



FOREST MANAGEMENT PLAN

SPRINGVALE ROAD WOODLOT

Somerset County, Maine
City of Tree, Map 1, lot 92

Tree Water District
58 Cushing St.
Tree, ME 04962

Prepared by:
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December 14, 2004

*This plan meets specifications for:
the Maine Tree Growth Tax Law and
American Forest Foundation's Tree Farm program*

MANAGEMENT OBJECTIVES

The Tree Water District acquired this property in 1967, primarily for its underlying gravel resource. TWD no longer needs to mine the gravel but wishes to maintain the property as a productive woodlot, until it is no longer desirable to own the lot. Therefore, TWD wishes manage the lot primarily for timber and income production and to keep this woodlot in the American Forest Foundation's Tree Farm program.

BACKGROUND

The 44 acre woodlot lies along the east side of the Springvale Rd., about 0.5 miles south of its intersection with the Winterhaven Rd. (directly opposite the entrance to Thompson Co. facility), in Tree, Maine. The property is traversed by a popular snowmobile trail, the gravel pits are frequented by ATV users, and the woodlot is dominated by high quality red and white pine sawtimber and red oak poletimber. Robby Harris selectively harvested the site in 1989 (30 MBF; 540 cords; \$14,800) and again in 1998, following the ice storm (60 MBF; 150 cords; \$11,800). The woodlot currently contains 300,000 - 350,000 board feet of sawtimber and 300 - 400 cords of pulpwood, likely worth upwards of \$60,000.

In 1973 WW Hill surveyed the property and calculated the 44 acre total. Wire fences, lines of blazed and painted trees highlight boundary evidence around the entire property, though the southern and eastern blazes are faded and need maintenance.

Access to the lot is from the Springvale Rd. A temporarily blocked entrance accesses the southern pit, which has been used as a wood yard. The lot is traversed by a series of overgrown skid trails.

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The woodlot sits on deep, excessively well drained Hinckley gravelly sandy loams. The lot's eastern end slopes noticeably toward a brook, though otherwise the land is extremely flat. Formed in glacial outwash deposits and poor to moderately productive, these soils are well suited to white and red pine. Exceptional permeability and drainage enable these soils to support equipment during virtually all seasons. One of its great values as a woodlot stems from its capability to sustain harvest operations during mud season.

Maine's Department of Inland Fisheries and Wildlife mapping has not identified any significant wildlife habitat on or near the woodlot. However, the woodlot is certainly used by a wide diversity of species, as deer, moose, foxes, porcupines, hare and a multitude of song birds were seen or evidenced on the woodlot. The lot's small size significantly limits its contribution to available habitat, though nonetheless the fresh water, dense softwood pockets, and abundant acorns are all highly beneficial. Surprisingly the lot contains very few snags or cavity trees.

Tree Shoreland Zoning laws mandate that no more than 40 percent of the timber may be removed during any ten year period within 50 feet of the brook that crosses the lot's northeastern corner. Other legal provisions affect slash disposal, crown opening size, and road sitting, but pose minimal limits to management. Finally state forestry regulations require harvest notification and reporting, restrict clearcut size, and prohibit stream sedimentation.

For management purposes, the property was considered one forest areas (see map):

Stand 1 Pine sawtimber and oak poletimber (PH4B - 37 acres) -- The woodlot is dominated by 12 to 14 inches dbh and 70 - 80 feet tall white and red pine along with slightly smaller red oak poletimber. Virtually no trees exceed 16 inches dbh. This abandoned pastureland has been harvested at least twice since the 1970s, most recently in 1998. Stocking rates vary as the stand includes pockets of nearly pure pine and areas were red oak poletimber and hardwood saplings are most common. Nonetheless average stocking rates total about the B-line levels, with 70 - 80% currently containing, or capable of producing, quality sawlogs in the future. During both harvests the Coles skillfully removed a heavy volume, and damaged very few residual trees.

Current volumes likely average 8,000 to 10,000 board feet of sawtimber and 10 - 12 cords of pulpwood per acre. Most of the pine is of quite good quality with very little pine weevil damage or blister rust mortality. Few trees contain select grade logs, though close to the Springvale Rd. where District workers pruned lower branches, scattered pines have 12 - 16 feet of limbless boles. Most of the oak support healthy large crowns, though recent increment growth seems quite modest, a likely consequence of droughty summers in the early 2000s. The understory is densely stocked with white pine, red maple, red oak, and beech seedlings and saplings.

LONG TERM RECOMMENDATIONS

Managers should strive to manage the forest in a way that protects and builds soil quality, maintains a pine/oak dominant forest, bolsters local wildlife habitat, and generates periodic income.

From the stand point of maintaining wildlife habitat, the managed forest should include a mostly undisturbed areas along the stream corridor and a greater abundance of snags and cavity trees. Generally conscientious timber management should complement these wildlife habitat efforts, though managers must be alert for the presence, and be willing to maintain, potential cavity and large diameter trees. As well future harvest operators should leave tops and branches in the woods to help provide for wildlife needs and to improve the organic matter content of the quite dry soils.

In addition, while it is unlikely that deer or moose could be encouraged to use the woodlot during snowy winters more than they already do, acorn and beechnut production coupled with more and varied browse should benefit these large animals during all other seasons. Additionally, as roads and skid trails are temporarily retired, after use, herbaceous seeding may help feed and/or protect an abundance of birds and small mammals.

Natural succession should maintain the appearance of the woodlot in its current uneven age and softwood dominated stands, though hardwood should continue comprising a substantial part of the forest. White and red pine and red oak are all quite long lived trees and should ultimately be replaced by their younger brethren plus beech. Naturally, individual tree mortality should continue as the primary disturbance agent, but likely at a pace that is hardly noticeable.

The woods should be managed to produce large diameter (18 - 22" dbh), high value trees, under mostly uneven-aged conditions. Harvest levels should be set to ensure that harvest volumes do not exceed volumes grown, currently 20 - 30 cords per year. Harvesting should generally feature individual tree selection and group selection to maintain a stand with two to three age classes. Prior to each harvest short notes and prescriptions should be prepared to document the intended harvest.

SHORT TERM RECOMMENDATIONS

The top ownership priority should be to reblaze and paint the 0.6 miles of southern, eastern, and the eastern end of the northern property lines. Contracted costs for such work should run about \$300. Boundaries should be maintained and reblazed about every ten years, so as to reduce the need for future land surveying, which could be very costly.

The top management priority throughout the woodlot should be allow the overstory trees to continue growing while allowing the understory to more fully develop. As most trees are relatively free to grow, they benefit from the only modest competition from adjacent trees, and should for at least another five to 10 years. Thus I recommend that by about 2010 - 2012 consideration be given to reentering the stand.

The next entry should focus on continued improvement of the growing conditions of the best quality pines and oaks, while simultaneously removing overtopping trees above pockets of quality regeneration. Given the plentiful volume of desirable regeneration throughout the stand, any cutting that doesn't entirely smash the young forest will benefit this future forest component. Such cutting would likely yield 60,000 - 100,000 board feet of sawtimber and 100 - 150 cords of pulpwood worth \$15,000 - \$20,000.

There should be no need to update this plan prior to 2014, unless a natural disturbance (ice storm, wildfire, insect/disease outbreak, etc.) intervenes or the District changes their objectives.

**MANAGEMENT PRIORITIES
2005 - 2014**

<u>year</u>	<u>stand</u>	<u>activity</u>	<u>net income/cost</u>
2005		Blaze & paint most boundaries (0.6 mi.)	(\$300)
2010 - 12	1	Commercially harvest	\$17,000
2014		Blaze & paint all boundaries (0.9 mi.)	?
		Update management plan	?