Forest Management Plan

Plan written May 2021

	Landowner information	**Plan prepared by**
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Forested acres: 13.9

Location: Section 35, T84N, R17W, Marshall County

Landowner objectives

- Receive update on current condition of forested acres
- Implement sound forestry practices to enhance value of property
- Encourage a healthy, sustainable forest ecosystem

Property description: This property is a 100 year farm that was originally purchased in 1919. In the 1960s-70s, a portion of the farm was planted with scots pine to be used as Christmas trees. There was not much management performed after 1975 until the landowner worked with Joe Herring in 2007-2008 to perform timber stand improvement and increase the health of the timber. In August 2020, a derecho swept through the area, causing damage to many trees of the property and leaving woody debris on the forest floor. The forested area has been divided into stands A, B, and C due to differences in species composition, general health, and management recommendations.

Terrain on the property consists of a gentle slope towards the south end. Most of the soils in the forested area are a mixture of Dickinson, Tama, and Sparta soils. Sparta and Dickinson soils are relatively dry and of marginal productivity, whereas Tama soils have a loamy texture and offer the best potential for tree growth. Colo and Ely soils are found on the southern half of Stand B and are finer-textured, wetter soils.

Stand descriptions and Current Conditions

Stand A - 6.5 acres: This stand was once planted to scots pine which has experienced almost 100% mortality due to the short life span of scots pine, the diseases and insect pests that they are susceptible to, and the derecho. There are a small number of mature hardwood trees that remain such as American elm, black cherry, black walnut, and red oak. These trees have created a shelterwood-type system under which very numerous hardwood seedlings and saplings are growing. The most dominant species is walnut, followed by hackberry, bitternut hickory, red oak, black cherry, and honey locust (the honey locust is mostly from stump sprouts on previously girdled trees).

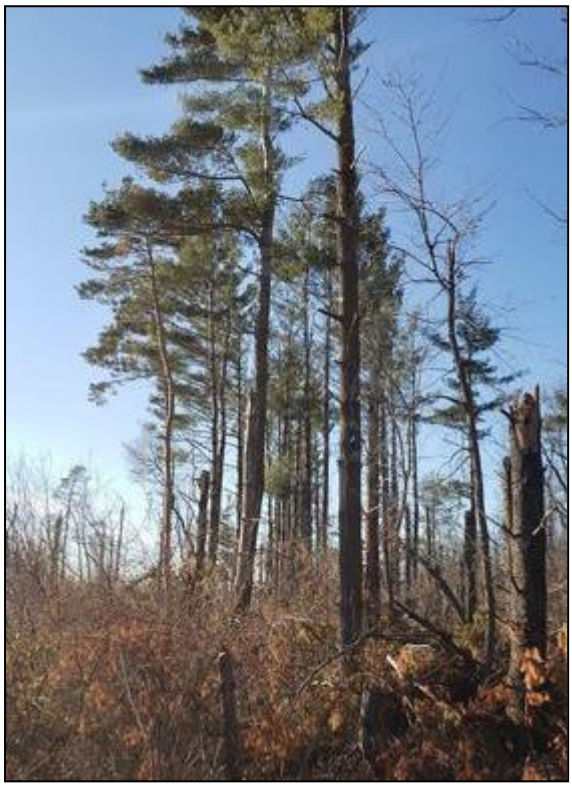
As the scots pine were dying in previous years, a significant amount of sunlight was reaching the forest floor which allowed for growth of these young hardwood species. It also allowed for the growth of raspberry, blackberry, honeysuckle, dogwood, and chokecherry which currently makes the stand very difficult to navigate. As the hardwood trees continue to grow, however, they will cast shade on these shrubbier species and suppress them.

Management recommendations: This stand is currently in the middle of a transition from softwoods to hardwoods and as such is full of shrubby species with saplings growing up through them. The saplings are doing well, however, and as mentioned above will continue to cast more shade on the shrubby species as they grow. With time, the understory will become more open and the stand will once again be navigable. For immediate access to the stand, equipment such as a forestry mower would be necessary but would also be a threat to the young native hardwoods. With all of this mind, my recommendation is to allow the stand to naturally continue in its transition to a hardwood forest. In time as the understory opens back up, management would be to enter the stand and remove/kill all undesirable species (white mulberry, honeysuckle, etc.)

Current condition of the scots pine planting

Stand B – 2.2 acres: This stand is composed of roughly 40 mature white pines that survived the derecho along with scattered hardwoods growing throughout. This stand sustained heavy derecho damage and many of the pines were snapped, tipped, or otherwise heavily damaged. There is woody debris on the ground that is heavy in some areas.

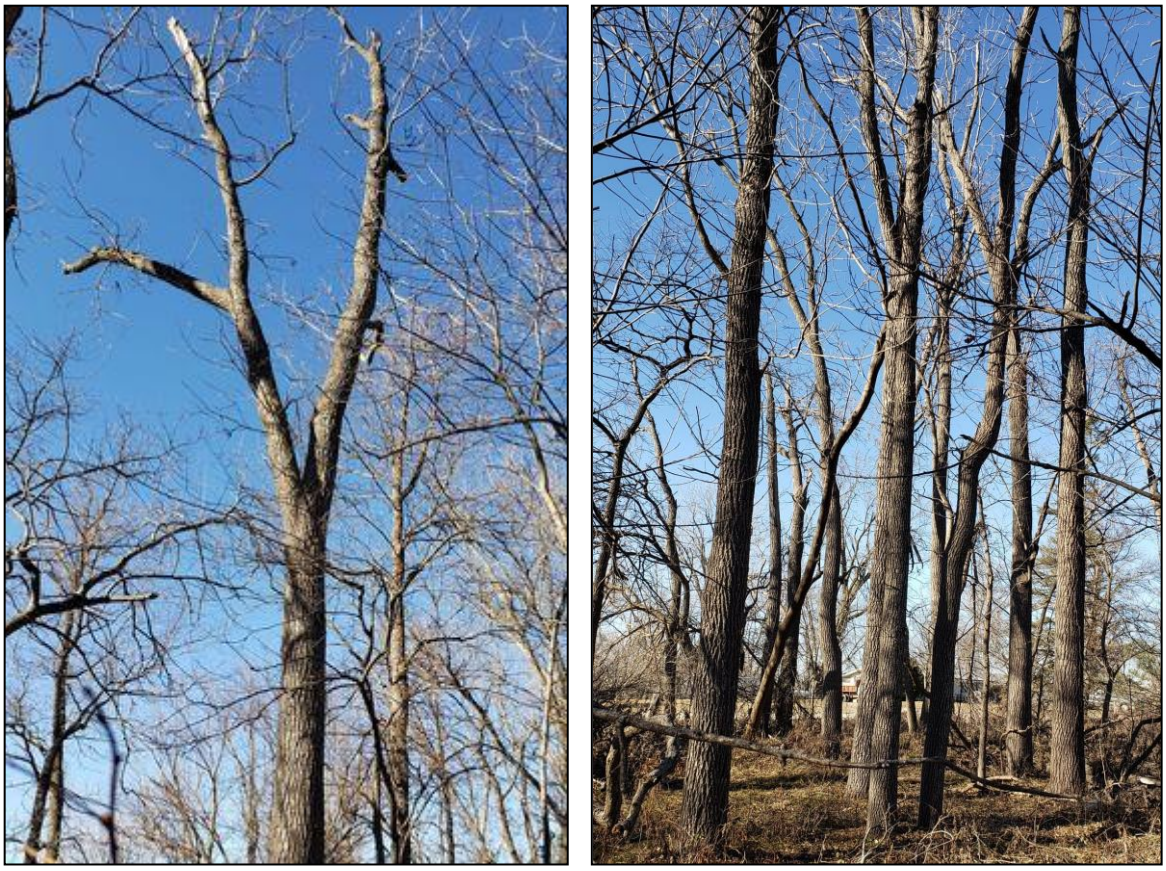
Management recommendations: As far as managing debris, there is potentially cost-share that can be used for restoration measures such as REAP, EQIP, or EFRP. This is more for aesthetic purposes rather than ecological because there is still regeneration of desirable species taking place and the forest will continue to regenerate and fill back in if left alone. Regardless of whether or not you manage debris, it is recommended to stay on top of undesirable species as the forest regenerates to prevent them from outcompeting natives. There is also potential cost-share for this through REAP or EQIP.



Current condition of Stand B

Stand C – 5.4 acres: The main overstory species in this stand is black walnut and black and red oak. The midstory consists of mixed hardwood species including black and red oak, walnut, green ash, hackberry, and American elm. The understory contains honeysuckle, prickly ash, dogwood, and chokecherry**.** As in stand B, this stand sustained heavy damage in the derecho and there are many trees snapped, tipped over, or otherwise heavily damaged.

Management recommendations: Despite the damage to the overstory trees, desirable trees are still existing in the midstory and there is desirable regeneration coming up underneath. For this reason, the management recommendations for Stand C are the same as Stand B – explore cost-share options for restoration measures/debris management if desired, and keep on top of invasive/undesirable species as the forest regenerates.



Damaged walnut in Stand C (left), Group of younger, undamaged walnuts in Stand C (right)

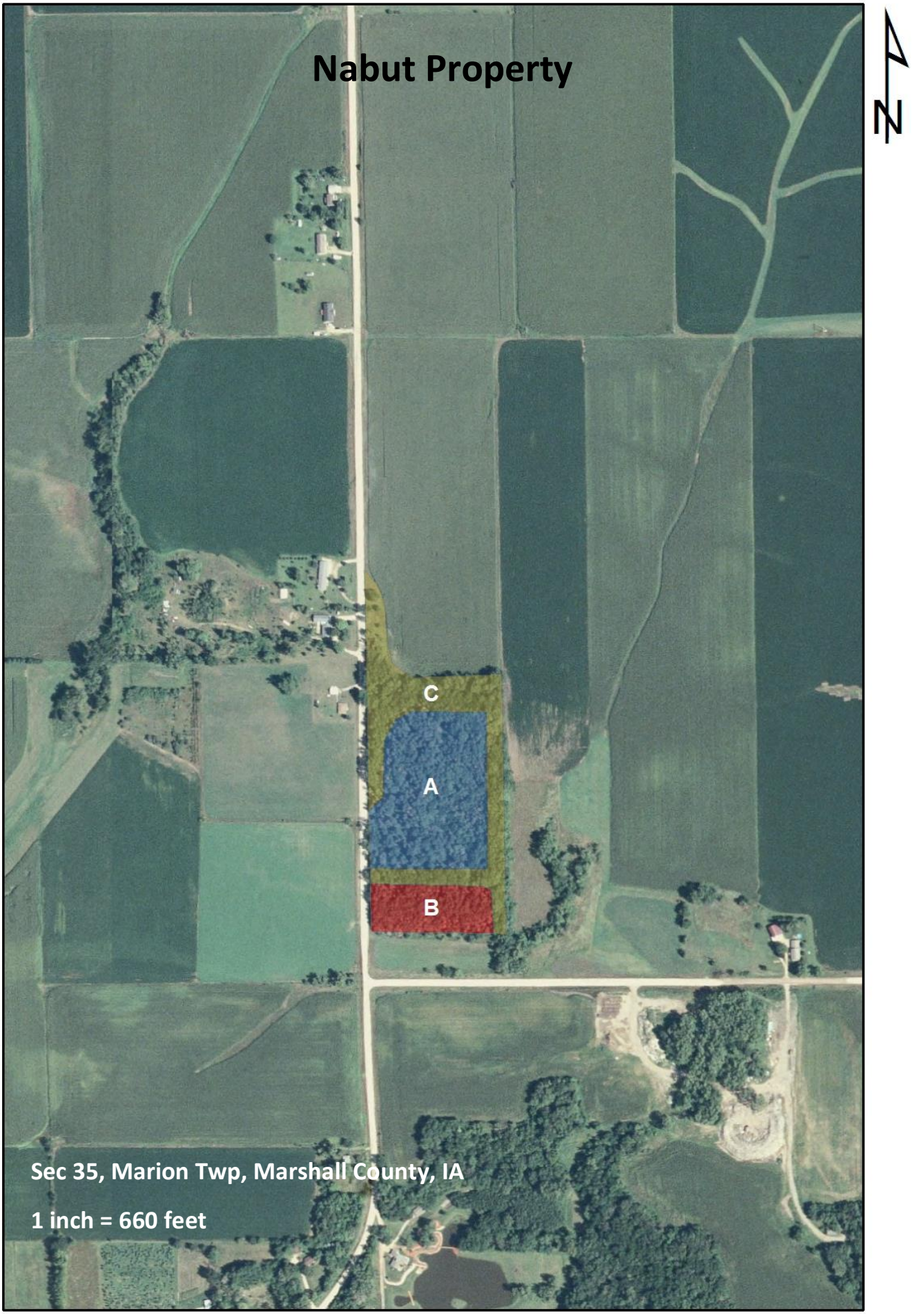
Cost share program information

Note: Please contact Joe Herring at Joe.Herring@dnr.iowa.gov or 641-485-5040 if you would like to pursue any of these options. He will be able to assist you with the process and write a project plan.

EFRP: The application deadline has passed for EFRP, but it may still be worth applying if you wish. If EFRP is not an option, there may be potential for assistance through REAP or EQIP.

REAP: The practice that you may be able to utilize for debris management is Site Preparation for Natural Regeneration (3 acre minimum). You may also be interested in Forest Stand Improvement: Weed Tree Removal to tackle the undesirable species growing throughout the timber.

EQIP: You may be able to utilize the Tree/Shrub Site Preparation practice (490) for debris management. There may also be potential for debris management through the Forest Stand Improvement practice (666).


Nabut Property
N
C
A
B
Sec 35, Marion Twp, Marshall County, IA
1 inch = 660 feet