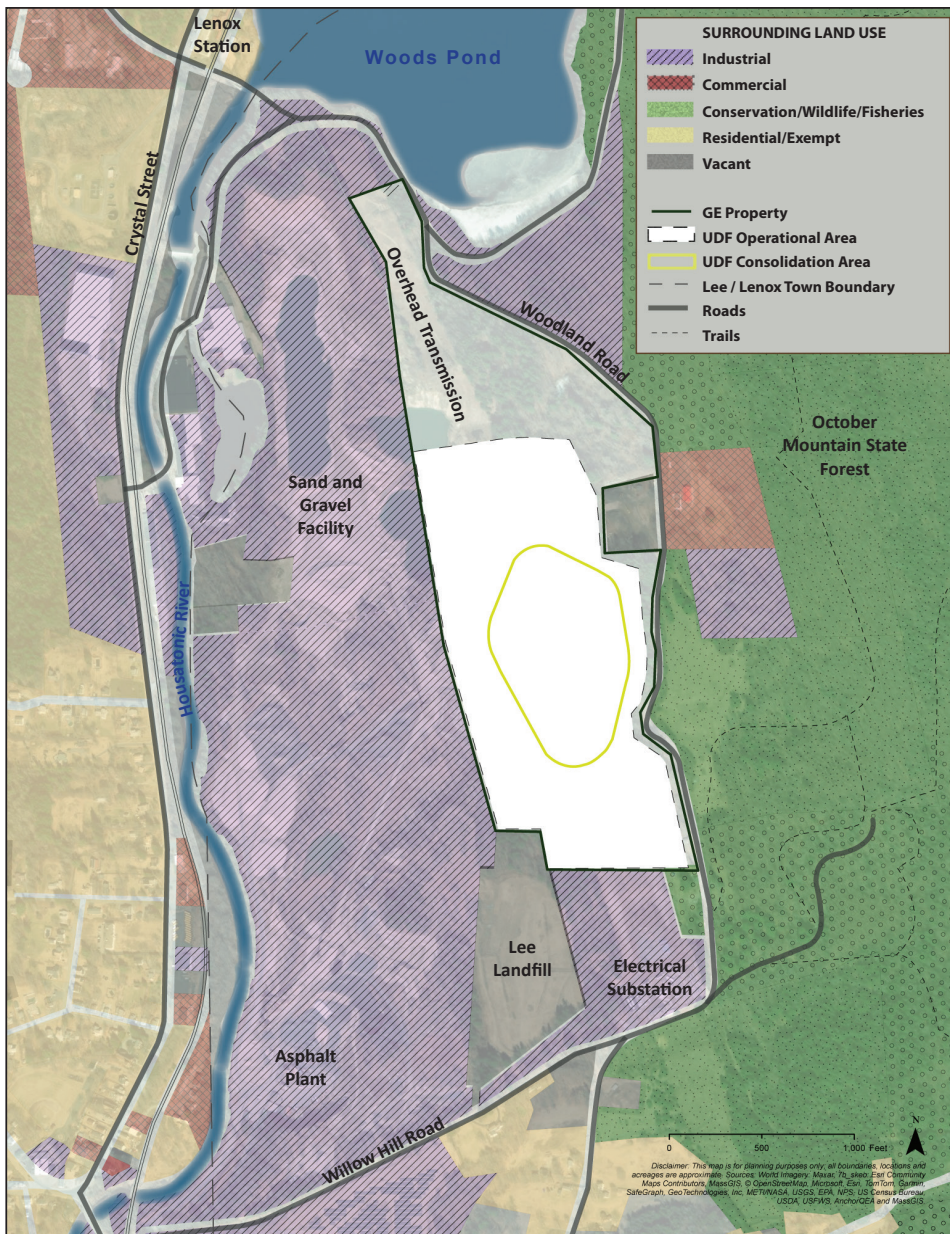


Figure 8. Zoning

Land Use and Zoning

The property is currently vacant and includes several former gravel quarry ponds on the north central part of the property. The property is within two zoning districts regulated by the town of Lee. The western part is zoned Industrial (I) and the eastern part is part of a Conservation Recreation (CR) zoning district.

Surrounding Land Use

Uses surrounding the Site are a mix of commercial, manufacturing, conservation, recreation and residential. Areas to the north include conservation and recreation areas. Woods Pond and the Housatonic River wetland areas are north of the property. October Mountain State Forest, which includes a campground and hiking trail network, is to the east. Areas for public service uses, including an electric substation and two landfills, are to the south. The town of Lee landfill is immediately to the south. The Schweitzer-Mauduit paper waste landfill, which hosts a 7-acre, 2.7-megawatt capacity solar farm, is further south of Willow Hill Road. A gravel pit, aggregate processing operation and manufacturing facilities are located directly to the east. The Housatonic River separates the towns of Lee and Lenox. On the Lenox side, a mix of commercial and industrial businesses, residences and the Housatonic Railroad along Crystal Street are part of the small village known as Lenox Dale. A former passenger rail depot in Lenox Dale has been repurposed into the Berkshire Scenic Railroad Museum (Lenox Station).



Figure 9. Woods Pond and October Mountain State Forest



Figure 10. A fish advisory sign at Woods Pond

Property Ownership

The UDF is planned for a parcel owned by GE, the performing party for the Site's cleanup, which acquired the land from Lane Construction Corporation, an owner of several adjoining properties. The overhead transmission corridor that runs through the GE parcel is owned by the Western Massachusetts Electric Company. The Lane Construction Corporation owns the sand and gravel facility and asphalt plant to the west. There is a landfill to the south owned by the town of Lee. When the UDF is completed, GE plans to continue owning the property and maintaining the UDF remedy. GE can work with local governments to plan for reuse to ensure compatibility with surrounding uses. GE anticipates that low-impact uses of the UDF property, such as ecological uses, would be most viable.



Figure 11. Trees and vegetation

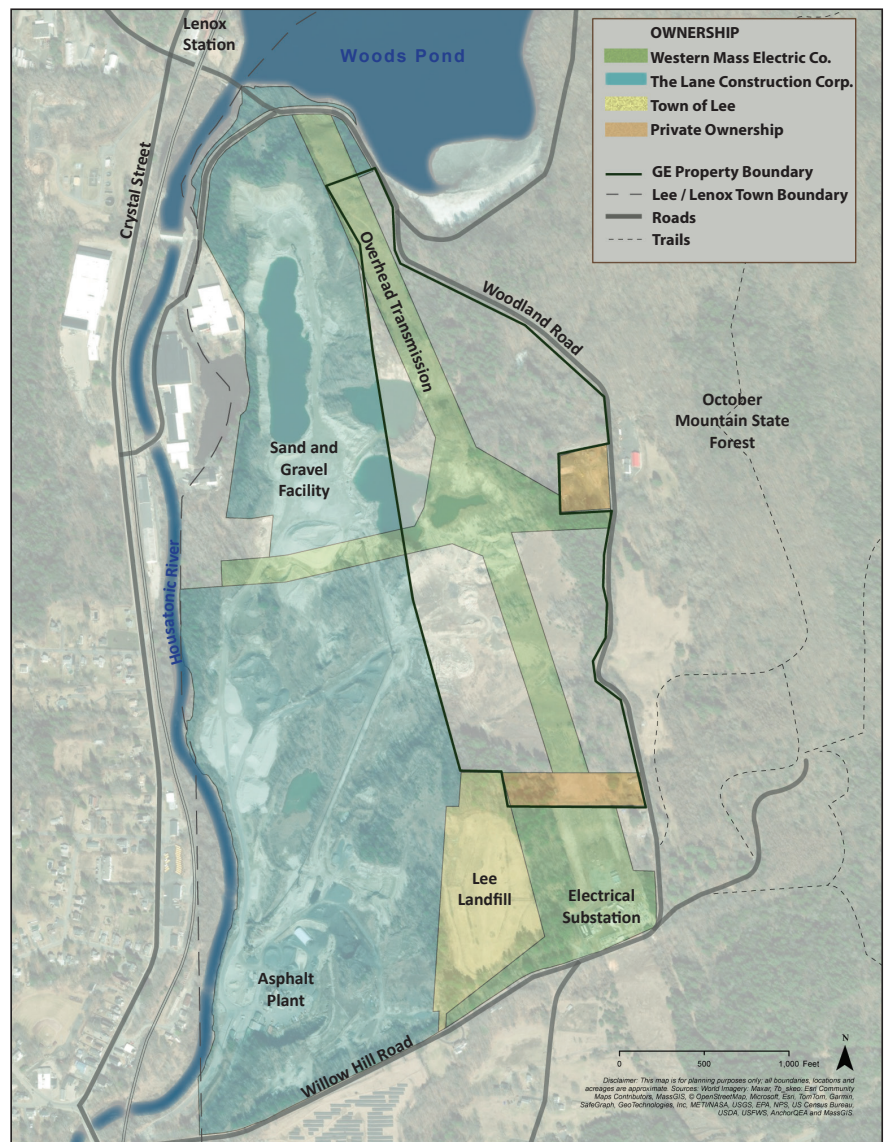


Figure 12. Property ownership

Remedy Components

The Site cleanup plan includes consolidating sediments excavated from the Housatonic River and floodplain soils in a capped UDF. The UDF capacity will be a maximum of 1.3 million cubic yards. It will have a footprint of about 13 acres and an elevation of 1,099 feet above mean sea level at its highest point. The UDF will consist of the following components:

- Baseline and groundwater separation.
- Baseline system.
- Leachate collection and removal system.
- Stormwater management system.
- Final cover system.

The UDF will be surrounded by operational and support areas, which will likely include features such as site access roads, stormwater management system components, dewatering and wastewater treatment, leachate conveyance, storage and loadout facilities, and other areas designated for contractor use during operations. Monitoring will be conducted during all phases of construction and operation.

OPEN SPACE PLANNING IN LEE

Community Context

The town of Lee, Massachusetts is a municipality in central Berkshire County. It borders the communities of Becket, Great Barrington, Lenox, Stockbridge, Tyringham and Washington. In 2023, the town of Lee commenced an update to the *Comprehensive Master Plan* and subsequently released a draft for public comment in March 2024. In February 2024, the Berkshire Regional Planning Commission also issued a draft of the *Open Space and Recreation Plan*. These plans outline the community's vision for the future of the town of Lee.

According to the *Open Space and Recreation Plan*, the community vision reads as follows:

Maintain and preserve Lee's present combination of outstanding natural assets, traditional New England atmosphere and small-town community spirit that makes it a special place. Residents, leaders, and organizations should continue to promote social diversity and economic prosperity while protecting and preserving important historic, cultural and environmental features. The community must also take any steps necessary to continue to provide high quality services, facilities and opportunities to meet the social and economic needs of present and future residents.

Community members strongly feel that the town's open spaces and recreational amenities are vital to its identity and long-term success.

Open Space Resource Needs

The town of Lee is largely undeveloped. Forest canopy covers more than two thirds of the total land area. Open lands, including agricultural fields, cover 2,079 acres (12% of the land area). Industrial, commercial and residential lands cover less than 800 acres (4% of the land area).

Community members are generally satisfied with the open space and recreational offerings in the town. A 2022 survey identified a need to integrate the Housatonic River into the open space network through a greenway.

The Housatonic River runs through the town of Lee and is used for canoeing and scenic enjoyment. There are multiple access points along the river, and the town of Lee is planning a new trail along the river for walking and biking. The stretch of river between the Decker Canoe Launch in Lenox and the Woods Pond Launch is extremely popular for canoers and kayakers.

The Housatonic River and Laurel Lake are the most prominent bodies of water in Lee. Although paddling is allowed on the river, other uses are limited by PCB contamination from the GE facility. PCBs have been found in sediments, fish tissue and water chestnuts. The river is also impaired by invasive species, including the Eurasian Water Milfoil. Groups such as the Lee Land Trust, the Housatonic River Initiative and the Housatonic Valley Association continue to work on cleaning up the river and planning for reuse.

Recreation and Water Quality at Woods Pond

Woods Pond also offers the opportunity for residents to paddle, fish, hunt waterfowl and view wildlife. The pond features large carp and several bird species, including herons, bald eagles and ducks. Currently, recreation on the pond is limited because of excess sediment, which limits the water's depth and makes water access and recreation challenging. During remediation, sediment will be removed from the pond to a depth of 6 feet. This will expand the potential recreational area of the pond while also improving water quality.



Figure 13. Dock at Woods Pond

COMMUNITY REUSE GOALS

The siting of the UDF in Lee is controversial and opposed by many residents because of concerns about perceived ecological and human health impacts as well as the perceived potential for leakage of contamination into water resources and air from PCB transport and disposal. At this time, community members would prefer to limit pedestrian access to the UDF but are open to opportunities to improve the ecological value of the property, which is currently limited. The creation of a pollinator habitat and native grasslands could provide environmental services with the added benefit that the Site would be relatively undisturbed by human visitors. Revisiting community goals closer to cleanup completion may be warranted.

Based on town of Lee planning documents and an April 25, 2024 meeting with the PCB Committee and the town, goals for the UDF property and surrounding area were noted as follows:

Upland Disposal Facility (UDF) Property

- Limit public access to the UDF.
- Do not pursue recreational reuse.
- Shield the UDF property from view as much as possible, especially from neighborhoods in Lenox Dale and on Woodland Road.
- Create a native meadow at the UDF property. Consider ground nesting birds when selecting species.
- Add signage around the perimeter fence illustrating the ecological benefits of grassland and pollinator habitat while also indicating the area is a UDF.

Woods Pond and Surrounding Area

- Improve access to Woods Pond by improving existing roads and parking.

Applicable Community Goals for the Town of Lee (2023 Lee Open Space and Recreation Plan, Town of Lee 2024 Master Plan)

- Provide environmental education and link lands into an existing open space system.
- Protect water resources and preserve riparian habitat.
- Maintain the visual character and attractiveness of developed areas, particularly in gateway areas of high visibility.
- Promote retention of scenic and community qualities related to road corridors.
- Preserve conservation lands.



Figure 15. Woodland Road



Figure 14. Woods surrounding the existing vernal pool at the Site



Figure 16. Mixed woodland along the Site's perimeter

REASONABLY ANTICIPATED FUTURE LAND USES

When the EPA cleans up sites under the Superfund program, the current and potential future use of a property help inform the EPA's approach. Considering future use early in the cleanup process helps the EPA and land owners put the site into productive use.

Based on existing conditions, planned cleanup features and community goals, future land uses at the UDF and surrounding area are likely to include ecological uses with limited access. Local priorities do not currently support public access to the Site. However, community goals support ecological uses and enhancing the UDF property's degraded habitat. Community goals also include ecology-based recreation amenities and ensuring that the UDF property's landscape complements the Houstonic River corridor's forest habitat.

Ecological Reuse Considerations

With almost 80 acres of open space, the UDF property is a prime location for habitat creation focused on birds and pollinator species. According to the National Audubon Society, both grassland and pollinator habitats are rapidly diminishing across the United States. Grassland and open field habitats have declined in abundance in Massachusetts for over 50 years, generating concern for a number of species that are dependent on these habitats. Native pollinators are also struggling due to habitat loss, increases in non-native plants, pesticides, pollutants and climate change. Establishment, preservation and maintenance of these habitats have therefore become a priority for many conservation agencies and organizations in the region.

The UDF property provides a unique opportunity to improve habitats for wildlife, including grassland-nesting birds such as bobolinks, vesper sparrows and eastern meadowlarks, and pollinators such as butterflies, bees and bats. Factors that make the Site appropriate for habitat creation include the size of the property, its open character, proximity to other natural areas and relative inactivity.

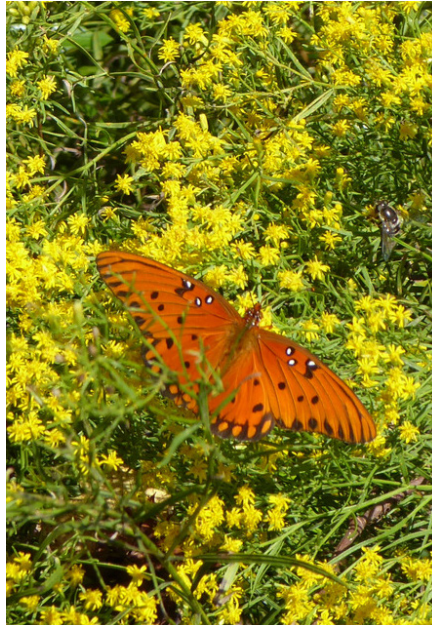


Figure 17. Monarch butterfly at the Kalama Specialty Chemicals Superfund Site



Figure 18. Birds atop a bird house at Canoe Meadows



Figure 19. Wildflower meadow

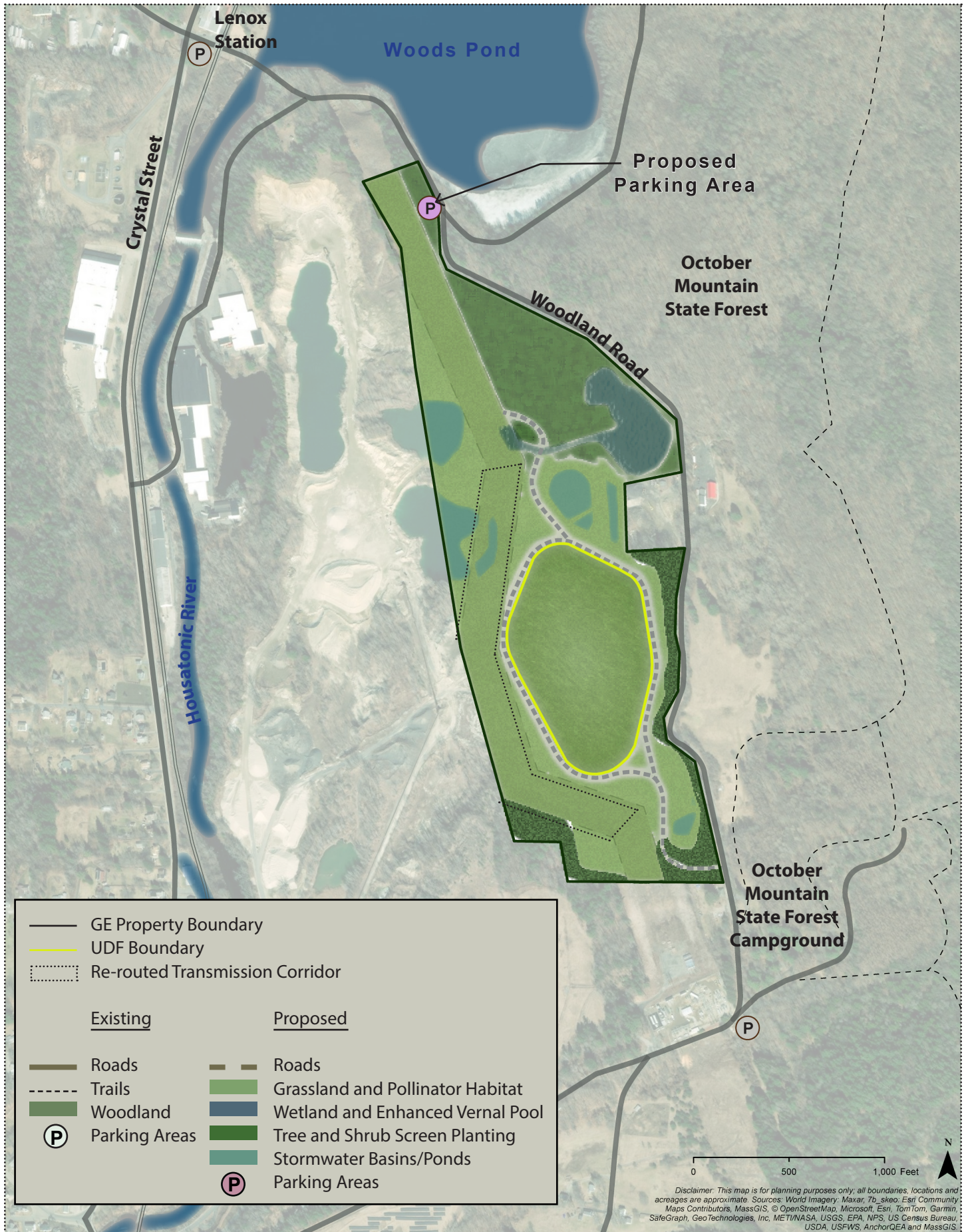


Figure 20. Site reuse framework

SITE REUSE FRAMEWORK

Based on the Site and land use analysis, as well as community goals and reasonably anticipated future land uses for the property, this section details specific reuse opportunities that can help to support ecology-based future uses at the UDF property. This includes restored grassland and pollinator habitat, enhanced wetlands, and improvements for pedestrian access and parking for nearby recreational areas.

The EPA's Superfund Redevelopment Program presented this reuse framework to the town of Lee PCB Advisory Committee on October 16, 2024. The committee reviewed the reuse framework and offered specific recommendations for tree screening, additional parking and signage describing the habitat benefits and noting the Site's status as a landfill. Their recommendations have been incorporated into the reuse framework.

Reuse of the Site will require coordination between GE and the EPA. GE will continue to own the property and the EPA will continue to monitor the UDF as the agency that oversees protection of human health and environment at the Site.

Restored Habitat

The UDF property offers more than 50 acres of relatively inactive open space. This provides a unique opportunity to improve the landscape to support wildlife, including grassland-nesting birds such as bobolinks, vesper sparrows and eastern meadowlarks and pollinators such as butterflies, bees and bats. Enhancements to the wetland area will also provide habitat for amphibians and reduce invasive plants.

While the UDF consolidation area is under 16 acres, the operational area of the UDF is over three times that size. Grassland nesting birds are area-dependent and edge-sensitive. They will not nest in fields that are smaller than a certain size. They tend to nest away from field edges to avoid predation. Minimum area requirements for their habitat range from about 10 acres to more than 100 acres. The 50 acres that comprise the UDF operational area could serve as a valuable habitat for these sensitive birds, some of which are Species of Conservation Concern in Massachusetts. The limited activity and traffic at the Site, once the UDF is constructed, may also increase the attractiveness of the Site to many of the most vulnerable birds and pollinators.

Pedestrian Access and Parking

Woodland Road and Woods Pond are both popular recreational areas for nearby residents. Parking for these sites is currently limited to two small areas. Additional parking spaces could be added in areas along Woodland and Valley Road, outside of the UDF operational area.



Figure 21. Parking area near the Railroad Museum



Figure 22. Woodland Road just south of Woods Pond

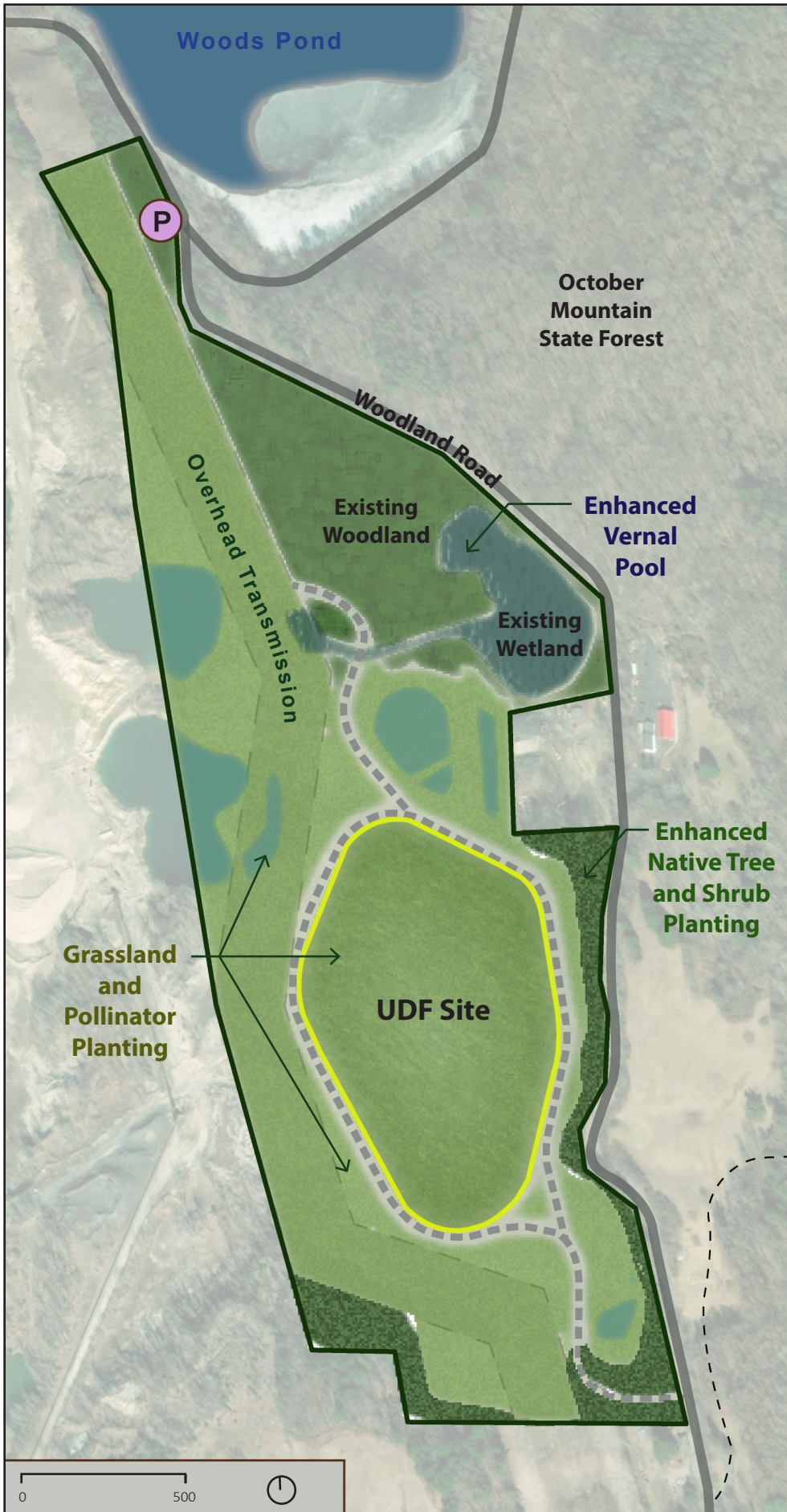


Figure 23. Ecological restoration planting strategy

REUSE GOALS

To support the primary use of the Site as habitat for birds and pollinators, ecological restoration is the recommended approach. Given the Site’s degraded condition, ecological restoration aims to reclaim the landscape and re-establish a functioning ecosystem that can support species diversity and wildlife habitat.

Grassland and Pollinator Planting

To achieve the restoration goals, the proposed planting strategy prioritizes native grassland and pollinator plants. Native grasses will attract birds for habitat and breeding purposes, while native wildflowers will support pollinators and further enhance the areas habitat functions.

Enhanced Native Tree and Shrub Planting

Planting native trees and shrubs outside the UDF consolidation area but within the operational area can further benefit the area’s wildlife while also serving to screen the ongoing remedial activities at the Site, a desired goal of the community. For example, trees and shrubs can provide another strata for nesting birds, as well as fruit and nuts that only woody plants produce. Planting trees can also serve to expand the forest canopy and provide valuable forest edge conditions that are beneficial for some pollinators. Screening is most feasible along the eastern perimeter adjacent to Woodland Road, but is also recommended west of the UDF where possible, given the re-routed overhead transmission line.

Enhanced Vernal Pool

The proposed plan for the Site includes an area for vernal pool expansion to improve wetland breeding habitat for amphibians and reduce invasive plant species growth. The wetland site will be planted with





native shrubs and trees, as well as herbaceous aquatic emergent plugs and a wetland seed mixture containing a variety of native sedges, rushes and grasses (refer to *Upland Disposal Facility Final Design Plan: Appendix H*).

Given the Site's proximity to both water and forested land, the UDF property could provide great value for a wide range of species that are drawn to the fields and forest edge for food, nesting, resting and other life-cycle needs.





Plant Palette

The following palette provides a sampling of recommended species for the Site. The list includes native forbs and grasses that provide food, pollen, cover, protection and habitat for ground-nesting birds, bees, and other pollinators that may populate the Site. Native trees and shrubs are identified for areas outside the UDF consolidation area to provide screening and additional benefits such as food for wildlife, erosion control, cleaner air and stormwater management. Additional pollinator and grassland species native to Massachusetts can be found at www.massaudubon.org/nature-wildlife/plants/native-beneficial-plants.

Grassland Plants

			
Switchgrass <i>Panicum virgatum</i>	Little bluestem <i>Schizachyrium scoparium</i>	Big bluestem <i>Andropogon gerardii</i>	Pennsylvania Sedge <i>Carex pensylvanica</i>

Native Trees and Shrubs

			
Oaks <i>Quercus spp.</i>	Hickories <i>Carya spp.</i>	Mountain laurel <i>Kalmia latifolia</i>	Dogwoods <i>Cornus spp.</i>

Pollinator Plants





			
Butterflyweed <i>Asclepias tuberosa</i>	Black eyed Susan <i>Rudbeckia hirta</i>	Purple giant hyssop <i>Agastache scrophulariifolia</i>	Wreath goldenrod <i>Solidago caesia</i>



Figure 24. Habitat and conservation area networks

Regional Habitat and Conservation Area Networks

Habitat restoration at the UDF property, located along the Housatonic River near Woods Pond, offers a unique opportunity to coordinate with broader conservation efforts in the region and state. The Site is near the river and other natural areas, such as October Mountain State Forest and wildlife sanctuaries like Canoe Meadows and Pleasant Valley, both managed by Mass Audubon. This allows the landscape to link to a diverse network of critical habitat areas. The Site is also well-situated to connect into an existing system of “Pollinator Pathways,” north-to-south migration corridors that exist between Connecticut and Massachusetts. Figure 24 maps the public and private Pollinator Pathway gardens that are within 5 miles of the UDF property.

Interpretive Signage and Environmental Education

Once the Site’s restoration begins, environmental graphics and education can provide opportunities to highlight and share the story of the transformation of the UDF property. Graphics can relay the use of the site as a repository for contaminated materials while also describing the improvements to the soils and vegetation and restoration of the Site for pollinator and grassland habitat. Opportunities may also exist to promote environmental education by working with local organizations, such as Mass Audubon, to share resources including plant and pollinator knowledge, pollinator seeds and plants, and an environmental education curriculum. For sources and additional information, refer to the following Mass Audubon Resources: [Grassland Bird Program](#), [State of the Birds](#) and [Best Management Practices for Nesting Grassland Birds](#).



Figure 25. High quality graphic signage at the perimeter of Canoe Meadows providing a map with site background, wildlife and plants

NEARBY SITES IN THE BERKSHIRE REGION HABITAT NETWORK

Canoe Meadows - Mass Audubon

Canoe Meadows Wildlife Sanctuary is a 264-acre property located just one mile from the center of Pittsfield, Massachusetts and attracts a variety of birds such as bobolinks, ospreys and great blue herons at different times of year. In 2016, Mass Audubon started a grassland enhancement project at Canoe Meadows to help grassland birds, which are disappearing from the area at an alarming rate. The area is now actively managed to serve as a refuge for grassland nesting birds.

Pleasant Valley - Mass Audubon

Pleasant Valley is a managed landscape that spans 1,000 acres of forests, meadows and wetlands. Recently, they have enhanced the property by introducing a small pollinator garden near the entrance and visitor center. This garden is maintained throughout the spring, summer and fall seasons. In addition, they have taken steps to educate visitors about the importance of pollinator habitats by using informal signage that highlights plants in the garden.

Pollinator Pathway Northeast

Pollinator Pathway Northeast is a grassroots movement that’s making a significant impact protecting and conserving pollinators and their habitats. Their mission is to establish pollinator-friendly habitat and food sources for bees, butterflies, hummingbirds and other pollinating insects and wildlife along a series of continuous corridors throughout the northeast. They aim to encourage the creation of pollinator gardens no more than 750 meters apart, the average range of most native bees. This helps to “de-fragment” the environment, which benefits the ecosystem as a whole.

CONCLUSIONS AND NEXT STEPS

The Site presents a unique opportunity to enhance access to nearby outdoor amenities, such as Woods Pond, create habitat for wildlife with a focus on pollinator species, grassland birds and wetland improvements, and provide environmental education.

The Site is located next to Woods Pond and October Mountain State Forest, which are popular recreational areas. The UDF property could provide additional parking for residents using Woodlands Pond and Woodlands Road for recreation and exercise. Enhancing the habitat and open space at the Site can enrich the ecological resources and fortify the corridor that links the forested and recreational areas in the region.

The UDF capped area and operational area provide an opportunity for habitat creation and environmental education. Grassland and pollinator habitats are declining across the United States. The establishment, preservation and maintenance of these habitats have become a priority for conservation agencies in the region. The Site can connect with broader conservation efforts in the region and state-wide, including an existing system of “Pollinator Pathways.” Once the Site’s restoration begins, environmental graphics and education can provide opportunities to highlight and share the transformation of the Site. There may also be opportunities to work with local organizations and to create an environmental education curriculum. The community is supportive of ecological uses at the Site that are consistent with this framework.

As the EPA continues to oversee the project area’s cleanup, the community reuse goals and potential reuse concept outlined in this document offer opportunities for GE and local partners to consider evaluating future land use and revitalization opportunities that are compatible with the cleanup plan.

For additional information, see contact information for the EPA staff on this page.



CONTACT INFORMATION

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