WORCESTER CONSERVATION COMMISSION

Perkins Farm

Conservation Property Baseline Assessment

July 2024

DAVEY Resource Group

Table of Contents

Section One: Introduction

Property Information

Property Name: Perkins Farm

Address: 55 Jolma Road; 901 Grafton Street

MBL: 38-024-00001; 38-027-00001; 41-003-00102

Date of Visit: 5/2/2024

Visit conducted by: Moriah Day, CA and Patti Burns, PWS, CERP - DRG

Property Background

Perkins Farm holds a notable place in Worcester's history as its last working farm. Now owned and managed by the Worcester Conservation Commission, the preservation of the farm's 73.67 acres underscores the Commission's broader responsibilities. These include administering wetlands protection regulations and making recommendations on the planning, acquisition, and management of property for conservation and passive recreation. The farm's transition from active agriculture to a conservation area highlights the city's commitment to maintaining natural spaces for public enjoyment and environmental stewardship.

Perkins Farm is situated at 550 feet above mean sea level (AMSL) and uphill from abutting land, except to the north, where the abutting Orton Street properties are slightly uphill at 560 feet AMSL. With its two surface water features, native forests, and wildlife habitat, Perkins Farm provides ecosystem benefits to regional air quality, water quality, and wildlife. The nearby parking and scenic vistas from recreational trails enhance its conservation and ecosystem values.

Statement of Purpose

The purpose of this baseline report is to provide useful information for park planning and management; identify areas of conservation value, areas impacted by non-native plants, encroachments from abutting properties, public accessibility, and regulated areas such as wetlands, perennial rivers, certified vernal pools, and rare habitat. The observations and management recommendations provided in this report will aid the Worcester Conservation Commission in maintaining and improving their conservation properties, tracking changes in the properties over time, and securing funding to support necessary park management activities.

Equipment Used for Data Collection

- Dell Latitude 7220 Rugged Extreme Tablet (polygons and notes)
- Samsung Galaxy S9 SM-G960U phone (photos and notes)
- Apple iPhone Model: 12 Version: IOS 17.4.1 (photos and notes)

Acknowledgements

This project was funded in part by the USDA Forest Service through the Massachusetts Department of Conservation and Recreation Urban and Community Forestry Program. All elements of the project were completed by Davey Resource Group, Inc. with support from the Worcester Conservation Commission. Both institutions are equal opportunity employers.

Section Two: Findings

Forest Structure & Health

Field Observations

The public entry to the property is at the Birch Trailhead behind the Stop and Shop. At the entry point the forest overstory is mostly black oak (*Quercus velutina*) in the young age class (approximately 10-20 years old) with a fairly open structure and low density. The shrub layer is patches of lowbush blueberry (*Vaccinium angustifolium*). Tree regeneration is sparse but consistent and is mixed hardwood including red maple (*Acer rubrum*), black cherry (*Prunus serotina*), hickory (*Carya* spp.), and white oak (*Quercus alba*), notably lacking black oak regeneration.

Along Chestnut Oak Trail, chestnut oaks (*Quercus prinus*) form the overstory and are generally in the 16-24 inch diameter class, likely an older stand than the entry along Birch Trail. The tree regeneration here is mostly chestnut oak mixed with healthy American chestnut (*Castanea dentata*) sprouts. The shrub layer is still lowbush blueberry, with a considerable bracken fern (*Pteridium aquilinum*) presence.

To the left of Birch Trail at the property's entrance, and continuing along the left hand side of Chestnut Oak trail when walking away from the parking lot, the overstory age structure is diverse. Dominant overstory trees are oaks with patches of large dead trees, possibly the victims of spongy moth (*Lymantria dispar*) compounded with the effects of prolonged drought conditions. The younger overstory trees are oaks and gray birch (*Betula populifolia*). The shrub layer is denser but still primarily lowbush blueberry.

Progressing clockwise around the property on the Oak Trail, the chestnut oak overstory becomes mixed with other oak species. Clusters of American chestnut sprouts from dead stumps become common and are generally not healthy, with evidence of having sprouted and died back from chestnut blight (caused by the fungal pathogen *Cryphonectria parasitica*) multiple times. The shrub layer remains consistent - patches of lowbush blueberry. Dead overstory oak are sporadic but consistent and are creating canopy openings which could provide opportunities for regeneration recruitment to the canopy or chances for invasion by invasive species (which were not observed in the field at the time of survey). Where the canopy has opened, dense witch hazel (*Hamamelis virginiana*) shrubs are beginning to fill in, particularly so along the transition to the Cellar Hole trail.

Downhill from this point, on the Cellar Hole trail, black birch becomes a common (although not dominant) component of the overstory with regeneration and understory a denser mixture of black birch, oaks, and red maple. Lowbush blueberry is no longer prevalent in the shrub layer, but has been replaced by witch hazel. The overstory is oak-hickory, and is potentially at a climax point for New England forests.

There is a linear string of aquatic habitat between the Vernal Pool Trail and the railroad at the eastern property boundary. Each ponded area, which is designated as a Certified Vernal Pool (CVP, NHESP Certified Vernal Pool # 1384.00000000; Criteria: Obligate Species; Certified: 1998-01-23T05:00:00Z), appeared to be intermittent and spring-fed with an outflow during higher water levels. At the upper end Japanese knotweed is quickly encroaching in this area and it is rapidly disrupting the native vegetation that are otherwise indicators of pristine aquatic habitat. There is another possible vernal pool at the western property edge of Perkins Farm along the boundary with Stop and Shop. It appears to be fed by springs and/ or runoff from slopes on its eastern side and retained by a berm along the

western boundary that is shared with Stop and Shop. The Stop and Shop property is at a slightly lower elevation with no observed evidence of drainage from the Stop and Shop towards the pond. There was pollen visible on the pond surface and some areas showed pond scum that might result from stagnant conditions and poor oxygen circulation in the pond.

Marker J can be considered a "seasonal" overlook. Although blocked by vegetation during leaf-on, a view over Lake Quinsigamond will open up when the leaves fall each year, which could be a draw for off-season hiking. At the approach to this overlook, the canopy is once again oak dominated, but the age is overall younger than along the Oak Trail with substantial regeneration in the 2-4 inch diameter size class. Regeneration is mostly oak with some red maple. This structure exists mainly to the left of the trail - to the right, the black birch regeneration continues from the previous lower-lying area. Lowbush blueberry returns and the witch hazel disappears.

The southern side of the property has some of the driest upland areas with oak dominated canopy, with big canopy gaps and abundant regeneration vying to fill those gaps.

Potential Impacts of Climate Change

Table 2 includes a summary of the USFS Climate Change Atlas information for tree species commonly found in Perkin's Farm.

Table 1: Expected response of common Perkins Farm species to climate change.

Species		Model Reliability	Abundance	Habitat Area Change		Capability to Cope with Climate Change	
Common	Scientific			RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Red maple	Acer rubrum	High	Abundant	Small decrease	Small decrease	Good	Good
Black birch	Betula lenta	High	Common	No change	Small decrease	Poor	Poor
Pignut hickory	Carya glabra	Medium	Common	No change	Small increase	Fair	Good
Shagbark hickory	Carya ovata	Medium	Rare	Small decrease	No change	Very Poor	Poor
Black cherry	Prunus serotina	Medium	Common	Large increase	Large increase	Good	Good
White oak	Quercus alba	Medium	Common	Small increase	Small increase	Very Good	Very Good
Chestnut oak	Quercus prinus	High	Absent	New habitat	New habitat	New Habitat	New Habitat

Species		Model Reliability	Abundance	Habitat Area Change		Capability to Cope with Climate Change	
Common	Scientific			RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Red oak	Quercus rubra	Medium	Abundant	No change	Small decrease	Very Good	Good
Black oak	Quercus velutina	High	Abundant	Small increase	Small increase	Very Good	Very Good

Most species are predicted to have good capability to adapt to climate change, however, black birch and shagbark hickory are likely to have a poorer response. Chestnut oak, currently considered all but absent from the region, is predicted to have the opportunity to expand habitat as the climate changes.

Key Results

- Although Perkin's Farm is only ~74 acres, it encompasses several different types of forest stands and a variety of forest age structures, providing diverse niches for wildlife.
- There appears to be sufficient natural regeneration of desirable tree species to fill canopy gaps and ensure canopy continuity over time throughout the property.
- There is a chestnut oak stand which is considered a unique habitat. Chestnut oak are regenerating in the understory of this stand to provide continuity of this unique habitat on the landscape.
- Most common overstory species at Perkins Farm are predicted to adapt well to climate change, with the exception of shagbark hickory and black birch. Chestnut oak, in particular, is expected to be capable of increasing its range in the region under climate change scenarios.
- Future forest health monitoring should focus on identifying any diseases or pests of oak, as this is a key component of most of the property's overstory.

UTC Results

Canopy Cover

Table 2. Canopy cover at Perkins Farm.

	Number of Parcels	Total Property Acres	Acres of Canopy Cover	% Canopy Cover
Perkins Farm	3	78.86	78.40	99.41

Canopy Health

Table 3. Canopy Health at Perkins Farm.

Very Good		Good		Fair		Poor		Dead/Dying		Not Classified	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
0.74	0.93	25.81	32.73	25.03	31.73	25.53	32.37	1.00	1.27	0.27	<0.01

Overall, canopy health in Perkin's Farm is fair or better. Areas with the worst canopy health rating are generally those along edges where trees are exposed to hotter and drier conditions and increased pressure from invasives or encroachment (Map 3). Scattered blotches of poorer canopy condition are likely linked to dead and dying canopy oaks which have recently experienced challenges such as spongy moth defoliation and drought.

Benefits

Table 4. Canopy Benefits at Perkins Farm.

Air Pollution Removal (Annual)		Carbon Sequestration (Annual)		Avoided Stormwater Runoff (Annual)		Carbon Storage (Lifetime)	
Pounds	$	Tons	$	Gallons	$	Tons	$
5,639.02	$1,276.16	88.81	$15,146.42	105,630.20	$943.89	2,686.92	$458,255.69

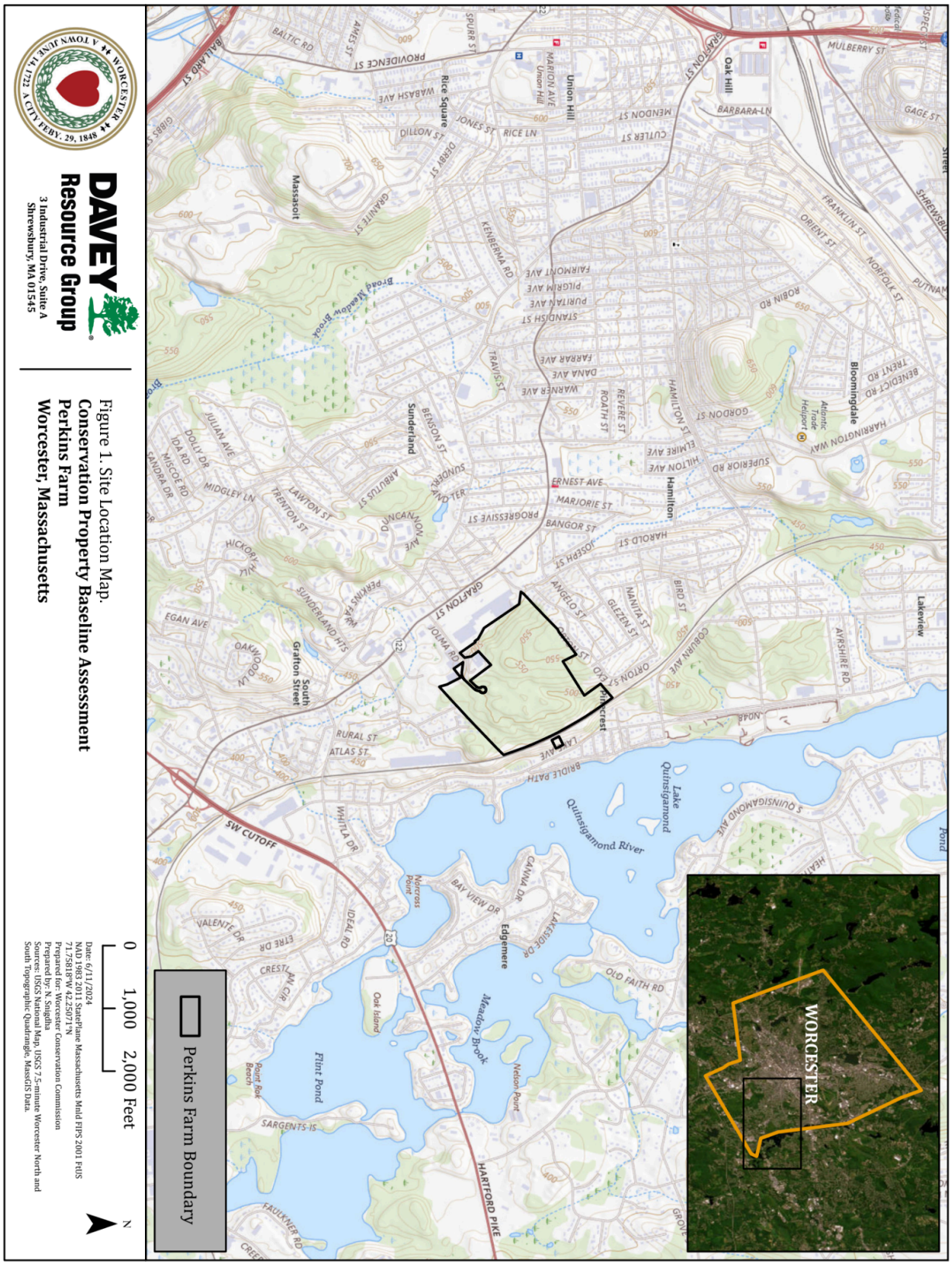
Please note that the trees at Perkin's Farm provide many additional benefits not calculated here. Only benefits for which there are well-supported algorithms were estimated for this project.

Section Three: Management Recommendations

Recommendations in Priority Order

1. Manage the Japanese knotweed infestation along the boundary with 64 Orton Street Extension.
    a. Prevent further spread and protect vernal pool habitat using appropriate chemical, cultural, manual, and mechanical methods.
    b. Reduce spread on conservation property.
    c. Work with the abutter to manage infestation outside the conservation property boundary.
    d. Management will need to be ongoing on an annual basis.
2. Manage/eliminate Japanese barberry along spring outflow.
    a. Manual or mechanical removal.
    b. Monitor and continue to pull new individuals for 10+ years to ensure the seed bank is depleted.
3. Manage Japanese knotweed and garlic mustard infestation along the boundary with 24 Jolma Road, 9 Brandt Avenue, and 1035 Grafton Street.
    a. Use appropriate chemical, cultural, manual, and mechanical methods to reduce the extent of current infestation and prevent further spread.
    b. Management will need to be ongoing on an annual basis.
4. Pursue options to mitigate current encroachment and prevent further encroachment around boundaries with 64 Orton Street Extension, 15 Waban Ave, and 24 Jolma Road/9 Brandt Avenue/1035 Grafton Street.
    a. Cease and desist and other legal measures to stop imminent and ongoing encroachment.
    b. Consider more collaborative and outreach-based efforts to develop better relationships with abutters and educate about the harm that encroachment can cause to conservation property.
    c. Post clear boundary signage along property boundaries to mark where the conservation property begins. Observations at the time of the property assessment did not reveal any clear boundary markers.
    d. Post signage which specifically prohibits dumping at key locations where dumping appears to be an issue.
5. Repair signage
    a. Restore or replace Jolma Road sign.
    b. Restore Birch Trail sign and ensure trail map(s) are available.
    c. Where signs and markers attached to trees can be salvaged, back hardware out of trees to allow more room for tree growth.
    d. Where signs and markers attached to trees are heavily damaged, replace them. Ensure new attaching hardware leaves plenty of space for tree trunk growth without engulfing the signage.
    e. Replace marker M and clean marker A.
6. Monitor forest stands on a regular basis, ideally annually.
    a. Consider whether regeneration is occurring to replace canopy trees as they fall.
    b. Look for new or worsening invasive infestations.
    c. Look for signs and symptoms of tree pests or diseases.
7. Consider evaluating aquatic habitat behind Stop and Shop to confirm if it meets the criteria to be classified as a certified vernal pool.
    a. Conduct necessary field work and assessments to prove whether or not it qualifies for certification. These initial evaluations can be conducted by citizen scientists.

APPENDIX A: MAPS



Map 1: *Site location map.*

Map 2: *Existing resources summary map.*

Map 3: *Existing trails summary map.*

Map 4: *Existing tree health rank summary map.*

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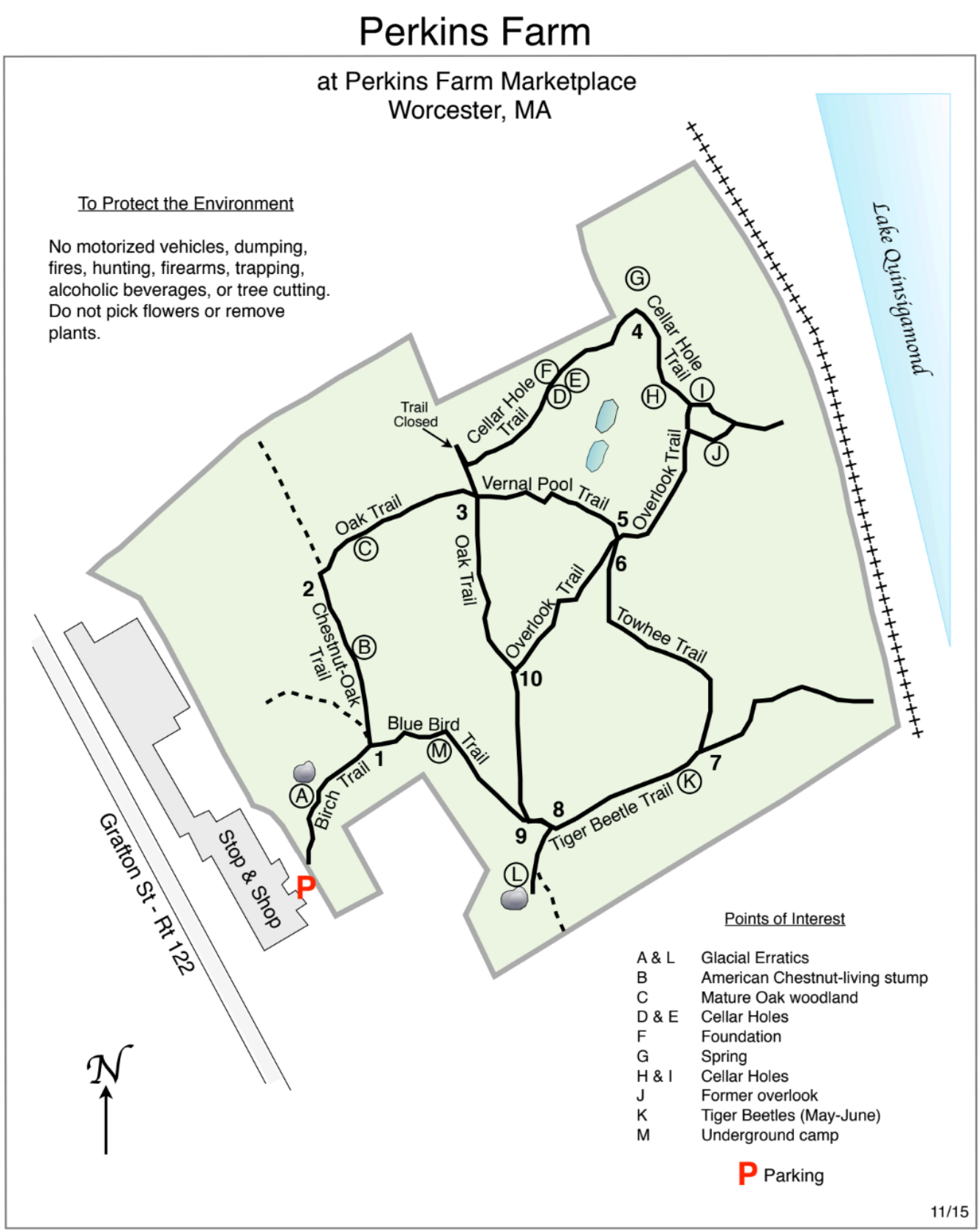
Shrewsbury, MA 01545

Figure 5. Representative Photo Locations Summary Map.
Conservation Property Baseline Assessment
Perkins Farm
Worcester, Massachusetts

Date: 6/14/2024
NAD 1983 2011 StatePlane Massachusetts Mnld FIPS 2001 FtUS
71.75466°W 42.24967°N
Prepared for: Worcester Conservation Commission
Prepared by: N. Snigdha
Sources: ESRI World Imagery, MassGIS Data, Elevation Contours (Scale = 1:5,000, Interval = 3m), DRG Site Visit 5/16/2024.

Map 5: *Representative photo locations summary map.*



Map 6: *Points of interest map developed by the Worcester Conservation Commission. The Findings by Polygon section of this report references the markers (Points of Interest) on this map.*

APPENDIX B: FINDINGS BY PHOTO & POLYGON

Table 5. Summary of Field observations by photo and/or polygon ID.

Photo ID	Polygon ID	Type	Comments
1	53083	Encroachment	Dumping or storage of mostly domestic waste on the conservation land, directly adjacent to the Stop and Shop parking lot. The debris piles are highly visible from the allotted parking spaces for Perkins Farm visitors. No liquid containers or liquid materials were observed.
2	53082	Geologic Feature	Glacial erratic along Birch Trail. Marked on existing trail maps.
3	53091	Geologic Feature	Glacial erratic along Birch Trail. Marked on existing trail maps. Stone defaced with graffiti and marker "A" damaged.
4	53093	Cultural Feature	Grouping of stones at Trail Intersection 1 which appear to be a cluster of small glacial erratics with a mound in the center covered in old ashes. Area has been further delineated by a line of intentionally placed smaller rocks along the trail edge. Possibly a cultural feature, or may simply be a site used by people to host campfires.
5	53090	Rare Habitat	Chestnut oak (*Quercus montana*) stand. The marked area has an overstory of nearly pure chestnut oak, but chestnut oak continues to be a dominant canopy species beyond the delineated area although mixed with other oak species.
6	53080	Encroachment	Campfire ring at Trail Intersection 2.
No photo	53078	Encroachment	An area of conservation land behind 64 Orton Street Extension along Cellar Hole Trail has been cleared and converted to lawn.
7	53079	Invasive Species	Japanese knotweed (*Reynoutria japonica*) is invading the conservation property along Cellar Hole Trail behind 64 Orton St Ext. The Japanese knotweed is densest along the edge of conservation property and is spreading inward toward the intermittent stream and vernal pool complex.
8	53088	Rare Habitat	Aquatic habitat that is mapped as a certified vernal pool (CVP) fed by intermittent spring on a slope. The CVPs outflow when water is highest. The native vegetation in this area is threatened by encroaching Japanese knotweed.
No Photo	53089	Waterway	Aquatic habitat fed by intermittent springs with outflow when water is highest. The native vegetation in this area is threatened by encroaching Japanese knotweed, especially at the uphill portions.
9	53081	Waterway	Spring. Currently free from Japanese knotweed. Marked on trail map.

Photo ID	Polygon ID	Type	Comments
10	53092	Invasive Species	Japanese barberry (*Berberis thunbergii*) growing along spring outflow. The infestation is currently minor but has the potential to spread quickly.
11	53084	Cultural Feature	Foundation pits along railroad tracks. A few sprigs of Japanese knotweed, Oriental bittersweet (*Celastris orbiculatus*), and garlic mustard (*Alliaria petiolata*) are present in the foundations.
12	53140	Geologic Feature	Glacial erratic. Marked on trail map.
13	53094	Encroachment	Significant encroachment along the boundary with 15 Waban Avenue. Within the conservation land, an approximately 75 feet long by 50 feet wide drive was cleared, grubbed and graded, perhaps for construction access. This will take significant effort to restore and will benefit from future monitoring for invasive plants brought in with construction materials. During the inspection, a small pickup truck dropped a load of soil at the edge of the property. No liquid waste was observed.
No photo	53087	Invasive Species	Oriental bittersweet at the end of Waban Ave. New infestation with small plants and limited coverage, but has the potential to spread rapidly.
14	53097	Encroachment	Significant dumping of construction, demolition, and/or industrial material, including soil, asphalt, concrete, tires and containers that may contain liquids at the boundary between the conservation land and the abutting properties at 24 Jolma Road, 9 Brandt Avenue, and 1035 Grafton Street. Invasive plants had encroached and were spreading into the adjacent woodlands, including garlic mustard and Japanese knotweed. The ground in this area is unstable, suggesting buried debris and unsafe walking areas.
15	53085	Encroachment	Dumping of trash and debris behind fence by abutter at 24 Jolma Rd. Mostly recyclable drink cans and bottles. Some containers may have liquids of an unknown nature within.
16	53096	Invasive Species	Japanese barberry and multiflora rose (*Rosa multiflora*) on the graded slope up to 39 Jolma.
17	53086	Encroachment	The “M” Point of Interest marker is missing. There are many black plastic garbage bags in pits that could be historic cellars, but also may have been dug more recently for waste dumping or test pits.
18	53095	Rare Habitat	The aquatic habitat is situated at the western property boundary of Perkins Farm adjacent to Stop and Shop. It appears to be fed by springs, runoff or both from slopes along its eastern edge. It is separated from the Stop and Shop property by an insignificant berm on its western edge. No outlet was observed, but water is either overtopping the berm/bank or seeping through subsurface soils and collecting in the lower elevation Stop and Shop property. There is pollen visible on the pond surface, but some areas showed

			pond scum that might be a function of low levels of oxygen distribution in the pond.
Photo ID	**Polygon ID**	**Type**	**Comments**
19	No Polygon	Sign/Marking	The entry sign at the start of Jolma Road is somewhat faded and worn.
20	No Polygon	Sign/Marking	The sign at the start of Birch Trail from the parking area is in need of minor fixes and refreshing. No trail maps were available at the time of the assessment.
21	No Polygon	Sign/Marking	Trails are marked with signs naming each trail and blue or yellow circular discs to indicate whether the walker is traveling toward or away from the parking area. Many of the markers and signs need to be backed out of the trees or replaced as they are being engulfed as the trees grow.
22	No Polygon	Invasive Species	Some garlic mustard was observed along the edge of the residential properties on the northwestern side of Perkins Farm. The plant is not yet well established.
23	No Polygon	Other	The view of Lake Quinsigamond is heavily obscured by vegetation during the growing season but is likely to open up and provide a view when leaves fall.
24	No Polygon	Sign/Marking	One of the older wooden signs near point of interest J has fallen and is propped against a tree. The sign is worn and losing its paint.
25	No Polygon	Encroachment	A playset has been discarded behind the encroachment at the end ofWaban Avenue.

Photo 1
Polygon ID: 53083
Type: Encroachment
Comments: Dumping or storage of mostly domestic waste on the conservation land, directly adjacent to the Stop and Shop parking lot. The debris piles are highly visible from the allotted parking spaces for Perkins Farm visitors. No liquid containers or liquid materials were observed.

Photo 2
Polygon ID: 53082
Type: Geologic Feature
Comments: Glacial erratic along Birch Trail. Marked on existing trail maps.

Photo 3
Polygon ID: 53091
Type: Geologic Feature
Comments: Glacial erratic along Birch Trail. Marked on existing trail maps. Stone defaced with graffiti and marker “A” damaged.

Photo 4
Polygon ID: 53093
Type: Cultural Feature
Comments: Grouping of stones at Trail Intersection 1 which appear to be a cluster of small glacial erratics with a mound in the center covered in old ashes. Area has been further delineated by a line of intentionally placed smaller rocks along the trail edge. Possibly a cultural feature, or may simply be a site used by people to host campfires.

Photo 5
Polygon ID: 53090
Type: Rare Habitat
Comments: Chestnut oak (*Quercus montana*) stand. The marked area has an overstory of nearly pure chestnut oak, but chestnut oak continues to be a dominant canopy species beyond the delineated area although mixed with other oak species.

Photo 6
Polygon ID: 53080
Type: Encroachment
Comments: Campfire ring at Trail Intersection 2.

Photo 7
Polygon ID: 53079
Type: Invasive Species
Comments: Japanese knotweed (*Reynoutria japonica*) is invading the conservation property along Cellar Hole Trail behind 64 Orton St Ext. The Japanese knotweed is densest along the edge of conservation property and is spreading inward toward the intermittent stream and vernal pool complex.

Photo 8
Polygon ID: 53088
Type: Rare Habitat
Comments: Aquatic habitat that is mapped as a certified vernal pool (CVP) fed by intermittent spring on a slope. The CVPs outflow when water is highest. The native vegetation in this area is threatened by encroaching Japanese knotweed.

Photo 9
Polygon ID: 53081
Type: Waterway
Comments: Spring. Currently free from Japanese knotweed. Marked on trail map.

Photo 10
Polygon ID: 53092
Type: Invasive Species
Comments: Japanese barberry (*Berberis thunbergii*) growing along spring outflow. The infestation is currently minor but has the potential to spread quickly.

Photo 11
Polygon ID: 53084
Type: Cultural Feature
Comments: Foundation pits along railroad tracks. A few sprigs of Japanese knotweed, Oriental bittersweet (*Celastris orbiculatus*), and garlic mustard (*Alliaria petiolata*) are present in the foundations.

Photo 12
Polygon ID: 53040
Type: Geologic Feature
Comments: Glacial erratic. Marked on trail map.

Photo 13
Polygon ID: 53094
Type: Encroachment
Comments: Significant encroachment along the boundary with 15 Waban Avenue. Within the conservation land, an approximately 75 feet long by 50 feet wide drive was cleared, grubbed and graded, perhaps for construction access. This will take significant effort to restore and will benefit from future monitoring for invasive plants brought in with construction materials. During the inspection, a small pickup truck dropped a load of soil at the edge of the property. No liquid waste was observed.

Photo 14
Polygon ID: 53097
Type: Encroachment
Comments: Significant dumping of construction, demolition, and/or industrial material, including soil, asphalt, concrete, tires and containers that may contain liquids at the boundary between the conservation land and the abutting properties at 24 Jolma Road, 9 Brandt Avenue, and 1035 Grafton Street. Invasive plants had encroached and were spreading into the adjacent woodlands, including garlic mustard and Japanese knotweed. The ground in this area is unstable, suggesting buried debris and unsafe walking areas.

Photo 15
Polygon ID: 53085
Type: Encroachment
Comments: Dumping of trash and debris behind fence by abutter at 24 Jolma Rd. Mostly recyclable drink cans and bottles. Some containers may have liquids of an unknown nature within.

Photo 16
Polygon ID: 53096
Type: Invasive Species
Comments: Japanese barberry and multiflora rose (Rosa multiflora) on the graded slope up to 39 Jolma.

Photo 17
Polygon ID: 53086
Type: Encroachment
Comments: The “M” Point of Interest marker is missing. There are many black plastic garbage bags in pits that could be historic cellars, but also may have been dug more recently for waste dumping or test pits.

Photo 18
Polygon ID: 53095
Type: Rare Habitat
Comments: The aquatic habitat is situated at the western property boundary of Perkins Farm adjacent to Stop and Shop. It appears to be fed by springs, runoff or both from slopes along its eastern edge. It is separated from the Stop and Shop property by an insignificant berm on its western edge. No outlet was observed, but water is either overtopping the berm/bank or seeping through subsurface soils and collecting in the lower elevation Stop and Shop property. There is pollen visible on the pond surface, but some areas showed pond scum that might be a function of low levels of oxygen distribution in the pond.

Photo 19
Polygon ID: none
Type: Sign/Marking
Comments: The entry sign at the start of Jolma Road is somewhat faded and worn.

Photo 20
Polygon ID: none
Type: Sign/Marking
Comments: The sign at the start of Birch Trail from the parking area is in need of minor fixes and refreshing. No trail maps were available at the time of the assessment.

Photo 21
Polygon ID: none
Type: Sign/Marking
Comments: Trails are marked with signs naming each trail and blue or yellow circular discs to indicate whether the walker is traveling toward or away from the parking area. Many of the markers and signs need to be backed out of the trees or replaced as they are being engulfed as the trees grow.

Photo 22
Polygon ID: none
Type: Invasive Species
Comments: Some garlic mustard was observed along the edge of the residential properties on the northwestern side of Perkins Farm. The plant is not yet well established.

Photo 23
Polygon ID: none
Type: Other
Comments: The view of Lake Quinsigamond is heavily obscured by vegetation during the growing season but is likely to open up and provide a view when leaves fall.

Photo 24
Polygon ID: none
Type: Sign/Marking
Comments: One of the older wooden signs near point of interest J has fallen and is propped against a tree. The sign is worn and losing its paint.

Photo 25
Polygon ID: none
Type: Encroachment
Comments: A playset has been discarded behind the encroachment at the end ofWaban Avenue.