



Audubon | CONNECTICUT

Forest Bird Habitat Assessment

**Former Woodbridge Country Club /52 Woodfield Rd.
Woodbridge, Connecticut**

150 Mapped Acres



Bird photos courtesy of Patrick Comins, Audubon Connecticut and AJ Hand (left to right): Black-throated Blue Warbler, Scarlet Tanager, Wood Thrush, and Black-throated Green Warbler.

Assessment Date: November 21, 2022

Report Date: December 20, 2022

Prepared for: Town of Woodbridge

Prepared by:

Audubon Connecticut
Corrie Folsom-O'Keefe & Rosa Goldman

Background

Breeding bird surveys have shown that the forests of New England are globally important for bird populations. Connecticut's forests are home to some of the highest concentration of bird species breeding in the continental United States; they are a "nursery" for approximately 70 species of neo-tropical migratory birds. Although some of these birds are still common in our area – many are experiencing long-term population declines and have been identified by Audubon Connecticut as Priority Species. Audubon Connecticut's Healthy Forests Initiative focuses its conservation efforts on Priority Species, giving us an opportunity to keep these species common before they become threatened or endangered.

Since 85% of our region's forests are privately-owned, large blocks of forest may be owned by hundreds of individual landowners with different priorities. Even the smallest properties can be critical parts of large forested landscapes that provide high-quality habitat for breeding birds. Small actions by individual forest landowners can have a significant impact on maintaining large blocks of high-quality habitat for future bird populations.

Purpose

Information in this report is presented from the landscape level to the property level. This assessment was conducted in order to:

- Determine what birds are currently utilizing the habitats on the property.
- Describe and assess current forest bird habitat conditions on the property.
- Make recommendations for protecting and improving habitat for a suite of priority forest birds.

Birds and Habitat Types

The Bird Watcher's Dozen, listed below, is a representative subset of Connecticut's Priority Birds. These species are relatively common in CT and were the birds we focused on during your habitat assessment. A forest with suitable habitats for these species likely provides habitats for a wide range of additional species.

The Birdwatcher's Dozen - Connecticut



American Woodcock

Call: Peent

Habitat: Deciduous woods with a dense understory. Requires some open areas for courtship display.



Black-throated Blue Warbler

Song: Beer, beer, beer, bee

Habitat: Deciduous or mixed woodlands with 50-80% canopy cover and a dense shrub understory. Sensitive to forest fragmentation.



Black-throated Green Warbler

Song: Zee, zee, zee, zoo, zee

Habitat: Strongly associated with Hemlocks. Prefers a closed canopy and uneven-aged woodlands.



Chestnut-sided Warbler

Song: Please, please, please to meetcha

Habitat: regenerating deciduous woods of 5-10 years old.



Eastern Wood Pewee

Song: Pewee or wee ooh

Habitat: Prefers deciduous woods with a nearly closed canopy and an open mid-story. Snags serves as foraging perches.



Louisiana Waterthrush

Song: Hey, hey, hey, watch where your going

Habitat: Forages along woodland streams, nests adjacent to stumps and other woody debris, prefers a nearly closed canopy.



Pileated Woodpecker

Song: Key, key, key, key, key....loudest in the middle

Habitat: Requires large trees for nesting and roosting cavities. Forest block size and the presence of snags are also important.



Red-eyed Vireo

Song: Here I am, where are you

Habitat: Requires moderate understory vegetation. Forages in the mid-story and canopy. Often found near canopy gaps.



Scarlet Tanager

Song: A scratchy cheerily, cheerilo; the call sounds like chick burr.

Habitat: Uneven aged deciduous woods (oaks and maples) with a mostly closed canopy.



Veery

Song: a descending spiral of notes

Habitat: Deciduous woods with a moderately closed canopy and a dense understory. Uses woody debris for nest sites and shelter. Often found in riparian areas.



Wood Thrush

Song: Eolay, ching, ching

Habitat: Deciduous or mixed woods with a closed canopy and a moderate mid-story and shrub layer. Likes a fairly open forest floor with damp soil.



Worm-eating Warbler

Song: an insect like trill

Habitat: Found on slopes with mature deciduous or mixed trees. Prefers a closed canopy and a shrubby understory.

Developed by Audubon CT with support from NEFA and USFS. Photos by AJ Hand, P Comins, and C Folsom-O'Keefe.

Priority Birds

We share our northern forests with as much as 90% of the global breeding populations of dozens of species of migratory birds, including the Scarlet Tanager, Wood Thrush, Black-throated Blue Warbler, and Worm-eating Warbler (Partners in Flight). We have a responsibility of looking out for the future of these birds because our forests are the core of their breeding range. Audubon Connecticut refers to these birds as **Priority Species**. Fortunately, because these birds are still common in our region, we have the opportunity to protect and enhance their breeding habitat now before they become threatened or endangered. Knowing which species are or may be nesting on your property amplifies the positive impact you have on your property.

Connecticut Priority Forest Birds					
Mature Hardwoods/Mixed Forest	Confirmed	Potential	Young Hardwoods/Mixed Forest	Confirmed	Potential
American Redstart		migration	Canada Warbler		
Black-and-white Warbler		migration	Chestnut-sided Warbler		
Blackburnian Warbler			Eastern Whip-poor-will		
Black-throated Blue Warbler			Northern Flicker	X	
Blue-gray Gnatcatcher		migration	Ruffed Grouse *		
Blue-headed Vireo		migration	Forest Edges/Dense Shrubs	Confirmed	Potential
Broad-winged Hawk		migration	Baltimore Oriole		breeding
Brown Creeper		winter	Black-billed Cuckoo		
Cerulean Warbler			Blue-winged Warbler		breeding
Eastern Wood Pewee		Breeding	Brown Thrasher		migration
Hairy Woodpecker *	X		Eastern Towhee		migration
Hermit Thrush		winter	Gray Catbird		breeding
Hooded Warbler			Indigo Bunting		breeding
Northern Goshawk			Orchard Oriole		breeding
Ovenbird			Prairie Warbler		breeding
Pileated Woodpecker *		yr round	Rose-breasted Grosbeak		migration
Purple Finch		migration	Yellow-billed Cuckoo		
Red-eyed Vireo		breeding	Riparian Corridors/Wetlands	Confirmed	Potential
Red-shouldered Hawk		winter	Barred Owl *		
Ruby-throated Hummingbird		migration	Eastern Kingbird		breeding
Scarlet Tanager		migration	Eastern Screech Owl *		
Sharp-shinned Hawk		migration	Great-crested Flycatcher		
Veery			Least Flycatcher		
Winter Wren			Louisiana Waterthrush		
Wood Thrush			Willow Flycatcher		
Worm-eating Warbler			Mature Softwood Forest	Confirmed	Potential
Yellow-throated Vireo			Pine Warbler		breeding
Multiple Habitats	Confirmed	Potential	Black-throated Green Warbler		migration
American Woodcock		breeding	* denotes year-round residents		

Assessment Methods

Audubon staff members mapped and assessed your property using a standard protocol for forest bird habitat assessments. The outline of your property was obtained from the CT DEEP's parcel layer. A 2,500-acre radius buffer was projected around your property to show the context of your property within the greater landscape. During the assessment, staff recorded bird species observed, assessed the health of existing woodlands and other habitats, and wrote recommendations to improve the habitat on your property for birds and other wildlife.

Landscape Context and Description

The composition of the landscape that immediately surrounds your property affects how wildlife will use the property. Heavily forested landscapes, with large, connected blocks of mature forest, will likely contain the suite of forest priority birds. View the map on the final page of the report to see your property in a landscape context.

As seen on the Landscape Context Map included in this report, this property is part of a corridor of undeveloped land that connects the Regional Water Authority's Maltby Lakes Recreation Area, the Yale Golf Course, and surrounding woodlands to the south with West Rock Ridge State Park and other RWA lands to the north. That corridor is largely forested and has immense value for habitat connectivity within the surrounding urban landscape. In addition to contributing forested land to this undeveloped corridor, the property also offers an important component of shrubland, or early successional forest. The location of this early successional habitat adjacent to a forested corridor makes it accessible not only to birds seeking that cover type specifically, but also to mature forest birds who use open areas to forage.

Property Description

General Description

This ~150 acre property consists of two parcels. The larger (140 acres) is to the west and north of Woodfield Rd, east of Johnson Rd, and south of Ansonia Rd. The smaller wooded parcel (12 acres) is between Woodfield Rd and the Merritt Parkway. This former parkland (a course with lush grass [~95 acres] and trees [~20 acres] framing the holes) golf course was purchased by the town following a vote by residents to protect the property as open space for passive recreation opportunities (sledding, walking, bird watching). Roughly, five years ago the town ceased to mow the tees, fairways, greens, and driving range and these areas have converted to early successional habitat of varying quality (see pic). Approximately 10 acres of the property is building or impervious surfaces (parking lots, tennis courts), 15 acres of deciduous woodland are found in the northeast corner, and a 2.5-acre pond can be found at the southwest corner.





The assessment took place between 9am and 11am on Monday Nov 21, 2022. By this date, the vast majority of neotropical migratory songbirds have departed for winter destinations to our south, but species that are non-migratory (woodpeckers) or spend the winter in Connecticut (white-throated sparrows, dark-eyed juncos, and waterfowl) can still be found. The property has a variety of habitats that provide resources to birds throughout the year. The early successional habitats likely provide a wealth of food sources (seed and berries) for birds in the fall and early winter and the pond likely provides habitat (both foraging and evening roosting site) for waterfowl during their spring and fall migrations.

Early successional habitat (~95 acres)

Since the town ceased to mow the fairlanes and greens roughly five years ago, early successional habitat has grown in. The quality of the habitat is variable. In some areas, invasive plant species such as mugwort and multiflora rose are abundant, but in other areas the openings are dominated by native grass and herbaceous species, including various goldenrods, milkweed, dogbane, thistles, and little bluestem. The goldenrods (nectar source during fall migration) and milkweed (host plant) are valuable to the monarch butterfly and little bluestem serves as the larval host for nine skipper species. The thistle is an important food and nesting materials source for the American Goldfinch.



The early successional habitat is divided by stretches of mature deciduous and coniferous trees (see pic). Deciduous species include Black and Red Oak, Red Maple, Shagbark Hickory, smooth bark hickory, and Black Cherry. The oaks and cherry host large numbers of caterpillars in the summer months that provide food for birds during the nesting season. Shagbark Hickory is known to provide roost space beneath its bark for bats. Coniferous or softwood species found amongst the early successional habitat include White Pines, Eastern Red Cedar, Eastern Hemlock, arborvitae, Norway Spruce, and Red Pine. The cedars produce

blue berries in the fall that are an important food source for birds over the winter months. These softwood species also provide protection from the elements and predators for birds year-round.



Within the early successional fields, regenerating oaks, ash, white pines, and cedars were regularly found. The most impressive area of regeneration was located along the edge of the deciduous woodland (see pic), with young American Beech, Black Birch, White Pines, and oaks. There is also an area closer to the clubhouse with large quantities of regenerating cedars. For the most part the transition from early successional habitat to mature trees was abrupt. Allowing young trees to regenerate for a time or planting shrubs along tree lines would help soften these transitions.



Bird species likely to use the early successional habitat for nesting include Field Sparrow, Blue-winged Warbler, Song Sparrow, Northern Cardinal, Common Yellowthroat, and Indigo Bunting. A much larger diversity of birds likely use this habitat for forage during spring and fall migration and over the winter.

Pond (2.5 acres)

The freshwater pond, located in the southwest corner of the larger parcel, provides habitat for waterfowl passing through the area in spring and fall, as well as nesting habitat for Canada Goose and Mallard. The edges are well-vegetated with a mix of native (cattails) and invasive (ornamental bittersweet and Japanese honeysuckle) plant species that likely filter runoff before it enters the pond. The pond and the creek to the west provide a source of fresh water for local wildlife.

Forest (15 acres)

The forested portion of the property, though not large, is adjacent to neighboring forested acreage and therefore contributes to the value of this property for habitat connectivity. There is a fair amount of diversity in the canopy tree species, including Red Maple, Shagbark Hickory, Black Cherry, Tulip Poplar, and American Beech. Some invasive Norway Maple is present as well. However, the forest also contains a wide diversity of oak species – Red, Black, Scarlet, and White (additionally, Chestnut Oaks are found elsewhere in the areas of early successional habitat). Oaks are valuable for bird habitat because they support the highest diversity of native insects that birds rely on for foraging.



Below the canopy, the midstory and understory layers of the forest are lacking structure (see pic), which is common in closed-canopy, second-growth forests in Connecticut that face the twin challenges of deer browse and invasive plants. In some areas, beech adds some structure to the midstory. Other pockets, concentrated towards the edge, are dominated by invasive winged euonymus. The value of this forest habitat for birds could be increased with forest management to bring more light to the ground and encourage regeneration of native trees and shrubs, providing habitat for birds that nest and

forage in those lower layers. However, even in the absence of such management, the forested acreage on the property still provides nesting, foraging, and wintering habitat, as well as connectivity with the broader landscape.

As outlined above in the section on early successional habitat, the transitions into the forest are often abrupt and would benefit from some management to soften them, creating more of a “stadium seating” effect at the forest edge. This can be done most simply by refraining from mowing strips along the edge; supplemental planting of native shrubs might also be considered.

Bird species observed during assessment: Canada Geese, Mallard, American Black Duck, Great Blue Heron, Turkey Vulture, Belted Kingfisher, Yellow-bellied Sapsucker, Red-bellied Woodpecker, Hairy Woodpecker, Northern Flicker, Blue Jay, American Crow, Black-capped Chickadee, Tufted Titmouse, Carolina Wren, Northern Mockingbird, American Robin, American Goldfinch, Dark-eyed Junco, White-throated Sparrow, Song Sparrow, and Northern Cardinal.

Buildings, Roads, and Yards

Habitat loss and degradation caused by human development are some of the leading threats to Connecticut's wildlife. Forests become fragmented when they are broken into small, unconnected patches. Causes may include residential and commercial development, roads, houses, and lawns. Think about the following features to keep your forest intact and functioning for birds.

Feature	Condition			Comments
	Good	Fair	Needs Work	
Building Envelope	Small/None	Moderate	Large	The area occupied by the old country club buildings is relatively large, though its footprint has decreased as the buildings have fallen into disrepair.
Lawn	Small/None	Moderate	Large	There is not much area that would be classified as "lawn" remaining on the property.
Landscaping	Lots of native plants and nectar sources	Some native plants	Few or no native plants	Some landscaping remains from the property's time as a country club, and it is a mix of native and non-native species.
Forest roads and trails	All <20' wide	Most < 20' wide	Many >20' wide	
Forest edges	All soft edges	Some soft edges	No soft edges	There are some soft edges at the border of the forest, but most edges on the property are relatively hard.

Plant Diversity

Forest birds rely on a diversity of native plants for food, cover, and as nest sites. Maintaining a variety of native plants and controlling non-native, invasive plants benefits birds in your woods.

Feature	Condition			Comments
	Good	Fair	Needs Work	
Native plant diversity	High	Moderate	Low	
Invasive plant infestation	None	Low	Moderate to severe	Several invasive species are present on the property; they are more prevalent in some areas than others.
Soft mast native fruits and berries	Abundant	Some	Absent	Native soft mast species present include juniper, poison ivy, black raspberry, black cherry, and chokecherry. There is also abundant non-native soft mast, but a higher diversity of native soft mast would be preferable.
Softwood pockets in hardwood stands	Present		Absent	Softwoods are found throughout the property, primarily in the borders between the fairlanes and greens.

Forest Structure

Well-developed forest structure can be a signature of a healthy forest and key to supporting a wide diversity of living things in your woods. It's not mess; it's structure!

Feature	Condition			Comments
	Good	Fair	Needs Work	
Understory	Dense	Moderate density	Sparse	The understory is dominated in some areas by winged euonymus and is otherwise sparse.
Midstory in mature forests	Dense	Moderate density	Sparse	There is regenerating beech and pine adding structure to some areas of the midstory; otherwise it is sparse.
Canopy gaps in mature forests	Present		Absent	Some small gaps are present from past tree mortality.
Leaf litter	Present		Absent	Leaf litter is present across the forest.
Snags and cavity trees	Many	Some	Few or none	Wherever possible, leave snags in the forest to increase foraging opportunities and nest sites for cavity nesters.
Downed dead wood	Many	Some	Few or none	Wherever possible, leave both fine and coarse woody material in the forest, to increase foraging opportunities and nest sites for ground nesters.
Big trees	Present		Absent	There is not much presence of large trees (greater than 20-24" DBH) on the property. Allowing some trees in the forest (and elsewhere) to grow to that size will provide increased habitat potential for cavity nesters that depend on large trees, raptor perches, and foraging potential in mature bark.

Other Habitats

These habitats add diversity and habitat value for birds within forested landscapes.

Feature	Condition			Comments
	Good	Fair	Needs Work	
Waterways and riparian areas	Good condition	Fair condition	Poor condition	The pond and small stream on the property are in good condition.
Wetlands	Good condition	Fair condition	Poor condition	N/A
Meadows	> 1 acre AND mowed every 2-3 years	> 1 acre OR mowed every 2-3 years	< 1 acre AND mowed every year	See recommendations below for options to alter management of the open areas on the property.
Hayfields	Grassland bird-friendly		NOT Grassland bird-friendly	N/A



Habitat Recommendations

Early Successional Habitat:

Early successional habitat is one of the rarer habitat types in Connecticut (just 3% of the land cover) and provides habitat to a suite of associated bird species. This habitat type is also particularly good for pollinators. The challenge is maintaining it. Unless soil conditions are poor, early successional habitat typically transitions to young forest and eventually mature forest without intensive management (brush hogging or cutting young trees). To balance maintenance of early successional habitat with management effort, we suggest dividing the area up into three zones:

1. In the high-quality habitat, mow ~1/4 of area per year using drunken mowing technique
2. In open areas adjacent to treed edges, allow young trees and shrubs to become established as a means of creating a more gradual transition from open areas to mature trees. These areas may need to brush hog periodically (every 3-5 years) to maintain the soft edge effect.
3. In lowest quality area with abundant invasives, allow habitat to transition back to mature forest. There is excellent regeneration on this property. Allowing these areas to transition to mature forest will reduce management needs and the canopy will help keep the invasive plants under control.

Forest:

As outlined above, allow shrubs and young trees to grow in at forest edges, softening them and creating shrubby structure. Refrain from removing standing or downed dead wood wherever possible, as it provides cover, forage, and nesting sites for a variety of forest bird species.

Additional suggestions:

Install an Eastern Bluebird box trail in the interior of the property. This is excellent habitat for the species and would be a good community science project for local high school students and/or other community members.



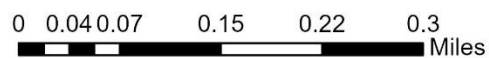
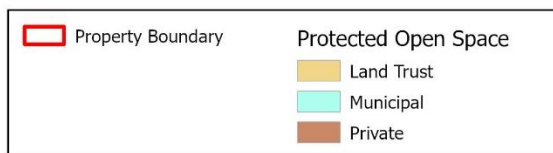
Additional Property Recommendations

- ☒ Call a Forester to arrange a visit and discuss implementing some of the recommendations. Cost-share funds may be available through the USDA Natural Resources Conservation Service (NRCS) to help offset the costs of implementation. See description of NRCS in the **Terms and Explanations** section M Appendix B.
- ☒ Update your existing forest management plan to include consideration for birds.
- ☒ Learn the *Birdwatcher's Dozen* by sight and sound.
- ☒ Start, or invite, bird monitoring on the property.
- ☒ Learn more about invasive plants and develop a plan for monitoring and control.
- ☒ Talk with your neighbors about what you learned. Look for opportunities to coordinate management across property boundaries.
- ☒ Keep interior forest intact; avoid subdividing forest (or plan subdivisions that maintain maximum continuous forest cover), minimize construction of new roads or trails greater than 20 feet wide, and keep new buildings close to existing roads.
- ☒ Promote a diversity of forest age classes from very young (<20 years; <10% of the property) to very old (>20 years with some forest >100 years; >75% of the property) across the property and landscape.
- ☒ Promote a dense understory and midstory of native trees and shrubs.
- ☒ Retain biological legacies including large-diameter (24"+ DBH) living trees, snags, and downed deadwood.
- ☒ Retain tree tops on site during timber harvests and avoid or minimize lopping slash.
- ☒ Contact Audubon Connecticut for follow up assistance, to review a new or updated management plan, or to consult on the implementation of one of our recommendations.

Property Maps

Property Map

52 Woodfield Rd, Woodbridge CT (150 ac)



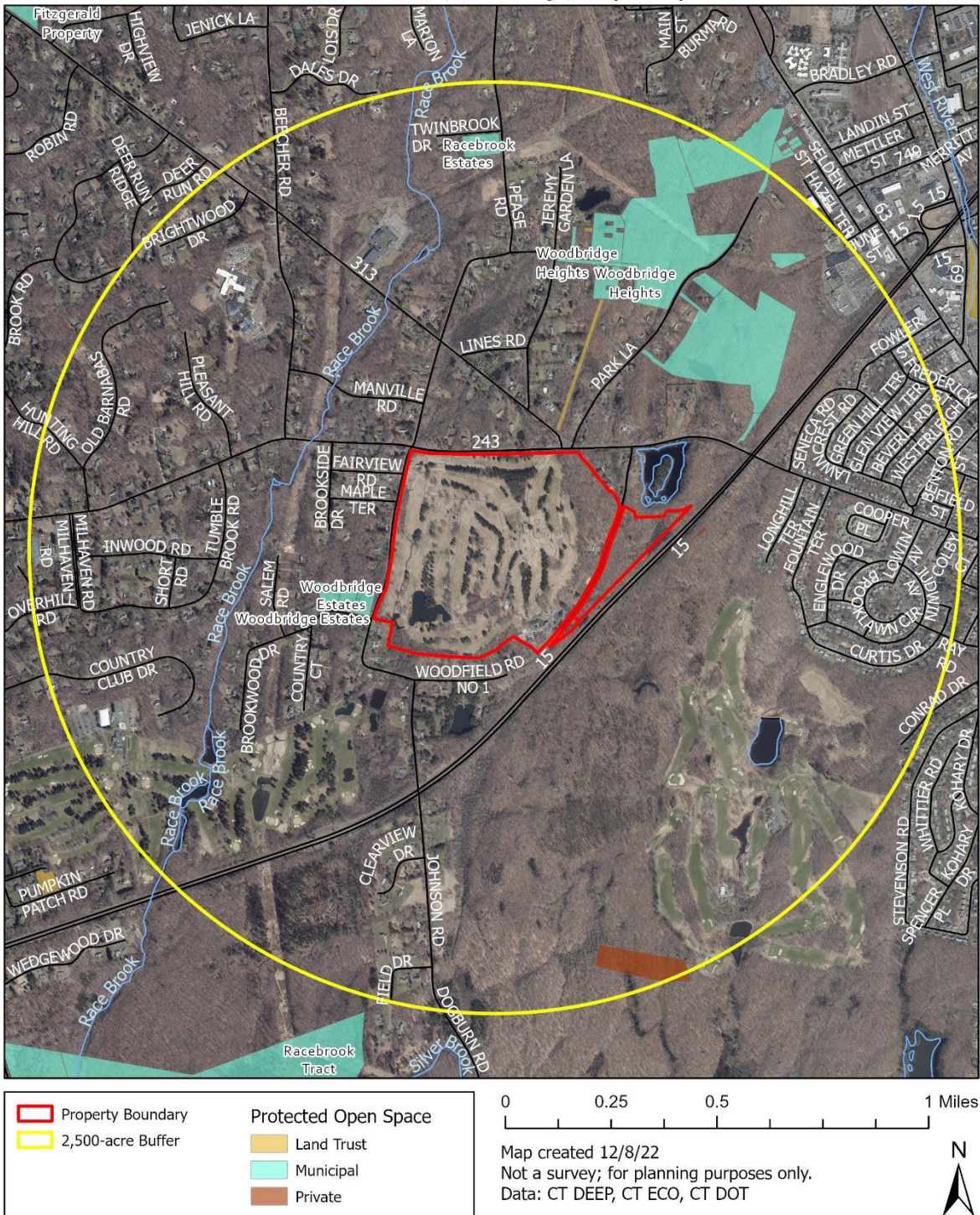
Map created 12/8/22
Not a survey; for planning purposes only.
Data: CT DEEP, CT ECO, CT DOT





Landscape Context Map

52 Woodfield Rd, Woodbridge, CT (150 ac)



Bird species likely to be observed at the former Woodbridge Country Club.

This list of species came from the CT Ornithological Association's Checklist of Birds of Connecticut and was populated with data from eBird. An "X" indicated the species has been included on multiple checklists during a season.

	spring	summer (breeding)	Fall	Winter		spring	summer (breeding)	Fall	Winter
Ducks, Geese, Swans					Typical Owls continued				
Snow Goose					Long-eared Owl				
Greater White-fronted Goose					Short-eared Owl				
Brant					Northern Saw-whet Owl				
Cackling Goose					Kingfishers				
Canada Goose	X	X	X		Belted Kingfisher		X	X	
Mute Swan					Woodpeckers				
Tundra Swan					Red-headed Woodpecker				
Wood Duck			X		Red-bellied Woodpecker	X	X	X	X
Blue-winged Teal					Yellow-bellied Sapsucker			X	
Northern Shoveler					Downy Woodpecker	X	X	X	X
Gadwall					Hairy Woodpecker	X		X	
Eurasian Wigeon					Northern Flicker	X	X	X	X
American Wigeon					Pileated Woodpecker	X	X	X	X
Mallard	X	X	X		Caracaras, Falcons				
American Black Duck	X		X		American Kestrel	X		X	
Northern Pintail					Merlin			X	
Green-winged Teal					Peregrine Falcon				
Canvasback					Parrots				
Redhead					Monk Parakeet				
Ring-necked Duck					Tyrant Flycatchers				
Greater Scaup					Great Crested Flycatcher				
Lesser Scaup					Western Kingbird				
King Eider					Eastern Kingbird		X		

Common Eider					Olive-sided Flycatcher				
Harlequin Duck					Eastern Wood-Pewee		X	X	
Surf Scoter					Yellow-bellied Flycatcher				
White-winged Scoter					Acadian Flycatcher				
Black Scoter					Alder Flycatcher				
Long-tailed Duck					Willow Flycatcher				
Bufflehead					Least Flycatcher				
Common Goldeneye					Eastern Phoebe		X	X	
Barrow's Goldeneye					Shrikes				
Hooded Merganser					Northern Shrike				
Common Merganser					Vireos				
Red-breasted Merganser					White-eyed Vireo				
Ruddy Duck					Yellow-throated Vireo				
Partridges, Grouse, Turkeys					Blue-headed Vireo				
Wild Turkey	X	X	X		Philadelphia Vireo				
Ruffed Grouse					Warbling Vireo		X		
Grebes					Red-eyed Vireo			X	
Pied-billed Grebe					Crows, Jays				
Horned Grebe					Blue Jay	X	X	X	X
Red-necked Grebe					American Crow	X	X	X	X
Pigeons, Doves					Fish Crow	X			
Rock Pigeon			X		Common Raven	X		X	X
Mourning Dove	X	X	X	X	Larks				
Cuckoos					Horned Lark				
Yellow-billed Cuckoo					Swallows				
Black-billed Cuckoo					Bank Swallow				
Goatsuckers					Tree Swallow		X	X	
Common Nighthawk			X		Northern Rough-winged Swallow	X	X		
Eastern Whip-poor-will					Purple Martin				
Swifts					Barn Swallow	X	X		
Chimney Swift	X	X	X		Cliff Swallow				
Hummingbirds					Cave Swallow				
Ruby-throated Hummingbird		X			Chickadees and Titmice				
Rails, Gallinules, Coots					Black-capped Chickadee	X	X	X	X

King Rail					Tufted Titmouse	X	X	X	X
Clapper Rail					Nuthatches				
Virginia Rail					Red-breasted Nuthatch			X	
Sora					White-breasted Nuthatch	X	X	X	X
Common Gallinule					Creepers				
American Coot					Brown Creeper				
Cranes					Wrens				
Sandhill Crane					Carolina Wren	X	X	X	X
Stilts, Avocets					House Wren		X	X	
American Avocet					Winter Wren				
Oystercatchers					Sedge Wren				
American Oystercatcher					Marsh Wren				
Lapwings, Plovers					Gnatcatchers				
Black-bellied Plover					Blue-gray Gnatcatcher	X		X	
American Golden-Plover					Kinglets				
Killdeer					Golden-crowned Kinglet			X	
Semipalmated Plover					Ruby-crowned Kinglet			X	
Piping Plover					Thrushes				
Sandpipers, Phalaropes					Eastern Bluebird	X		X	X
Upland Sandpiper					Veery				
Whimbrel					Gray-cheeked Thrush				
Hudsonian Godwit					Swainson's Thrush				
Marbled Godwit					Hermit Thrush				X
Ruddy Turnstone					Wood Thrush				
Red Knot					American Robin	X	X	X	X
Stilt Sandpiper					Mockingbirds, Thrashers				
Sanderling					Gray Catbird		X	X	
Dunlin					Brown Thrasher				
Purple Sandpiper					Northern Mockingbird	X		X	X
Baird's Sandpiper					Starlings				
Least Sandpiper					European Starling	X	X	X	X
White-rumped Sandpiper					Waxwings				
Buff-breasted Sandpiper					Cedar Waxwing	X	X	X	X
Pectoral Sandpiper					Old World Sparrows				

Semipalmated Sandpiper					House Sparrow	X	X	X	X
Western Sandpiper					Wagtails, Pipits				
Short-billed Dowitcher					American Pipit				
Long-billed Dowitcher					Finches and Allies				
American Woodcock					Evening Grosbeak				
Wilson's Snipe					House Finch	X	X	X	X
Spotted Sandpiper					Purple Finch			X	
Solitary Sandpiper					Common Redpoll				
Lesser Yellowlegs					Red Crossbill				
Willet					White-winged Crossbill				
Greater Yellowlegs					Pine Siskin			X	
Wilson's Phalarope					American Goldfinch	X	X	X	X
Red-necked Phalarope					Longspurs, Snow Buntings				
Skuas, Jaegers					Lapland Longspur				
Parasitic Jaeger					Snow Bunting				
Auks, Murres, Puffins					Towhees, Sparrows				
Razorbill					Grasshopper Sparrow				
Gulls, Terns, Skimmers					Lark Sparrow				
Bonaparte's Gull					Chipping Sparrow	X	X	X	
Black-headed Gull					Clay-colored Sparrow				
Laughing Gull					Field Sparrow	X	X	X	X
Ring-billed Gull					Fox Sparrow			X	
Herring Gull					American Tree Sparrow				
Iceland Gull					Dark-eyed Junco	X		X	X
Lesser Black-backed Gull					White-crowned Sparrow			X	
Glaucous Gull					White-throated Sparrow	X		X	X
Great Black-backed Gull					Vesper Sparrow			X	
Least Tern					Seaside Sparrow				
Caspian Tern					Nelson's Sparrow				
Black Tern					Saltmarsh Sparrow				
Roseate Tern					Savannah Sparrow			X	
Common Tern					Song Sparrow	X	X	X	X
Forster's Tern					Lincoln's Sparrow			X	

Royal Tern					Swamp Sparrow			X	
Black Skimmer					Eastern Towhee			X	
Loons					Yellow-breasted Chats				
Red-throated Loon					Yellow-breasted Chat			X	
Common Loon					Blackbirds, Orioles				
Storm-Petrels					Yellow-headed Blackbird				
Wilson's Storm-Petrel					Bobolink				
Gannets					Eastern Meadowlark				
Northern Gannet					Orchard Oriole	X	X		
Cormorants					Baltimore Oriole	X	X		
Double-crested Cormorant					Red-winged Blackbird	X	X	X	X
Great Cormorant					Brown-headed Cowbird	X	X	X	
Pelicans					Rusty Blackbird				
American White Pelican					Common Grackle	X	X	X	
Bitterns, Herons					Boat-tailed Grackle				
American Bittern					Wood-Warblers				
Least Bittern					Ovenbird				
Great Blue Heron	X	X	X		Worm-eating Warbler				
Great Egret					Louisiana Waterthrush				
Snowy Egret					Northern Waterthrush				
Little Blue Heron					Golden-winged Warbler				
Tricolored Heron					Blue-winged Warbler		X		
Cattle Egret					Black-and-white Warbler	X		X	
Green Heron		X			Prothonotary Warbler				
Black-crowned Night-Heron					Tennessee Warbler				
Yellow-crowned Night-Heron					Orange-crowned Warbler				
Ibises					Nashville Warbler				
Glossy Ibis					Connecticut Warbler				

White-faced Ibis					Mourning Warbler				
New World Vultures					Kentucky Warbler				
Black Vulture	X	X	X	X	Common Yellowthroat	X	X	X	
Turkey Vulture	X	X	X	X	Hooded Warbler				
Ospreys					American Redstart	X		X	
Osprey	X		X		Cape May Warbler				
Hawks, Kites, Eagles					Cerulean Warbler				
Swallow-tailed Kite					Northern Parula			X	
Golden Eagle					Magnolia Warbler			X	
Northern Harrier					Bay-breasted Warbler				
Sharp-shinned Hawk			X		Blackburnian Warbler				
Cooper's Hawk			X	X	Yellow Warbler	X	X		
Northern Goshawk					Chestnut-sided Warbler				
Bald Eagle					Blackpoll Warbler			X	
Mississippi Kite					Black-throated Blue Warbler				
Red-shouldered Hawk	X	X	X	X	Palm Warbler			X	
Broad-winged Hawk			X		Pine Warbler	X	X	X	
Red-tailed Hawk	X	X	X	X	Yellow-rumped Warbler	X		X	
Rough-legged Hawk					Yellow-throated Warbler				
Barn Owl					Prairie Warbler		X	X	
Barn Owl					Black-throated Green Warbler			X	
Typical Owls					Canada Warbler				
Eastern Screech-Owl					Wilson's Warbler				
Great Horned Owl			X		Cardinals, Tanagers				
Snowy Owl					Summer Tanager				
Barred Owl					Scarlet Tanager	X		X	
					Northern Cardinal	X	X	X	X
					Rose-breasted Grosbeak	X		X	

					Blue Grosbeak				
					Indigo Bunting		X	X	
					Dickcissel				