Narrative: Forest Management Project On Town of Willington Property (Fenton Ruby Park and Wildlife Preserve & Drobney Sanctuary), Willington, CT

Submitted by: Eric Hansen, Consulting Forester
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We propose three activities which may be under the jurisdiction of the Town of Willington Inland Wetlands Commission:

1) Forest thinning in the buffer zone around wetlands and watercourses.
2) Temporary drainage crossing(s) to remove the harvested trees.
3) Potential herbicide treatment of invasive plants near wetlands

This activity and the entire thinning project are described in detail in the following sections. The Willington Conservation Commission/Town of Willington and Ferrucci & Walicki, LLC are committed to protecting the natural resources on this property. We have designed our proposed forestry activity to minimize wetlands involvement wherever possible and to prevent wetlands damage.

Part 1 - Forest Thinning

As part of the Willington Conservation Commission/Town of Willington's commitment to forest management a thinning of the forest will be undertaken. As part of this professional foresters prepared a harvest operational plan and provided recommendations for undertaking a harvest. This harvesting is being done in order to provide additional growing space for healthy and vigorous trees of desirable species, which will be left to continue growing. Additionally, the planned harvest will help to encourage desirable tree regeneration (i.e. seedlings and saplings).

A CT licensed forester marked 373 sawtimber-size (12 inches or larger diameter at breast height) trees and 39 firewood and cull trees for harvest from about 18 acres of forested land. An average of 60 trees will be removed from each acre. Most of the marked trees are located on well-drained Charlton and Chatfield (till-derived) soils outside the regulated buffer area. However, there are some marked trees located along the wetlands or drainages found along the harvest areas.

In order to complete the harvest, at least one temporary drainage crossing will be necessary to remove the harvested trees. During the harvest of timber from these areas, many precautions will be taken to minimize disturbance and to prevent erosion and sedimentation (see Sedimentation and Erosion Control Measures).

The overall goals of the recommended harvest are to provide simultaneous production of wood and to improve wildlife habitat and forest health. During the marking of the trees, the effects on wildlife were considered: active den trees and larger hollow trees, as well as dead and some dying trees were identified and will be left throughout the harvest area. Also, a major goal of the thinning process is to enhance the vigor and amount of regeneration which will increase the amounts of browse and downed woody material available for wildlife food and cover. The tops of all the harvested trees will be lopped below 5 feet to reduce the aesthetic impacts of the harvest.

The Willington Conservation Commission/Town of Willington and Ferrucci & Walicki, LLC are committed to protecting all the natural resources on this property. We have designed our proposed forest management activity to minimize wetlands involvement and to prevent wetlands damage by

modifying our management locations to protect them. The following is a more detailed description of the measures proposed to protect all of the site's natural resources, including the wetlands.

Part 2 - Wetlands Protection: Sedimentation and Erosion Control Measures

1. Professionals in Charge:
Ferrucci & Walicki LLC, a consulting forestry firm, has been retained by the Willington Conservation Commission/Town of Willington to oversee this entire project. One of our most important functions is to ensure that the harvest is carried out with minimum negative impact on the environment. All our foresters have forestry degrees from accredited forestry schools. Our lead forester for this project, Eric Hansen, has a B.S. Degree in Forestry from the University of Massachusetts and is a licensed forester in Connecticut and has over 10 years of forestry experience. Eric has overseen many harvests similar to the one we are proposing and has attended meetings and conferences on issues of logging and water quality.

2. Detailed Logging Contract:
The log-harvesting contractor will be operating under a detailed harvesting contract, which will include all provisions of this application and any reasonable additions from this commission. We will hold a $2,000 cash bond from the log-harvesting subcontractor to ensure that all aspects of the contract are implemented.

3. Erosion Control Aspects of Design & Layout of Project:
The harvests have been designed to minimize environmental impacts. The recommendations of "Timber Harvesting and Water Quality in CT – A Practical Guide for Protecting Water Quality While Harvesting Forest Products" have been designed into the project.

Each wetland or watercourse is protected by a filter strip or buffer zone within which light partial cuttings will be done. Marshes, swamps and standing water wetlands have been completely avoided. When harvesting timber in areas adjacent to wetlands or watercourses precautions will be taken to keep falling trees from entering the wetlands or watercourses. However, logging debris incidentally dropped into watercourses, marshes, swamps or ponds will be removed immediately if their presence will have any negative impact on water quality.

4. Specific Erosion Control Actions During The Harvesting Operations:
The project is expected to require approximately 12 months to complete. The harvests will likely occur during the summer, when the ground is the driest, or during the winter if ground conditions are suitable. In general even during these time periods, logs will be skidded only when the ground is stable enough to prevent significant soil disturbance. Interior skid roads have been designated with blue flags by the forester-in-charge, and avoid excessive slopes and wetlands wherever possible. During the course of logging activities our foresters will periodically inspect the site for eroding or unstable soil areas. Temporary stabilization of such eroding areas will include installation of hay bales, water bars or mulch and grading of disturbed areas as appropriate.

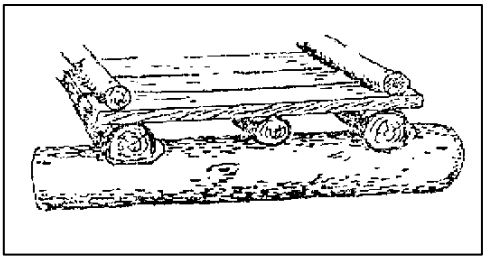
5. Specific Erosion Control Actions following the Harvesting Operations:
The log harvesting contractor will smooth out excessively deep ruts before leaving the site and portions of the skid roads that are likely to have erosion problems as a result of steep slopes will be stabilized by the installation of water bars at recommended spacing and potentially by seeding or

mulching as well. The temporary crossing will be removed immediately upon completion, and the approaches will be graded, seeded and mulched if necessary. Also the loading area (landing) will be seeded and mulched if necessary following completion of operations. Erosion control measures will be periodically checked for effectiveness following their installation.

6. Treatment of invasive plants:
There are pockets of invasive plant species found in places in the harvest area as well as outside of it. The primary location within the proposed harvest area that should be treated prior to harvesting is adjacent to the landing site. The majority of the invasive plants in the harvest area is Japanese barberry. Invasive plants are called invasive and are an issue because they can outcompete native plants, which can reduce biodiversity and ecosystem health. Frequently they can capitalize on disturbances including those created by the forest management activities proposed to be undertaken.

In order to reduce the likelihood of spread and to increase the chances of establishing successful native regeneration (trees, shrubs, herbaceous species etc.) attempting to reduce populations of invasive plants in and adjacent to the planned forest management activities is important. Treatment for invasive plants may be done using herbicides. Appropriate herbicide mixtures, as well as application timing and methods will be done to limit negative unintended impacts. All areas to be treated for invasives are near wetlands but none is in a wetland.

Part 3 - Temporary Stream Crossings



Above: Example of a temporary skidder bridge. The design used on for the proposed crossing on this property will likely have 2-3 panels totaling about 10-12 feet wide and will be long enough to span the width of the channel.

The above-described harvest will require the use of one to two crossings to remove the harvested trees. It is likely that there will be only one crossing. As the interior skid road system is currently laid out, there is one drainage crossing that will require a temporary skidder bridge. The other potential drainage crossing is on Amidon Road outside of the harvest area. That drainage is a spill over from the pond to the north (off the property), and if used will be forded during dry or frozen conditions. The enclosed map shows the locations of the proposed crossings. The crossing designs have been used many times by Connecticut loggers.

A temporary bridge crossing consists of wooden panels between 4-6 feet wide usually placed in 2-3 panels across a drainage or watercourse. The ends of the bridges are either placed on top of the soil if conditions are suitable or are placed on sill logs as shown in the picture at left. This type of crossing is used over narrow watercourses with a well-defined channel, or in low, wet areas with a high water table at certain times of the year.

The crossing(s) will be used only during times of the year when conditions are appropriate for operation (i.e. dry or frozen) so the disturbance will be minimal.

This project has been designed to avoid any other significant stream crossings. However, any other intermittent drainage or moist areas which might require crossing while it has water or moisture in its banks during the harvest will also be protected using standard corduroy crossings, brush mats or a combination of the two.

Part 4: Qualifications of Forester In Charge

Eric Hansen
6 Way Road
Middlefield, CT 06455

EDUCATION

2002 University of Massachusetts, Bachelor of Science in Forestry

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PROFESSIONAL EXPERIENCE

2001-2005 Seasonal positions with Connecticut DEEP, Metropolitan District Commission (Connecticut) and the USDA Forest Service (New Hampshire). Duties included timber marking, boundary location and marking, data entry, and road layout among others.

2005-2012 State Lands Forester and County Forester in Vermont. Worked with both public and private land and landowners on a variety of projects including administering Vermont's Use Value Appraisal (Current Use) program.

2012-Present Forester (now managing partner) Ferrucci & Walicki, LLC, a land management company specializing in the management and conservation of land-based natural resources. Ferrucci and Walicki offers individually designed consulting programs to its clients who include private landowners, land trusts, towns and cities, corporations, private water companies, municipal water departments and non-profit organizations.

PROFESSIONAL ACTIVITIES

- Connecticut Certified Forester #720
- Immediate Past Chair of the CT Chapter of the Society of American Foresters

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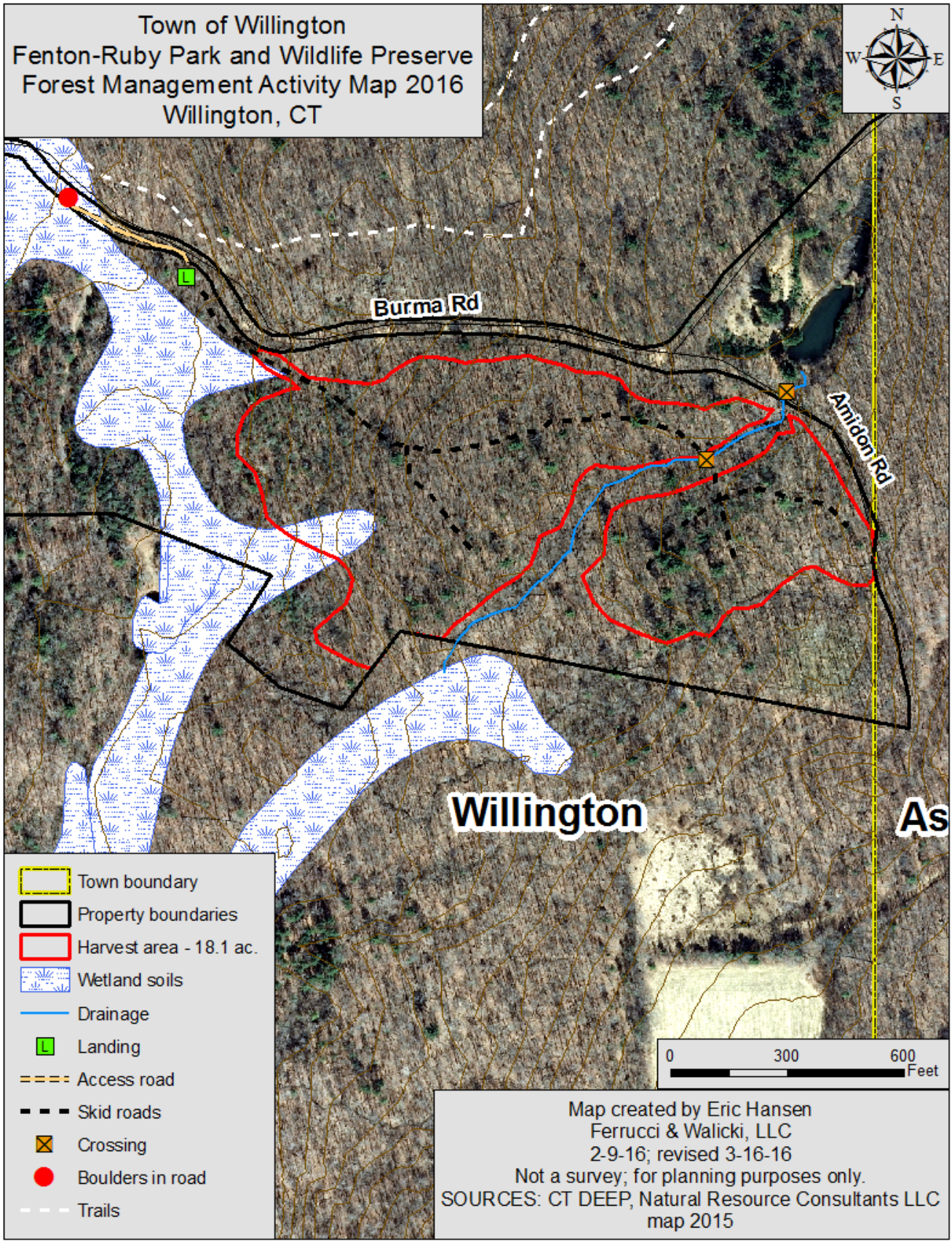
EXPERTISE

Management of New England forests, including forest inventory and appraisal, long-range natural resource management planning for a wide a range of private, municipal, and utility forestland owners, timber harvest layout and design to meet landowners goals, and technical assistance related to forest health and wildlife habitat improvement and other management practices.


Town of Willington
Fenton-Ruby Park and Wildlife Preserve
Forest Management Activity Map 2016
Willington, CT
N
W
E
S
Burma Rd
Amidon Rd
Willington
As
Town boundary
Property boundaries
Harvest area - 18.1 ac.
Wetland soils
Drainage
Landing
Access road
Skid roads
Crossing
Boulders in road
Trails
0
300
600
Feet
Map created by Eric Hansen
Ferrucci & Walicki, LLC
2-9-16; revised 3-16-16
Not a survey; for planning purposes only.
SOURCES: CT DEEP, Natural Resource Consultants LLC
map 2015