Connecticut Department of ENERGY & ENVIRONMENTAL PROTECTION

Field Visit to Property of the Town of Weston at Lords Highway East

Present Parties: Tom Failla (Tree Warden) and David Beers (Western District Service Forester) on 8/30/2021

Stewardship Objectives

1. Create a dog park
2. Improve forest health

Massive Red Oak

FOREST HISTORY

Between eighteenth century colonial settlement and the mid-nineteenth century, most of western Connecticut was cleared for farming, with only a few small patches of forest remaining by the mid-nineteenth century. Only 25% of Connecticut was forested then. Under these conditions, the biggest animal left in the woods was a muskrat. Turkeys, deer, moose, coyote, bobcat, beaver, and bear were either rare or entirely gone. Most of the land was used for livestock pasture, with only the best soils used for hay or tilled crops.

It was during this farming period that the stonewalls were built to keep livestock out of crops and the neighbor's property. Most of these walls were topped off with piled wood and stumps to make them taller. Stonewalls were also a depository for rocks removed from cultivated land. A stonewall with many fist-sized rocks means that one side of that wall had tilled crops, where the winter freeze of bare ground would push rocks to the surface. After barbed wire became widely available in 1875, many of these walls were supplemented with wire. Barbed wire was used to corral cows and goats, but not sheep (barbs did not hurt the sheep). Sheep pasture used smooth-wired rectangular page fencing.

Most of the western CT hill farms were abandoned between the mid-nineteenth century and early twentieth century. The farmers either moved west for better farming soils or headed to the cities for industrial work. Immediately after this farm abandonment, the forest began to take over again. Much of the young forestlands were then cut down to make charcoal that was used in metal blast furnaces and by blacksmiths.

Based on the 1934 air photo showing mostly fields, almost all of this property was farmed well into the 20th century and therefore was unlikely cut for charcoal production. The town acquired the property in 2003.

FOREST STANDS

Stands are separate natural communities that are distinct from each other. Dividing a property into stands makes it possible to logically describe the property. Keep in mind that while stands are distinct, stand boundaries are often indistinct, where one stand melds into the next stand over the course of 100 to 200 feet. Even within a single stand, there is a tremendous amount of variation. Like most properties in Connecticut, your property could be divided into an almost unlimited number of stands due to the tremendous variety that forests inherently possess.

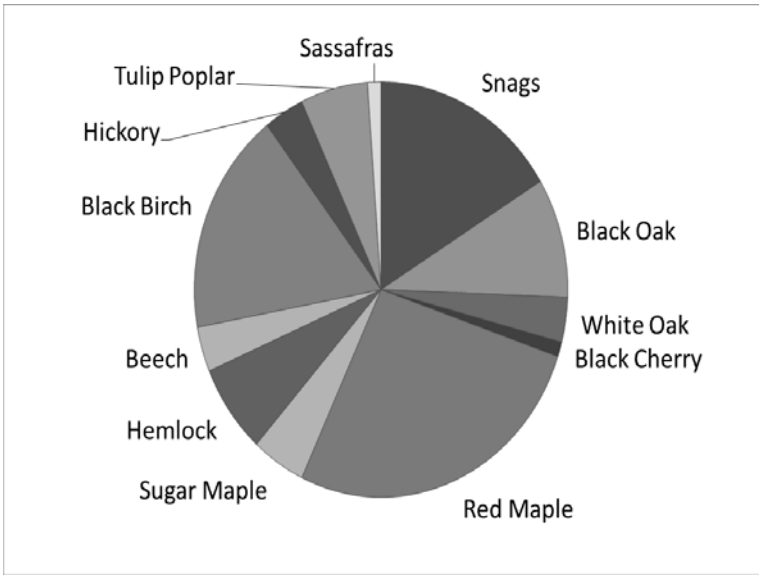
Within all stands, the lower slopes have moister, richer, and deeper soils. This gradual change in site quality with slope exists on every hillside and causes a change is tree species and size composition with hillside slope position. Upper slopes tend to have more oaks and hickories, and shorter/smaller trees.

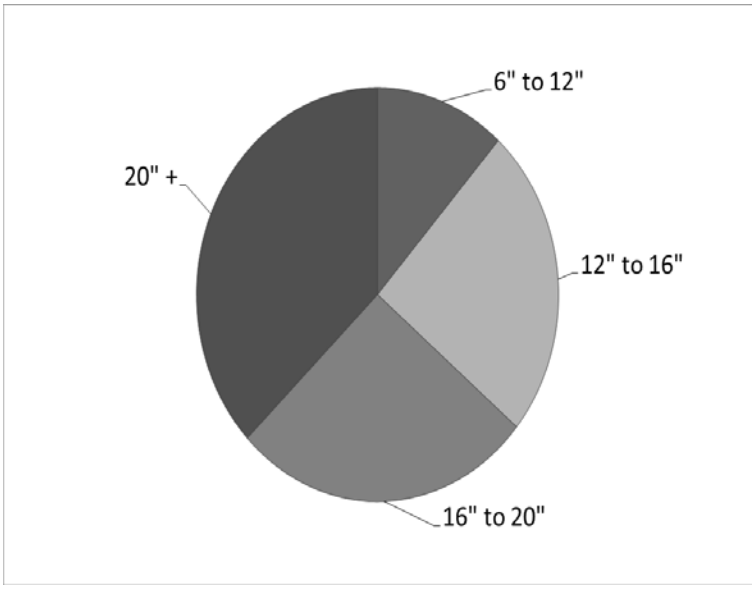
Each description begins with two graphs. The first shows the relative abundance of each species by percent. Not all species found in a stand will be included in this graph because some of the less common species did not fall within a measurement point. The second graph shows the relative abundance of different tree sizes based on the diameter of the tree measured at 4.5 feet off the ground. Please keep in mind that all this information is based on a very **brief** inventory of your forest. **Please contact a consulting forester for a much more detailed and accurate forest stewardship plan that would include timber information and a much more precise stand delineation based on many more inventory points.**

The CT DEEP Natural Diversity Database (NDDB) does **not** have occurrences of threatened or endangered species on or near this property. A map showing farmland soils on the property is attached to this report. There are no wetland soils.

Stone Pile

STAND 1: HARDWOOD FOREST (36 ACRES)





Other Species (not measured)	Black tupelo, chestnut oak, red cedar, red oak, scarlet oak
Understory	A few red maple, sugar maple, and beech saplings
	A few spicebush and mountain laurel shrubs
Insect/Disease/Disturbance	Dead ash trees from emerald ash borer damage
	Moderate black birch canker (fungus)
	Minor black cherry knot fungus
	Beech leaf disease on lower canopy foliage
Exotic Invasives	Patches of thick barberry shrubs and stilt grass
	A few Euonymus shrubs and patches of bittersweet vine sprouts
Canopy Closure	80% - dead white ash trees creates canopy gaps
Unhealthy/Poor Form	27%
History	Likely livestock pasture, hayfields and tilled crops 70+ years ago
	-Patches of dead red cedar indicative of past pasturing
	-Piles of small stones (see map) indicates past tilled crops
	Mostly fields, with a few patches of forest, in the 1934 air photo

This stand has a diverse mix of large trees growing on site conditions that vary with slope position, with most of the stand having moist rich soils and gradual slopes. There are some very healthy and impressive large black oak and tulip poplar trees. Most of the tulip poplar trees are in the southern two blocks. In the northeast corner is a rocky hilltop growing chestnut oak, with some steep ledges on the eastern slope. Just to the south of these ledges is an old stone chimney and a vine covered canopy opening along the road. The area to be cleared for parking in the northern block has red maple, sugar maple, and black cherry trees, along with some dead ash trees. The high number of snags is comprised of many dead ash trees.

Recommendations

As part of building the dog park, any invasives in the park should be eradicated and any hazard trees felled, including the dead ash trees. With the increased use of the property, the property boundaries should be marked with signs.

After the dog park is built, the many informal hiking trails on the property could be mapped and displayed at an entrance sign, for the public's benefit. These trails connect to the trails on the adjacent Aspetuck Land Trust Elisabeth Luce Moore Preserve along the far southern border. I only mapped the major trails that followed old woods roads.

GENERAL RECOMMENDATIONS

FOREST PROTECTION

The property is in a residential area. The adjacent Aspetuck Land Trust Elisabeth Luce Moore Preserve is along the far southern border.

Forest protection also includes fostering a healthy forest. A healthy forest has a large diversity of native plant species, particularly trees, that supports a diverse array of fungi and wildlife (animals, insects, microbes). A healthy forest also has multiple layers of native vegetation to maximize biodiversity. This means having trees of different ages and heights. Lack of invasive exotic plants is also very important for maintaining forest health – see below.

North Entrance

INVASIVES/VINES

There are some exotic invasive shrubs on the property – see stand descriptions. Invasive species are typically from another part of the world and when established here they have no native enemies to hold their population in check. When left uncontrolled, they spread into natural landscapes and replace what would grow there naturally, including tree regeneration and other native understory vegetation. Native understory growth has many more native insects and arthropods that wildlife need to forage on. Exotic invasive understory growth can provide better habitat for ticks and associated pathogens while greatly reducing biodiversity.

Control methods include mechanical and chemical methods. In a shady forest, cutting a vine is enough to kill it. Invasive shrubs are not so easy. Pulling the invasives out by the roots can be effective, but extremely difficult and labor intensive. Yearly cutting back of the aboveground stems, during the growing season, will keep the invasives under control, and perhaps kill them after a few years. The most effective control method is to apply an herbicide to the green foliage.

Barberry in Dog Park Area

BOUNDARIES

Boundaries need to be well marked to protect the property from trespass and encroachment. Painted blazes are typically used to mark property boundaries. A blaze is a hand-sized shallow scrape in the bark. This scrape will last for decades and does not harm the tree if done properly. When painted, this blaze is quite visible and long lasting. Trees within arm's length of the boundaries are blazed, with the blazes facing the boundary line. Use only paint marks, without blazes, on the neighbor's side of the line. The blazes should be given a new coat of paint at least every 10 years. Custom signs can also be hung about every 100 feet to communicate anything the landowner desires. It is also recommended that understory vegetation and debris be cleared from boundary lines such that they can be easily traversed for inspection. **I did not find any boundary markings. Please consider hiring a consulting forester to locate and mark property boundaries.**

WILDLIFE

Your forest, and the State of Connecticut in general, is lucky to have a significant and diverse component of mature oak trees. Oak trees are considered a wildlife keystone species because of the large amount and diversity of life they support. Acorns, especially white oak acorns, provide the most nutritious plant-based protein for almost 90 species of wildlife. Oaks overwhelmingly host the most species of moths and caterpillars (over 500). Oak forests have more bird abundance and diversity compared to other forest types. For these reasons, it is important to preserve and encourage oak growth and health in your forest.

Parts of this forest have legacy trees, also known as old field trees or wolf trees. These trees were growing in open pasture, as a source of shade for livestock, before the current forest started growing. They are much older than the surrounding forest. Because they used to be open grown, they have large spreading crowns and large branches low on the trunk. When the pastures were abandoned, they became a significant seed source for the present forest. These large old trees are structurally complex, with many cavities, hollows, fat branches, and thick rough bark. They are also prolific seed producers, including acorns and nuts. This structural complexity and prolific seed production attracts an enormous number and diversity of insects, birds, and mammals. Underground, they are also the hub and source of the complex fungal soil mycorrhizal growth that all trees depend on for water and nutrients. To make them healthier and more vigorous, such legacy trees should be protected and perhaps even given more sunlight by cutting some of the surrounding trees.

Northeast ledges

CARBON SEQUESTRATION AND STORAGE

Forests remove carbon dioxide from the atmosphere (called sequestration), create oxygen, and remove many pollutants from the air. Your forest contributes to these valuable services with carbon stored in the below-ground roots/soil and in the above ground vegetation and fallen leaves. These services are enhanced by having a diverse mix of native tree species of different sizes and varied arrangements. Sustainable, scientifically-based forest management to remove forest products and promote young forests or regeneration of desired species has no long-term negative effect on your forest's ability to provide these vital ecological services. When trees are young and growing fast, they sequester carbon at high rates and once they are large (over 18" diameter, and often older) they store the most carbon. Whether you choose to actively manage your forest or not, your forest does a great service to our planet's health just by being a healthy forest.

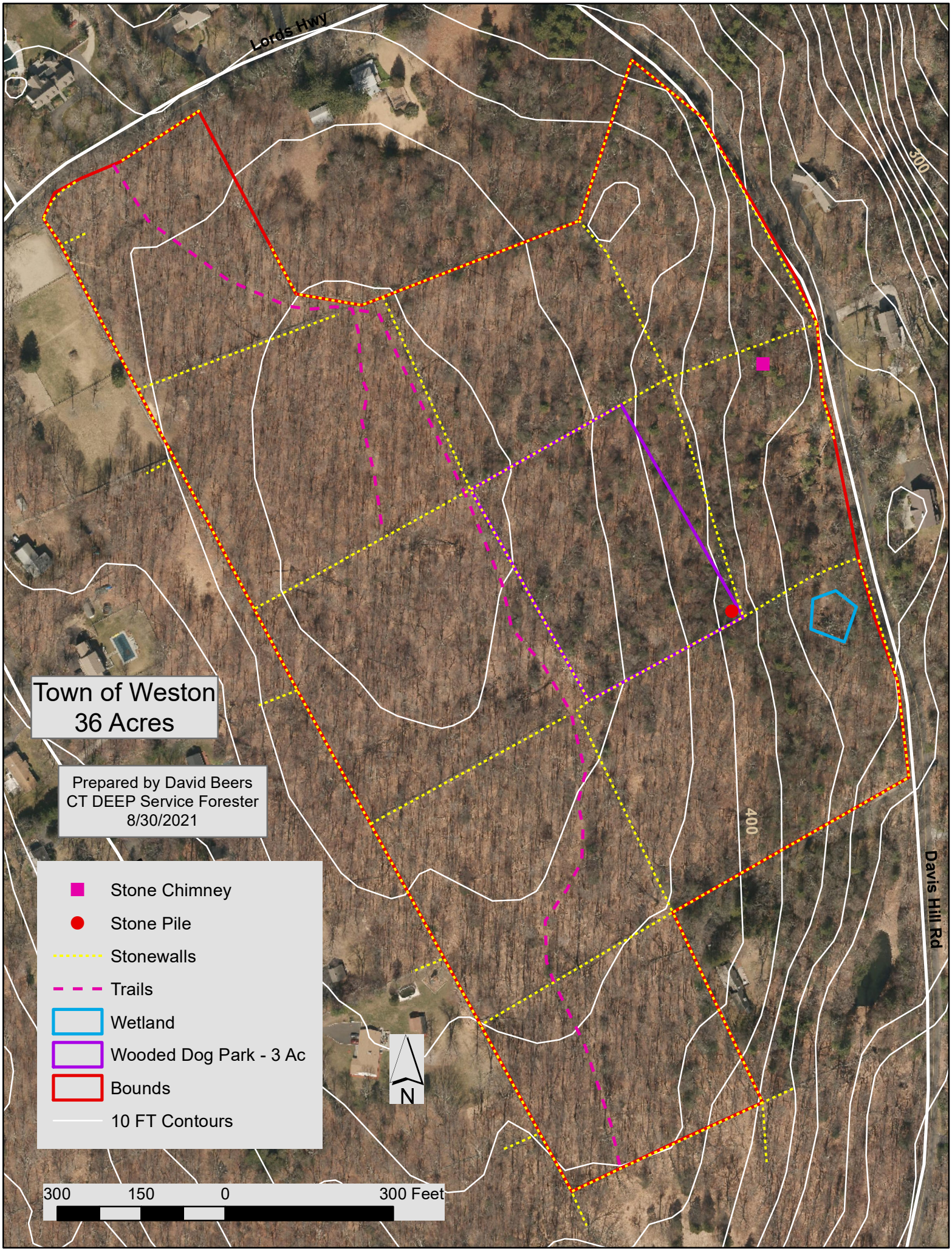
MAPPING

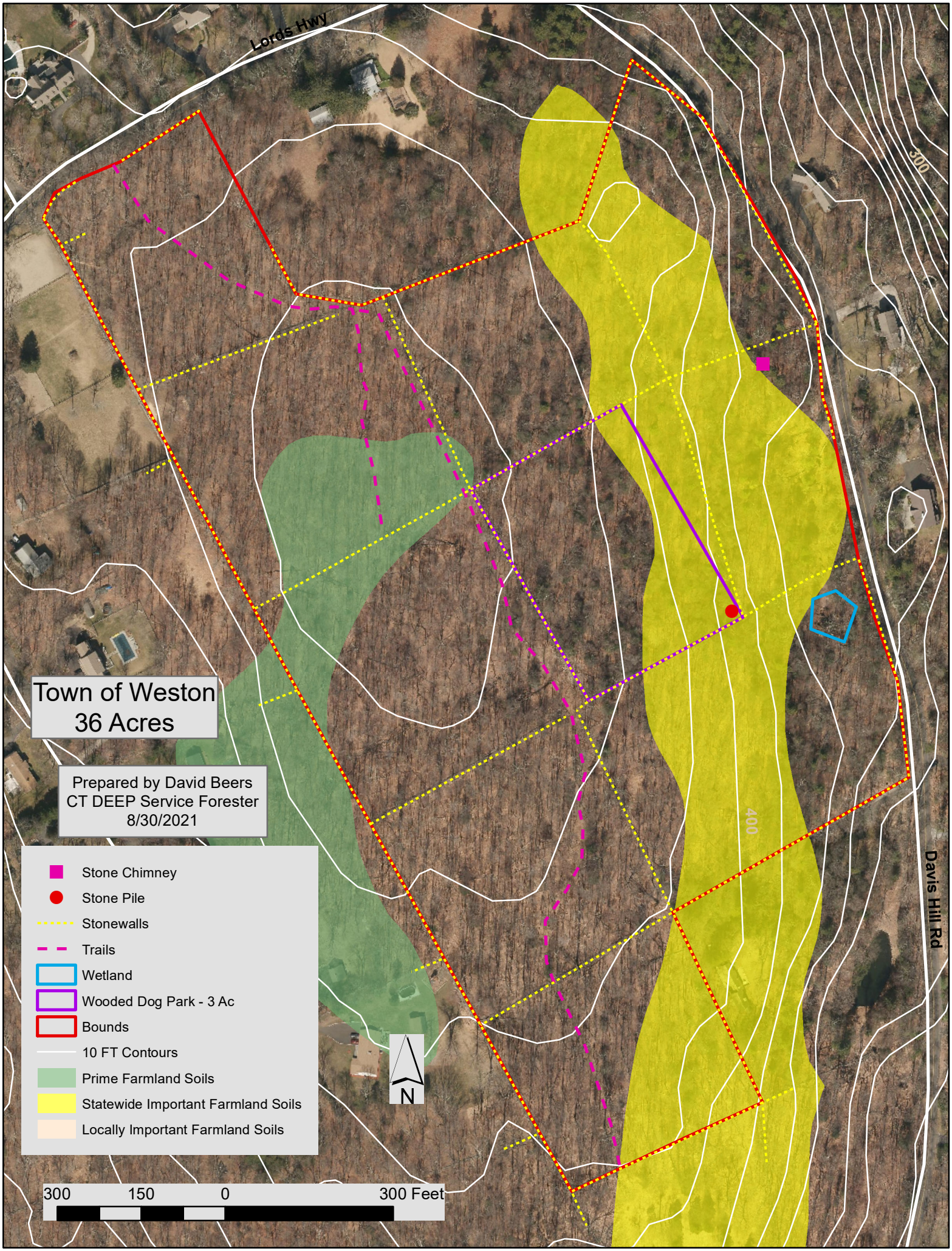
Attached to this report is a geo-referenced map that the landowner can use with the free smartphone app 'Avenza Maps'. This map shows the landowner where they are on the property. The landowner can also record tracks and waypoints on the property. These phone mapping features allows the landowner to locate/map property boundaries and trails.

Please consider hiring a consulting forester to help you implement any of the recommendations in this report. Please contact me for a list of foresters working in your area.

Please feel free to share this report.

An Unusual ‘Rippled Beech’ along the main trail


Lords Hwy
300
400
Davis Hill Rd
Town of Weston
36 Acres
Prepared by David Beers
CT DEEP Service Forester
8/30/2021
Stone Chimney
Stone Pile
Stonewalls
Trails
Wetland
Wooded Dog Park - 3 Ac
Bounds
10 FT Contours
N
300 150 0 300 Feet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Statewide Important Farmland Soils
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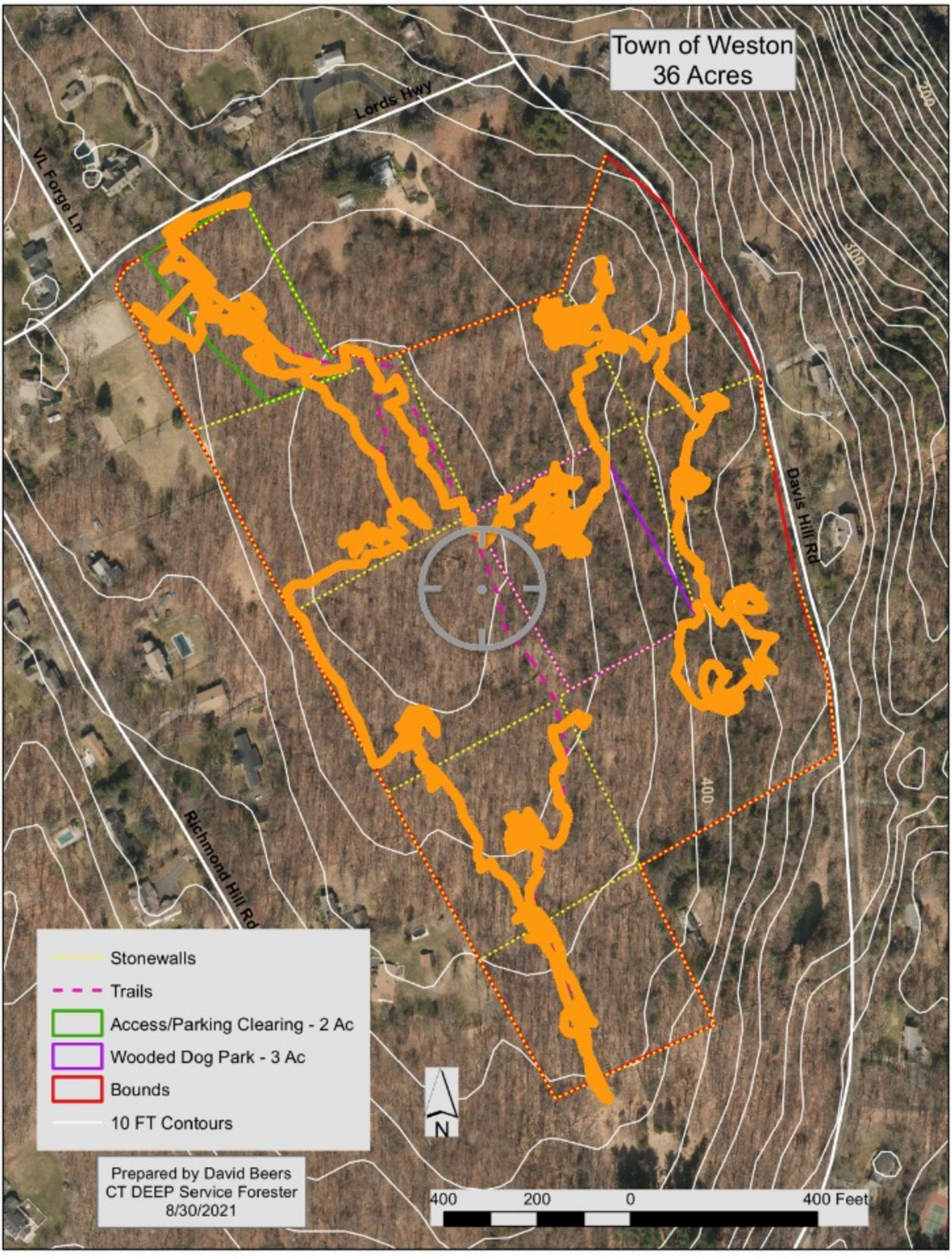
Town of Weston
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VL Forge Ln
Davis Hill Rd
Richmond Hill Rd
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400
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Access/Parking Clearing - 2 Ac
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8/30/2021
400 200 0 400 Feet
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