FOREST MANAGEMENT PLAN

Hydefam Holdings Property

Town of Harrietstown, Franklin County, New York

72.4 acres

Parcel IDs:

457-4-16.00
467-1-1.00
467-1-25.00
467-1-26.000
467-1-28.000
467-1-29.00

Deed (Liber/Pages): 604/197, 604/199

480-a certification number: 16-033

Original certication date: 02/20/2004

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Introduction

This plan covers the fifteen year period from 2019 to 2034. It lays out the near- and medium-term actions that should guide the development of the Hydefam Holdings forest. It also qualifies portions of the property for continued enrollment in the 480-a Forest Tax Law program and commensurate reduction in property taxes.[1] Owners participating in the program are obliged to manage enrolled portions of their property according to their approved forest management plan and to make any reasonable investments for improvement that the plan recommends. Its recommendations were developed in accordance with the principles and practices of scientifically sound forestry, as described in the relevant management guidelines, textbooks and academic journals.

[1] Further information about 480-a can be found at the New York Department of Conservation's website: `https://www.dec.ny.gov/lands/5236.html`.

Property Description

The Hydefam Holdings forest represents a well-managed resource positioned to continue generating value on a sustainable basis. Eighty eight percent of the 72.4 acre property is productive forestland to be managed according to this plan. The property is located in the Adirondack Park in the Town of Harrietstown, Franklin County, New York. The property is accessed off of Kiwassa Lake Road and State Route 3. The productive forestland is operationally accessible via a well developed internal road network. Property-wide, elevations range from 1510 to 1580 feet above mean sea level. The property fronts Kiwassa Lake along approximately 1/3 of a mile of shoreline or wetland complexes. There are no mapped streams on the property, though several intermittent streams follow established channels, each draining small areas of less than 100 acres. The property's boundaries are well established. A portion of the property's boundary is defined by Kiwassa Lake, while most is defined by an irregular boundary line which runs for over two miles. These lines are generally well marked in the field (typically with tree blazes and red boundary marking paint), but will require on-going maintenance. Soils, forest health, and other pertinent topics are discussed in the individual stand area descriptions that follow.

Principles, Goals & Strategies For Forest Management

Conservation

The ecological functioning, productive capacity and biological diversity of the forest resource should be maintained or improved over time so as to provide opportunities for the current or future landowners to continue to enjoy and use the property. A management strategy that is sustainable in the long-term and viable in the short- and medium-terms offers a strong measure of protection against future development or conversion.

Timber management

Management should provide regular returns from timber harvesting. Long-term value growth is provided by maintaining full site occupancy with investment-grade stems: healthy trees capable of producing high quality sawtimber or veneer and worth retaining in the stand until they reach their full, site- and species-specific target diameters. Tree species which yield sought-after, high-value wood should be promoted within each stand or, when regenerating a new stand, attention should be paid to providing the stand conditions which favor the establishment of those species. At a property-wide scale, a variety of species should be maintained, providing options for seizing future market opportunities and a hedge against species-specific market depreciation. Among desired species, additional preference should be given to individual trees of sufficient vigor and grade-potential for strong future value growth. Consideration of economic efficiency should inform the timing and coordination of infrastructure investments and stand maintenance, improvement and harvest operations.

Amenity values

Conscientious management can create or maintain a landscape that is attractive, accessible and conducive to reflection, exploration and appreciation. Attractiveness can be managed for by fostering diversity within the landscape: promoting the growth and development of the most appealing individual trees in some places; maintaining the look, feel and accompanying privacy provided by a dense forest in other places; and elsewhere creating occasional vistas out from the forest and improvements in depth of visual penetration within it. Carefully planned and deliber-

ately located infrastructure should facilitate the satisfying use of the property, creating an appropriate balance between access and connectedness, on the one hand, and places of refuge and sanctuary, on the other. A system of roads and trails of various sizes, suited for various purposes, and interconnected with a broader trail network, provide for both enjoyable recreation and efficient operations.

Stand Descriptions & Management Recommendations

Presented below are detailed stand-by-stand descriptions of the forest, the long-term structural, compositional and functional goals for each stand, and the near-term silvicultural treatments or management activities that have been prescribed to advance each stand toward those goals. The data presented in the following pages was obtained from a thorough inventory of the property in October of 2019. General conditions were assessed qualitatively in conjunction with quantitative sampling. Observational notes and sample summary statistics together provide the basis for the stand descriptions and management recommendations. All sampling was done using a systematic sample and variable radius plots. In stands with uneven-aged structures, all trees 6" in diameter at breast height (dbh) and larger were measured in each plot. In stands with even-aged structures, all main-canopy trees were measured in each plot.

When contractors are used to implement silvicultural prescriptions, they should be highly skilled, properly equipped, fully insured, and closely supervised. A professional forester should prepare and administer commercial treatments, and logging operations should be timed to coincide with favorable weather conditions (working on wet soils only when they are frozen, for instance) and favorable timber markets. The dates assigned to timber harvests and other management activities prescribed in this plan are intended to guide, rather than constrain, forest management. To accommodate dynamic markets and variable weather, scheduled timber harvests may be advanced or delayed by one year from the date indentified in this plan; if operational or economic conditions change substantially, the management schedule may be further revised by an ammendment to this plan.

The property should be reassessed in 2024 and the findings brought to bear on a reassessment of the goals and strategies

proposed in this plan, leading to a formal management plan update.

Management Schedule

2020 - Management plan update; boundary line maintenance

2021 - No scheduled activity

2022 - No scheduled activity

2023 - No scheduled activity

2024 - No scheduled activity

2025 - Management plan update; boundary line maintenance

2026 - No scheduled activity

2027 - No scheduled activity

2028 - No scheduled activity

2029 - No scheduled activity

2030 - Management plan update; boundary line maintenance

2031 - No scheduled activity

2032 - No scheduled activity

2033 - No scheduled activity

2034 - Full management plan revision; boundary line maintenance

Area 1

Mixedwood
64.00 acres total
6.40 acres ineligible wetlands
2.00 acres ineligible roads and landings

Site-specific information

- **Soils:**
  Monadnock, Tunbridge, Adirondack
- **Site Class:**
  II (determined from soil mapping and field assessment)
- **Access:**
  Less than 1 mile
- **Stand history:**
  This stand has been continuously forested for at least the past 100 years. It appears to have been harvested on a recurring basis over most of that period, including a cut of mostly spruce in around the turn of the last century, maple and birch in the 1950's, a hemlock-focused harvest in the 1990's, and a silviculturlly prescribed harvest in 2018 and 2019. This recent harvest removed 32.175 MBF of hardwood logs, 21.57 MBF softwood logs, and 158 cords of firewood and pulp.

Current forest information

- **Age Class Structure:**
  Uneven-aged
- **Species (% stocking):**
  hemlock (25%), hard maple (19%), yellow birch (17%), soft maple (12%), cedar (10%), beech (5%), ash (4%), black cherry (4%), spruce (2%), aspen (1%), fir (1%)
- **Regeneration:**
  Regeneration is present throughout the stand. It generally reflects the composition of the overstory cohort, including balsam fir, beech, sugar maple, red spruce, and other species , though beech is somewhat overrepresented. Around 40% of plots sampled contained at least some sugar maple saplings overtopping neighboring competiors.
- **Forest health:**
  Few forest health issues were observed on this portion of the property. Beech bark disease is present and affects older beech trees. Windthrow will be a persistent concern in portions of the stand where soils are wet or shallow-to-bedrock.
- **Size class structure (%BA):**
  6-10": 17% | 11-16": 32% | 17-22": 38% | 23"+: 12%

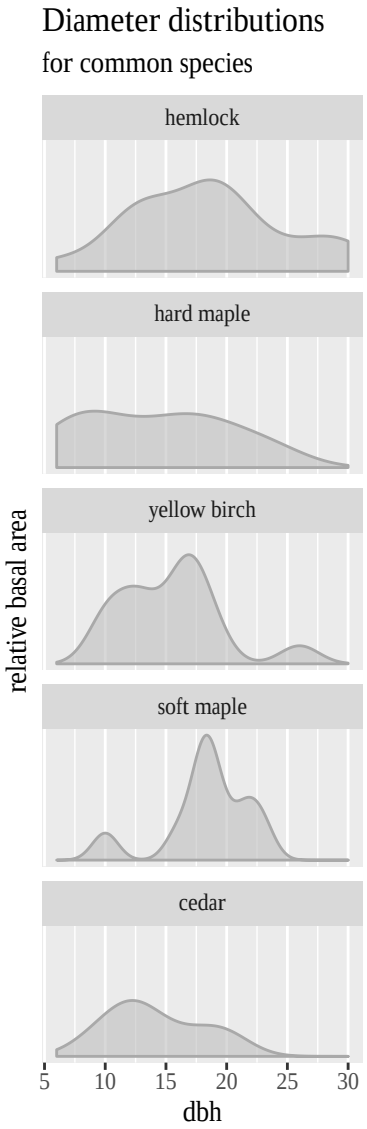

Figure 1: Distributions are approximated with kernel density estimation. Common species are those that account for at least 8 percent of the total stocking and areas under each curve represent species basal areas.

Inventory information

- 8 points, 10 BAF, October, 2019

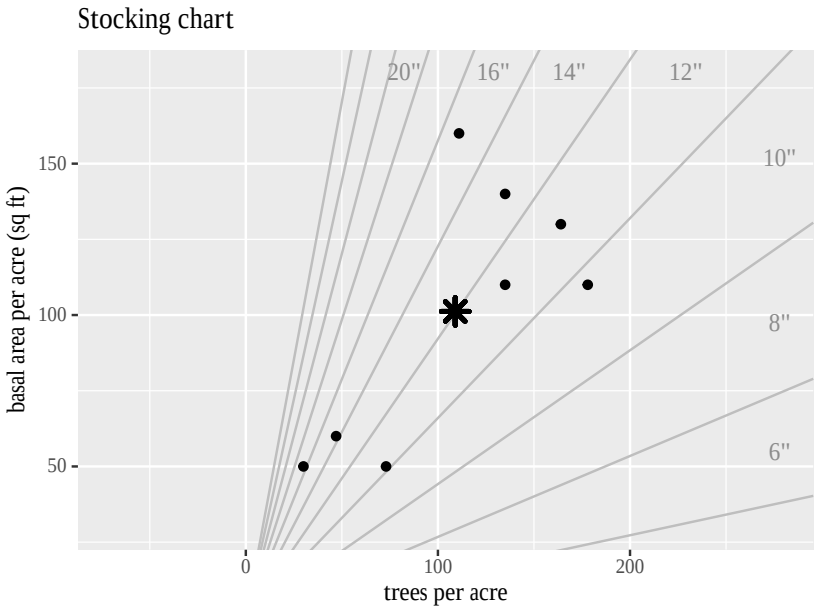

Figure 2: Points represent individual plots. Asterisk represnts stand average. Radial lines are quadratic stand diameters.

Table 1: Measures of stocking for all live trees (total) and acceptable growing stock.

	Total	Acceptable
Basal area (sqft/ac)	101	86
QSD (in)	13	13
Stems/ac	109	92

Silvicultural prescription

No silvicultural treatment is called for at this time.