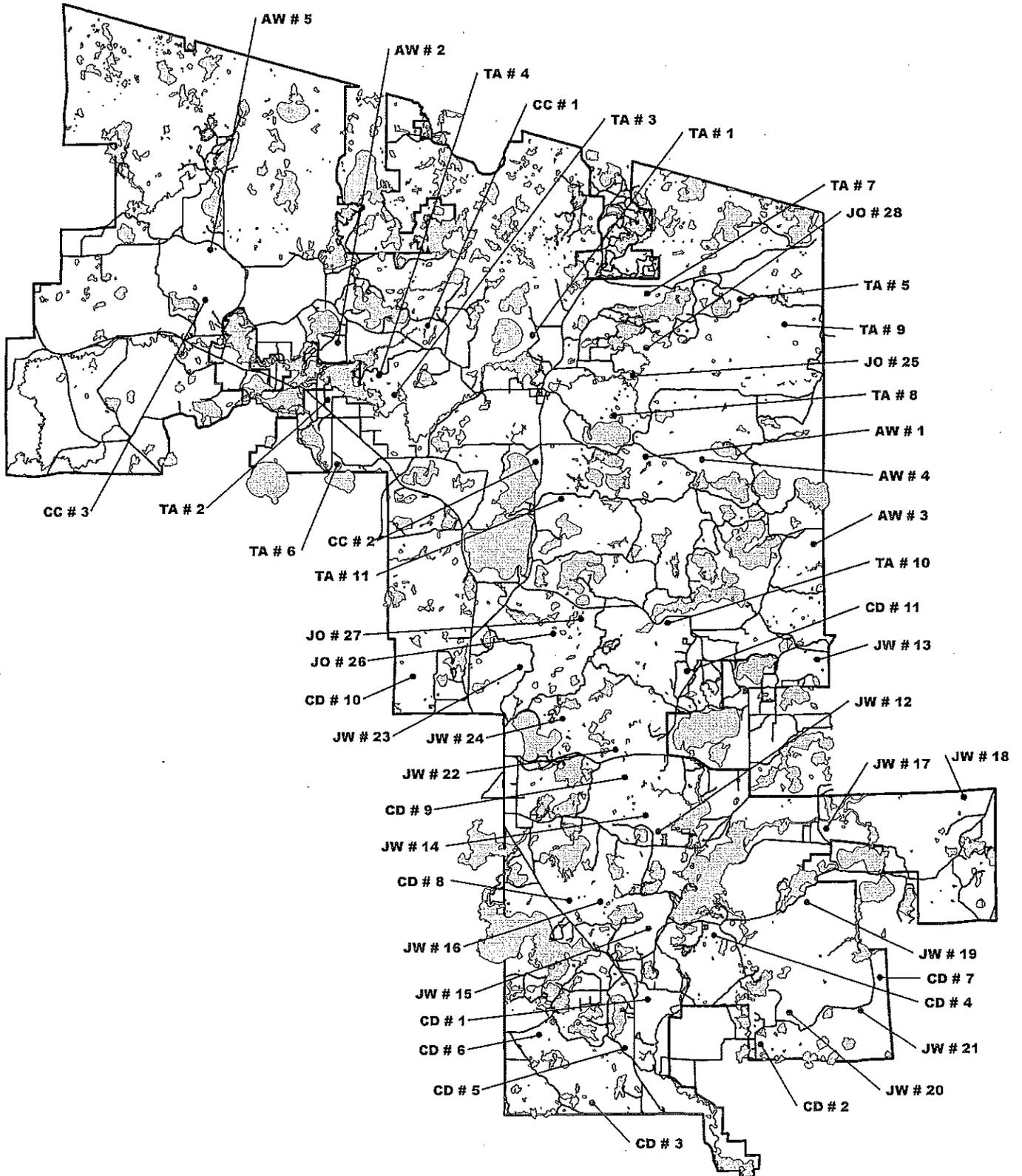


Northern Highland American Legion Pre-Sales 2012/2013 Timber Sale Establishment Location Map



DATE: June 25, 2012

FILE REF: 2460

TO: Timber Sale Reviewers/Partners

FROM: Jeffrey Olsen, NHAL Forestry Staff

SUBJECT: PROPOSED TIMBER SALE ESTABLISHMENT for 2012/2013

A new look for Pre-sale areas this year! We are presenting a revised map and narrative to improve public understanding of our plans. The details are available from the forester listed above the compartment list. As always, the final shape and size of the sale areas may be adjusted as site specific details are gathered. Some stand portions may be found unsuitable for harvest. The inventory data for these stands will be updated and/or treatment will be deferred to a future year.

Please take some time to **review the sales of interest and contact any of us with your input.** There are 47 new sales on the list. All sales are to target NHAL FY13 goal of 4863 establishment acres. We are really focusing on our backlogged scheduled stands. You will notice we are only mapping out the new sales to the list. If you have interest in a former presale, contact the forester for a map and narrative if you don't have a previous year's package.

There is no deadline for comments. We will get together for an **annual public State Forest Meeting including a review of prescriptions and narratives** around **August 16th**. I know everyone is busy and unable to digest this long list. Please focus on those important to you. Comments are best if given prior to the public meeting or during initial timber sale fieldwork. Some of these sales are soon to begin establishment work. I plan on developing and distributing a monthly list of active establishment areas being worked on. If you want to be on this list, then email me your interest.

Old-growth management applied in Master Plan NCAs is noted by the bold letters NCMA following the sale name. Forest production is FPMA, recreation management by RECMA and habitat management by HMA. I hope this helps you sort out the sale areas important to your program or interests.

Please email/call the establishing forester with our comments. Thanks to all for your attention to our planning process. Please let me know if you have ideas for improving this timber sale establishment process.

NHAL List of Sale Establishment for 2012/2013 Planning
NEW PRESALE AREAS

July 2012

Todd Anderson

1. C126H, Boulder Junction Airport, FPMA #3
2. C234H, Dump Road, FPMA #3
3. C206H, Island Creek, FPMA #3, NCMA #13
4. C205H, Island Lake Sale, FPMA #3
5. C30H, Jute Lake, FPMA #3, NCMA #9
6. C232H, Nelson Lake, FPMA #3
7. C90H, North High Lake, FPMA #3
8. C95H, North White Sand Lake, FPMA #3
9. C28H, Perry lake, FPMA #3, NCMA #13
10. C72H, Plum Lake and Creek, FPMA #4
11. C131H, Nebish Road Oak Burn, FPMA #3

Estimated acreage = 1202

Jim Wetterau

12. C7A, Pickerel Lake Pines, FPMA #6, NCMA #11
13. 12H, Shannon Lake Pine, FPMA #4
14. C6A, 17A, Buffalo Lake Pines, FPMA#5, NCMA#11
15. C21A, East Hasbrook, FPMA#6
16. C23A, Cunard Lake Aspen, FPMA#5
17. C55A, CTH O Red Pine, FPMA#6
18. C60A, Aidenn Lake Pine, FPMA#6
19. C70A, North Nokomis Lake Sale, FPMA#6
20. C85A, Stone Lake Road, FPMA#6
21. C88A, Oatmeal Lake, HMA#7
22. C106H, Prong Lake, FPMA#5, RECMA#21
23. C164H, Vandercook Road West, FPMA#5, NCMA#12
24. C138H Erikson Lake Sale, NCMA#12, RECMA#21

Estimated acreage = 2236

Jeff Olsen

25. C88H, Nixon Lake Road Birch Sale, FPMA #3, NCMA #13
26. C114H, Wildwood Lake Sale, FPMA #4
27. C114H, Fallison Old Growth Sale, REC Mgnt Area 20
28. C89H, Big Gibson Lake Sale, FPMA #3

Estimated acreage = 634

Adam Wallace

1. C86H, White Birch Creek Sale, FPMA#3, SMA#16
2. C220H, C229H, Fallon Road Pine Sale, FPMA#3
3. C9H, Fred Lake Road Sale, NCMA#8, SMA#16
4. C55H, C66H, Partridge Creek Sale, FPMA#3, NCMA#13
5. C251H, C262H, Town Garage and J Sale, FPMA#1, NCMA#10

Estimated acreage = 1590

Craig Dalton

1. C29A, 30A, River Road Pine, FPMA#6
2. C84A, North Twin Pine, FPMA#6
3. C41A, Lumen Lake Aspen, FPMA#6
4. C48A,49A, 50A, Bass Lake Road Red Pine, FPMA#6
5. C43A, Wolf road, FPMA#6
6. C34A, 38A, CTH D and Bluebird, FPMA#6, NCMA#13
7. C78A, Stone Lake Road Aspen, HMA#7
8. C24A, Three Little Lakes, FPMA#5
9. C107H, Border Creek Springs, FPMA#5, NCMA#11
10. C215H, Mishonagan Creek Aspen, FPMA#3
11. C73H, Mood Road Red Pine, FPMA#4

Estimated acreage = 1196

Chase Christopherson

1. C169H, Maple Lake Sale, FPMA#3
2. C150H, NE Trout Lake Sale, FPMA#3
3. C252H, Circle Lily Lake Sale, FPMA#3, NCMA#10

Estimated acreage = 447

NHAL List of Sale Establishment for 2012/2013 Planning
ALREADY PRE-SALE LIST FROM PAST YEARS

Todd Anderson

1. C267H Lake Catherine Sale NCMA #9
 2. C148H Little John Lake, NCMA #123. done
 3. C26H:Siphon/Salsich Creek Area FPMA #3, Special Aquatic #13, Garland/Salsich Springs Site
 4. C62H, C63H: Little Gibson Lake Area, FPMA #3, NCMA #14
 5. C40H: Little Bass Lake, FPMA #4
 6. C132H South Allequash Lake, NCMA#12
 7. C98H Starrett Lake Road FPMA #4
- Estimated acreage = 1046

Jim Wetterau

1. C86A Fort Wilderness, FPMA #6
- Estimated acreage = 250?

Paul Stearns

1. C250H More Turtle Lake Road Sale III, FPMA
 2. C146H, Mann Lake South II, NCMA#12
- Estimated acreage = 255

Jeff Olsen

1. C293H Thompson Trail, FPMA
 2. C284H Plunkett Lake, NCMA#9, FPMA Given to Tim F.
 3. C7H Lake Laura NW, NCMA#8
 4. C266H Fisher Lake Road, FPMA and NCMA#9 done by Mercer DNR Crew
 5. C37H East Star Lake, NCMA #8
 6. C220H Island Lakeshore, FPMA#3
- Estimated acreage = 1240

Adam Wallace

1. C56H Partridge Lake, NCMA#8, FPMA
 2. C145H Benedict Lake, NCMA#12 done
 3. C219H Island Lake Boat Landing, FPMA #3
 4. C264/265H Turtle River Purchase, FPMA#1
 5. C269.270H Circle Lily Road, FPMA#3 and 10
- Estimated acreage = 1068

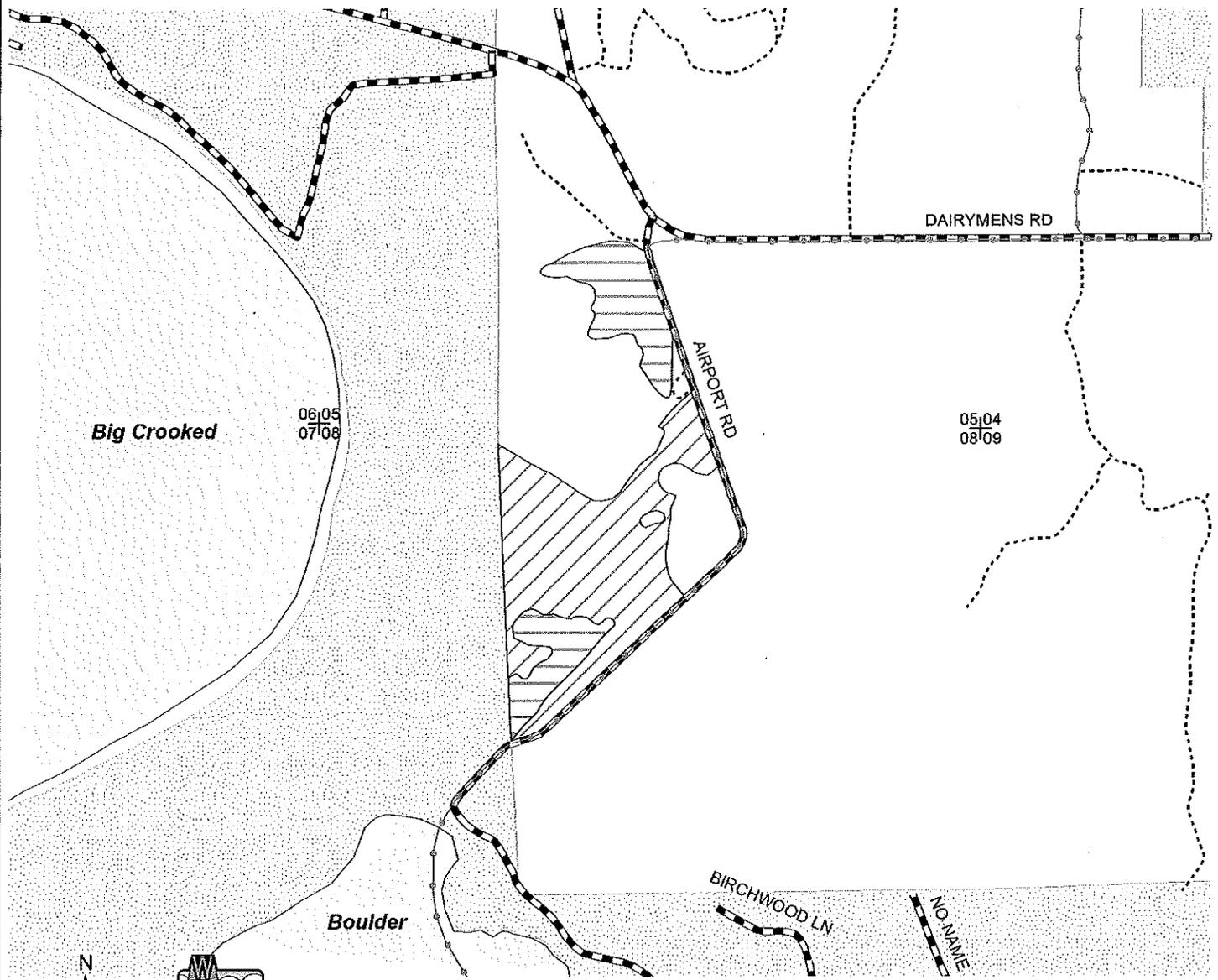
Craig Dalton

1. C113H Klondike Lake, NCMA#12, FPMA#43.
 2. C15A South Clear Lake, FPMA#5
 3. 108H Blue Island Oak, FPMA#5
 4. 187H Shuman Road, FPMA#3
 5. C1A – Stacks Bay – FPMA#6
- Estimated acreage = 967

Chase Christopherson

1. C169H M/51/CWY N Triangle, FPMA#3
- Estimated acreage = 100

**Northern Highland – American Legion State Forest
 C126H Stands 1, 2, and 4 Boulder Junction Airport 73 acres
 Town of Boulder Junction, Vilas County, T42N R7E Sec. 5 & 8
 NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production**



Scale: 4" = 1 Mile
 1:15,840



Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

Legend

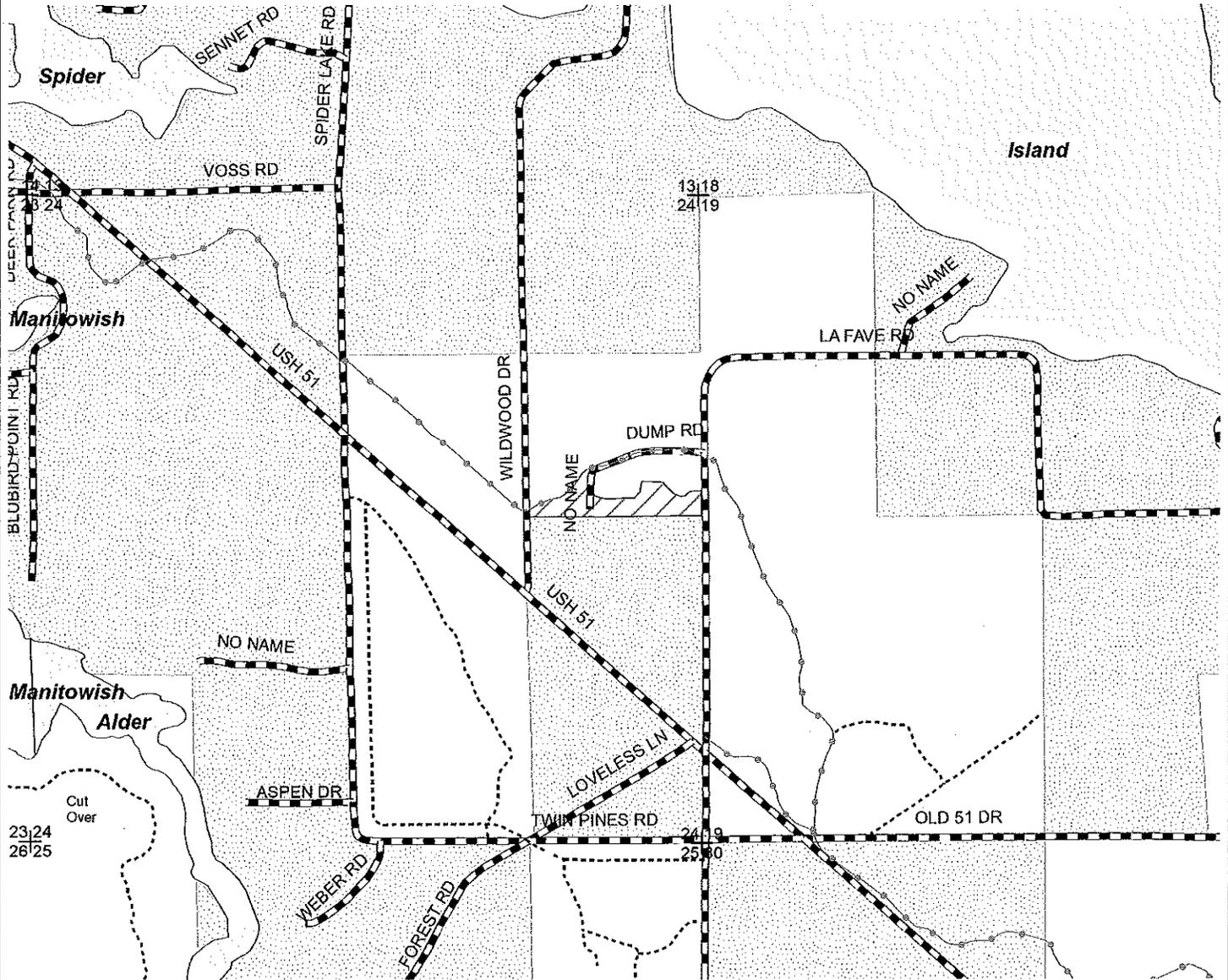
- ⊕ Section Corner
- Woods Roads
- Snowmobile Trails
- ▬ Highways and Town Roads
- ▨ Aspen/Red Pine Proposed Area
- ▭ Red Pine Proposed Area
- Lakes
- ▤ Private Lands

The objective for this area is to maintain aspen as a strong component in mixed stands and increase the presence and age of red and white pine.

The 52-year old Aspen/Red Pine Area will be clearcut so the aspen can regenerate through root suckers. In the spots where the pine is growing close together, suppressed and poorly formed pine will be marked for removal. The majority of the large diameter red and white pine will remain.

The Red Pine Area consists of two stands. The first is a plantation planted in 1949. It has been thinned twice before and has grown so much, the pine need to be thinned again because too many trees are competing for the available sunlight, moisture and nutrients. This will provide room for the crowns to grow larger and the tree trunks to grow in diameter more quickly. The other pine stand is a well stocked natural origin stand. This stand has been thinned before, and needs to be thinned again. Trees with large crowns and diameters will be retained, removing those that are suppressed and of poor quality. Biomass harvesting (removing the tops from the site) is not allowed due to the poor soils. This sale is located along Airport Road, part of which is used as a snowmobile trail. The snowmobile club will be notified if any signage is necessary.

Northern Highland – American Legion State Forest
C234H Stand 11 Dump Road 7 acres
Town of Boulder Junction, Vilas County, T42N R5E Sec. 24
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production



Scale: 4" = 1 Mile
 1:15,840

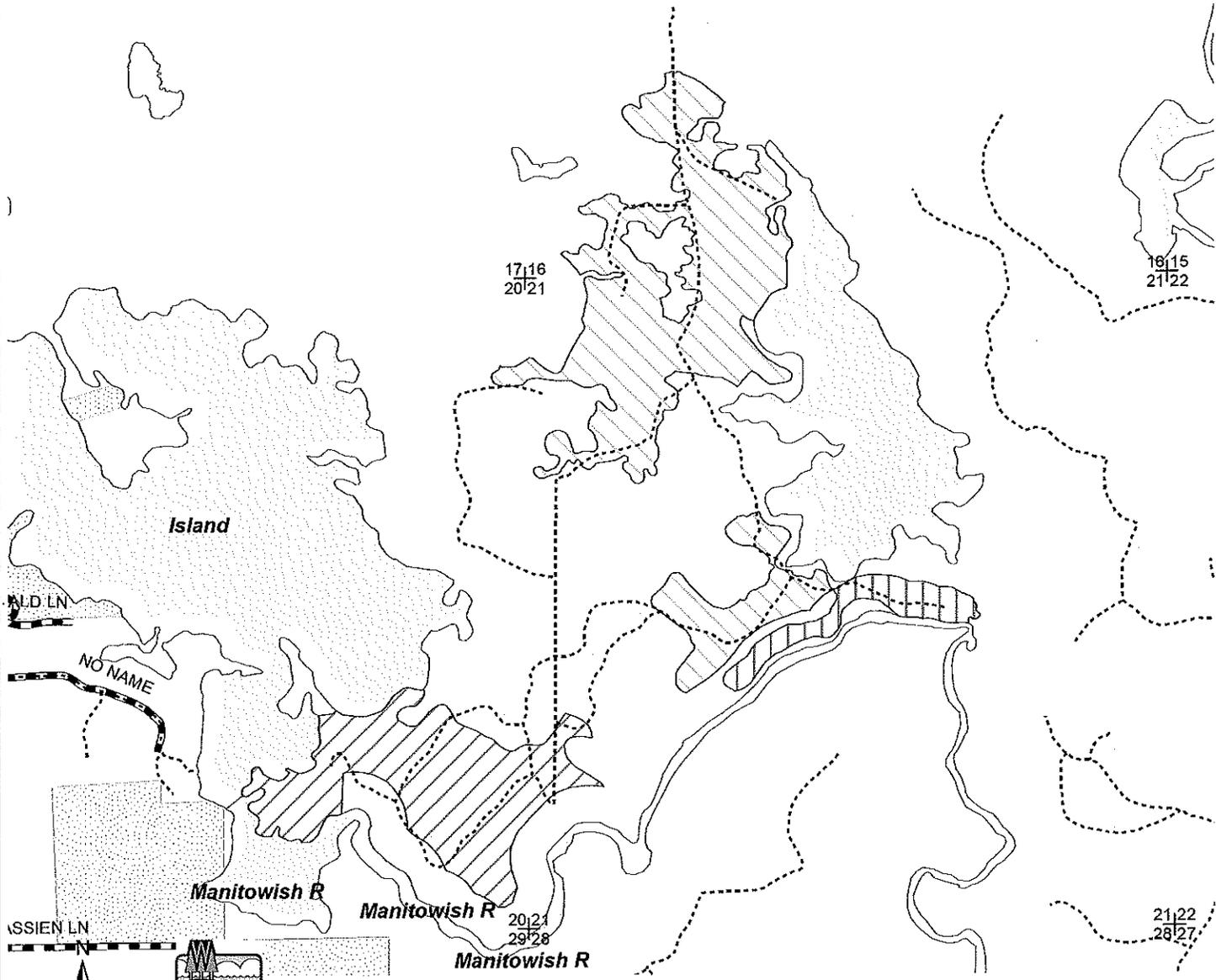
Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

Legend

- + Section Corner
- Woods Roads
- Snowmobile Trails
- ▬ Highways and Town Roads
- ▨ Pine Proposed Area
- Lakes
- ▤ Private Lands

The objective for Management Area 3 is to increase the presence and age of red and white pine. The prescription in this stand will be to cut all balsam fir and selected red and white pine. These red and white pine trees are about 62 years old, and have been thinned once before. The purpose of this harvest is to maintain the health, vigor and growth of the pines. Biomass harvest (removing the tops from the site) will be allowed. A snowmobile trail runs through the stand. The local club will be contacted for signage if necessary.

Northern Highland – American Legion State Forest
C206H Stands 1, 3, 8 and 14 Island Creek 169 acres
Town of Boulder Junction, Vilas County, T42N R6E Sec. 16, 17, 20 and 21
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production Mgmt.
Area 13 – Special Aquatic – Manitowish River Site – Native Community



Scale: 4" = 1 Mile
 1:15,840

Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

Legend	
+	Section Corner
-----	Woods Roads
—○—	Snowmobile Trails
==	Highways and Town Roads
▨	Aspen Proposed Area
▧	Pine/Birch Proposed Area
▩	Fir Proposed Area
○	Lakes
⋯	Private Lands

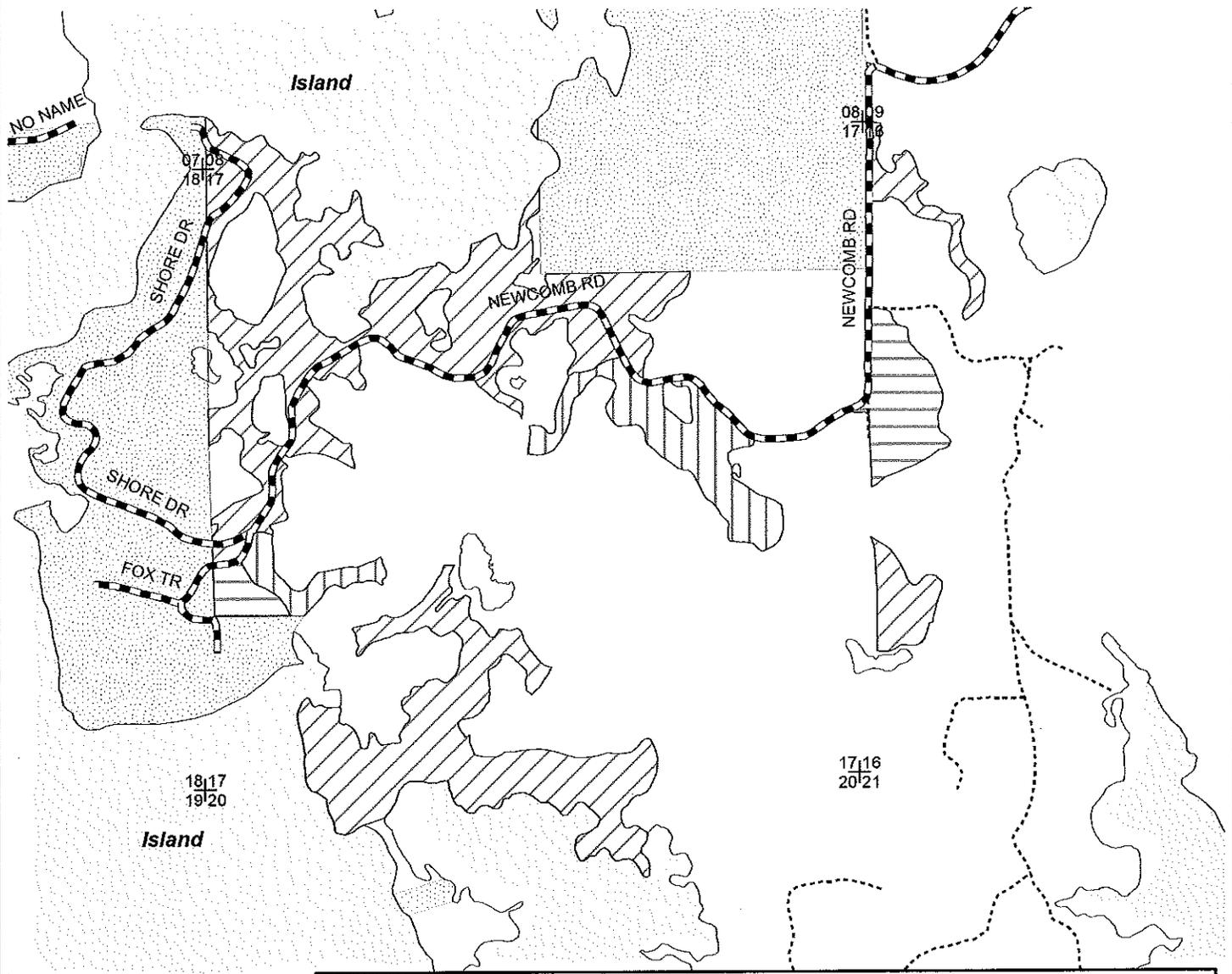
The objective for the stands in the forest production area is to develop a mixed forest dominated by older red and white pine with aspen and white birch as important secondary species. The objective for the native area is to improve the forest composition by accelerating or enhancing the long-lived tree species component.

The Pine/Birch Area will be selectively harvested, removing poorly formed and lower quality stems. The remaining pine will have space for the crowns to expand, and the tree trunks to grow larger in diameter.

In the Aspen Area the aspen and white birch will be cut and will regenerate within the pine stand. Where the aspen grows in a more pure stand, it will grow back as a uniform stand of aspen through root suckers.

The Fir Area stand in the native community area is dominated by balsam fir. Patches will be cut out of this stand, creating openings for longer lived pine to grow within them. Biomass harvesting (removing the tops from the site) is not allowed due to the poor soils. Best Management Practices for Water Quality will be adhered to in the Island Creek and Manitowish River Riparian Management Zones.

Northern Highland – American Legion State Forest
C205H Stands 3, 6, 7, 8 and 15 Island Lake 160 acres
Town of Boulder Junction, Vilas County, T42N R6E Sec. 16, 17 and 20
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production



Scale: 4" = 1 Mile
 1:15,840



Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

Legend	
+	Section Corner
-----	Woods Roads
==	Highways and Town Roads
▨	Aspen/Fir/Birch Area
▤	Pine Proposed Area
▥	Oak Proposed Area
○	Lakes
⋯	Private Lands

The objective for the stands in the forest production area is to develop a mixed forest dominated by older red and white pine with aspen and white birch as important secondary species, and to manage for current levels of red oak, aspen, and white birch.

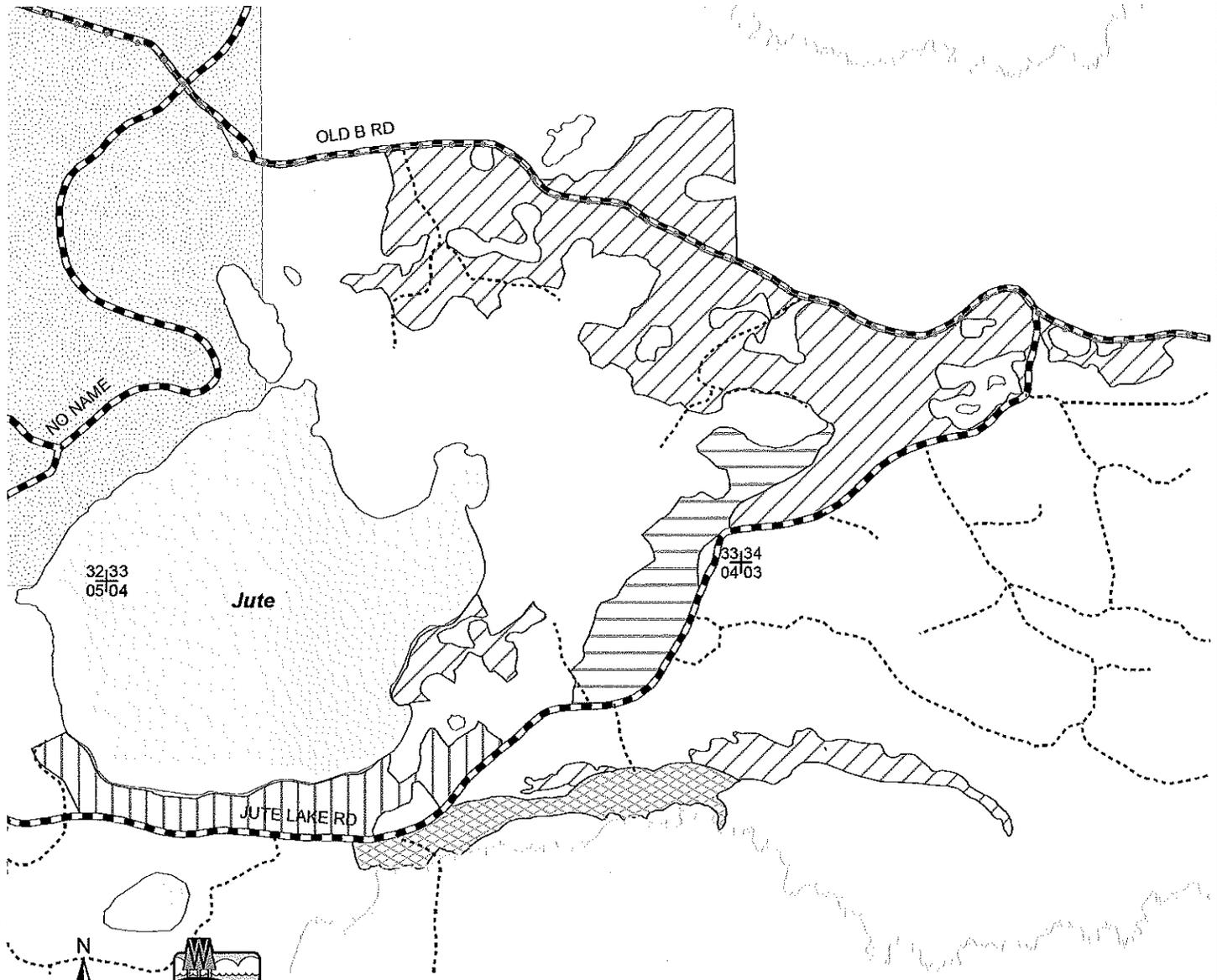
The Pine Areas are sawlog pine stands that were last thinned in 1983. The pine will be selectively marked, maintaining the health, vigor and growth of the remaining pine trees.

The Oak Area stands will undergo two silvicultural treatments. One stand will be thinned. This will help develop bigger crowns on the remaining crop trees, which in turn will produce more acorns. The other stand will undergo a shelterwood harvest. This is the first stage in regenerating an oak stand. This will open up the canopy significantly, allowing more sunlight to reach the ground. This increase in sunlight allows the oak seedlings to grow.

The Aspen/Fir/Birch Area stands will be harvested removing the majority of the trees. Aspen in particular needs full sunlight to warm the soil and encourage root suckers to sprout, amounting to thousands of seedlings per acre. Biomass harvesting (removing the tops from the site) is not allowed due to the poor soils. Best Management Practices for Water Quality will be adhered to in the Island Creek and Island Lake Riparian Management Zones.

Northern Highland – American Legion State Forest
 C30H Stands 9, 14, 18 and 21; C60H Stand 4, 5 9 and 10; C61H Stand 4
 Jute Lake 308 acres

Town of Land O Lakes, Vilas County, T42N R8E Sec. 3, 4 and 5 T43N R8E Sec. 33 and 34
 NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production
 Mgmt. Area 9 – Hemlock / Northern Hardwoods – Jute Lk Site - Native Community



Scale: 4" = 1 Mile
 1:15,840

Map produced by
 Todd Anderson &
 Paul Schultze, 6/12

Legend

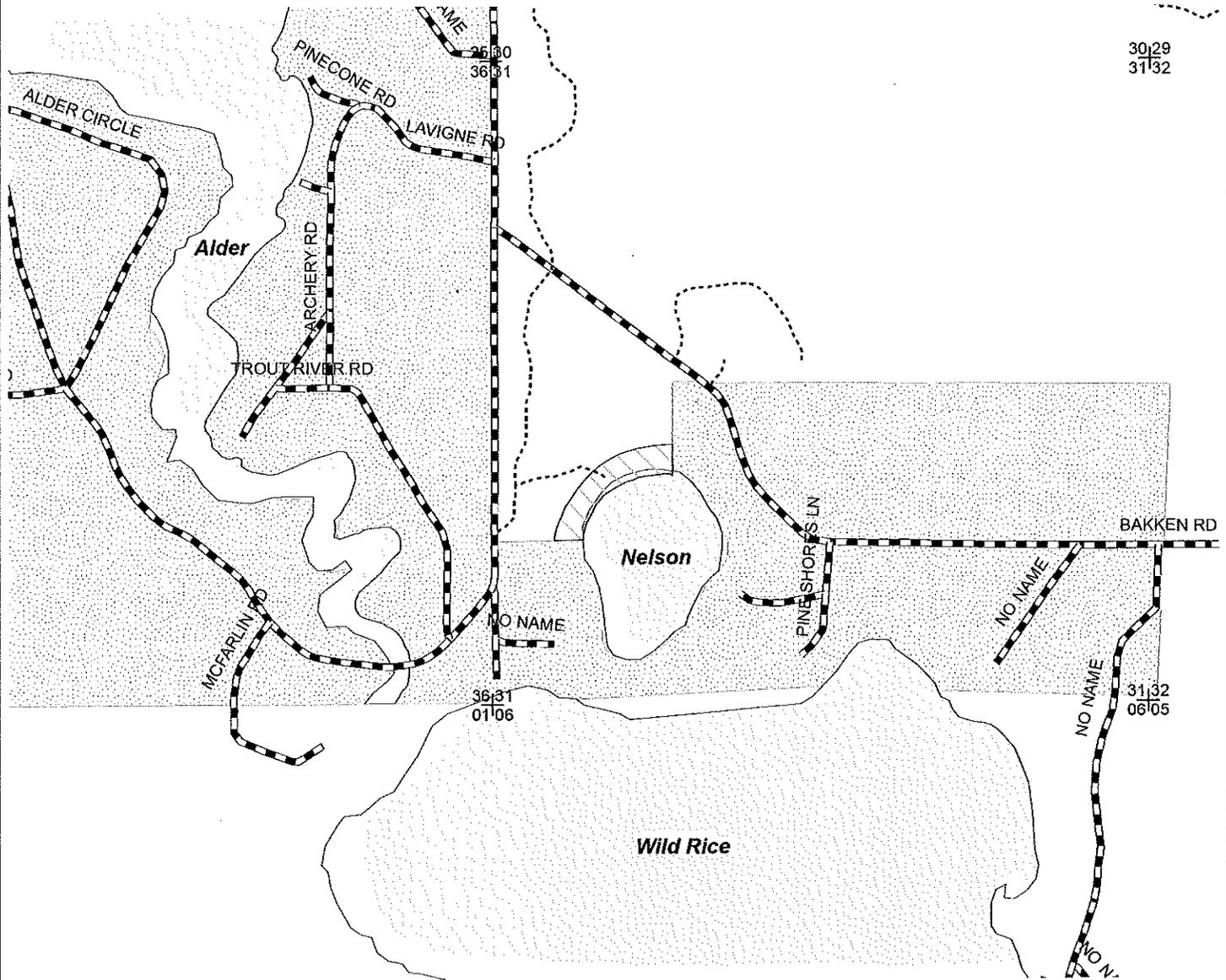
- + Section Corner
- Rivers and Streams
- Woods Roads
- Snowmobile Trails
- == Highways and Town Roads
- ▨ Aspen Proposed Area
- ▩ Aspen/NC Proposed Area
- ▤ Oak Proposed Area
- ▧ Northern Hardwood Proposed Area
- Lakes
- ▨ Private Lands

The objective for stands in the forest production area is to maintain aspen, jack pine, tamarack, black spruce and current levels of red oak. The objective for the Aspen/NC Area native community area is to increase the age diversity and composition of the hemlock and northern hardwood stands.

In the Aspen Area, the aspen and jack pine will be clearcut to regenerate these stands. In the tamarack/black spruce stands will also be clearcut to release the understory seedlings, and to allow new seedlings from residual trees to sprout and renew the stand. The Oak Area stand will undergo an initial shelterwood harvest. This will allow more sunlight to reach the forest floor, allowing oak seedlings to become established.

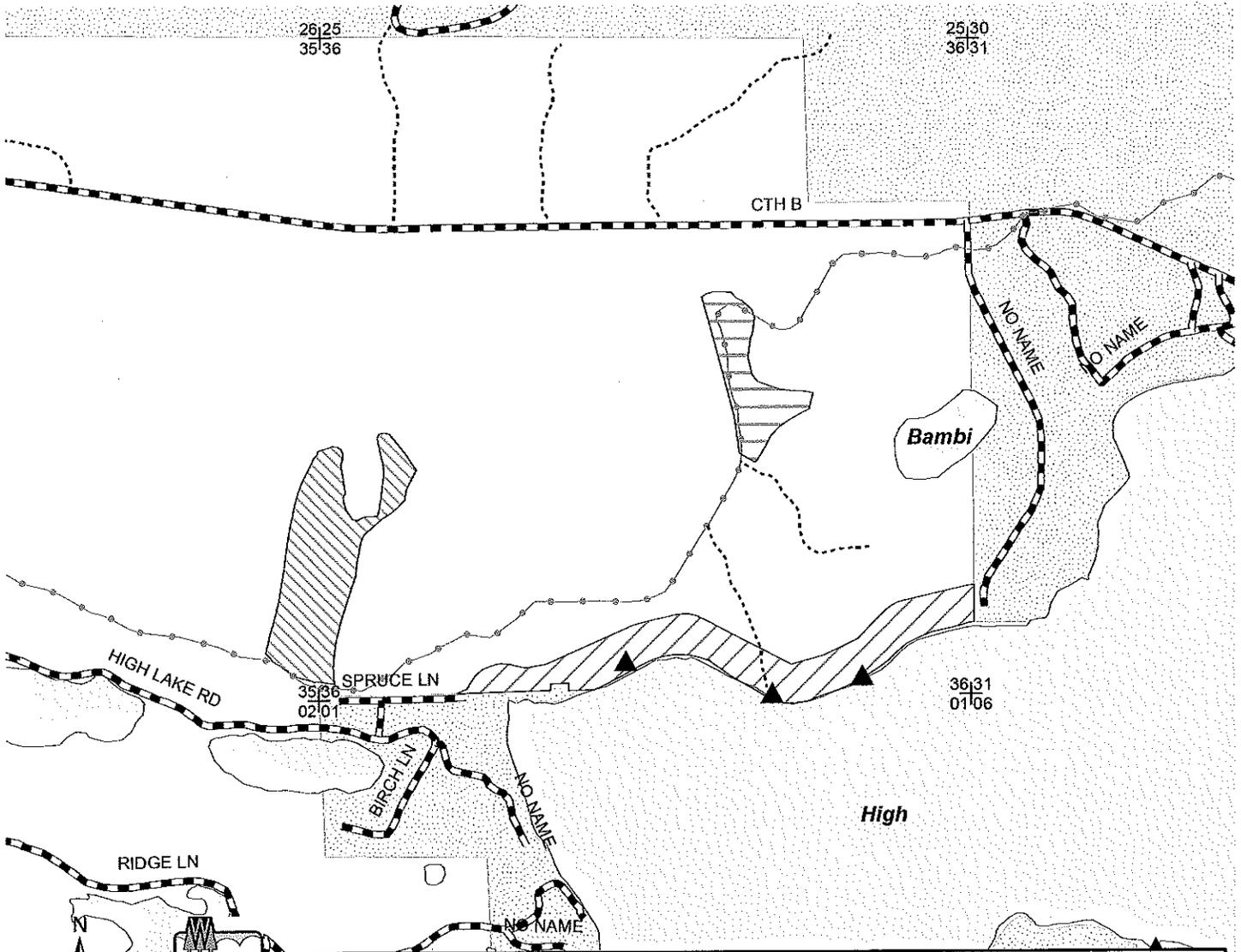
The Northern Hardwood Area stand will be selectively marked. Trees that are den or potential snag trees will be retained. In the future these snag trees will fall down and become critter habitat on the forest floor. Trees of all size and age classes will remain after the harvest. Biomass harvesting (removing the tops from the site) is allowed. Best Management Practices for Water Quality will be adhered to in the Jute Lake Riparian Management Zone.

Northern Highland – American Legion State Forest
C232H Stand 9 Nelson Lake 6 acres
Town of Boulder Junction, Vilas County, T42N R6E Sec. 31
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production



The objective for Management Area 3 is to develop a primarily mixed forest with areas dominated by older red and white pine, with aspen, white birch, red maple and oak as important secondary species. This 95-year old stand of scrub oak is overmature and exhibiting signs of severe crown die-back. The aspen and white birch will be designated for cutting, leaving a few scattered trees for species diversity. Only marked oak will be removed, leaving scattered red and white pine to grow older. Biomass harvesting (removing the tops from the site) is not allowed. Best Management Practices for Water Quality will be adhered to in the Nelson Lake Riparian Management Zone.

**Northern Highland – American Legion State Forest
 C90H Stands 12, 13, and 17 North High Lake 60 acres
 Town of Presque Isle, Vilas County, T43N R7E Sec. 35, 36
 NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production**



Scale: 4" = 1 Mile
 1:15,840

Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

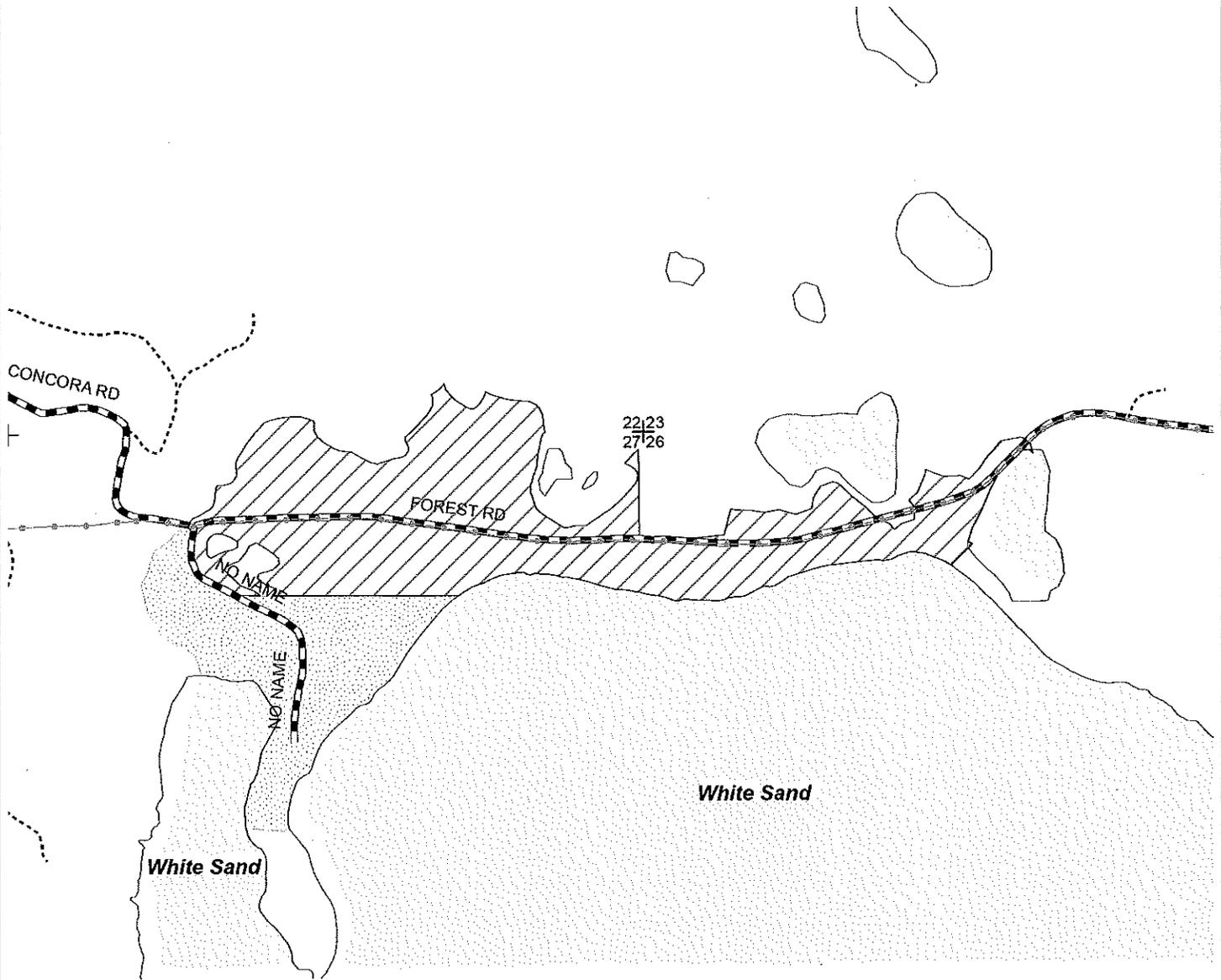
Legend	
+	Section Corner
▲	Canoe Campsite
---	Woods Roads
○-○	Snowmobile Trails
▬▬▬	Highways and Town Roads
▨	Aspen/Red Pine Proposed Area
▧	Red Pine Proposed Area
▩	White Pine Proposed Area
□	Lakes
▤	Private Lands

The objective for this area is to maintain aspen as a strong component in mixed stands and increasing red and white pine as a dominant community type. The Aspen/Red Pine Area stand will be clearcut so the aspen can regenerate through root suckers. The majority of the large diameter red oak and red pine will remain. Upon opening up the canopy, the understory white pine seedlings will be released, helping them grow faster.

The Red Pine Area is a plantation, planted in 1965, that has been thinned once before. It has grown so much, the pine need to be thinned again because too many trees are competing for the available sunlight, moisture and nutrients. This will provide room for the crowns to grow larger and the tree trunks to grow in diameter more quickly.

The White Pine Area, also a plantation, planted at the same time, has essentially failed. Aspen grew over the white pine and these mature aspen need to be removed to allow the pine to grow. Some of the white pine still grow in rows, and individual trees in these rows will be removed, to allow the remaining pine space to develop more fully. Biomass harvesting (removing the tops from the site) is not allowed due to the poor soils. Best Management Practices for Water Quality will be adhered to in the High Lake Riparian Management Zone. Access will be to CTH B, via the snowmobile trail. The snowmobile club will be notified if any signage is necessary.

Northern Highland – American Legion State Forest
C95H Stand 5 / C119H Stands 1 and 7 North White Sand Lake 129 acres
Town of Boulder Junction, Vilas County, T42N R7E Sec. 22, 23, 26 and 27
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production



Scale: 4" = 1 Mile
 1:15,840

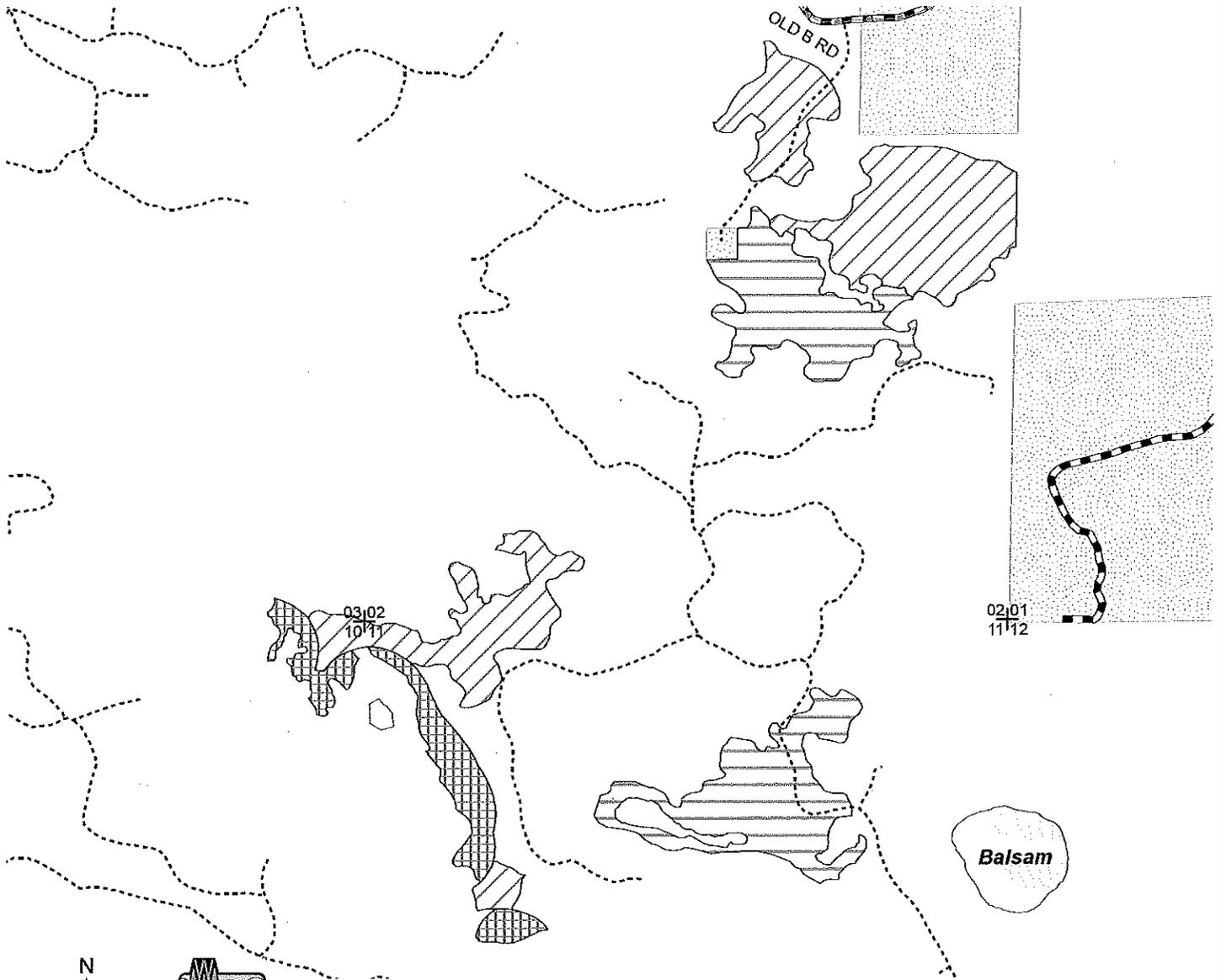
Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

Legend

- + Section Corner
- Woods Roads
- Snowmobile Trails
- ▬ Highways and Town Roads
- ▨ Oak Proposed Area
- Lakes
- ▤ Private Lands

The objective for this Oak Area is to manage for the current levels of red oak and northern hardwoods. This 95-year old stand of red oak is ready to undergo the first stage of a regeneration harvest. This will involve removing a significant amount of the overstory in order to get more sunlight down to the ground. With more available sunlight, the oak seedlings will be able to grow more quickly. When the oak seedlings are established, the majority of the remaining older red oak will be removed. This area is suitable for using prescribe fire to help regenerate the red oak. The northern hardwood stand will remove the white birch, and selectively cut the maple, leaving a variety of different sized trees after the harvest. Biomass harvesting (removing the tops from the site) is allowed. Best Management Practices for Water Quality will be adhered to in the White Lake Riparian Management Zone. A snowmobile trail runs through this proposed sale, and if the timber sale takes place during the winter, the snowmobile trail club will be contacted.

Northern Highland – American Legion State Forest
C28H Stands 6, 9, 14, 15, 16 and 19 Perry Lake 160 acres
Town of Land O Lakes, Vilas County, T42N R8E Sec. 2, 3, 10 11
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production
Mgmt. Area 13 – Special Aquatic – Garland & Salsich Creek Sites – Native Community



Scale: 4" = 1 Mile
 1:15,840

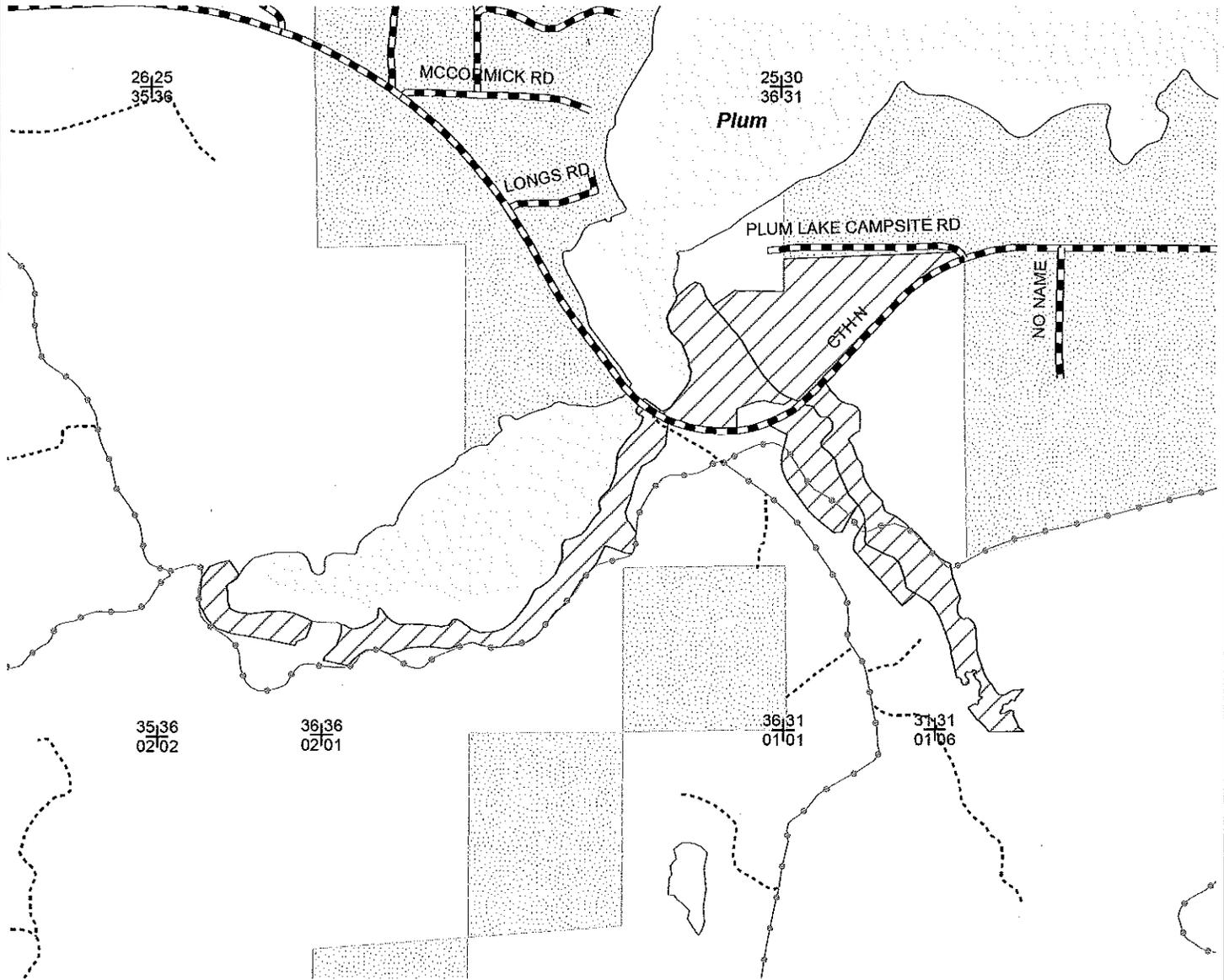
Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

- Legend**
- + Section Corner
 - Woods Roads
 - Snowmobile Trails
 - ▬ Highways and Town Roads
 - ▨ Aspen Proposed Area
 - ▩ Aspen/NC Proposed Area
 - ▬ White/Red Pine Proposed Area
 - Lakes
 - ▤ Private Lands

The objectives for the stands in the forest production areas call for an increase in both acres and age of red and white pine, and to maintain aspen, tamarack and black spruce. The objective for the Aspen/NC Area in the native community area calls for the use of active management techniques to maintain aspen in the upland forested areas. The Aspen Area stands will be clearcut so the aspen can regenerate through root suckers. The tamarack / black spruce stands within this same area will be clearcut to release the understory seedlings, and to allow new seedlings from residual trees to sprout and renew the stand.

The White/Red Pine Area stands are overstocked. The emphasis will be on keeping large crowned, healthy pine, selectively marking for removal suppressed and poorly formed pine. The pine stand will be thinned because in certain areas it is overstocked; too many trees are competing for the available sunlight, moisture and nutrients. Biomass harvesting (removing the tops from the site) is not allowed due to the poor soils. Best Management Practices for Water Quality will be adhered to in the Garland Springs Creek Riparian Management Zone.

Northern Highland – American Legion State Forest
C72H Stands 3 and 6 / C81H Stands 15 and 19 Plum Lake and Creek 98 acres
Town of Plum Lake, Vilas County, T41N R7E Sec. 36 T41N R8E Sec. 31
NHAL – SF Master Plan: Mgmt. Area 4 – Vilas Sandy Plains Central – Forest Production



Scale: 4" = 1 Mile
 1:15,840

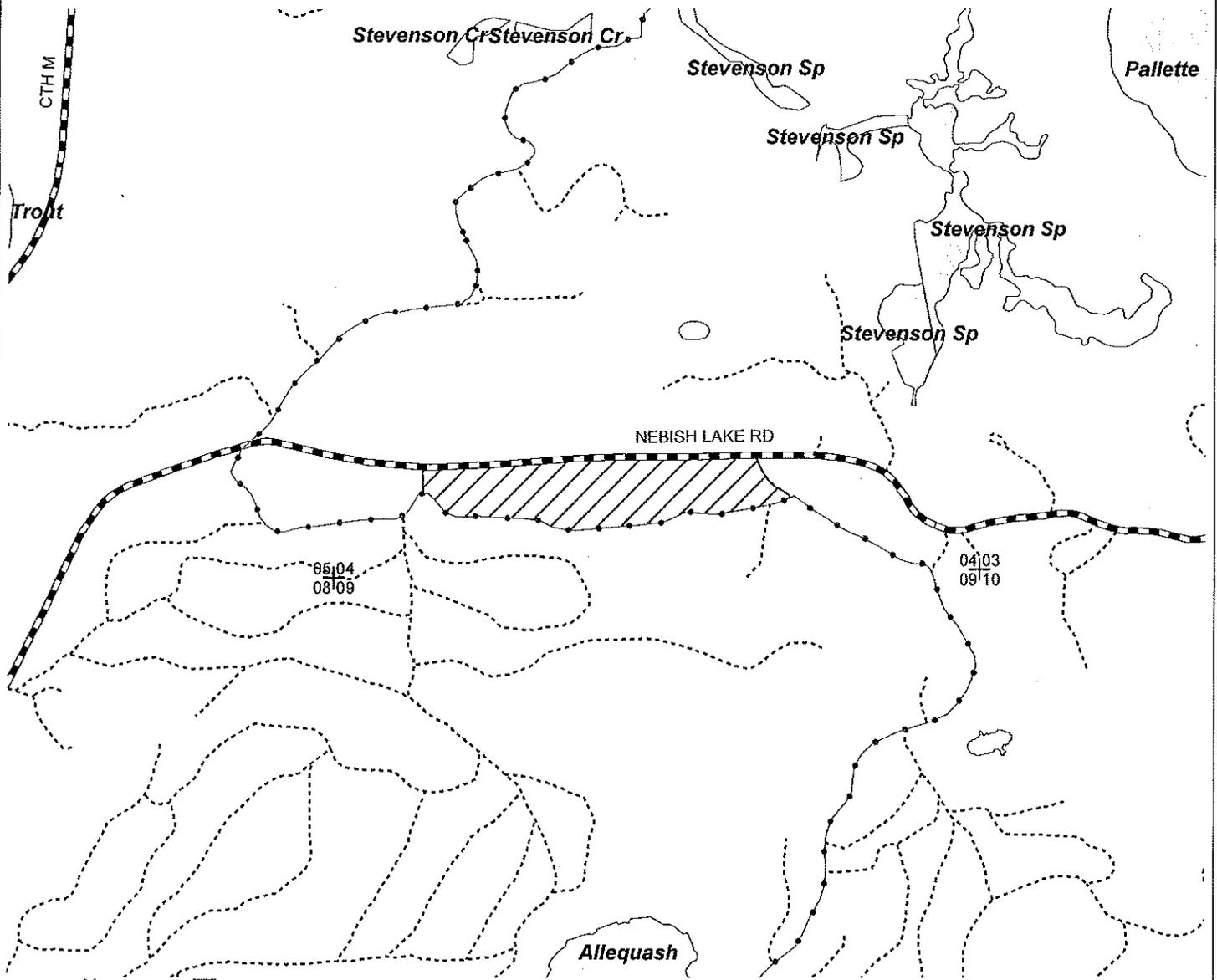
Map produced by
 Todd Anderson &
 Paul Schultz, 6/12

Legend

- Section Corner
- Woods Roads
- Snowmobile Trails
- Highways and Town Roads
- Aspen/Birch Proposed Area
- Lakes
- Private Lands

Sale area is located in the Towns of Boulder Junction and Plum Lake and borders CTH N. Objectives for the Management Class are to maintain a mixed forest dominated by red and white pines with aspen, red oak, white birch and jack pine as important secondary species. Specific to these stands, we will harvest most aspen and white birch while maintaining the red oak, red pine and white pine components. The stands in the Aspen/Birch Area are both 65 years old and harvests were scheduled for 2000. Harvest goals are cut the aspen, white birch, balsam fir and some maple to promote natural regeneration of these species and encourage the oak and pine natural regeneration also. White pine, red pine and a few oaks will be cut selectively. Aesthetics will be a primary concern for the lake shore, creek shore, campground and hike trail to the fishing pier. Large trees and setbacks will be left to reduce the visual effects of the harvesting. Access is good to all stands with existing roads. The campground, bike trail and snowmobile trail are considered and disturbance to recreationalists will be minimized with seasonal restrictions.

Northern Highland – American Legion State Forest
C131H Stand 1 Nebish Road Oak Burn 32 acres
Town of Boulder Junction, Vilas County, T41N R7E Sec. 4 and 5
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production



Scale: 4" = 1 Mile
 1:15,840

Map produced by
 Todd Anderson &
 Paul Schultz, 7/12

Legend

- Section Corner
- Woods Roads
- Snowmobile Trails
- Highways and Town Roads
- Red Oak Proposed Area
- Lakes
- Private Lands

The objective for this Red Oak Area stand in Management Area 3 is to manage for current levels of red oak, assuring natural regeneration through harvest and site disturbance. The site underwent a prescribed burn in 2011. The stand is well stocked with red oak seedlings, which means the overstory needs to be removed to prevent unnecessary damage to them before they grow too large. Between 5 and 10 trees per acre will remain after harvest. Biomass harvesting (removing the tops from the site) is not allowed.

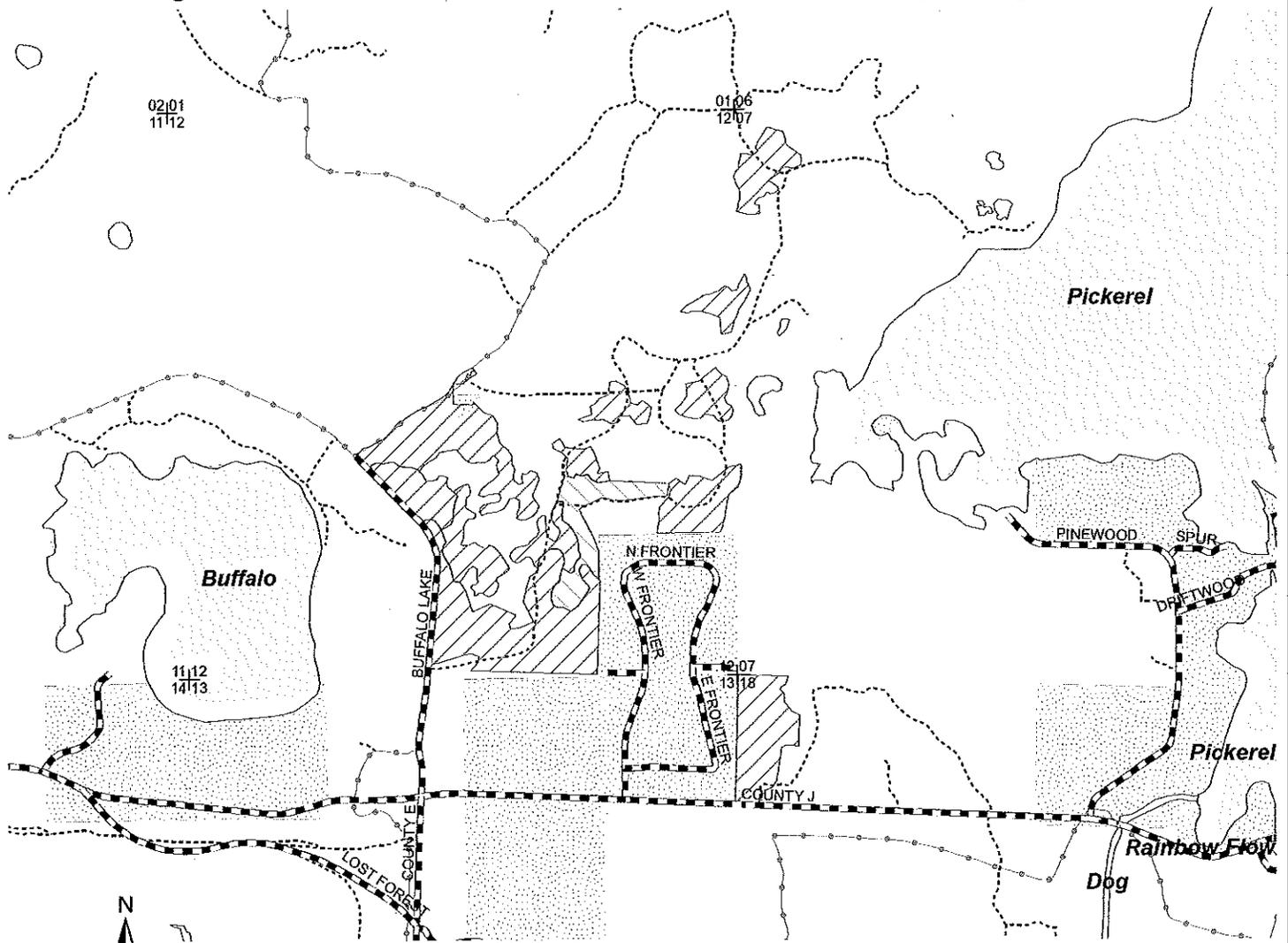
Northern Highland - American Legion State Forest

Compartment 7A - Pickerel Lake Pines - 106 Acres

Town of Woodruff, Oneida County, T39N-R7E Sec.12

Town of Newbold, Oneida County, T39N-R8E Sec. 7,18

**Master Plan: Management Area 6 - Oneida Sandy Plains - Forest Production Area
Management Area 11 - Red and White Pine - Native Community Management Area**



Scale: 4" = 1 Mile
1:15,840

Legend

- ⊕ Section Corner
- ▬ Oneida Co. Hwy and Roads
- ▨ Aspen Area
- ▧ Pine Thinning Area
- Woods Roads
- ⊕ Snowmobile Trails
- Lakes
- ▨ Private Lands

The objectives for the Red and White Pine Area is to develop a mixed pine forest having a greater abundance of pine that is dominated by old trees, large amounts of coarse woody debris, numerous standing dead snags, and a wide age diversity of trees. The objectives for the Oneida Sandy Plains Area are to increase the presence and age of red and white pine on suitable sites and maintain early successional forest types, such as aspen, as a strong component on the landscape.

Several of the pine stands in this area have been thinned before and have re-grown to a point that they are now overstocked for optimal growth. These stands are currently at 181 sq.ft of basal area per acre. This thinning will harvest about one third of the pines and reduce the average basal area to a fairly uniform 120-140 square feet per acre. The best formed and largest pine will remain, along with numerous standing snags and potential snags. The mature aspen, white birch, maple, and jack pine will also be harvested during this thinning. A red pine plantation that has never been thinned will be row thinned in which one third to one half of the trees will be removed.

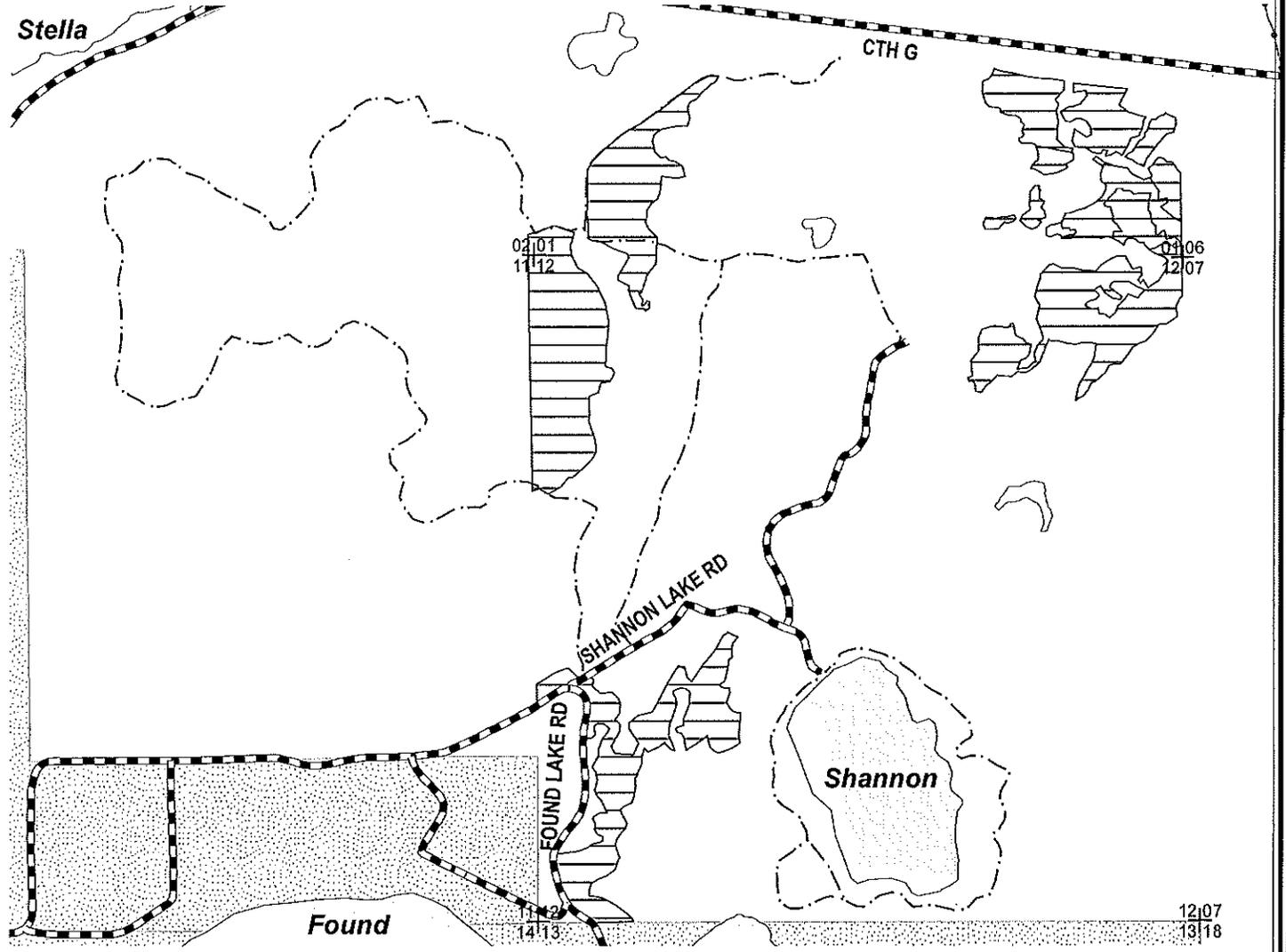
In the aspen area a portion, approximately 10 acres, of a larger aspen stand will be clearcut to naturally regenerate the species back through root sprouting. Aspen is a sun loving species that requires full sunlight to regenerate. This harvest will help maintain early successional species on the landscape and also provide a vegetative screen for future harvests north of a populated subdivision.

A snowmobile trail is also located on the northwest end of the sale area. The snowmobile club will be contacted for signage as necessary.



Map produced by
Jim Wetterau, 6/12

**Northern Highland - American Legion State Forest
 Compartment 12H - Shannon Lake Pine - 102 Acres
 Town of St. Germain, Vilas County, T40N-R8E Sec.1,12
 Master Plan: Management Area 4-Vilas Sandy Plains Central-Forest Production Area**



Scale: 4" = 1 Mile
 1:15,840

Legend

- ⊕ Section Corner
- ▬ Highways and Town Roads
- - Shannon Lake Trails
- ▭ Pine Thinning Area
- Snowmobile Trails
- Lakes
- ▨ Private Lands

The goal for this area is to increase the presence and age of red pine and white pine.

The area contains several red and white pine plantations. Some have never been thinned and others have been thinned however all the stands have grown to a point that they are now overstocked for optimal growth. The thinning prescribed will harvest about one third of the pines and reduce the average basal area to a fairly uniform 90 - 120 square feet per acre.

Shannon Lake is identified as a scenic lake in the masterplan. No harvesting will take place within 400 feet of the lake. Shannon Lake recreational trails are located within the sale area. Trails will be signed or re-routed, if necessary, during harvesting operations. Aesthetics will be maintained along the trail corridors within the pine plantations as these stands will have significant residual larger pines remaining.

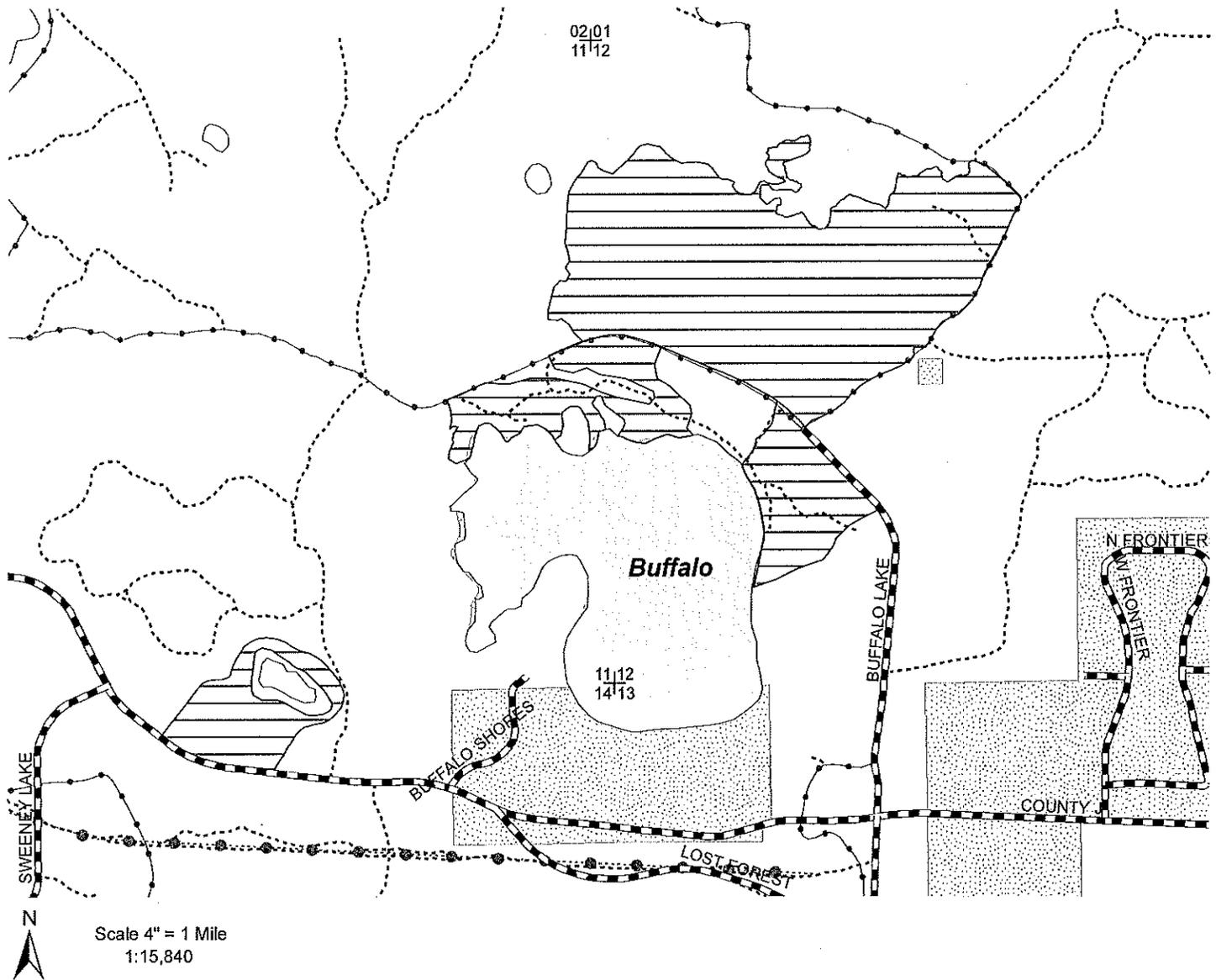
Biomass harvesting (removing the tops from the site) is not allowed due to the poor soil.



Map produced by
 Jim Welterau, 6/12

**Northern Highland - American Legion State Forest
 Compartment 6A & 17A - Buffalo Lake Pines - 182 Acres
 Town of Woodruff, Oneida County, T39N-R7E Sec.11,12,14**

**Master Plan: Management Area 5 - Big Arbor Vitae Loamy Hills - Forest Production Area
 Management Area 11 - Red and White Pine - Native Community Management Area**



Legend

- ⊕ Section Corner
- Oneida Co. Hwy and Roads
- ▭ Pine Thinning Area
- Woods Roads
- Powerline
- Snowmobile Trails
- Lakes
- ▨ Private Lands

The objectives for the Red and White Pine Area is to develop a mixed pine forest having a greater abundance of pine that is dominated by old trees, large amounts of coarse woody debris, numerous standing dead snags, and a wide age diversity of trees. The objectives for the Big Arbor Vitae Loamy Hills Area is to maintain a mixed forest dominated by older red and white pine and northern hardwoods with aspen, oak, white birch, and jack pine as important secondary species.

The pine stands in this area have been thinned before and have re-grown to a point that they are now overstocked for optimal growth. The red pine and white pine is currently stocked on average at 180 sq. ft. of basal area per acre. This thinning will harvest about one third of the pines and reduce the average basal area to a fairly uniform 120-140 square feet per acre. The best formed and largest pine will remain, along with dead standing snags and potential snag trees.

Buffalo Lake Campground is located near the proposed timber sale but aesthetics will be maintained as larger diameter red and white pine will be retained after the thinning. A snowmobile trail is also located on the north end of the sale area. The snowmobile club will be contacted for signage as necessary.



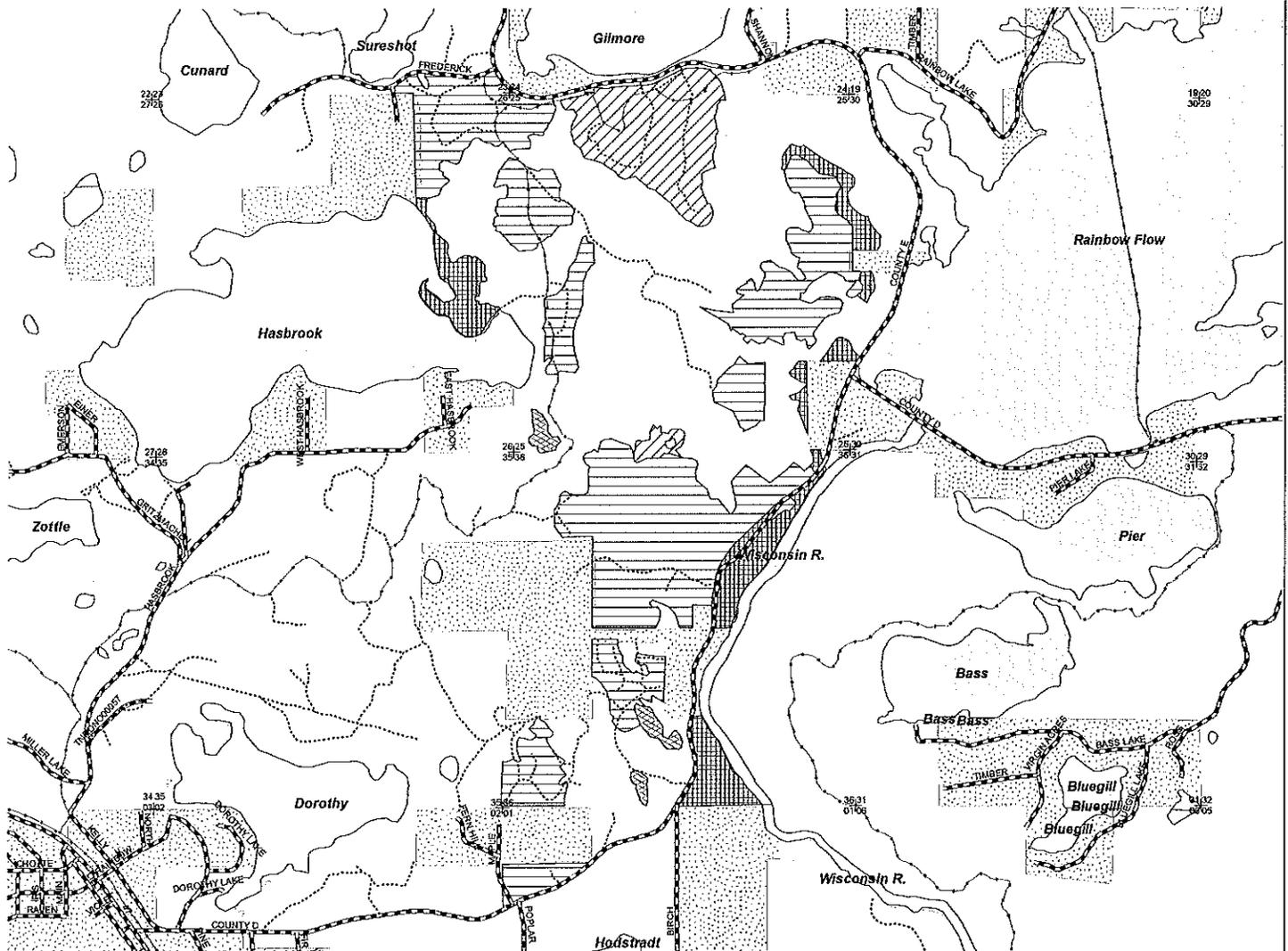
Map produced by
 Jim Wetterau, 6/12

Northern Highland - American Legion State Forest

Compartment 21A - East Hasbrook - 522 Acres

Towns of Woodruff & Newbold, Oneida County, T38N-R7E Sec.1 & T39N-R7E 23,24,25,26,30,36

Master Plan: Management Area 6 - Oneida Sandy Plains - Forest Production Area



1:28,000

Legend

- ✚ Section Corner
- Woods Roads
- ▬ Oneida Co. Hwy and Roads
- ▭ Oak Area
- ▨ Aspen/Spruce/ Pine Area
- ▩ Swamp Conifer Area
- ▧ Aesthetic Management Area
- Snowmobile Trails
- Lakes
- Private Lands

The objectives for this area are to maintain a mixed forest dominated by older red and white pine with aspen, red oak, white birch, and jack pine as important secondary species. Maintain forested wetlands with a representation of multiple age classes of black spruce and tamarack.

In the aspen-spruce-pine areas the mature aspen, white birch, jack pine, fir and select spruce, oak, red and white pine will be harvested. These areas will regenerate naturally to aspen with reserve spruce, oak, and red & white pine scattered throughout. In the jack pine area the stand will be cut and planted.

In the swamp conifer area, groups of tamarack and black spruce will be cut to prepare a seed bed and the adjacent seed trees will naturally seed in that area after the harvest. This harvest area will require frozen ground conditions.

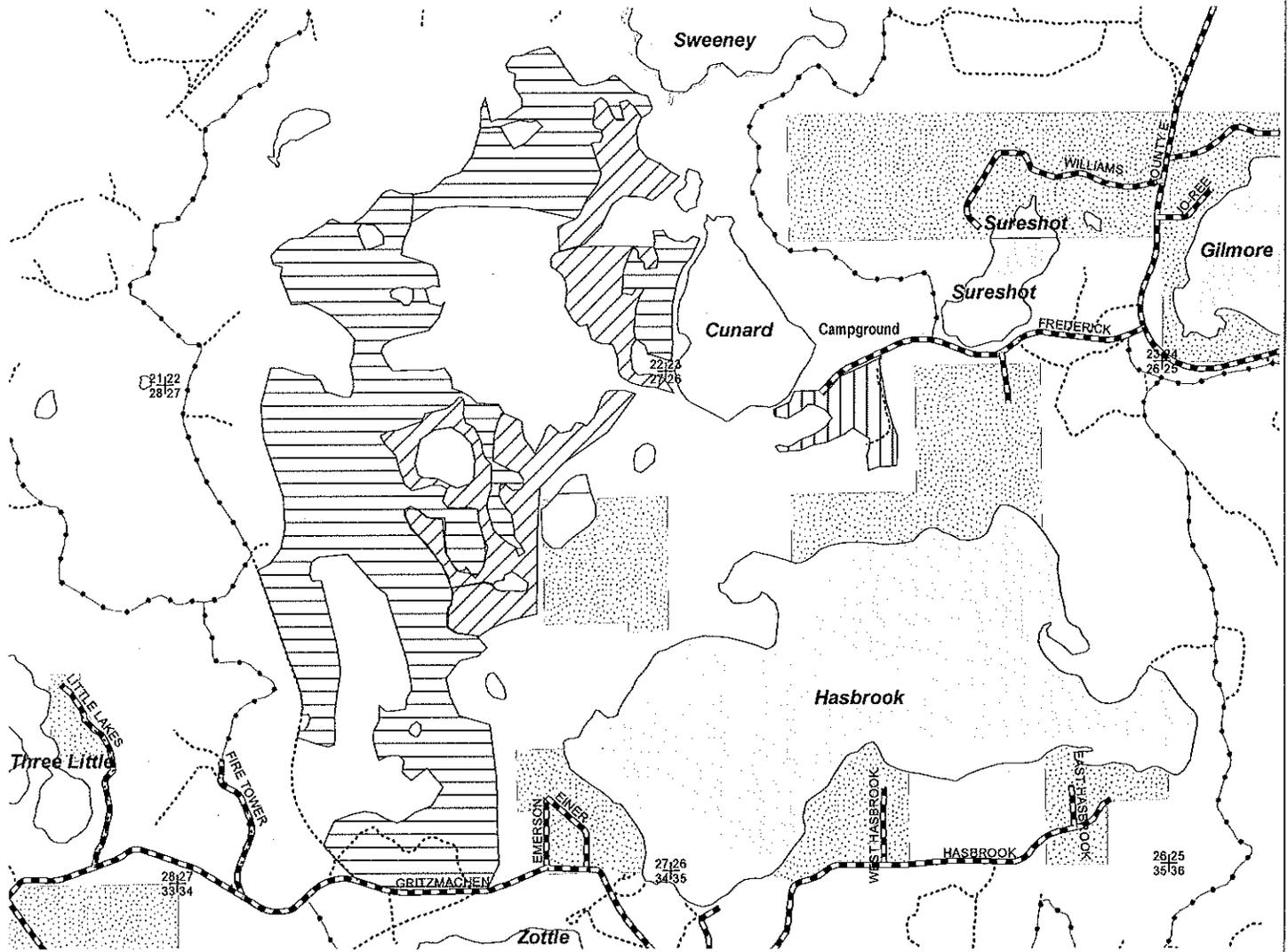
In the oak areas a shelterwood harvest will take place in which half of the trees will be harvested leaving about 40% of the original crown cover. This type of harvest will help to maintain oak on the landscape as it stump sprouts back or seeds in from the larger oak trees left behind.

In the aesthetic management area shorter-lived species such as aspen and white birch will be cut while oak and pine will be thinned to promote larger oak and pine as the best formed and largest trees remaining. The aesthetic integrity along the roads and watersheds will be maintained with a fairly uniform residual basal area of 40-60 square feet per acre. A snowmobile trail is located within the proposed timber sale area. The snowmobile club will be contacted for signage as necessary.



Map produced by
Jim Wetterau, 6/12

**Northern Highland - American Legion State Forest
 Compartment 23A - Cunard Lake Aspen - 325 Acres
 Town of Woodruff, Oneida County, T39N-R7E Sec. 22,23,26,27,34
 Master Plan: Management Area 5-Big Arbor Vitae Loamy Hills-Forest Production Area**



N
 1:20,000

Legend

- + Section Corner
- Woods Roads
- ▬ Oneida Co. Hwy and Roads
- ▨ Black Spruce Area
- ▩ Pine Thinning Area
- ▮ Aspen Harvest Area
- Snowmobile Trails
- Lakes
- ▤ Private Lands

The objectives for this area are to maintain aspen as a strong component across the landscape. Manage for a variety of stand sizes and ages. Look for opportunities to manage for larger stand sizes. Maintain and increase the oak component of this area. Increase the presence and age of red and white pine. Maintain forested wetlands with a representation of multiple age classes of black spruce and tamarack.

The aspen stands have matured and some stands can be harvested at this time as a large number of acres are similar in age and should be broken up to diversify age classes and create some vegetative screens, for aesthetic management, near town roads and lakes. The aspen area will be clearcut to naturally regenerate these species back through root sprouting. Aspen is a sun loving species that requires full sunlight to regenerate.

Oak and pine areas are overstocked at this time and need space to grow. The oak and pine areas will be thinned at this time to release crop trees. The best formed oak and pine will be left.

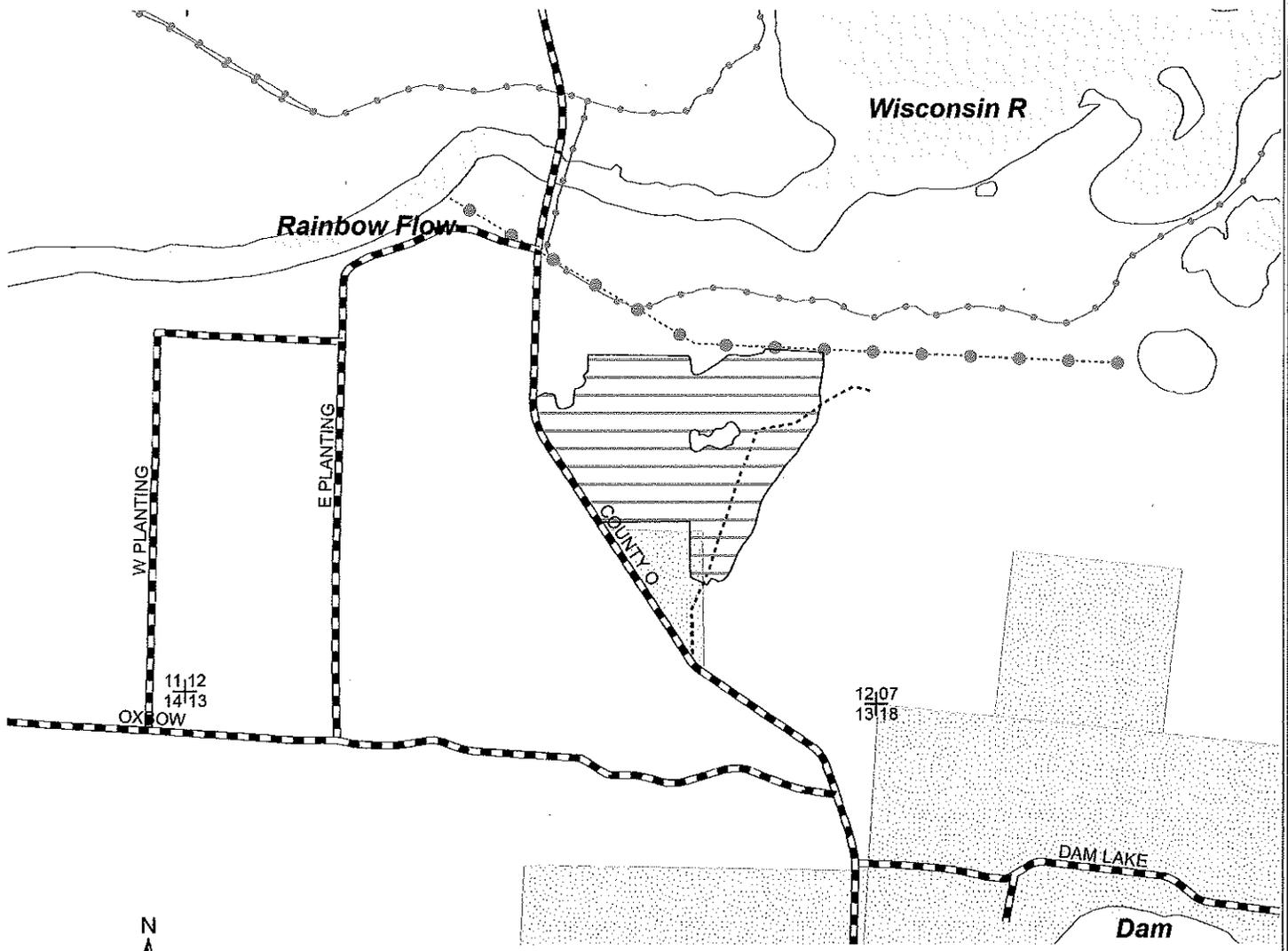
In the black spruce areas strip and group clear cutting will help to create a seedbed in which the black spruce can naturally regenerate from residual black spruce seed trees. Approximately 1/3 of the total black spruce area will be harvested. This harvest will require frozen ground conditions.

No cutting will take place within 50 feet of any lakes. Cunard Lake Campground, on the east side of Cunard Lake, is outside of the proposed sale area and will not be impacted by the sale. Seasonal harvesting restrictions will be implemented near the lake and campground to ensure the public's recreational enjoyment of the forest. The snowmobile club will be contacted for signage as needed.



Map produced by
 Jim Welterau, 6/12

**Northern Highland - American Legion State Forest
 Compartment 55A - CTH O Red Pine - 57 Acres
 Town of Newbold, Oneida County, T39N-R8E Sec.12
 Master Plan: Management Area 6-Oneida Sandy Plains-Forest Production Area**



N
 Scale: 4" = 1 Mile
 1:15,840

Legend

- ⊕ Section Corner
- ▬ Oneida Co. Hwy and Roads
- ▨ Red Pine Thinning Area
- Woods Roads
- Powerline
- Snowmobile Trails
- Lakes
- ▤ Private Lands

The goal for this area is to increase the presence and age of red and white pine.

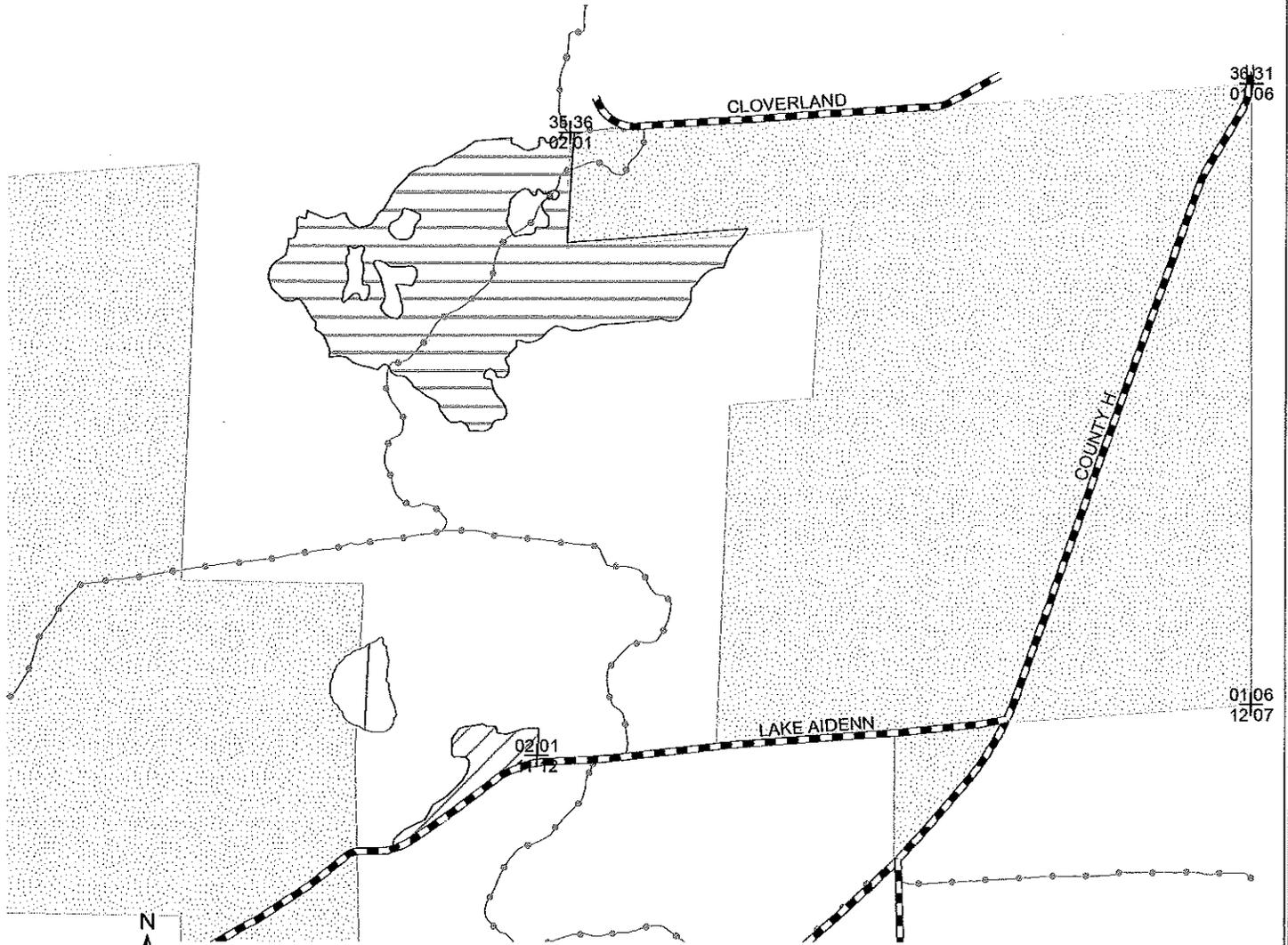
This red pine plantation was a new acquisition from Plum Creek. It is scheduled for a row thinning. Since the stand is now overstocked for optimal growth it will be thinned. Roughly one third of the stand will be harvested at this time to allow more growing space and light to the remaining red pine trees.

A snowmobile trail is located on the north end of the plantation and the snowmobile club will be contacted during harvesting operations and signed accordingly.



Map produced by
 Jim Wetterau, 6/12

Northern Highland - American Legion State Forest
Compartment 60A - Aidenn Lake Pine - 93 Acres
Town of Sugar Camp, Oneida County, T39N-R9E Sec.1, 2, 11
Master Plan: Management Area 6-Oneida Sandy Plains-Forest Production Area



N
 Scale: 4" = 1 Mile
 1:15,840

Legend

- ⊕ Section Corner
- ▬ Oneida Co. Hwy and Roads
- ▨ Aspen Area
- ▩ Red Pine Thinning
- Woods Roads
- Powerline
- ◆ Snowmobile Trails
- Lakes
- ▤ Private Lands

The goal for this area is to maintain aspen and increase the presence and age of red pine and white pine.

The red pine stand in this area has never been thinned before and have grown to a point that they are now overstocked for optimal growth. The pine will be thinned where roughly one third of the trees will be harvested. This thinning will allow more space and light for better growing conditions on the remaining pine trees.

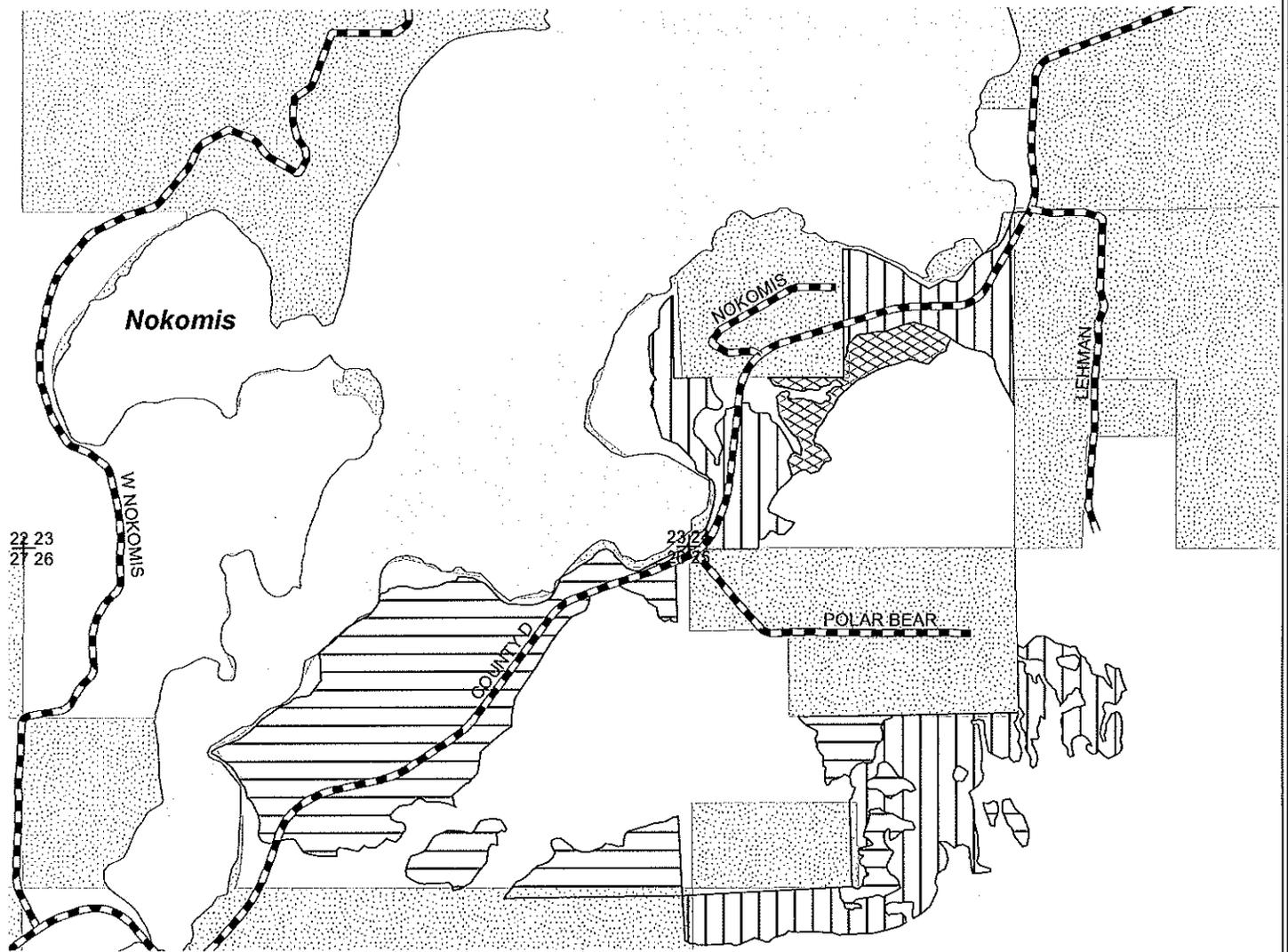
In the aspen area the aspen are mature and will be clearcut to regenerate these species back naturally through root sprouting. During this regeneration harvest any oak and pine will be maintained to assist in aesthetic management along the town road.

A snowmobile trail is also located within the sale area. The snowmobile club will be contacted for signage as necessary. Biomass harvesting (removing the tops from the site) is not allowed due to the poor soil.



Map produced by
 Jim Wetterau, 6/12

**Northern Highland - American Legion State Forest
 Compartment 70A - North Nokomis Lake Sale - 210 Acres
 Town of Newbold, Oneida County, T39N-R8E Sec.23,24,25, 26
 Master Plan: Management Area 6-Oneida Sandy Plains-Forest Production Area**



Scale: 4" = 1 Mile
 1:15,840

Legend

- ⊕ Section Corner
- ▬ Oneida Co. Hwy and Roads
- Aspen/White Birch Area
- ▨ Pine Thinning Area
- ▩ Swamp Conifer Area
- ⋯ Powerline
- Snowmobile Trails
- Lakes
- ▤ Private Lands

The goal for this area is to maintain aspen and white birch, increase the presence and age of red pine and white pine, and to maintain forested wetlands with a representation of multiple age classes of black spruce and tamarack.

The pine stands in this area have been thinned before and have re-grown to a point that they are now overstocked for optimal growth. This thinning will harvest about one third of the pines and reduce the basal area to a fairly uniform 110 - 120 square feet per acre. The best formed and largest pine will remain.

The white birch and aspen are mature and will be clearcut to regenerate these species back naturally through stump and root sprouting. During this regeneration harvest some oak and pine will be thinned as well leaving the best quality oak and pine as residuals for mast and seed.

In the swamp conifer area 100 foot wide strips will be clearcut to naturally regenerate the black spruce and tamarack from adjacent residual seed trees. This harvest area will require frozen ground conditions.

The stands adjacent to North Nokomis Lake will be maintained with a higher stocking level of 60 square feet of residual basal area within 100 feet of the lake. This area will be managed for longer-lived tree species and for lakeshore aesthetics.

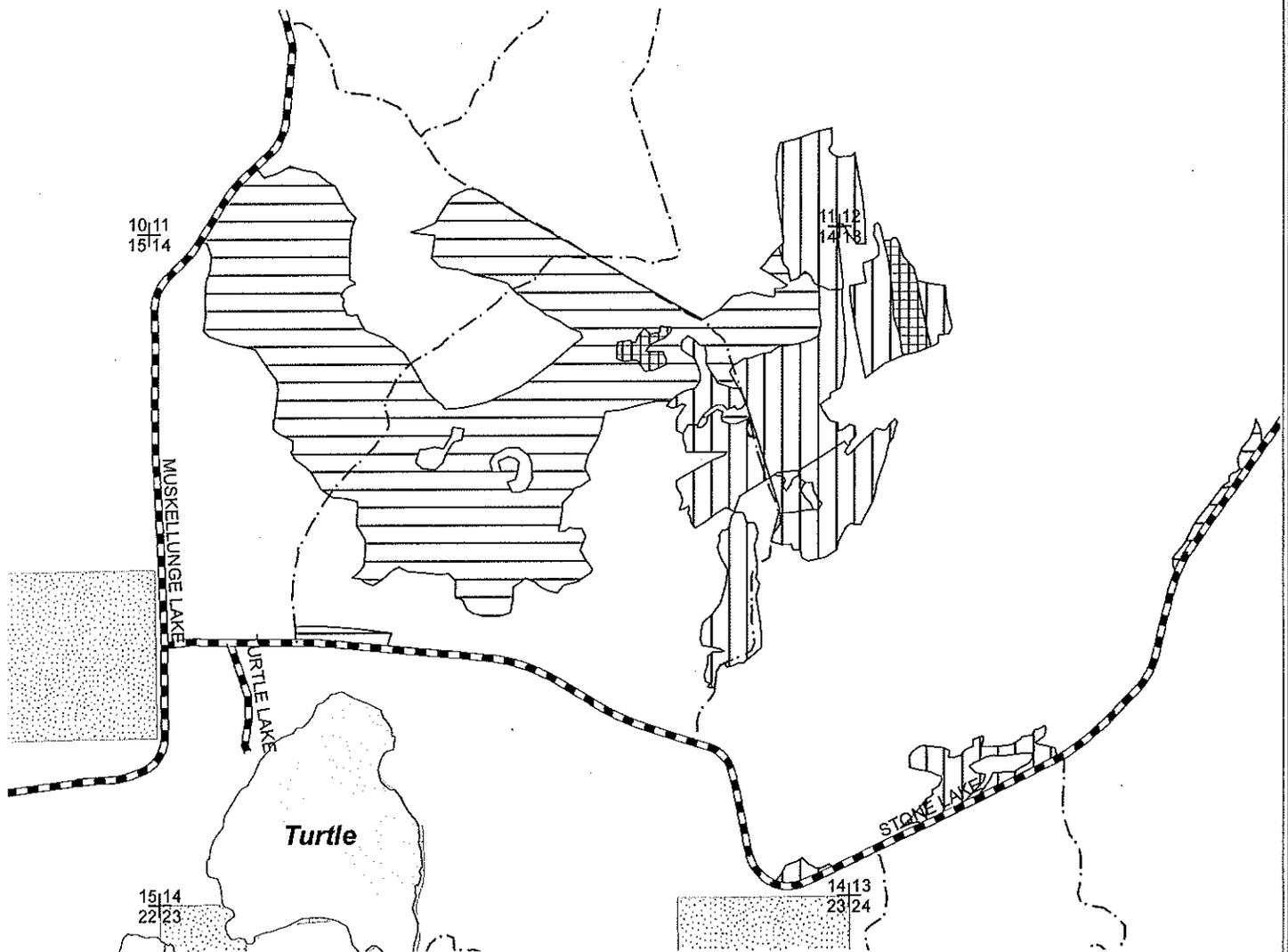
Biomass harvesting (removing the tops from the site) is not allowed due to the poor soil.



Map produced by
 Jim Wetterau, 5/12

Northern Highland - American Legion State Forest
 Compartment 85A - Stone Lake Road - 249 Acres

Town of Lake Tomahawk & Town of Newbold, Oneida County, T38N-R8E Sec.11,12,13, 14
 Master Plan: Management Area 6-Oneida Sandy Plains-Forest Production Area



Scale: 4" = 1 Mile
 1:15,840

Legend

- ✚ Section Corner
- - - Recreational Trail
- ▬ Oneida Co. Hwy and Roads
- ▧ Jack Pine Area
- ▨ Pine Thinning Area
- ▩ Scrub Oak Area
- Snowmobile Trails
- Lakes
- ▤ Private Lands

The objectives for this area are to maintain and expand the oak type with active management on suitable soils, maintain the jack pine type and increase the presence and age of red pine and white pine.

The pine stands in this area have been thinned before and have re-grown to a point that they are now overstocked for optimal growth. This thinning will harvest about one third of the pines and reduce the average basal area to a fairly uniform 120-140 square feet per acre. The best formed and largest pine trees will remain.

The jack pine and scrub oak stands are both mature and starting to deteriorate. Both species are sun loving and need full sunlight to grow. The jack pine will be clearcut and prepared for planting after the harvest. The scrub oak will also be clearcut to regenerate the oak back naturally through stump sprouting.

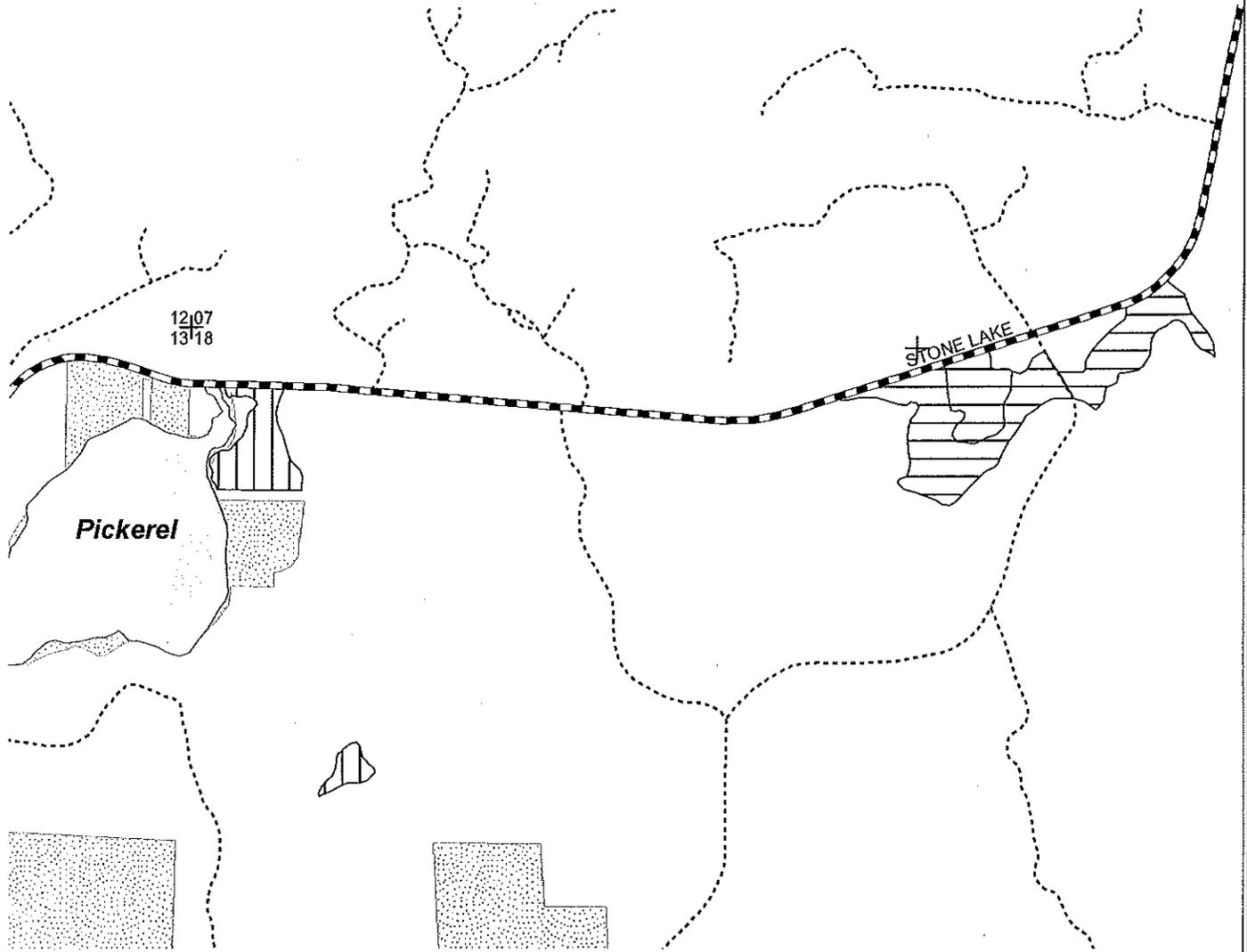
The retention of some scrub oak patches will be maintained within the larger clearcut area to provide some aesthetic screening along Muskellunge Lake Road. Some aesthetic corridors will also be maintained along the recreational trail that is used by the public for horseback riding to and from Fort Wilderness. These patches will vary in size and provide 8-10 acres of the original scrub oak stand.

Biomass harvesting (removing the tops from the site) is not allowed due to the poor soil.



Map produced by
 Jim Wetterau, 5/12

Northern Highland - American Legion State Forest
Compartment 88A - Oatmeal Lake - 41 Acres
Town of Sugar Camp, Oneida County, T38N-R9E Sec. 8,17,18
Master Plan: Management Area 7-
Ruffed Grouse Demonstration Area-Habitat Management Area



Legend

- ⊕ Section Corner
- ▬ Oneida Co. Hwy and Roads
- ▭ Red Pine Thinning Area
- ▭ Hardwood Thinning Area
- ⋯ Woods Roads
- ⋯ Powerline
- Snowmobile Trails
- ▭ Lakes
- ▭ Private Lands

The objectives for this area are to maintain it as a ruffed grouse habitat management demonstration area. Patches of existing mature pine, northern hardwoods and oak would be maintained for wildlife habitat along with the aspen.

The area contains red pine plantations which have been thinned in the past and have re-grown to the point they are now overstocked for optimal growth. This thinning will harvest about one third of the pines and reduce the basal area to a fairly uniform 120 to 140 square feet per acre. The best formed and largest trees will remain.

The northern hardwood stand is best suited for the soils present there. This stand was thinned in the past and is currently overstocked for optimal growth. This stand will be thinned leaving the best crop trees remaining with a variety of tree species. Where opportunities present themselves any aspen pockets established from the previous thinning will be released to contribute to the ruffed grouse habitat by removing competing hardwoods.

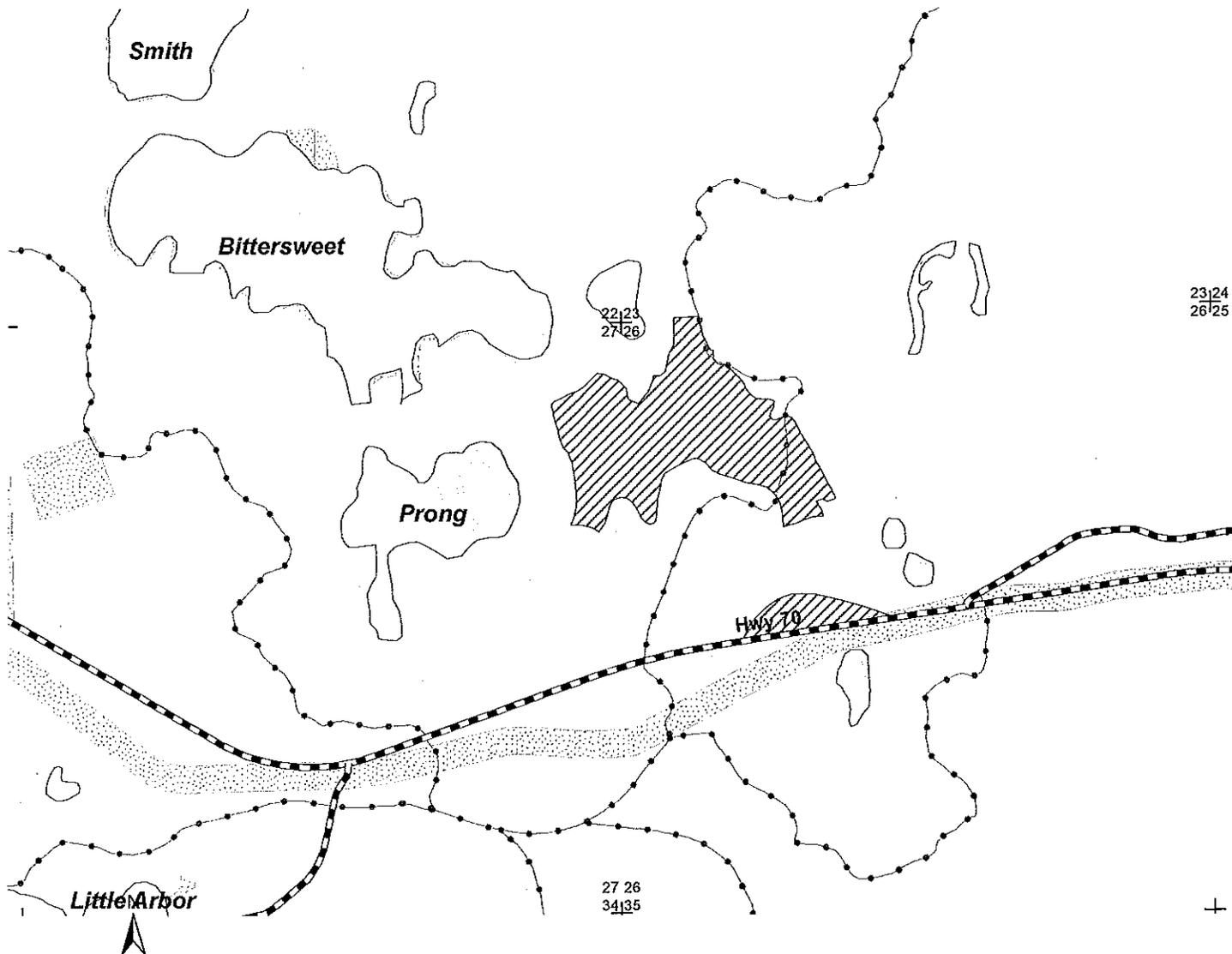


Map produced by
Jim Welterau, 6/12



Scale: 4" = 1 Mile
1:15,840

Northern Highland - American Legion State Forest
Compartment 106H - Prong Oak - 59 Acres
Town of Arbor Vitae, Vilas County, T40N-R7E Sec. 26 & 27
Master Plan: Management Area 5 - Big Arbor Vitae Loamy Hills - Forest Production Area
Management Area 21- Bittersweet Prong - Recreation Management Area



Scale: 4" = 1 Mile
 1:15,840

Legend

- + Section Corner
- Vilas Co. Hwy and Roads
- ▨ Oak Area
- Snowmobile Trails
- Lakes
- ▤ Private Lands

The objectives for the Big Arbor Vitae Loamy Hills Area is to maintain a mixed forest dominated by older red and white pine and northern hardwoods with aspen, oak, white birch, and jack pine as important secondary species. The objectives in the Bittersweet Prong Area are to develop and maintain hemlock hardwood, northern hardwood, red pine, and white pine forest with old-growth characteristics across the management area with minimum negative visual impacts on recreational uses.

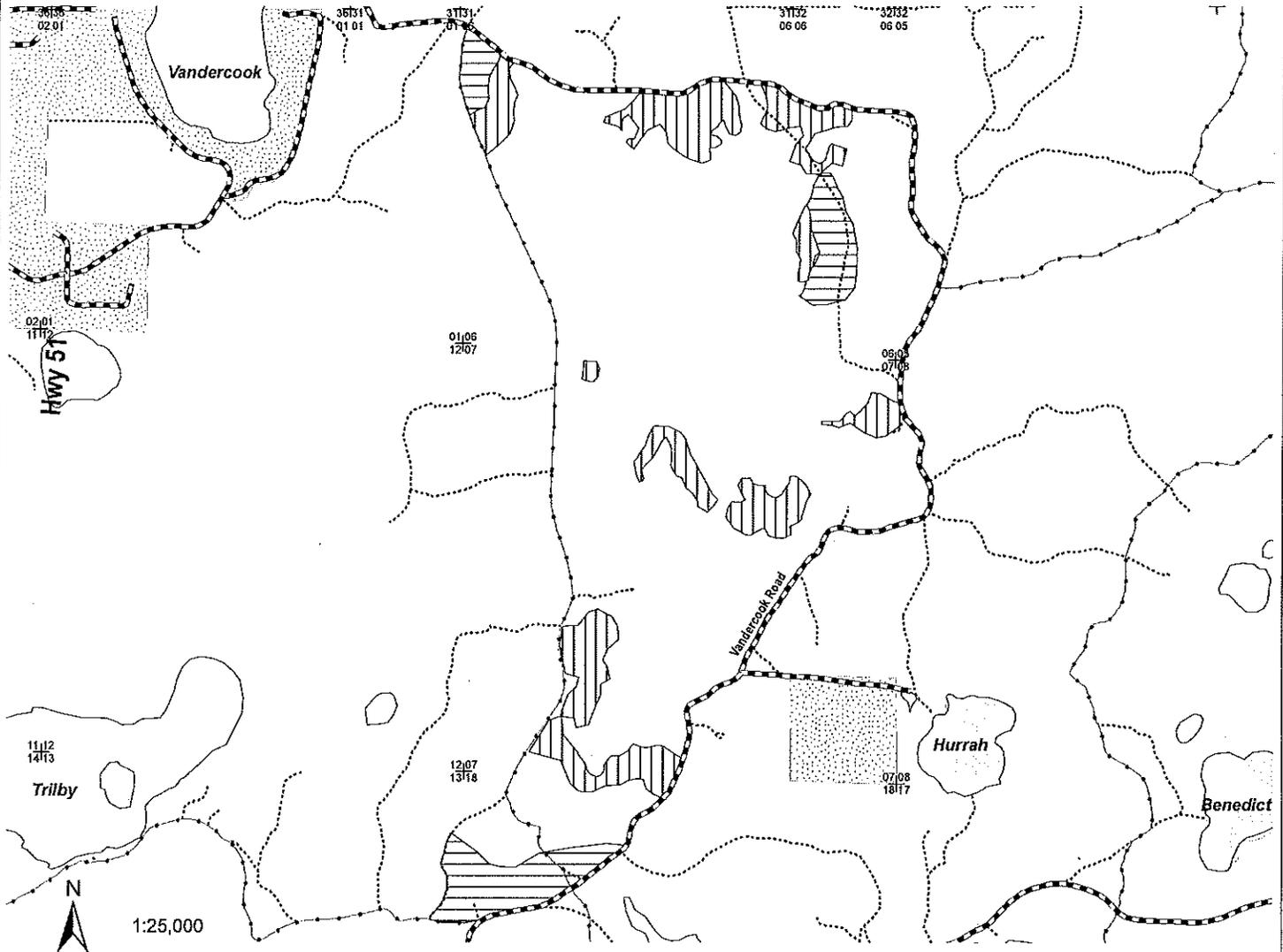
The oak area is best suited to grow oak because of the soils present there. This stand has been thinned in the past and is now ready to be regenerated via a shelterwood harvest in which 40% of the current canopy cover will be retained after the harvest. More than 1/2 the trees will be harvested leaving the largest best formed trees to produce acorns to regenerate the site. This type of harvest will help to maintain oak on the landscape as it stump sprouts back or seeds in from the remaining oak. Large oak den trees will be left during the marking process. Snags will be left when marking this stand.

No cutting will take place near any lakes and the only recreation near the proposed harvest is a snowmobile trail. The snowmobile club will be contacted for signage as needed.



Map produced by
 Jim Wetterau, 6/12

**Northern Highland - American Legion State Forest
 Compartment 164H - Vandercook Road West - 160 Acres
 Town of Arbor Vitae, Vilas County, T40N-R6E Sec. 13
 Town of Arbor Vitae, Vilas County, T40N-R7E Sec. 6, 7, 8, 18
 Master Plan: Management Area 5-Big Arbor Vitae Loamy Hills-Forest Production Area
 Management Area 12 - Mixed Forest - Native Community Area**



Legend

- + Section Corner
- ▬▬▬ Highways and Town Roads
- ▭ Aspen Area
- ▭▭▭ Red & White Pine Area
- ⋯ Woods Roads
- Snowmobile Trails
- Lakes
- ▨ Private Lands

The goal for the Mixed Forest Area is to maintain sites with old growth pine, oak, and mixed northern hardwood stands consisting of short-lived and long-lived species characteristics. The goal for the Big Arbor Vitae Loamy Hills Area is to maintain a mixed forest dominated by older red and white pine and northern hardwoods with aspen, oak, white birch, and jack pine as important secondary species.

The area contains several red and white pine stands that are overstocked for optimal growth. The thinning will harvest about one third of the pines leaving the largest pines behind with an emphasis on increasing tree diameters and developing managed old-growth characteristics within the pine type.

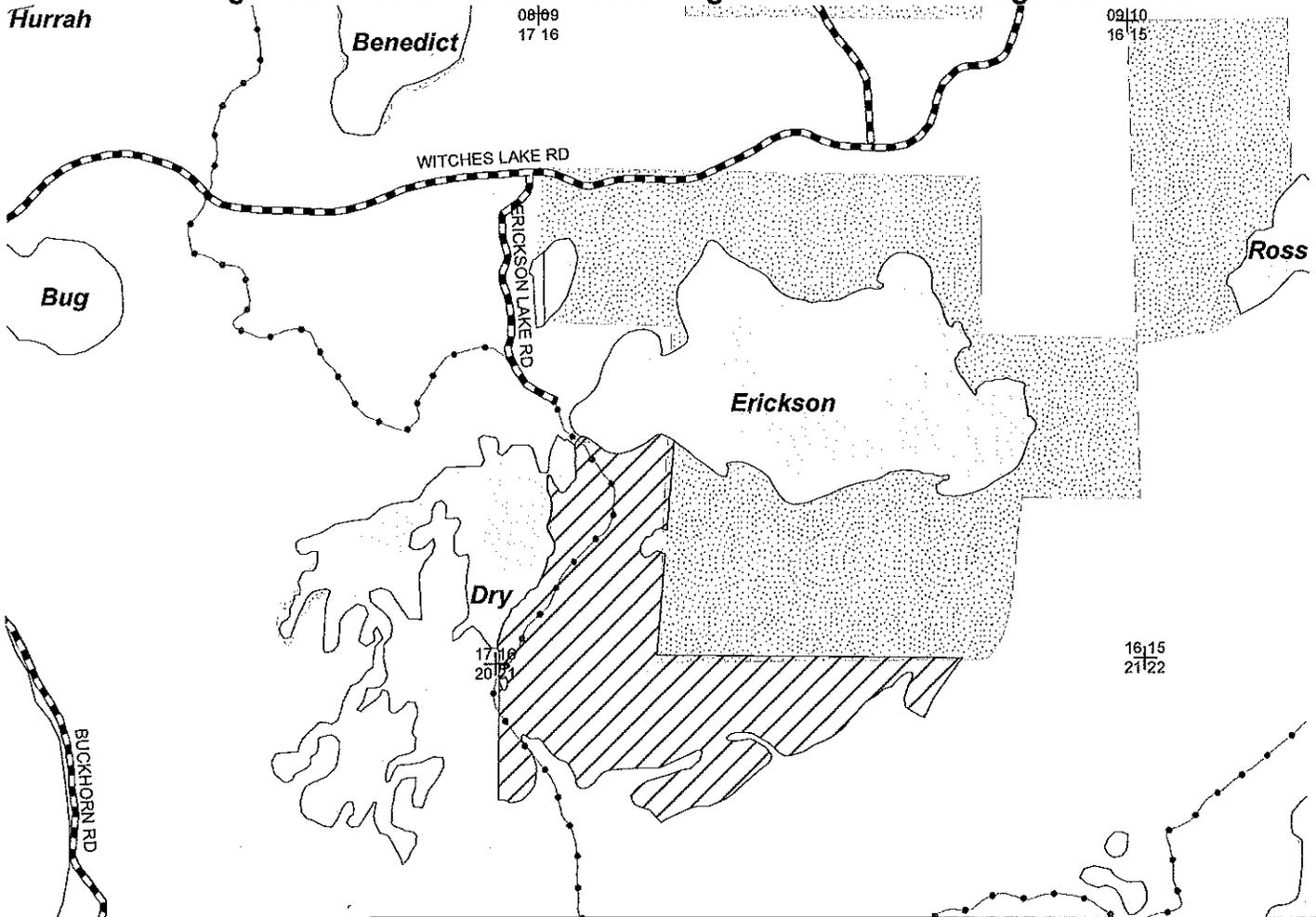
The aspen area will be cut to promote early successional forests and create some age class diversity in a large block of similar aged aspen. These sun loving trees will rapidly grow from the root system after the harvest. This harvest will also create a vegetative screen along Vandercook Road for future cutting.

A snowmobile trail is located within the proposed sale area. The snowmobile club will be contacted for signage as necessary.



Map produced by
 Jim Wettarau, 6/12

**Northern Highland - American Legion State Forest
 Compartment 138H - Erickson Lake Sale - 113 Acres
 Town of Arbor Vitae, Vilas County, T40N-R7E Sec. 16 & 21
 Master Plan: Management Area 12 - Mixed Forest - Native Community Mgt. Area
 Management Area 21 - Bittersweet Prong - Recreational Management Area**



Scale: 4" = 1 Mile
 1:15,840

Legend

- Section Corner
- Town Roads
- Powerline
- Snowmobile Trails
- Oak/Hardwood/Pine Area
- Lakes
- Private Lands

The objectives for the Mixed Forest Area are to maintain sites with old-growth pine, oak and mixed northern hardwood stands consisting of short-lived and long-lived species characteristics. This includes leaving coarse woody debris, leaving large cull trees and increased snag tree densities. The objectives in the Bittersweet Prong Area are to develop and maintain hemlock hardwood, northern hardwood, red pine, and white pine forest with old-growth characteristics across the management area with minimal negative visual impacts on recreational uses.

The oak, northern hardwood, and pine area is best suited to grow the current species because of the soils present there. This stand will be best managed through an improvement thinning to develop old growth characteristics, along with the retention of cull, den and snag trees. Currently the oak/northern hardwood stand is overstocked, with an average basal area of 148 square feet, and will be thinned down to 80-90 square feet. This means that roughly 40% of the current stand will be harvested. This harvest will leave a mixed forest with many large trees, snags and den trees, and canopy gaps to create regeneration in the northern hardwood stands.

The pine stands within this sale area are now overstocked for optimal growth. This thinning will harvest about one third of the pines. The largest pines will be retained with an emphasis placed on managing for old growth characteristics and retention of snags and cull trees.

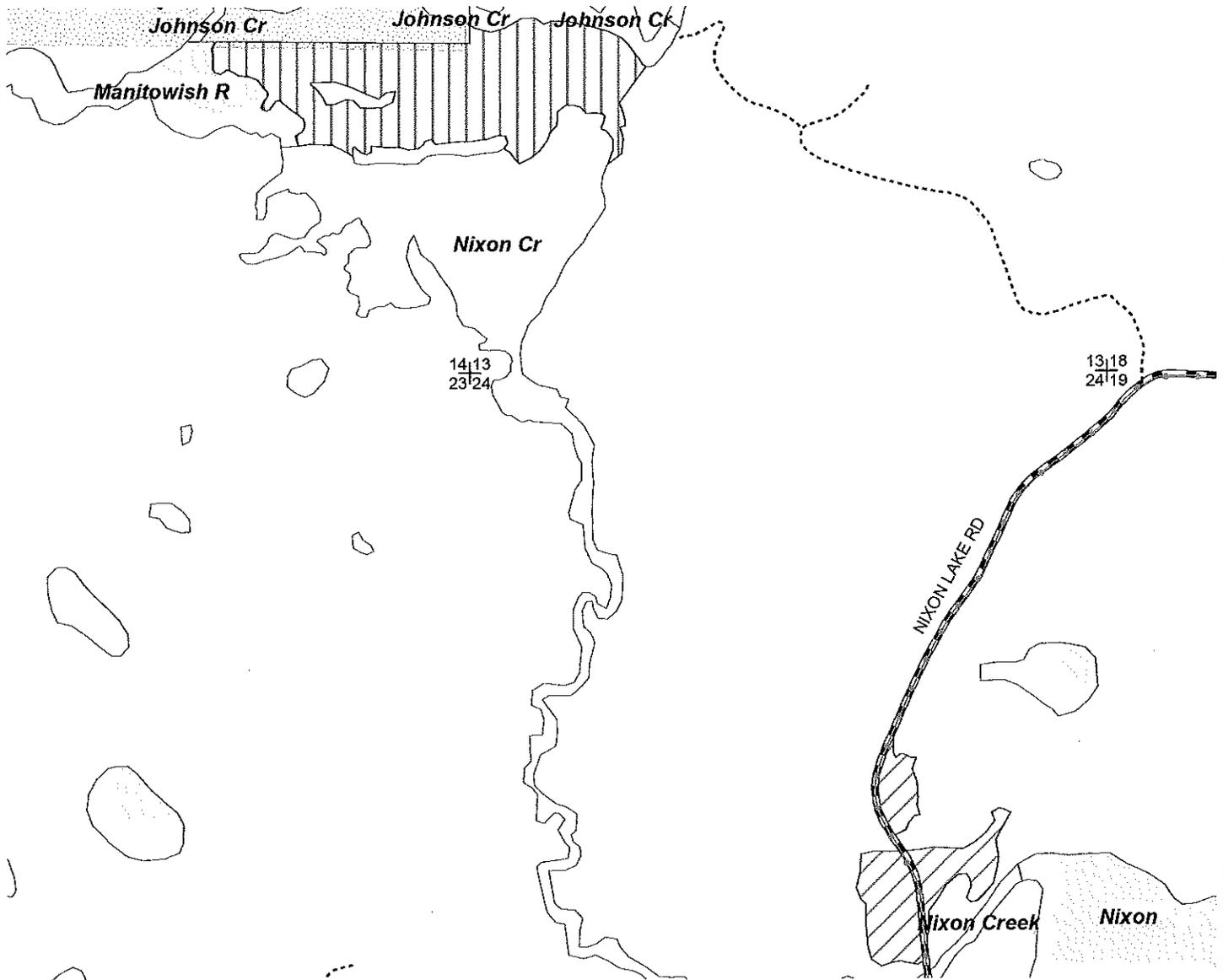
The stands near Dry and Erickson Lakes will be thinned in an effort to promote and release longer lived pine and hardwood. Lakeshore aesthetics will be maintained with the higher stocking of trees which will retain the aesthetic integrity of the area.

The snowmobile club will be contacted for signage as necessary. No seasonal restrictions necessary if soils allow for summer and fall harvests.



Map produced by
 Jim Wetterau, 5/12

Northern Highland – American Legion State Forest
C57H Stand 5, C88H Stands 1, 7, 15, 17 and 18
Nixon Lake Road Birch Sale – 80 Acres
Town of Boulder Junction, Vilas County, T42N-R7E, Sections, 13, 14, 24
NHAL Master Plan: Area 3 – Vilas Sandy Plains North – Forest Production
Area 13 – Special Aquatic Native Community Management



Scale: 4" = 1 Mile
 1:15,840



Map produced by
 Jeffrey Olsen &
 Paul Schultz, 6/12

Legend

- ⊕ Section Corner
- Woods Roads
- Snowmobile Trails
- ▬ Highways and Town Roads
- ▨ Underplanted Proposed Area
- ▧ Aspen/Birch Proposed Area
- Lakes
- ▤ Private Lands

Goals for these Management Classes are to increase red and white pines as a dominant community type in Area 3 and, to maintain high quality forests for their ecological, water quality and rare species habitat values in Area 13. Specific to these stands in Area 13, we will harvest to maintain aspen and jack pine while maintaining the red and white pine components.

The Aspen/Birch Area is 93 year-old white birch and aspen with scattered red and white pine. Harvest prescriptions are to cut the aspen, white birch, balsam fir and maple for natural regeneration. White pine, red pine and a few red oaks and jack pines will not be cut.

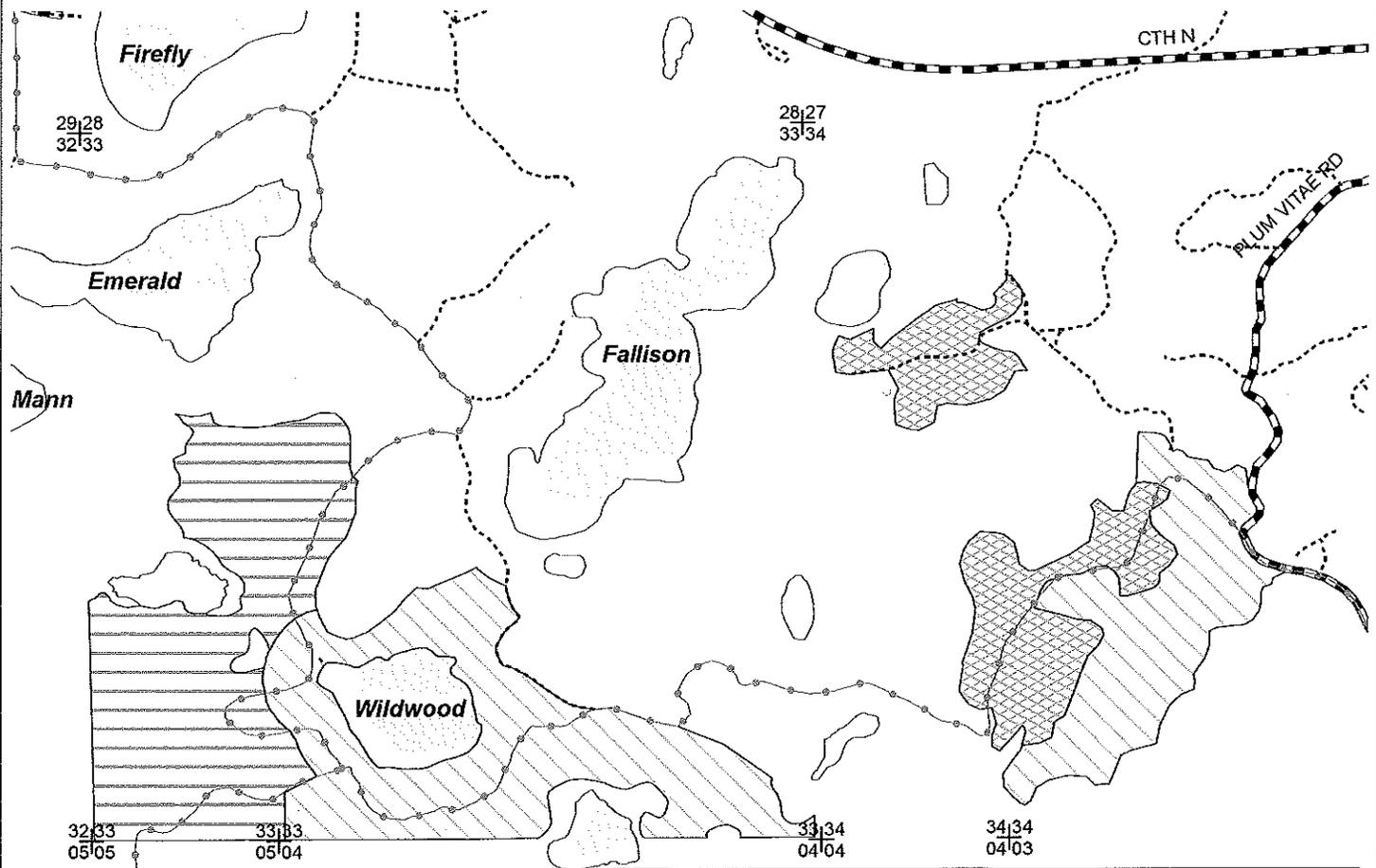
The Underplanted Area is a 93 year-old stand that was under planted to white pine in 1988, now needing release from the white birch and red maple overstory. The planted white pine and natural large red and white pines and red oaks will not be harvested.

Biomass harvest is approved for the Underplanted Area only.

Access is good to all stands with existing roads. Nixon Lake road is a snowmobile trail and winter harvest is prohibited.

**Northern Highland – American Legion State Forest
C114H Stands 6 and 12, C136H Stands 6, 8, 9 and 10
Wildwood Lake Sale – 190 Acres**

**Town of Boulder Junction and Plum Lake, Vilas County, T41N-R7E, Sections 33 and 34
NHAL Master Plan: Area 4 – Vilas Sandy Plains Central – Forest Production**



Objectives for Management Class 4 are to maintain a mixed forest dominated by red and white pines with aspen, red oak, white birch and jack pine as important secondary species. Specific to these stands, we will harvest most aspen and white birch while maintaining the red oak and mixed hardwood components. Red Oak will be favored over hardwoods where it occurs as a dominate species.

All stands in this presale are approaching 100 years old. They have not been managed prior. The Red Oak/Hardwood Area will be thinned to favor the oak. Harvest will cut the aspen, white birch, balsam fir, some maple and some red oak to promote natural regeneration of these species and encourage the oak, hardwoods and pine to an older stand age.

The Northern Hardwood Area is the same age and has no history of any management. It will be selectively cut to promote growth and regeneration of another age class of hardwood. Also favored to remain are the large red oak and pine components.

The Aspen/Birch Areas are mature stands of aspen and white birch. These two stands will be harvested to regenerate the aspen while leaving many large red oak and pine for diversity and wildlife values. The northern portion is in the Recreation Management Class 20 with the goals and prescription the same.

Wildwood Lake is a Scenic Lake Designation. Harvest will be to selectively thin in the 400 feet distance from lakeshore with aesthetic priority to promote many large, long-lived diversity of tree species. Aesthetics will be a concern for the Fallison hike trail and surrounding undeveloped lakes. Large trees and setbacks will be left to reduce to visual effects of the harvesting. Seasonal restrictions will be put on sale to avoid harvesting noise to trail users. The snowmobile trail through the south end of the area will have to be used.

Biomass harvest is allowed on most of the sale areas.

Scale: 4" = 1 Mile
1:15,840

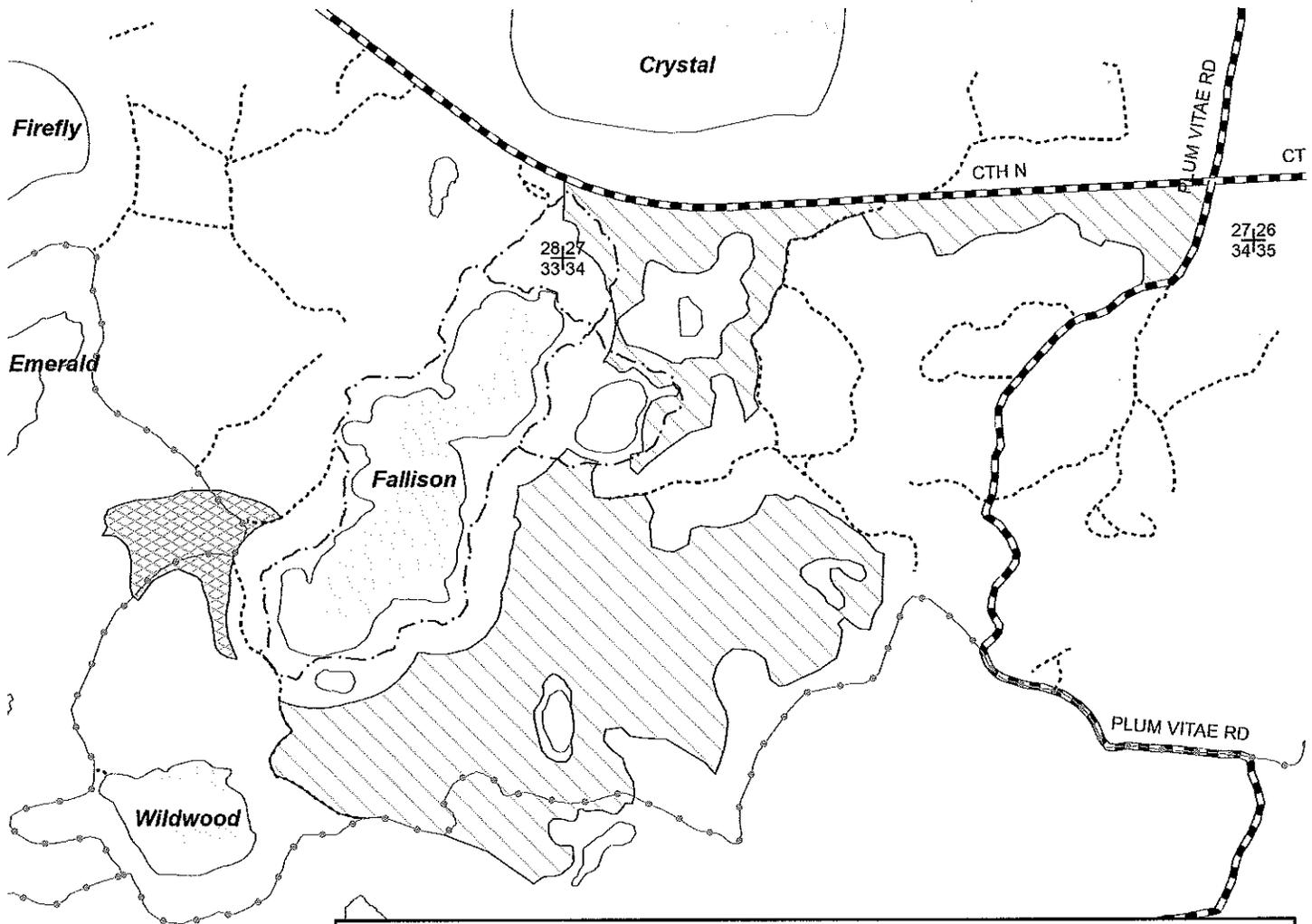
Map produced by
Jeffrey Olsen &
Paul Schultz, 6/12

Legend

- ⊕ Section Corner
- Woods Roads
- ⊙ Snowmobile Trails
- ▬ Highways and Town Roads
- ▨ Northern Hardwood Proposed Area
- ▧ Red Oak/Hardwood Proposed Area
- ▩ Aspen/Birch Proposed Area
- Lakes

Northern Highland – American Legion State Forest
 C114H Stands 4, 6 and 14, C136H Stands 4 and 6
 Fallison Old Growth Sale – 192 Acres

Town of Boulder Junction and Plum Lake, Vilas County, T41N-R7E, Sections 33 and 34
 NHAL Master Plan: Area 20 – Crystal Lake Recreation Management Area



Objectives for Area 20 are to maintain the area for recreational use as well as an actively managed area to maintain a mixed forest dominated by red and white pines with aspen, red oak, white birch and jack pine as important secondary species with the addition to maintain red oak on suitable sites. Adapt prescriptions for each stand to create, enhance and maintain old growth red oak and mixed hardwood stands.

The Red Oak Area is 97 years old and has not been managed prior. Harvest goals are to select cut northern hardwoods and red oak to promote natural regeneration of these species and encourage the oak and pine into an old growth character. Harvest will also select cut aspen, white birch and balsam fir. Many large, old trees, snags and den trees will be left to contribute to the old growth structure.

The Red Pine Area will be thinned to promote the health and old growth character of the red pine. This stand was thinned 22 years ago.

Fallison Lake is Scenic Lake Designation. Some thinning will be done in the 400 feet distance from shore with aesthetic priority to promote large, long-lived diversity of tree species. There will be no cutting up to the hiking trail. Aesthetics will be a concern for the Fallison hike trail and surrounding undeveloped lakes. Large trees and setbacks will be left to reduce to visual effects of the harvesting.

Access is good to all stands with existing roads off CHY N and Plum Vitae Road. Seasonal restrictions will be put on sale to avoid harvesting noise to trail users. The snowmobile trail through the south end of the area may be used but most access will be off CHY N or Plum Vitae Road.

Biomass harvesting is not allowed in old growth management stands.



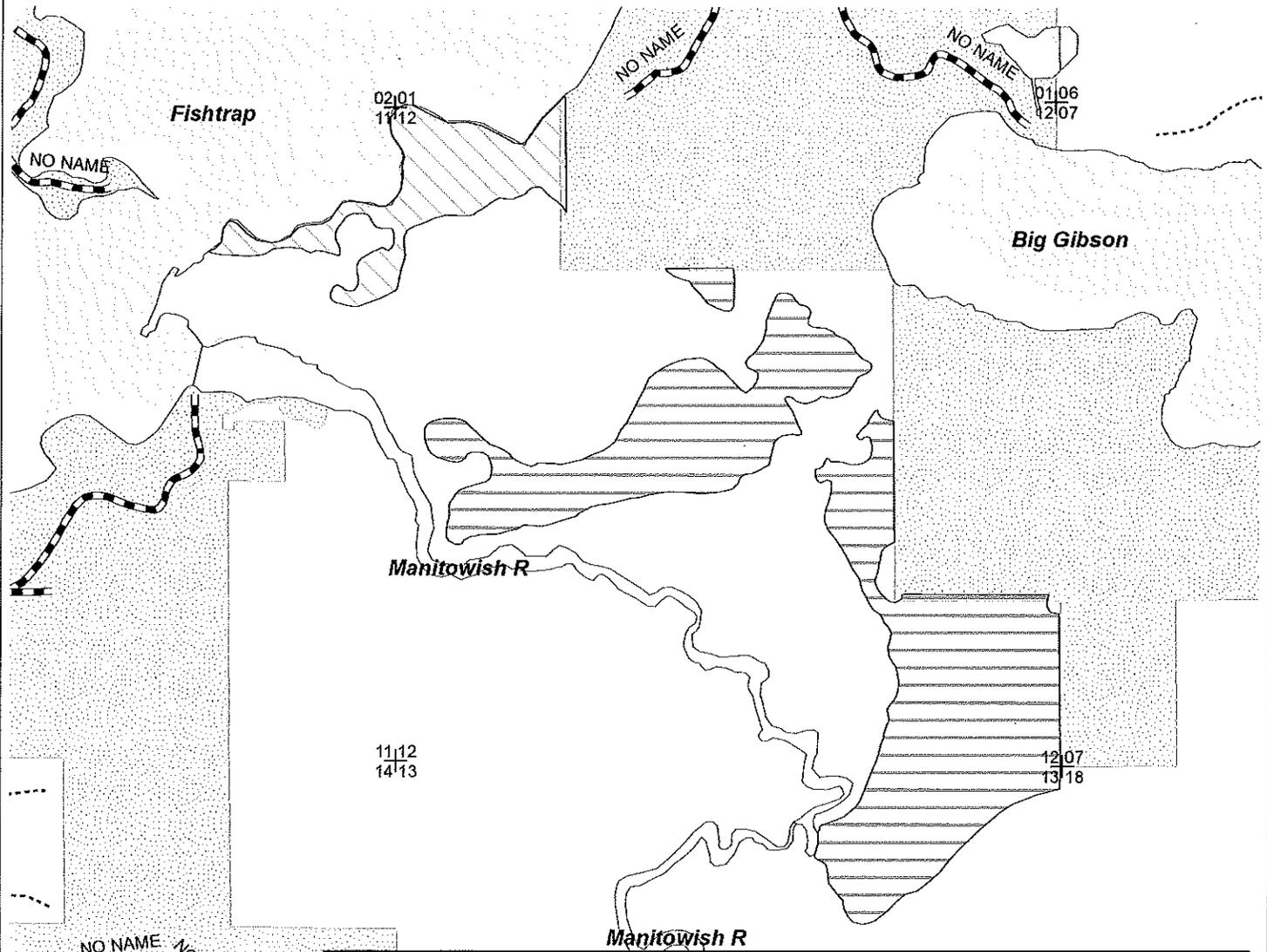
Scale: 4" = 1 Mile
 1:15,840

Map produced by
 Jeffrey Olsen &
 Paul Schultz, 6/12

Legend

- ⊕ Section Corner
- - - - Fallison Nature Trail
- - - - Woods Roads
- ⊙ - - - Snowmobile Trails
- ▬ Highways and Town Roads
- ▨ Red Oak Proposed Area
- ▩ Red Pine Proposed Area
- Lakes

Northern Highland – American Legion State Forest
C89H Stands 1, 2 and 3
Big Gibson Lake Sale – 172 Acres
Town of Boulder Junction, Vilas County, T42N-R7E, Sections 11, 12 and 13
NHAL Master Plan: Area 3 – Vilas Sandy Plains North – Forest Production



Objectives for Management Class Area 3 are to maintain a mixed forest dominated by red and white pines with aspen, red oak, white birch and jack pine as important secondary species. Specific to these stands, we will harvest selected red and white pines, most aspen, balsam fir and white birch while retaining some old jack pines for a seed source.

All stands in this presale are approaching 100 years old. They have not been managed prior to this entry. The Pine/Birch Area will be thinned to favor the red and white pines. Harvest will cut the aspen, white birch, balsam fir and some maple to promote natural regeneration of these species and encourage the pine to an older stand age.

The White Birch Area will be cut to promote regeneration of aspen, birch, maple and pines. Also favored to remain are the large red oak and pine trees.

Stands along the waters edge will be cut no closer than 100 feet distance from lakeshore as aesthetic priority to promote the large, long-lived diversity of tree species. This should address aesthetics for the Manitowish River, Johnson Creek and Fishtrap Lake. Seasonal restrictions will be put on sale to avoid adjacent landowner conflicts. Access is an issue as these stands are remote and landlocked. Contact and agreement to cross private property must be secured to set up this sale and operate the harvest plan.

Biomass harvest is not allowed on the sale areas.

Scale: 4" = 1 Mile
1:15,840

Map produced by
Jeffrey Olsen &
Paul Schultz, 6/12

Legend

- + Section Corner
- Woods Roads
- Snowmobile Trails
- ▬ Highways and Town Roads
- ▨ Pine/Birch Proposed Area
- ▧ White Birch Proposed Area
- Lakes
- ▤ Private Lands

NORTHERN HIGHLAND STATE FOREST

C86 Stands 1, 7, and 9

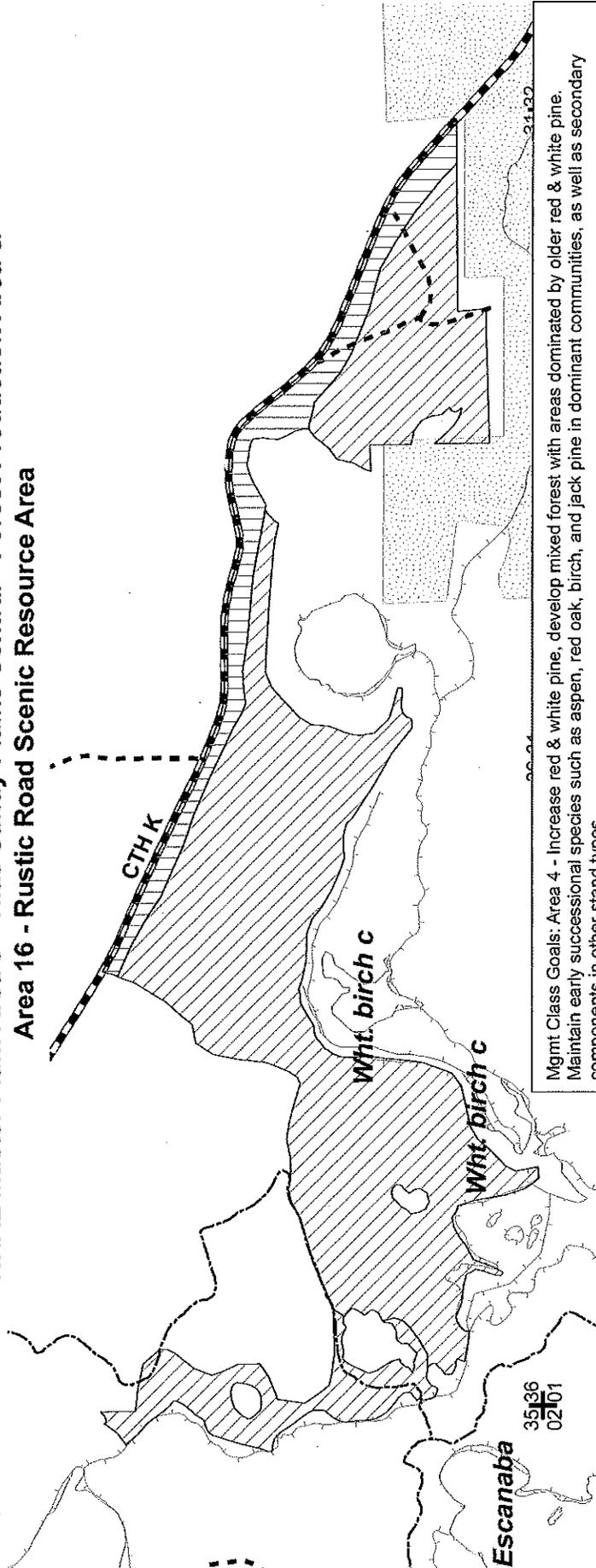
WHITE BIRCH CREEK SALE - 255 ACRES

Town of Boulder Junction, Vilas County, T42N R7E Section 36

Town of Plum Lake, Vilas County, T42N R8E Section 31

NHAL Master Plan: Area 3 - Vilas Sandy Plains Central - Forest Production Area &

Area 16 - Rustic Road Scenic Resource Area



Mgmt Class Goals: Area 4 - Increase red & white pine, develop mixed forest with areas dominated by older red & white pine. Maintain early successional species such as aspen, red oak, birch, and jack pine in dominant communities, as well as secondary components in other stand types.

Area 16 - Favor long-lived species to enhance the aesthetic and scenic beauty of the rustic corridor. Remove dead, declining, or short-lived species near maturity.

Stand Attributes, Access, & History: The Aspen/Pine/Birch Area and the Rustic Road Area make up 255 acres of 50 year old aspen and birch that was last harvested between 1960 and 1962. It is well mixed with areas of white & red pine, oak, maple, and balsam fir scattered throughout. Aspen and white birch have reached maturity, with much white birch mortality being seen throughout the stand. The sale can easily be accessed off of Cty K and has some existing woods roads, however a new stub road may be needed to access the west side of the sale.

Silvicultural Prescription: Aspen/Pine/Birch Area - Cut all aspen, white birch, balsam fir, jack pine, and red maple to regenerate these species. Selectively thin dense white/red pine and oak areas to increase this type and to increase health and vigor of residual trees.

Rustic Road Area - Within the first 50' of Cty K there will be no cutting to reduce visual impacts. Beyond 50', trees will be selectively marked removing only declining trees or short-lived species near maturity.

Biomass Suitability: No, contains restricted soils (Rubicon Sand, Sayner-Rubicon Complex)

Recreation/Aesthetic Concerns: The Lumberjack trail will be closed while cutting is occurring near the trail. Aesthetic concerns should be minimal with the buffer and feathered edge along Hwy K. Additional trees will be kept along the Lumberjack trail to lessen visual impacts.

Seasonal Restrictions: None

Legend

- Aspen/Pine/Birch Area
- Rustic Road Area
- Section Corner
- Lumberjack Trail
- Woods Roads
- Vilas County Roads
- Lakes
- Private Lands

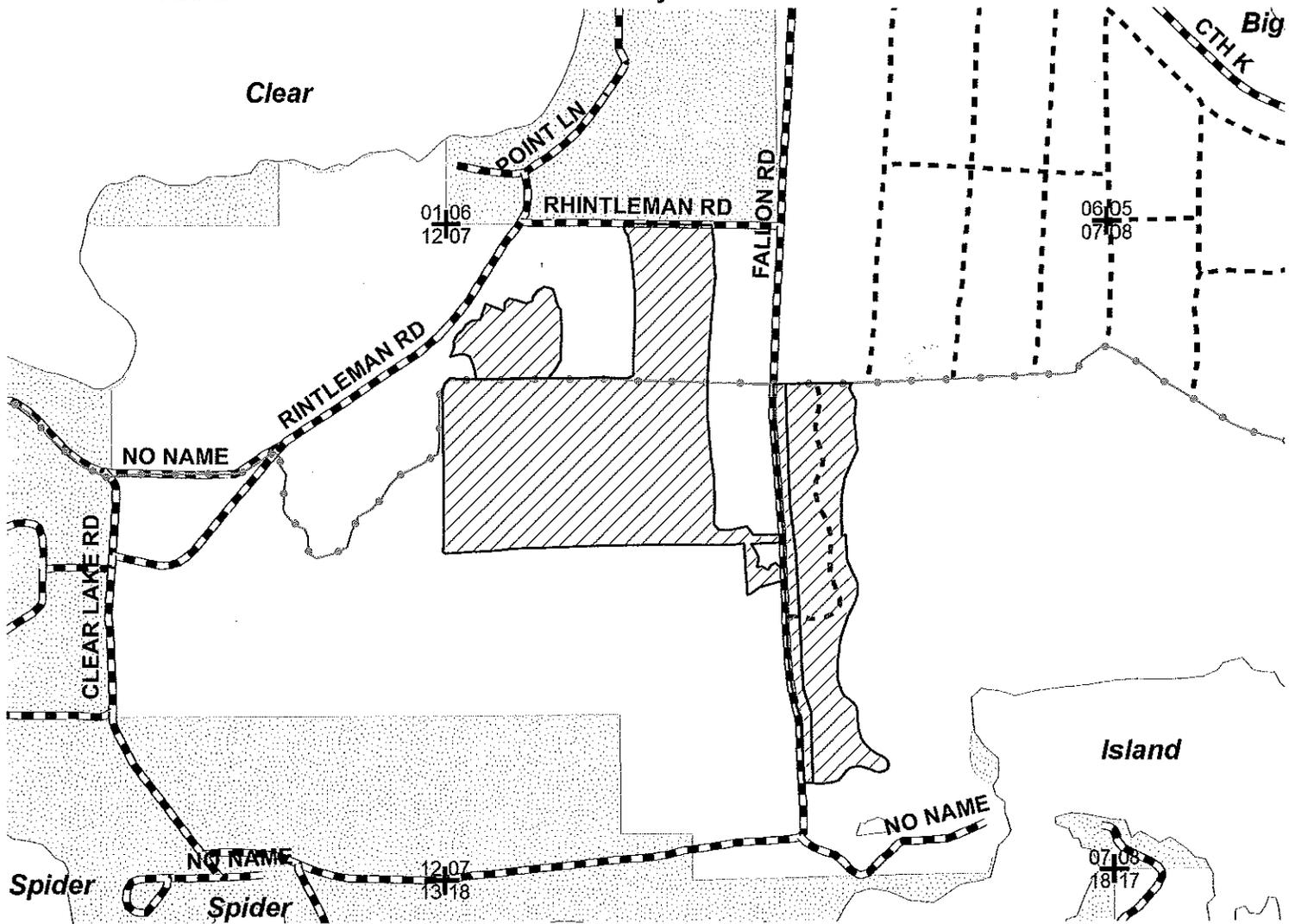


4" = 1 mile



Map produced by
Adam Wallace, 6/12

NORTHERN HIGHLAND STATE FOREST
C220 Stands 5 & 9; C229 Stands 2 & 3
FALLON ROAD PINE SALE - 136 ACRES
 Town of Boulder Junction, Vilas County, T42N R6E Section 7
 NHAL Master Plan: Area 3 - Vilas Sandy Plains North - Forest Production Area



Legend

-  Proposed Sale Area / Stands
-  Section Corner
-  Snowmobile Trails
-  Woods Roads
-  Vilas County Roads
-  Lakes
-  Private Lands

Mgmt Class Goals: Increase red & white pine, develop mixed forest with areas dominated by older red & white pine.

Stand Attributes, Access, & History: This sale is comprised of 125 acres of 75 - 78 year old red pine that was last thinned in the mid 1990's and 11 acres of 108 year old natural red & white pine last thinned in 1989. This will be the 2nd thinning for all stands. All sale areas can easily be accessed off of Fallon or Rintleman Roads and existing woods roads.

Silvicultural Prescription: Selective thinning across all species to increase health and vigor of residual trees. The largest and healthiest trees will remain uncut to grow the stand to an older age.

Biomass Suitability: No, contains restricted soils (Rubicon Sand)

Recreation/Aesthetic Concerns: The snowmobile trail will be signed if cutting occurs in winter. Aesthetic concerns should be minimal as there will be ample residual trees with this being a light thinning.

Seasonal Restrictions: None

N

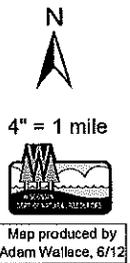
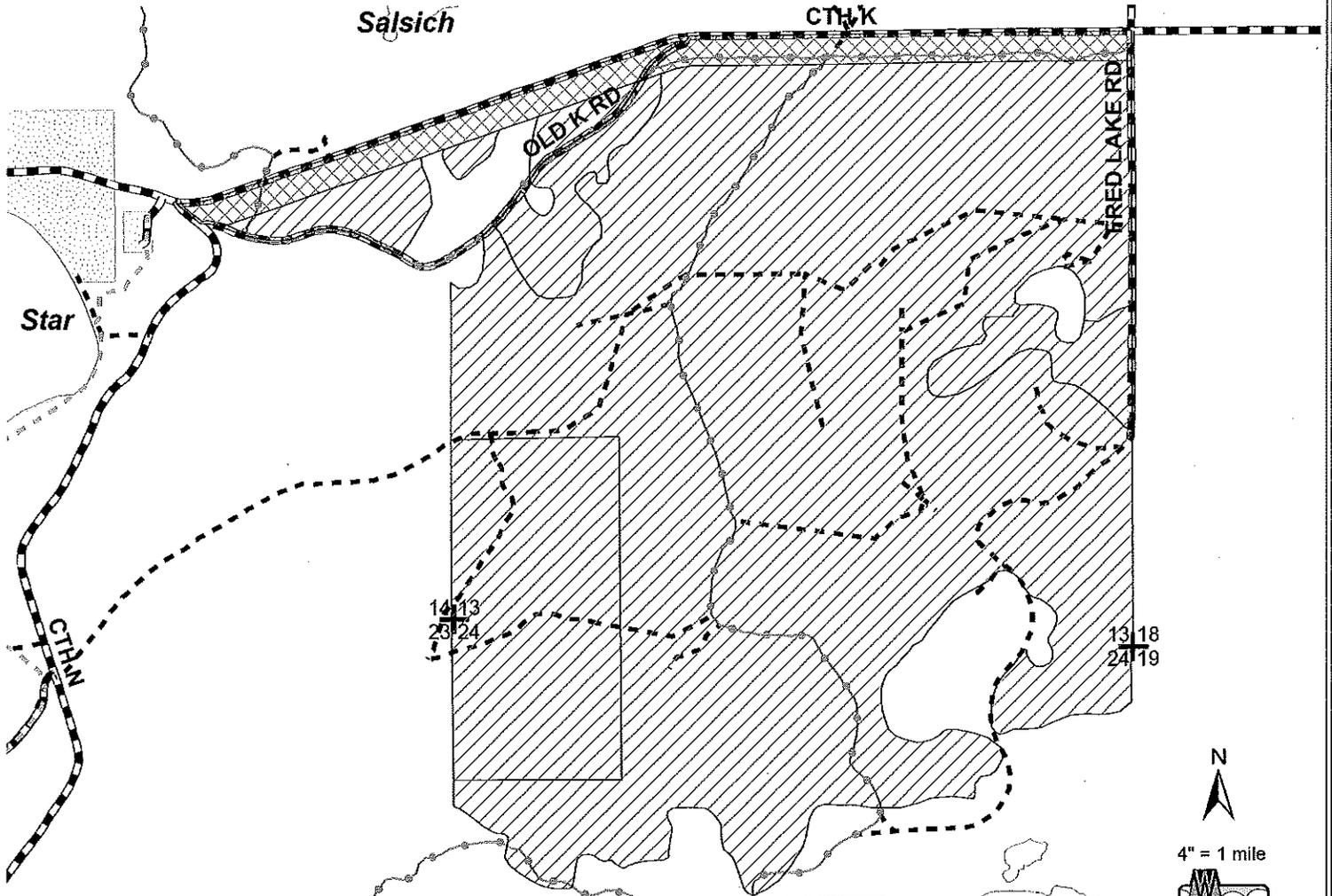


4" = 1 mile



Map produced by
Adam Wallace, 5/12

NORTHERN HIGHLAND STATE FOREST
C9 Stands 1, 2, 4, 6, 10
FRED LAKE ROAD SALE - 716 ACRES
Town of Plum Lake, Vilas County, T41N R8E Section 13, 14, & 24
NHAL Master Plan: Area 8 - Lake Laura Loamy Hills - Native Community Area
Area 16 - Rustic Road Scenic Resource Area



Mgmt Class Goals: Area 8 - Increase old growth forest attributes, increase white pine, yellow birch, cedar, and hemlock. Maintain old growth northern hardwood characteristics and enhance stand composition and structure. Regenerate some aspen, white birch and other early successional species. Convert early successional stands not regenerated to northern hardwoods.
 Area 16 - Favor long-lived species to enhance the aesthetic and scenic beauty of the rustic corridor. Remove dead, declining, or short-lived species near maturity.

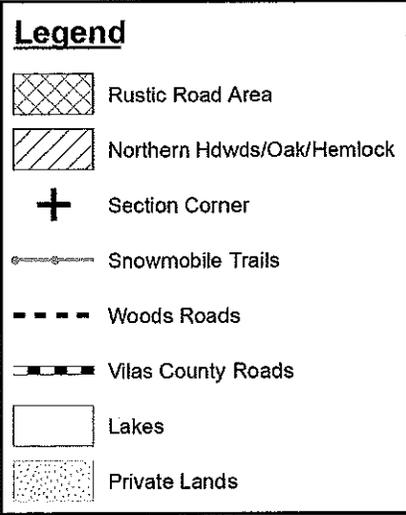
Stand Attributes, Access, & History: This sale encompass 716 acres of un-even age northern hardwood, 126 year old oak, and 156 year old hemlock. The sale area can be accessed off of Fred Lake Road, Cty K, or Old Hwy K and existing woods roads. Records indicate the last cutting was a diameter limit cut between 1951 - 1953.

Silvicultural Prescription: Cut all aspen, white birch, and balsam fir, except for a few that will be left for diversity, cavity trees, or seed. Selectively thin all other species except for hemlock and cedar. Highly favor yellow birch and white pine, with some canopy gaps created to regenerate birch and other early successional species. The largest and healthiest trees will remain uncut to push the stand to an older forest with old growth characteristics. Along the Rustic Road area - same prescription as above, except there will be a 50' no-cut buffer along Hwy K.

Biomass Suitability: No, biomass must be retained to increase the coarse woody debris component.

Recreation/Aesthetic Concerns: The snowmobile trail will be signed or closed if cutting occurs in winter. Aesthetic concerns should be minimal along Hwy K with the no-cut buffer and along other town roads and the snowmobile trail with this being a selective thinning.

Seasonal Restrictions: None



NORTHERN HIGHLAND STATE FOREST

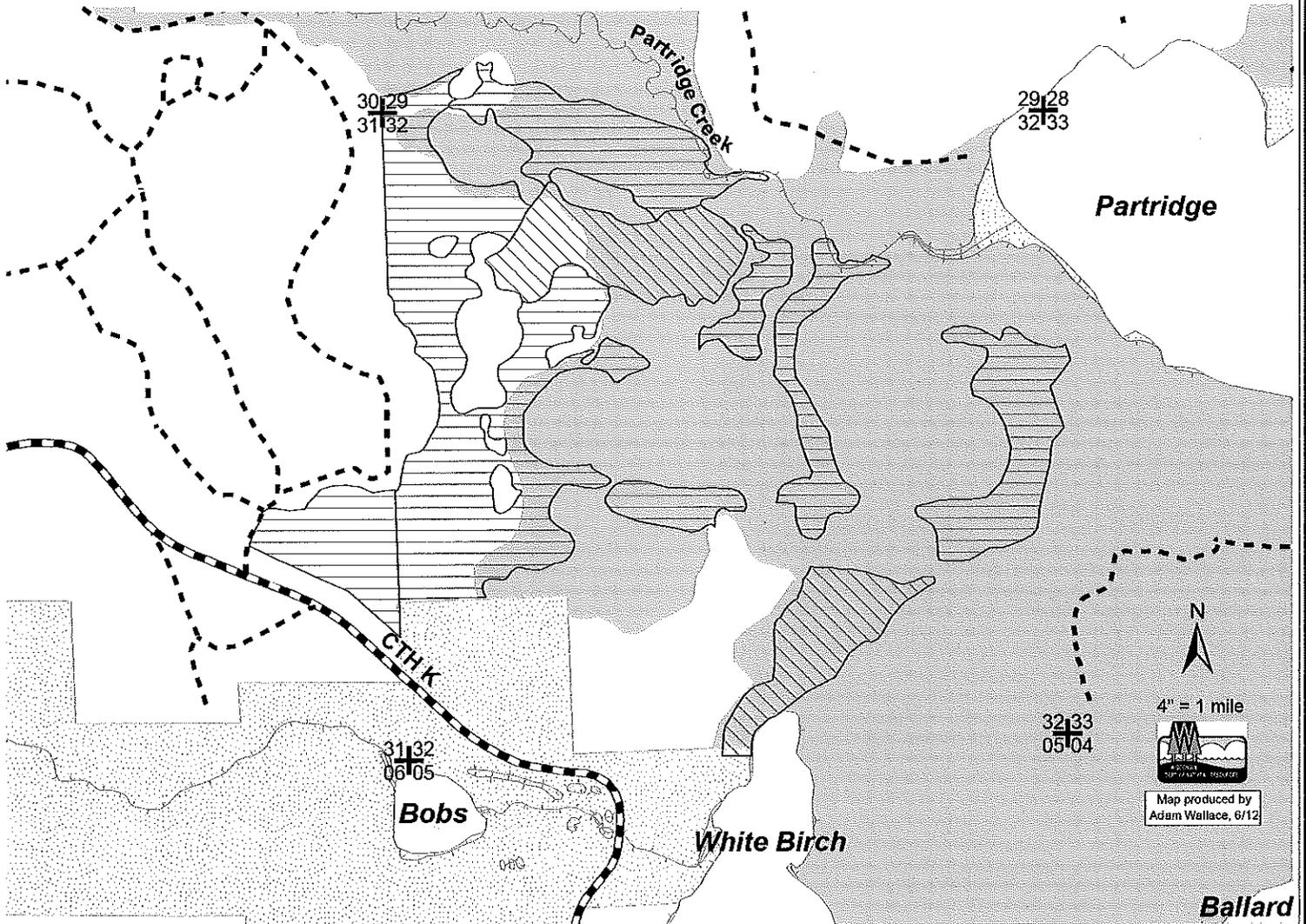
C55 Stands 2, 4, 5, 8; C66 Stand 3

PARTRIDGE CREEK SALE - 225 ACRES

Town of Plum Lake, Vilas County, T42N R8E Sections 31 & 32

NHAL Master Plan: Area 3 - Vilas Sandy Plains North - Forest Production Area

Area 13 - Special Aquatic Native Community Mgmt. Area



Map produced by Adam Wallace, 6/12

Mgmt Class Goals: Area 3 - Increase the presence and age of red and white pine, maintain aspen in mixed stands.

Area 13 - Promote the quality of aquatic communities, diversity in composition and age of uplands, and to promote long-lived tree species.

Stand Attributes, Access, & History: This sale encompass 178 acres of 55 - 86 year old Aspen/Pine/Birch and 47 acres of uneven-aged Northern Hardwood. The sale area can be accessed off of Cty Hwy K and an existing woods road, though an additional stub road or two may be needed. Records indicate past cutting in the west half of the sale was between 1958 - 1963.

Silvicultural Prescription: Aspen/Pine/Birch Area - Cut all trees except for white pine, red pine, and red oak to maintain early successional species while encouraging longer lived species.

Thin dense areas of white & red pine to increase health and vigor. In Area 13 - additional large diameter maple, aspen, and birch will be left uncut to enhance the native community.

Northern Hardwood Area - Cut all aspen, white birch, and balsam fir. Selectively thin hardwoods to improve health and vigor and to promote this type.

Biomass Suitability: No, contains restricted soils (Sayner-Rubicon Complex)

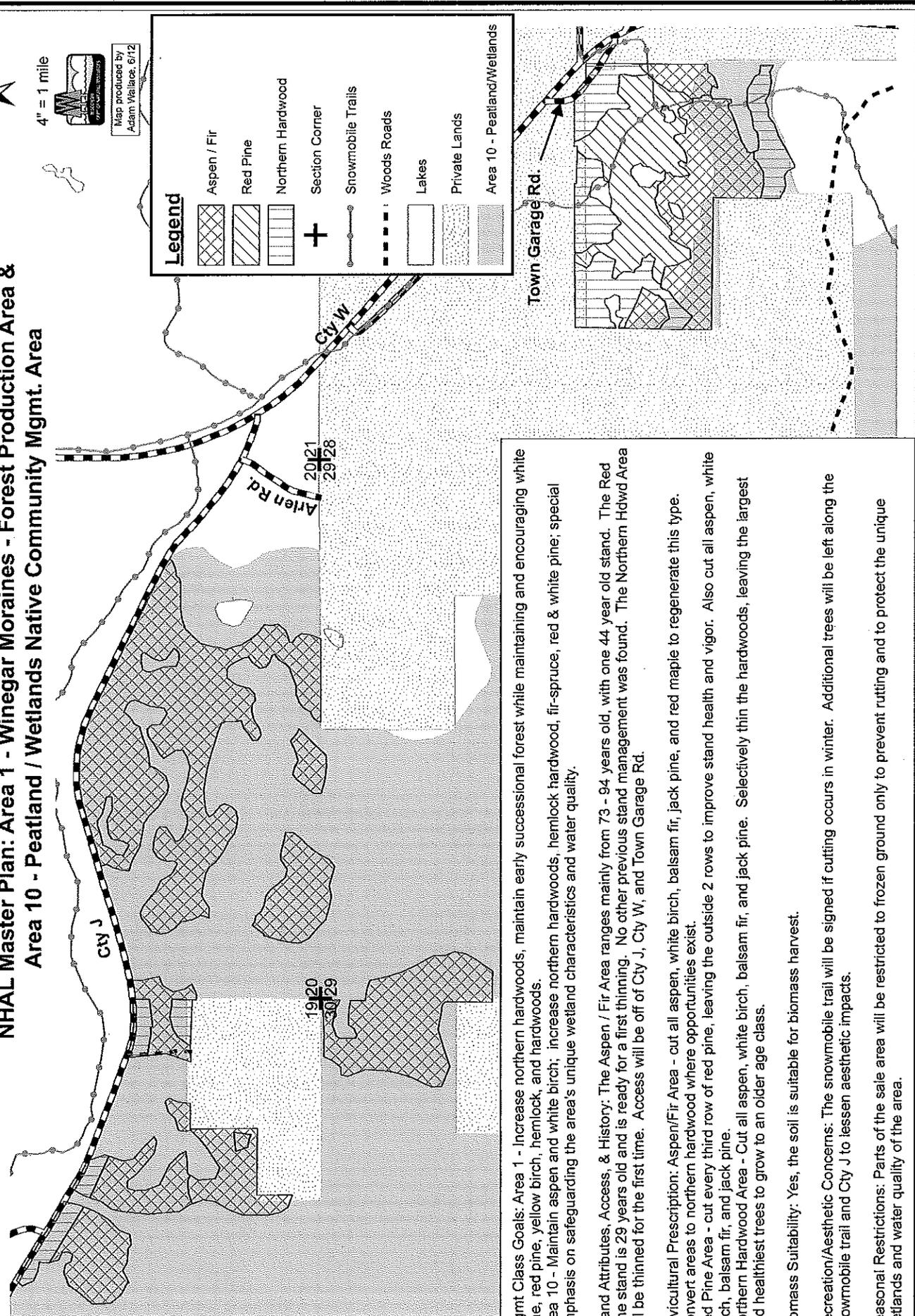
Recreation/Aesthetic Concerns: There are no recreational trails within the sale. A minimum 50' no-cut buffer around White Birch Lake along with selectively thinning the stand will minimize any aesthetic impacts.

Seasonal Restrictions: A few areas of the sale will require frozen ground conditions for access across wetlands.

Legend

-  Northern Hardwood
-  Aspen/Pine/Birch
-  Section Corner
-  Snowmobile Trails
-  Woods Roads
-  Vilas County Roads
-  Lakes
-  Private Lands
-  Area 13 - Special Aquatic

NORTHERN HIGHLAND STATE FOREST
C251 Stands 2, 10, 17, 19, 20, 21; C262 Stands 2, 9, 11
TOWN GARAGE & HWY J SALE - 258 ACRES
Town of Winchester, Vilas County, T43N R5E Sections 19, 20, 28, 29, & 30
NHAL Master Plan: Area 1 - Winegar Moraines - Forest Production Area &
Area 10 - Peatland / Wetlands Native Community Mgmt. Area



Mgmt Class Goals: Area 1 - Increase northern hardwoods, maintain early successional forest while maintaining and encouraging white pine, red pine, yellow birch, hemlock, and hardwoods.
 Area 10 - Maintain aspen and white birch; increase northern hardwoods, hemlock hardwood, fir-spruce, red & white pine; special emphasis on safeguarding the area's unique wetland characteristics and water quality.

Stand Attributes, Access, & History: The Aspen / Fir Area ranges mainly from 73 - 94 years old, with one 44 year old stand. The Red Pine stand is 29 years old and is ready for a first thinning. No other previous stand management was found. The Northern Hdwrd Area will be thinned for the first time. Access will be off of Cty J, Cty W, and Town Garage Rd.

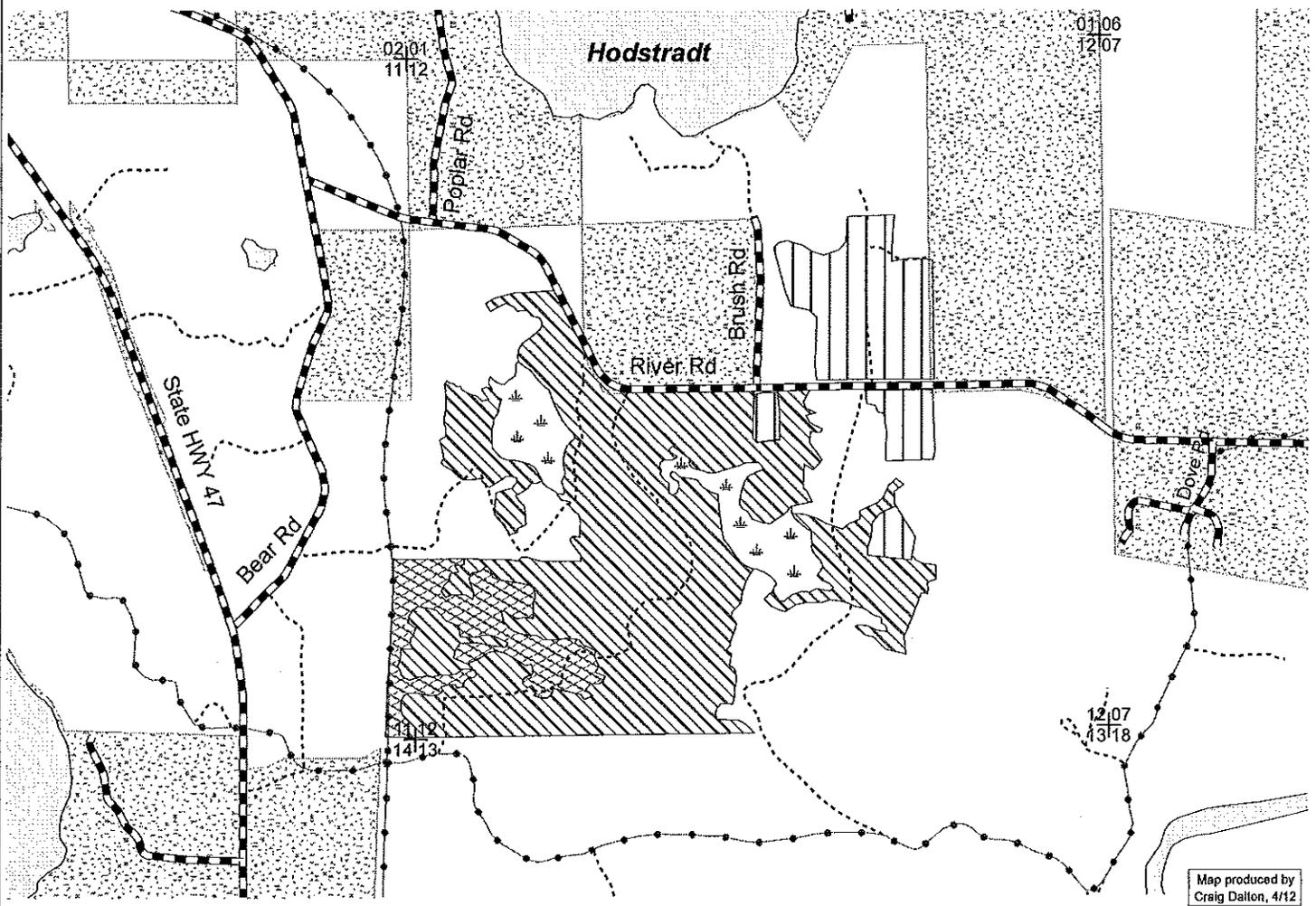
Silvicultural Prescription: Aspen/Fir Area - cut all aspen, white birch, balsam fir, jack pine, and red maple to regenerate this type. Convert areas to northern hardwood where opportunities exist.
 Red Pine Area - cut every third row of red pine, leaving the outside 2 rows to improve stand health and vigor. Also cut all aspen, white birch, balsam fir, and jack pine.
 Northern Hardwood Area - Cut all aspen, white birch, balsam fir, and jack pine. Selectively thin the hardwoods, leaving the largest and healthiest trees to grow to an older age class.

Biomass Suitability: Yes, the soil is suitable for biomass harvest.

Recreation/Aesthetic Concerns: The snowmobile trail will be signed if cutting occurs in winter. Additional trees will be left along the snowmobile trail and Cty J to lessen aesthetic impacts.

Seasonal Restrictions: Parts of the sale area will be restricted to frozen ground only to prevent rutting and to protect the unique wetlands and water quality of the area.

Northern Highland American Legion State Forest
RIVER ROAD PINE -- 190 Acres
Compartments 29A & 30A
Town Lake Tomahawk, Oneida County, T38N-R7E, Sections 11 & 12
Master Plan: Management Area 6 -- Oneida Sandy Plains -- Forest Production



Map produced by
Craig Dalton, 4/12



Scale: 4" = 1 Mile
1:15,840

Legend

- Keg
- Section Corner
- Highways and Town Roads
- Snowmobile Trails
- Woods Roads
- Natural Pine
- Oak/Northern Hardwood
- Red Pine Plantations
- Lakes
- Private Lands

Objectives for this part of the Forest are to maintain the current levels of oak and to increase the presence and age of red pine and white pine in all timber types.

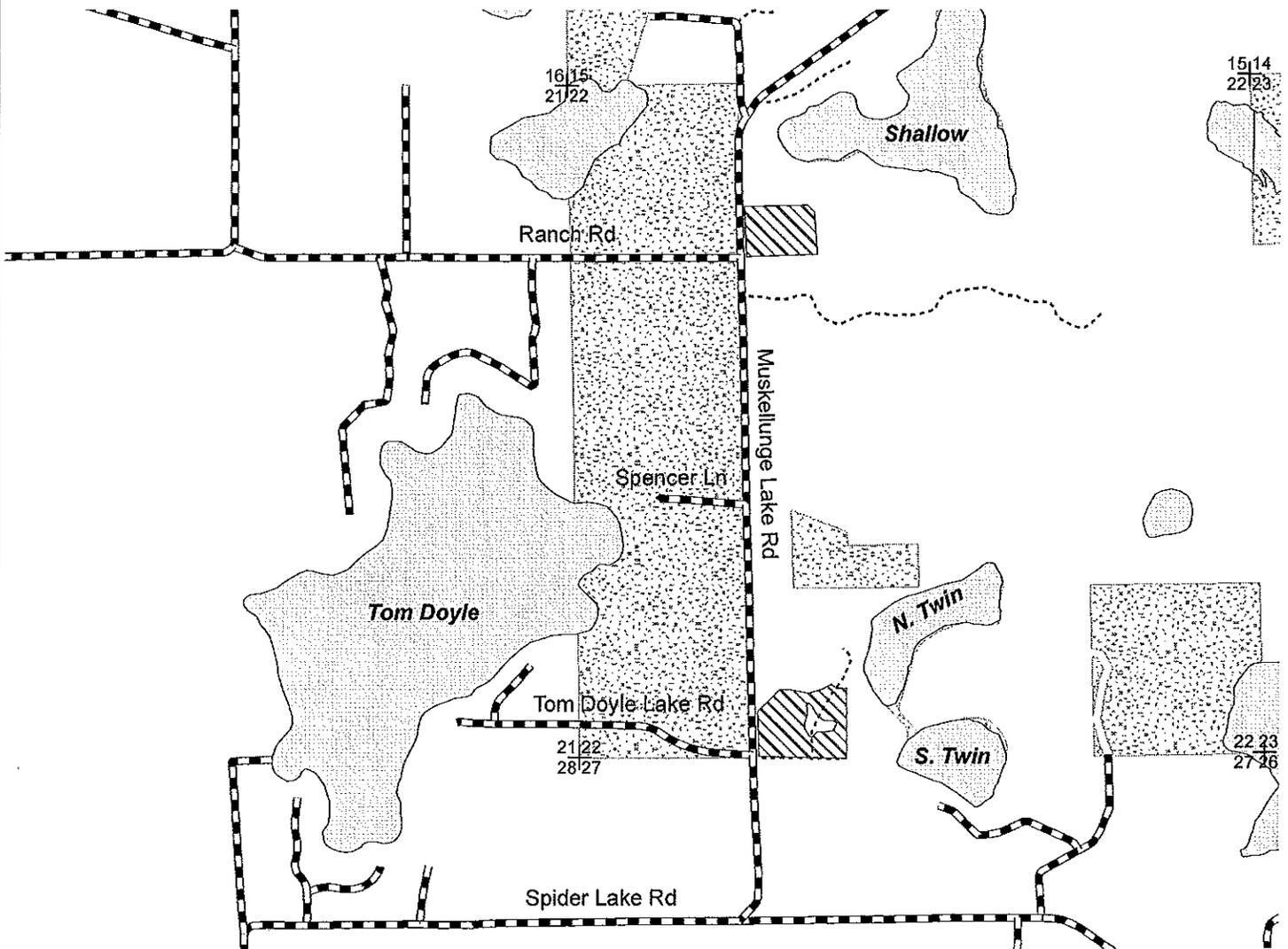
The pine stands proposed for management will be thinned to maintain the health and vigor of the remaining trees. Roughly one-third of the trees will be harvested during the thinning operation. The best formed, best looking trees will be favored.

The Oak/Northern Hardwood stand is more suited to oak based on the soils present. The recommended treatment for managing oak is to develop the more dominant individual oak through thinning. The intent of the thinning is to increase growth and acorn production of the best trees on site. Light and soil conditions will be manipulated to allow the establishment of seedlings in some areas. Seasonal Oak Wilt restrictions will be implemented where no cutting will be allowed between April 15 and July 15.

The main access out to Highway 47 is down snowmobile trail. If the harvest takes place in the winter months the snowmobile club will be contacted for signage at their discretion.

Biomass harvesting will not be allowed due to nutrient poor soils.

Northern Highland American Legion State Forest
NORTH TWIN PINE -- 12 Acres
Compartment 84A
Town of Newbold, Oneida County, T38N-R8E, Section 22
Master Plan: Management Area 6 -- Oneida Sandy Plains -- Forest Production



Scale: 4" = 1 Mile
 1:15,840

Legend

-  Red Pine Plantations
-  Section Corner
-  Highways and Town Roads
-  Snowmobile Trails
-  Woods Roads
-  Lakes
-  Private Lands

The Objectives for this part of the Forest are to maintain the current levels of oak and increase the presence and age of red pine and white pine in all timber types.

The pine plantations will be thinned removing roughly one-third of the trees. The thinning operation will help to maintain the growth and vigor of the pine stands.

No seasonal restrictions will be imposed and biomass harvesting will not be allowed due to nutrient poor soils.



Map produced by
 Craig Dalton, 5/12

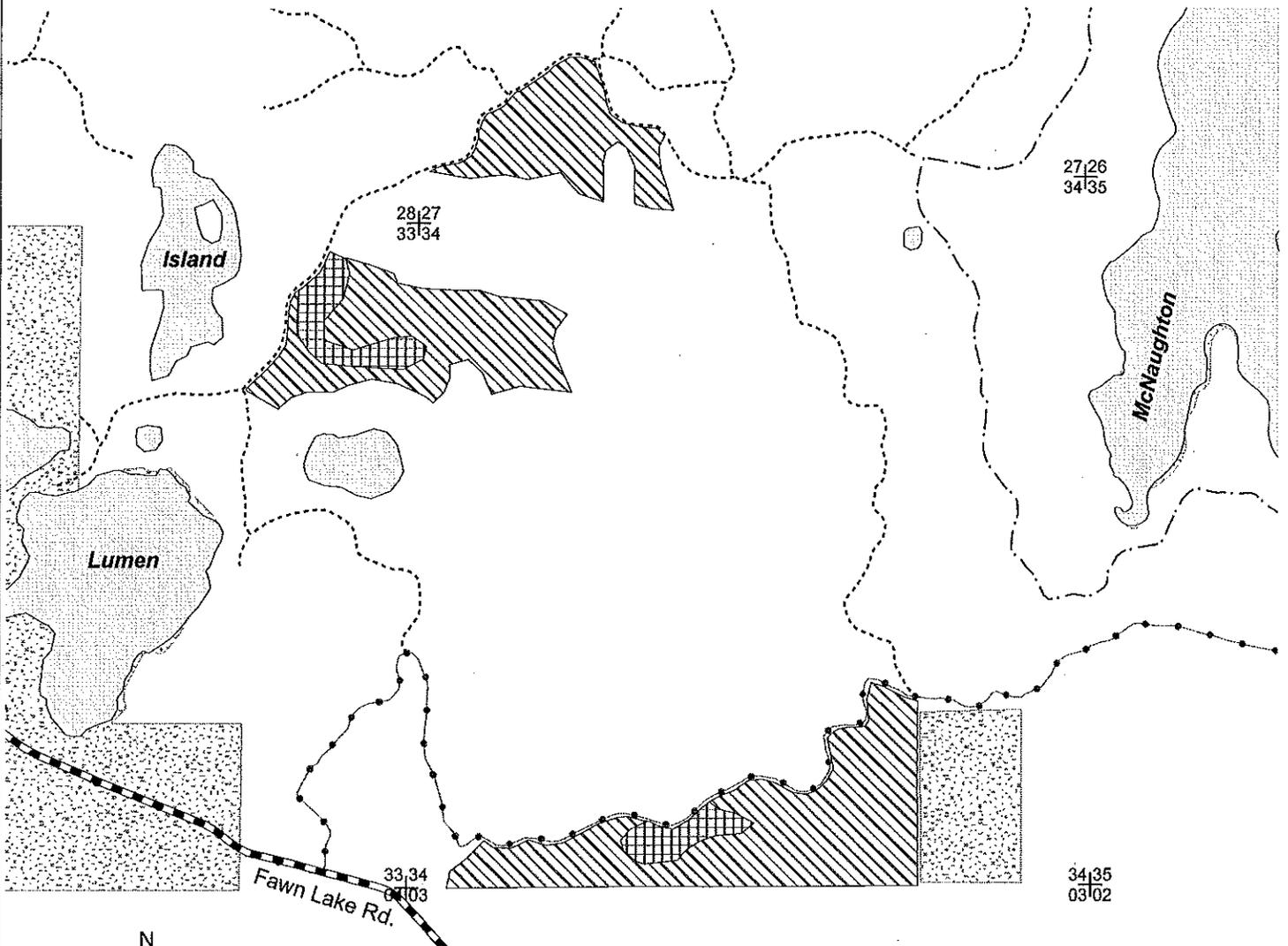
Northern Highland American Legion State Forest

LUMEN LAKE ASPEN -- 121 Acres

Compartment 41A

Town of Lake Tomahawk, Oneida County, T38N-R7E, Section 27, 33 & 34

Master Plan: Management Area 6 -- Oneida Sandy Plains -- Forest Production



Scale: 4" = 1 Mile
1:15,840

Legend

-  Aspen Mix
-  Hardwood Mix
-  Section Corner
-  Highways and Town Roads
-  Woods Roads
-  Snowmobile Trails
-  McNaughton Ski Trail
-  Lakes
-  Private Lands

The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types. Additionally, the aspen component is to be maintained as a dominant community on the landscape.

The Aspen Mix will be regenerated through harvesting most of the trees. This cut will mimic a natural disturbance and allow the early successional aspen type to be maintained on the landscape. This area contains additional acreage of this age and type but only a portion is being regenerated at this time to diversify the age classes.

The Hardwood Mix will have the early successional species removed and the remaining maple and oak thinned. Low quality portions of this type will be converted to aspen type.

No seasonal restrictions will be imposed and biomass harvesting will be allowed.



Map produced by
Craig Dalton, 5/12

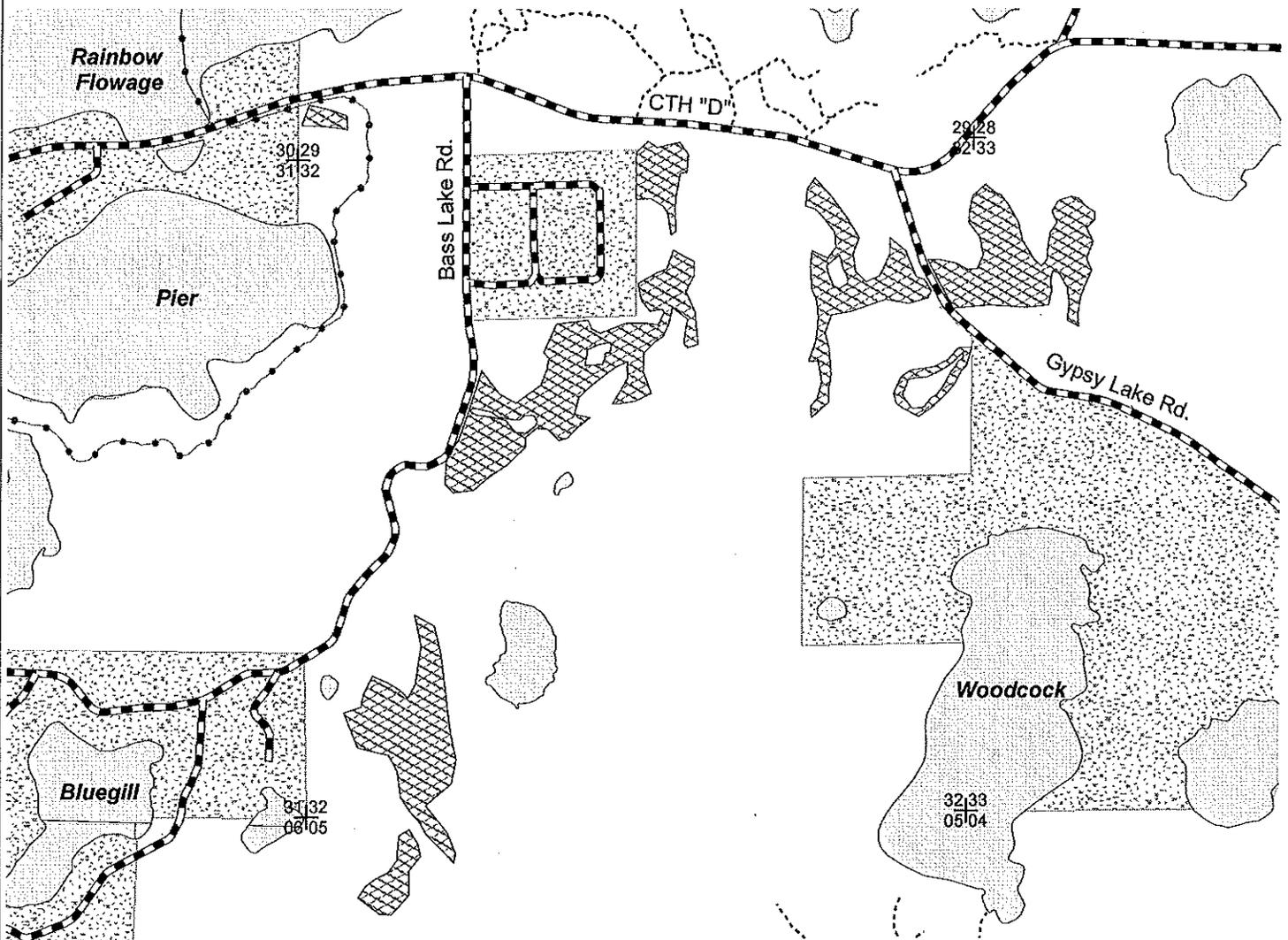
Northern Highland American Legion State Forest

BASS LAKE ROAD RED PINE -- 75 Acres

Compartments 48A, 49A, & 50A

Town of Newbold, Oneida County, T38N-R8E, Section 5; T39N-R8E Sections 29, 32, & 33

Master Plan: Management Area 6 -- Oneida Sandy Plains -- Forest Production



Scale: 4" = 1 Mile
1:15,840

Legend

-  Plantations
-  Section Corner
-  Highways and Town Roads
-  Snowmobile Trails
-  Woods Roads
-  Lakes
-  Private Lands

The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types.

The Red Pine Plantations will be thinned removing roughly one-third of the trees. This thinning operation will maintain the growth and vigor of the pine stands.

No seasonal restrictions will be imposed and biomass harvesting will not be allowed due to nutrient poor soils.



Map produced by
Craig Dalton, 5/12

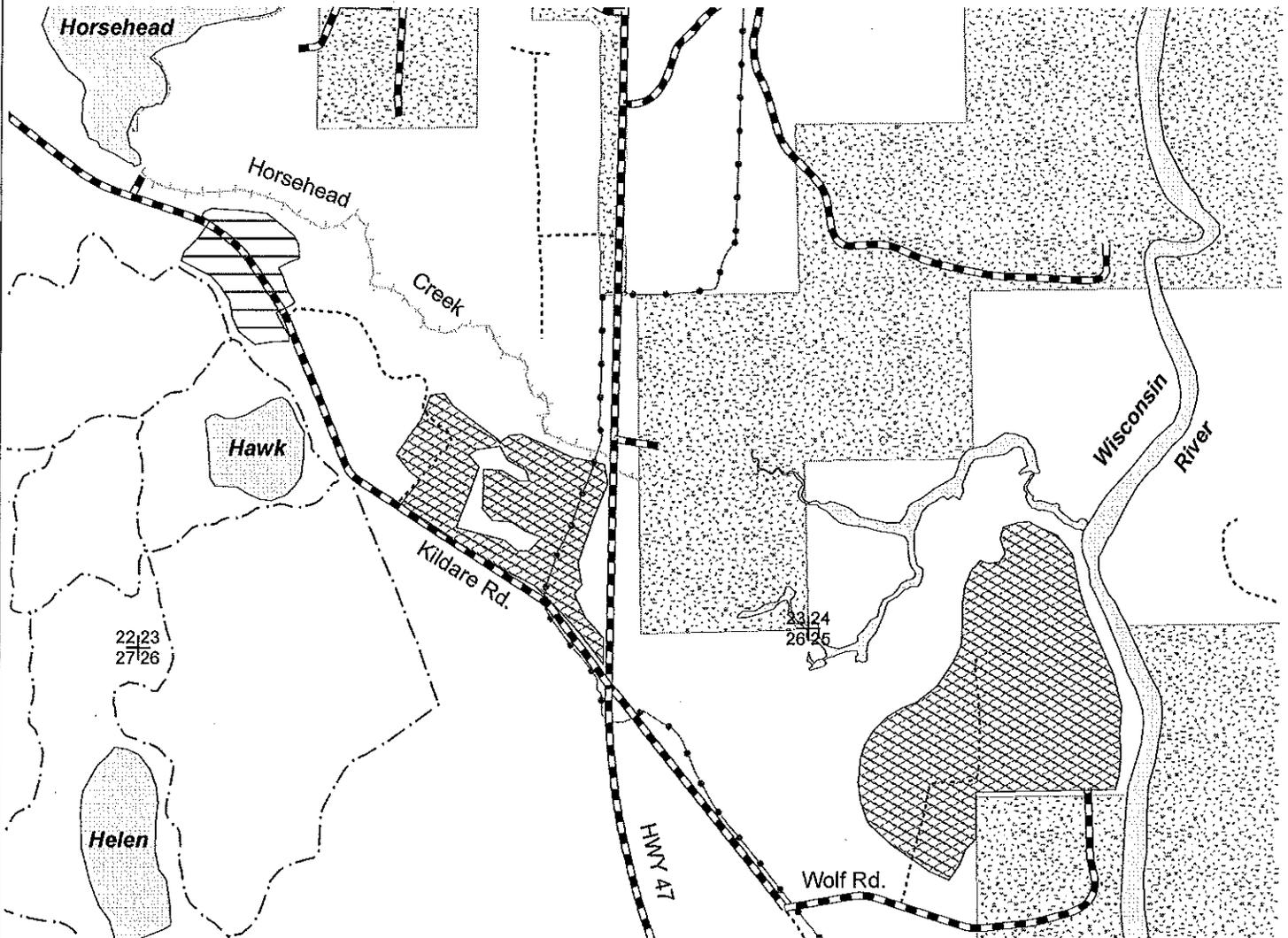
Northern Highland American Legion State Forest

WOLF ROAD -- 115 Acres

Compartments 43A

Town of Lake Tomahawk, Oneida County, T38N-R7E, Sections 23, 24, & 25

Master Plan: Management Area 6 -- Oneida Sandy Plains -- Forest Production



Scale: 4" = 1 Mile
1:15,840

Legend

- Aspen/Pine
- Red Pine Plantations
- Section Corner
- Highways and Town Roads
- Snowmobile Trails
- Woods Roads
- Ski Trail
- Rivers and Streams
- Lakes
- Private Lands

The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types. Additionally, the aspen component is to be maintained as a dominant community on the landscape.

The Red Pine Plantations will be thinned removing roughly one-third of the trees. This thinning operation will maintain the growth and vigor of the pine stands.

The Aspen/Pine type will be regenerated through harvesting most of the trees. This cut will mimic a natural disturbance and allow the early successional aspen type to be maintained on the landscape. This cut will act as a screen for the roadway to additional harvests behind this area once regenerated.

No seasonal restrictions will be imposed and biomass harvesting will not be allowed due to nutrient poor soils.



Map produced by
Craig Dalton, 6/12

Northern Highland American Legion State Forest

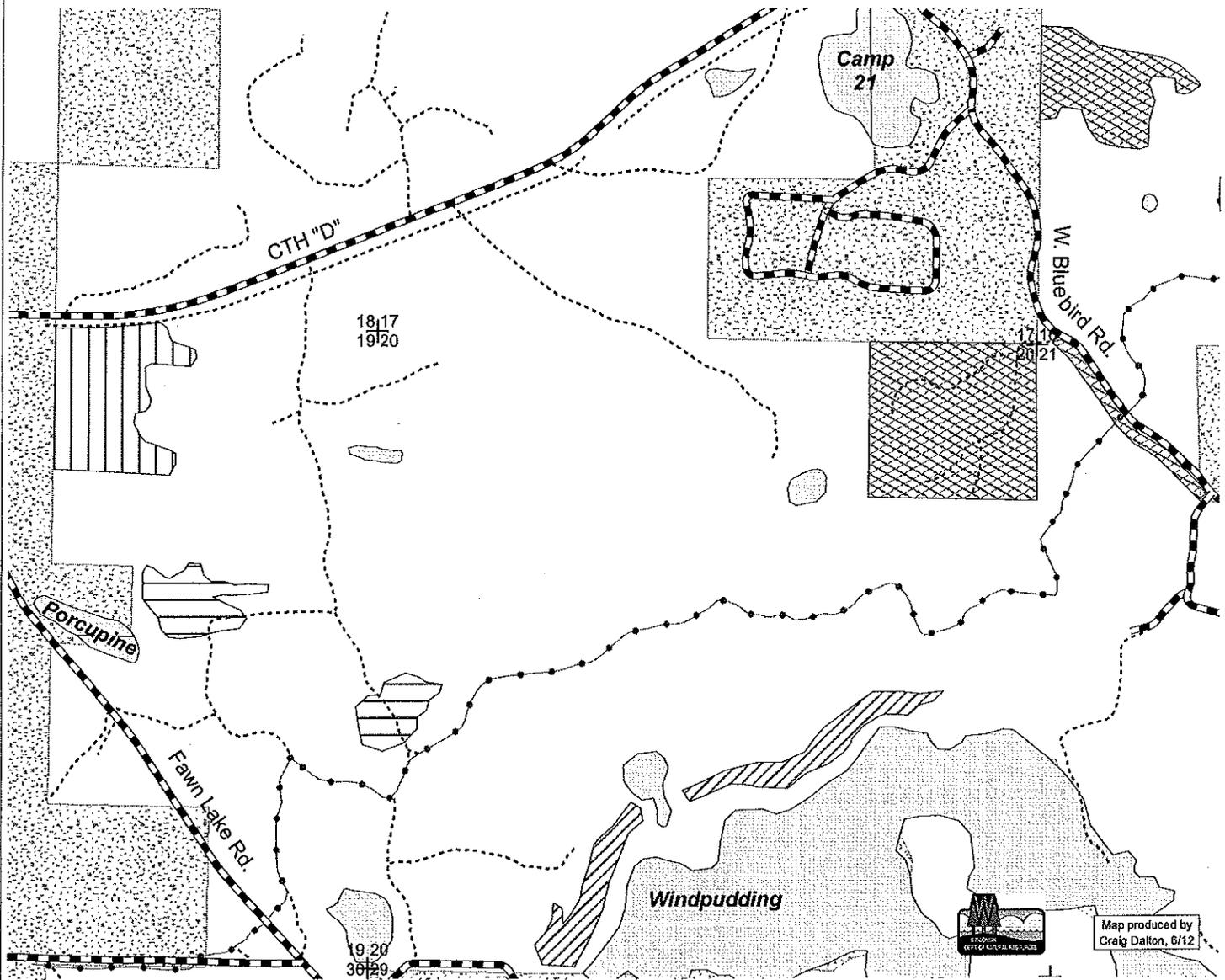
CTH D/BLUEBIRD -- 116 Acres

Compartment 34A & 38A

Town of Lake Tomahawk, Oneida County, T38N-R7E, Section 17, 18, 19, & 20

Master Plan: Management Area 6 -- Oneida Sandy Plains -- Forest Production

Master Plan: Management Area 13 -- Special Aquatic -- Native Community



Scale: 4" = 1 Mile
1:15,840



Legend	
	Natural Area
	Oak
	Natural Pine
	Aspen
	Section Corner
	Highways and Town Roads
	Woods Roads
	Snowmobile Trails
	Lakes
	Private Lands

The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types. Additionally, the aspen component is to be maintained as a dominant community on the landscape. The uplands of the Native Community Area area to be managed for longer-lived oak and pine.

The Aspen Area will be regenerated through harvesting most of the trees. This cut will mimic a natural disturbance and allow the early successional aspen type to be maintained on the landscape.

The Natural Pine Areas will undergo a thinning where roughly one-third of the trees will be removed. This thinning operation will maintain the growth and vigor of the pine stands.

The Natural Area will have the shorter-lived species (Aspen, White Birch, Maple, and Balsam Fir) removed and allow for the longer-lived oak and pine to develop and dominant.

The Oak Areas will undergo a thinning to prepare the stand for future regeneration efforts. This will require the majority of the shorter-lived species to be removed and the remaining oak and pine to be lightly thinned.

Seasonal oak wilt restrictions will be imposed where no cutting will be allowed between April 15 and July 15. Biomass harvesting will not be allowed.

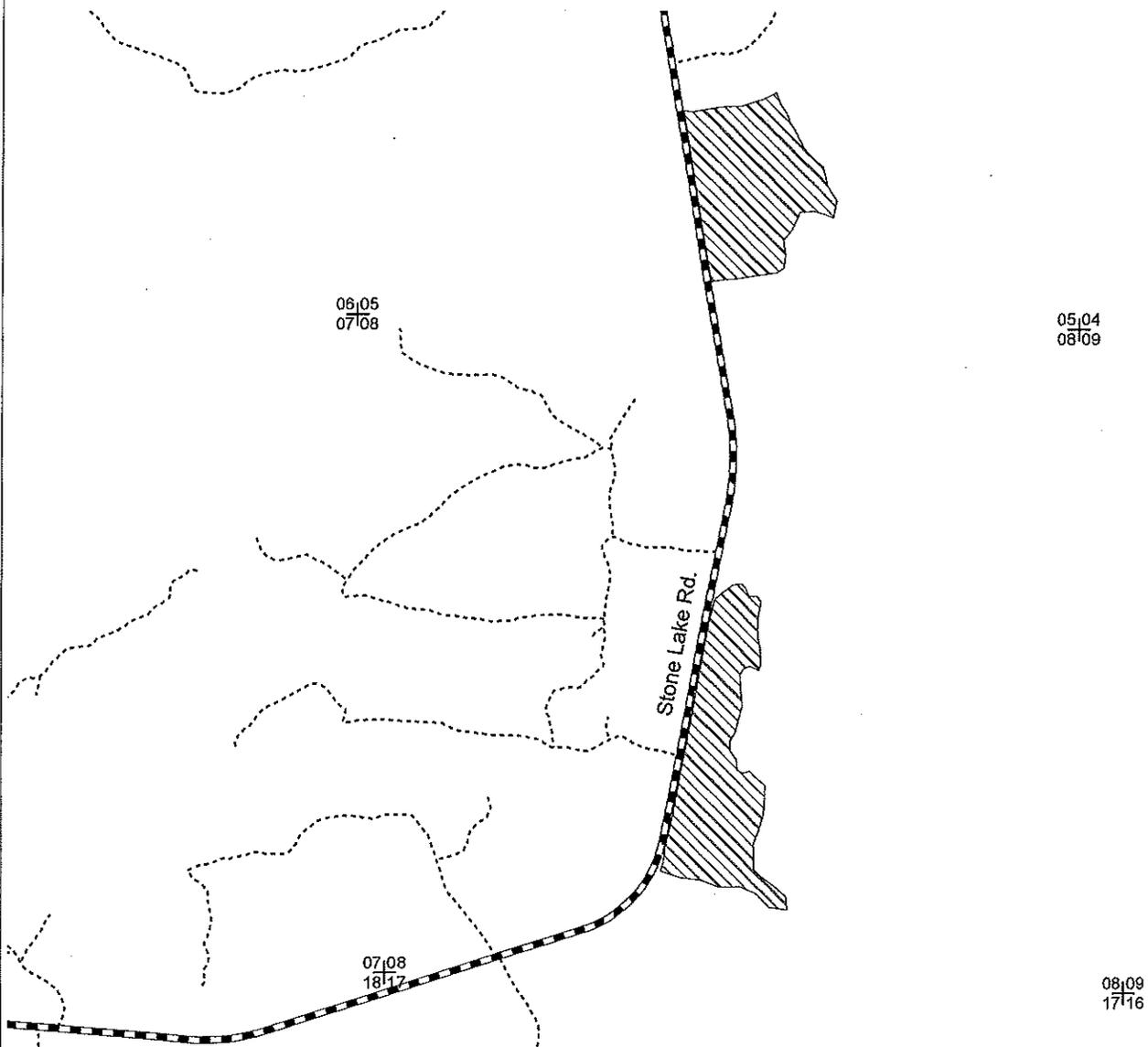


Map produced by
Craig Dalton, 6/12

Northern Highland American Legion State Forest
STONE LAKE ROAD ASPEN -- 56 Acres
 Compartment 78A

Town of Sugar Camp, Oneida County, T38N-R9E, Sections 5 & 8

Master Plan: Management Area 7 -- Ruffed Grouse Demonstration -- Habitat Management



Scale: 4" = 1 Mile
 1:15,840



Map produced by
 Craig Dalton, 6/12



Legend	
	Aspen
	Section Corner
	Highways and Town Roads
	Woods Roads
	Snowmobile Trails
	Lakes
	Private Lands

The objectives for this part of the Forest are to maintain aspen dominance and increase age-class diversity for ruffed grouse habitat.

The Aspen Areas will be regenerated through harvesting most of the trees. This cut will mimic a natural disturbance and allow the early successional aspen type to be maintained on the landscape. This area contains additional acreage of this age and type but only a portion is being regenerated at this time to diversify the age classes.

No seasonal restrictions will be applied and biomass harvesting will be allowed.

Northern Highland American Legion State Forest

THREE LITTLE LAKES -- 173 Acres

Compartment 24A

Town of Woodruff, Oneida County, T39N-R7E, Section 21, 22, 27, & 28

Master Plan: Management Area 5 -- Big Arbor Vitae Loamy Hills -- Forest Production



Map produced by
Craig Dalton, 6/12



Scale: 4" = 1 Mile
1:15,840



Legend

-  Aspen
-  Oak
-  Powerline ROW
-  Section Corner
-  Highways and Town Roads
-  Woods Roads
-  Snowmobile Trails
-  Lakes
-  Private Lands

The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types. Additionally, the aspen component is to be maintained as a dominant community on the landscape.

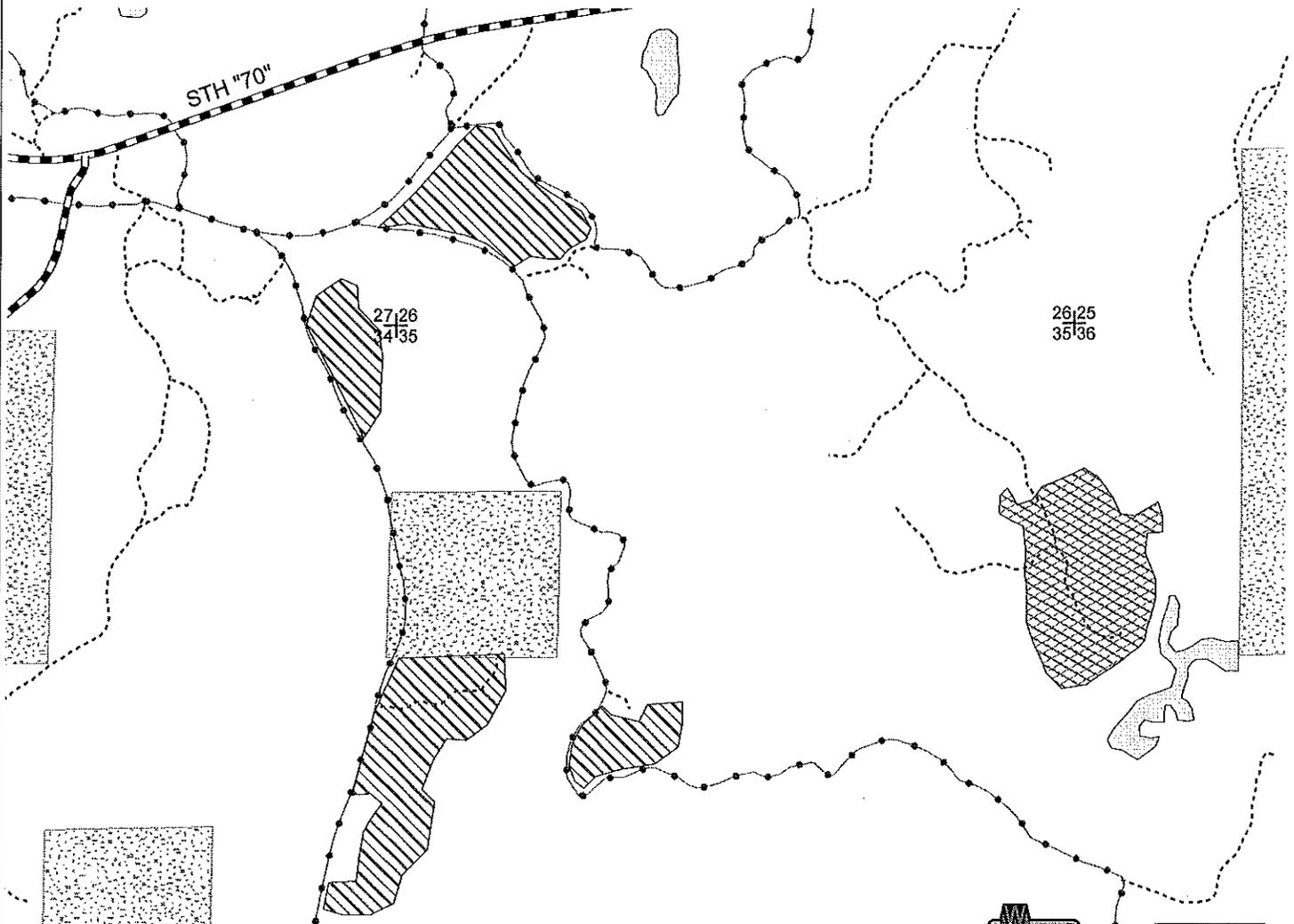
The Aspen Areas will be regenerated through harvesting most of the trees. This cut will mimic a natural disturbance and allow the early successional aspen type to be maintained on the landscape. This area contains additional acreage of this age and type but only a portion is being regenerated at this time to diversify the age classes.

The Oak Area will undergo a thinning to prepare the stand for future regeneration efforts. This will require the majority of the short-lived species (Aspen, White Birch, Maple, and Balsam Fir) to be removed and the remaining oak and pine lightly thinned.

Oak wilt seasonal restrictions will be imposed in the Oak Area where no cutting will be allowed between April 15 and July 15. Biomass harvesting will not be allowed.

**Northern Highland American Legion State Forest
 BORDER CREEK SPRINGS -- 98 Acres
 Compartment 107H**

**Towns of St. Germain and Arbor Vitae, Vilas County, T40N-R7E, Sections 26, 27, 34, 35, & 36
 Master Plan: Management Area 5 -- Big Arbor Vitae Loamy Hills -- Forest Production
 Master Plan: Management Area 11 -- Red and White Pine -- Native Community**



Scale: 4" = 1 Mile
 1:15,840



Map produced by
 Craig Dalton, 6/12

Legend

- Natural Pine
- Aspen
- Section Corner
- Highways and Town Roads
- Snowmobile Trails
- Woods Roads
- Lakes
- Private Lands

The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types. Additionally, early successional forest types are to be maintained. A goal for the Native Community Pine is to develop sites that have open woodland structure.

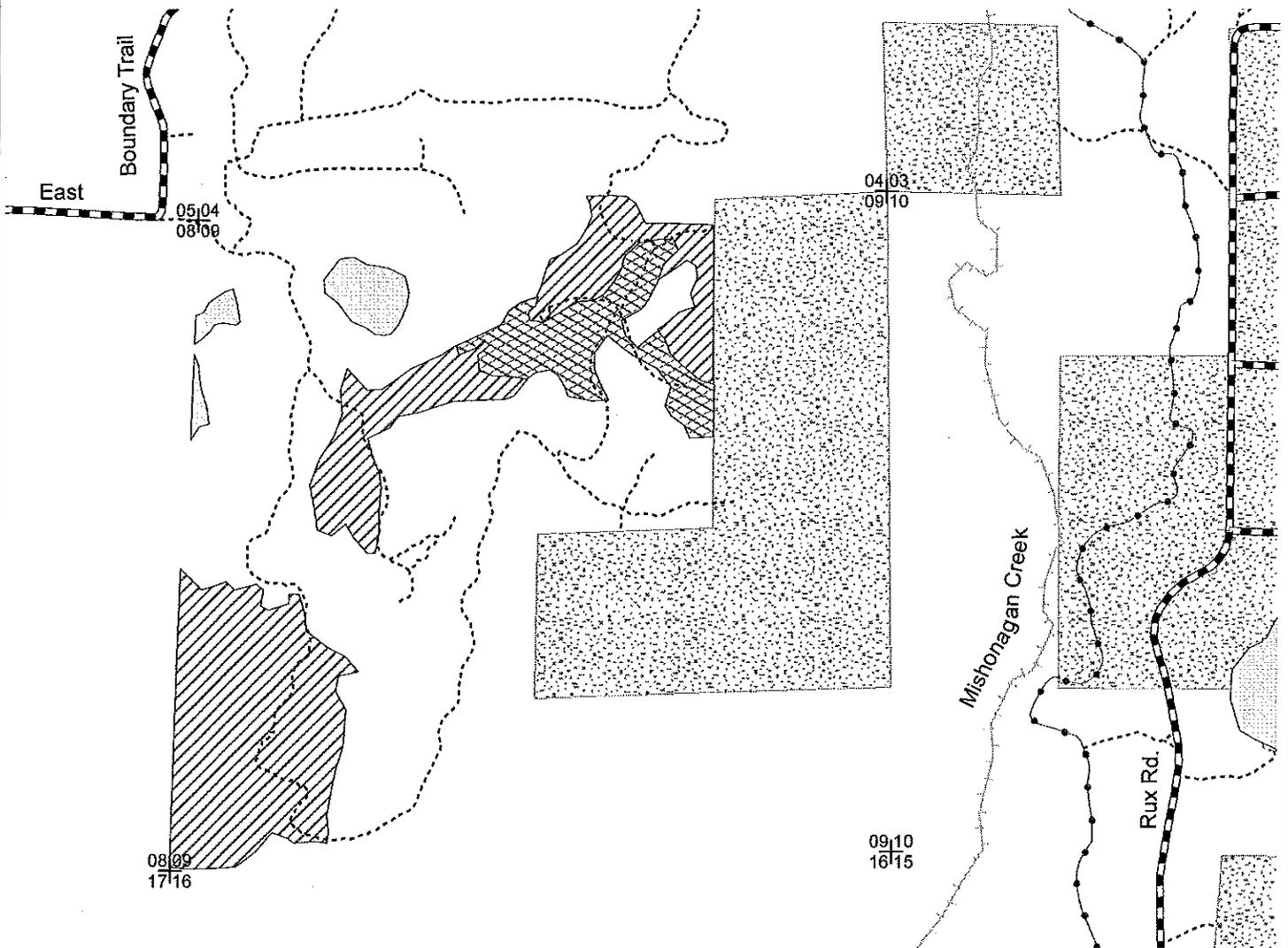
The Natural Pine site will be thinned removing roughly one-third to one-half of the trees. This thinning operation will maintain the growth and vigor of the pine stand. Hardwood saplings growing in the understory will be treated to develop a more open woods.

The Aspen Areas will be regenerated through harvesting the majority of the trees. This cut will mimic a natural disturbance and allow the early successional aspen type to be maintained on the landscape. The area contains a large acreage of this type and age but only a portion is being regenerated at this time to diversity the age classes.

No seasonal restrictions will be imposed and biomass harvesting will not be allowed due to nutrient poor soils.

Northern Highland American Legion State Forest
MISHONAGAN CREEK ASPEN -- 118 Acres
 Compartment 215H

Town of Arbor Vitae, Vilas County, T40N-R6E, Section 9
Master Plan: Management Area 3 -- Vilas Sandy Plains North -- Forest Production



Map produced by
 Craig Dalton, 5/12

Legend

- Aspen Mix
- Natural Pine
- Section Corner
- Highways and Town Roads
- Snowmobile Trails
- Woods Roads
- Rivers and Streams
- Lakes
- Private Lands

The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types. Additionally, the aspen component of the area is to be maintained as a dominant community on the landscape along with a diversity of habitat conditions.

The natural red pine stand will be thinned removing roughly one-third of the trees. This thinning operation will maintain the growth and vigor of the pine type.

The Aspen Mix will be regenerated through harvesting most of the trees. This cut will mimic a natural disturbance and allow the early successional aspen type to be maintained on the the landscape. This area contains additional acreage of this age and type but only a portion will be regenerated at this time to diversify the age classes.

No seasonal restrictions will be imposed and biomass harvesting will not be allowed due to nutrient poor soils.

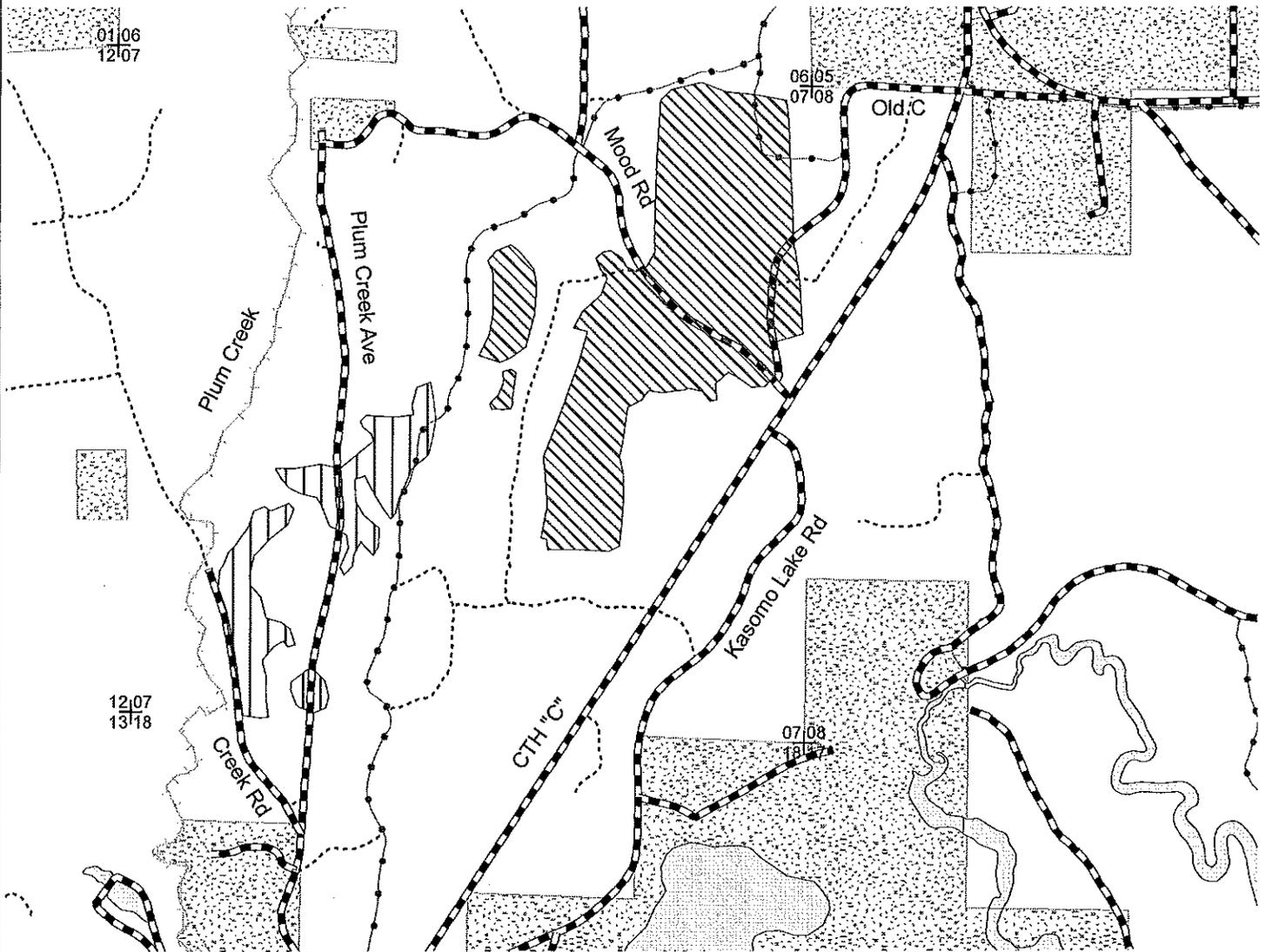
Northern Highland American Legion State Forest

MOOD ROAD RED PINE -- 122 Acres

Compartment 73H

Town of St. Germain, Vilas County, T40N-R8E, Section 7

Master Plan: Management Area 4 -- Vilas Sandy Plains Central -- Forest Production



Scale: 4" = 1 Mile
1:15,840



Map produced by
Craig Dalton, 5/12

Legend

-  Red Pine Plantations
-  Pine Mix
-  Section Corner
-  Highways and Town Roads
-  Snowmobile Trails
-  Woods Roads
-  Rivers and Streams
-  Lakes
-  Private Lands

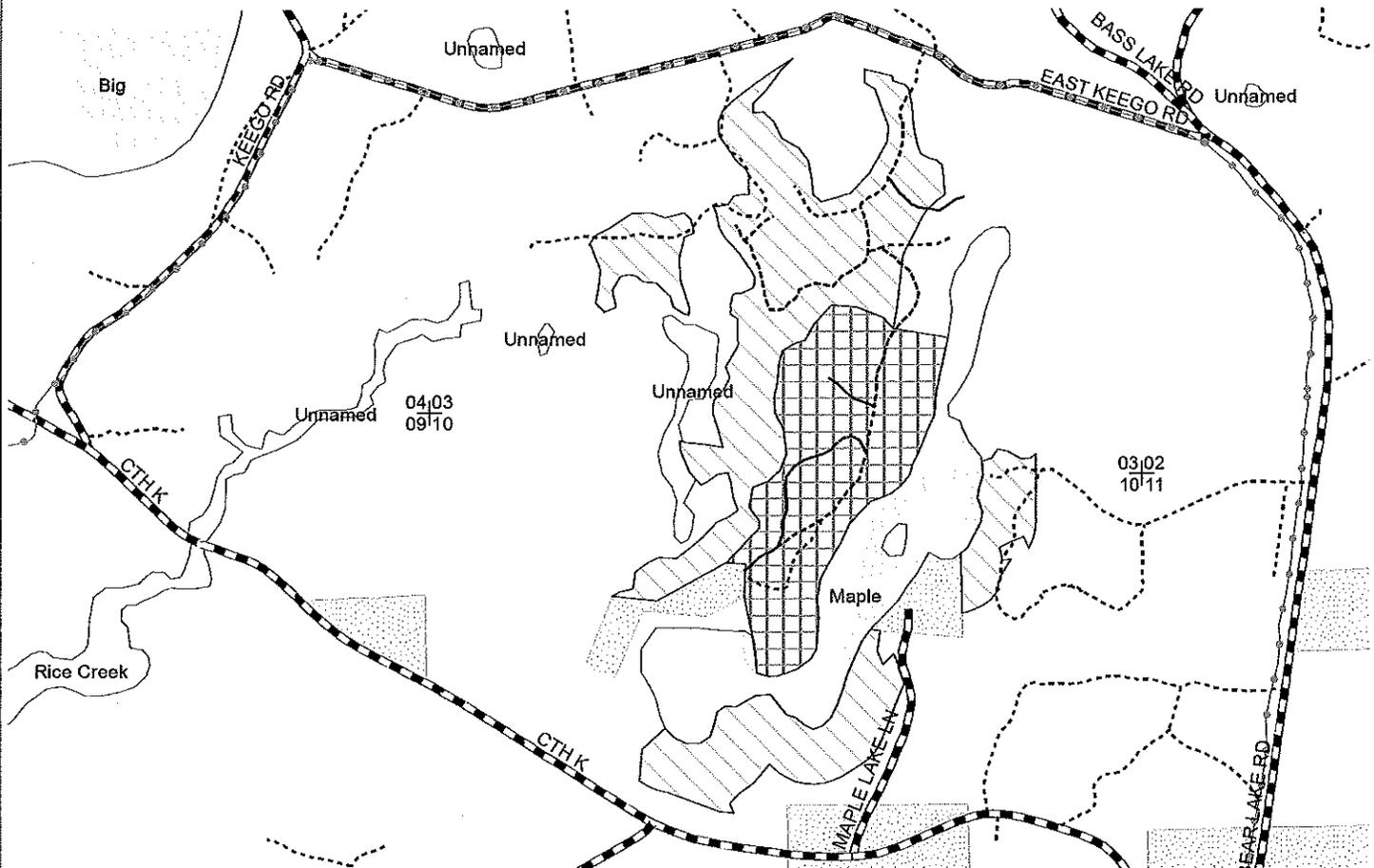
The objectives for this part of the Forest are to increase the presence and age of red pine and white pine in all timber types. Additionally, early successional forest types are to be maintained.

The Red Pine Plantations will be thinned removing roughly one-third of the trees. This thinning operation will maintain the growth and vigor of the pine stand and provide access to equipment throughout the stand.

The Pine Mix area will have the early successional short-lived species harvested along with the remaining red pine and white pine thinned.

No seasonal restrictions will be imposed and biomass harvesting with will not be allowed due to nutrient poor soils.

NORTHERN HIGHLAND - AMERICAN LEGION STATE FOREST
C169H Stands 4, 6, and 10
Maple Lake Sale - 148 Acres
Town of Boulder Junction, Vilas County, T42N R6E Sec 3
Master Plan Area 3 Vilas Sandy Plains North Forest Production Area



Legend

+ Section Corner	Northern Hardwoods
----- Woods Roads	Birch, Aspen
—○— Snowmobile Trails	Lakes
—+— Highways and Town Roads	Private Lands

N

 Scale: 4" = 1 Mile
 1:15,840

Christopherson
 06/2012

Goals for Area 3 include maintaining aspen as a strong component in mixed stands. Manage for current levels of white birch and northern hardwoods.

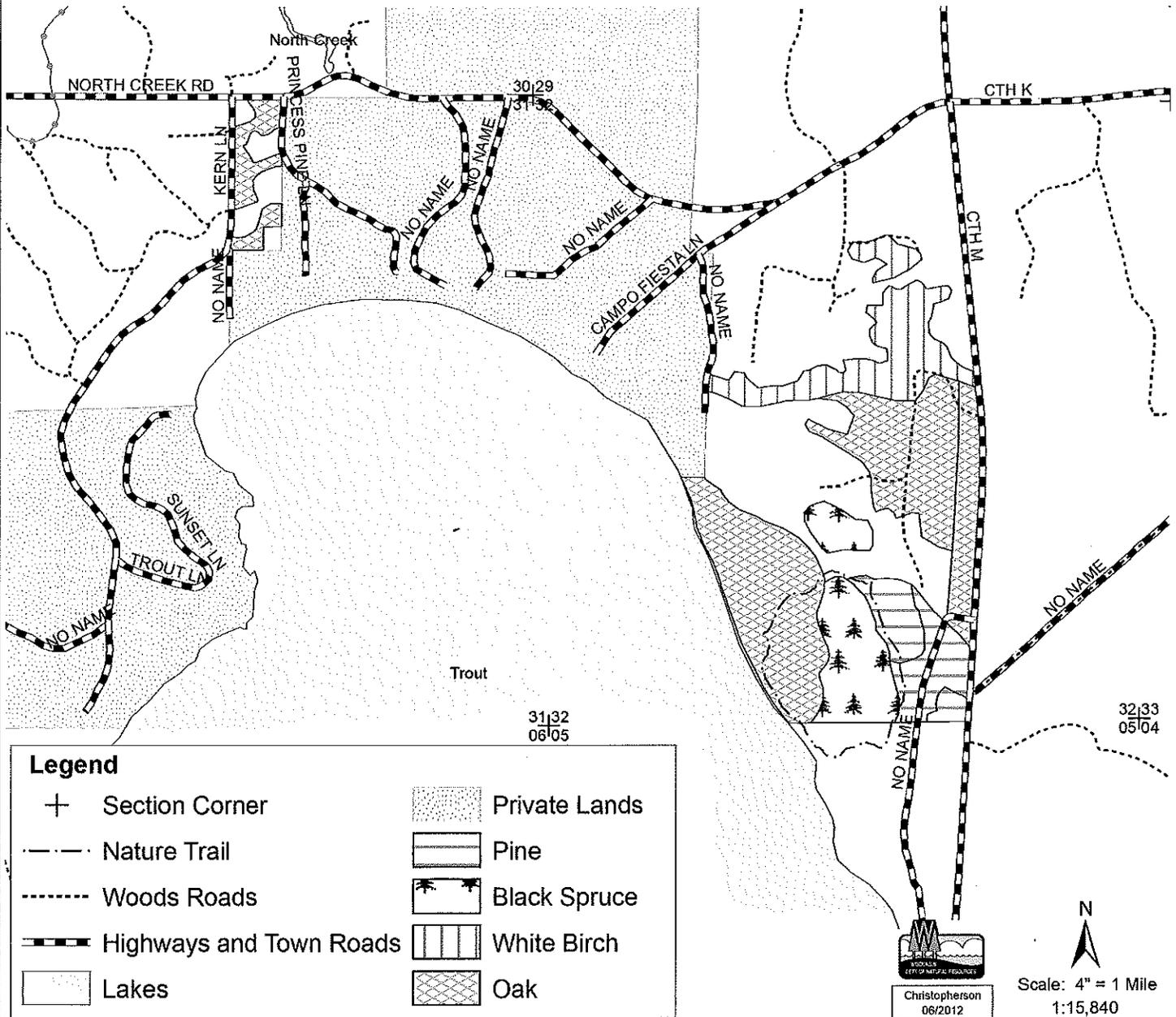
Maple Lake is a scenic lake designation. Aesthetics will be managed for within 400 feet of the lake by retaining larger, longer-lived trees and favoring a mixed composition of species. The aspen and birch in the scenic zone will be carefully selected for harvest.

The northern hardwood area will be harvested using the single-tree selection silvicultural technique. The stand of timber will be managed to increase tree age diversity by creating canopy gaps 30 to 40 feet in diameter. The goal is to promote northern hardwood by favoring the best sugar maples and reducing the white birch component. A scattering of pine will be left in this stand.

Birch and aspen areas will be regenerated by clear cutting and relying on root and stump sprouting (coppice harvest).

Biomass harvest is not allowed due to dry, nutrient poor soils.

NORTHERN HIGHLAND - AMERICAN LEGION STATE FOREST
C150H Stands 2, 3, 5, 8, 9, 10, and 13
NE Trout Lake Sale - 129 Acres
Town of Boulder Junction, Vilas County, T42N R7E Sec 32
Master Plan Area 3 Vilas Sandy Plains North Forest Production Area



Goals for Area 3 include managing for current levels of red oak, white birch, and jack pine. Increase the presence and age of red and white pine. Maintain forested wetlands.

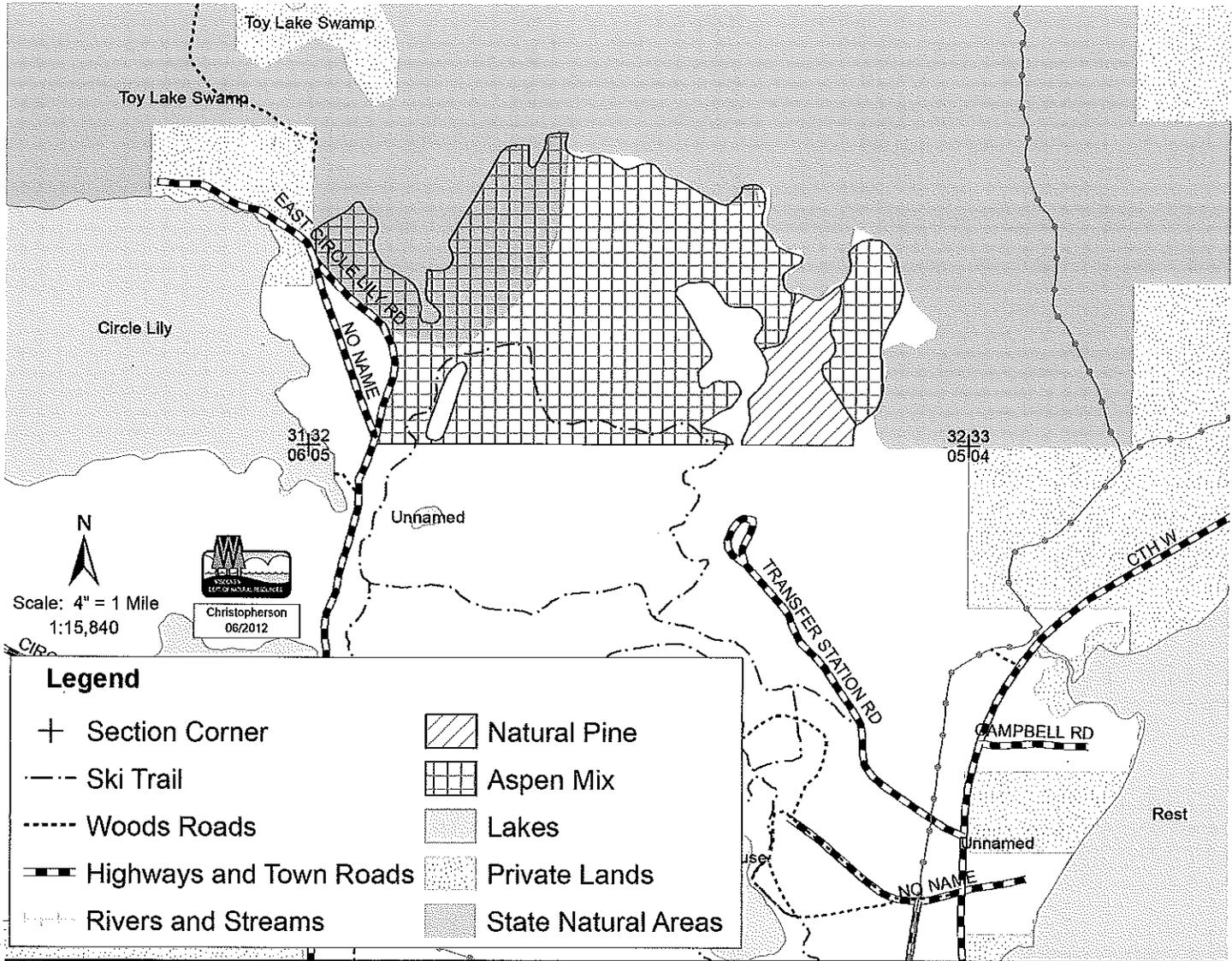
Oak stands will be managed for oak regeneration with a shelterwood harvest. In the white birch stands, the birch and maple will be harvested, the oak thinned, and the red and white pine will be retained. Mature jack pine stands will be harvested and planted back to jack pine. White pine will be thinned where the density is above desirable levels. Clumps of trees will be retained in the black spruce stands as a seed source after harvest.

Wisconsin's BMPs for water quality will be implemented along the shore of North Trout Lake.

Aesthetics are important near the North Trout Lake nature trail.

Biomass harvest is not allowed due to dry, nutrient poor soils.

NORTHERN HIGHLAND - AMERICAN LEGION STATE FOREST
C252H Stands 2 and 4
Circle Lily Lake Sale - 170 Acres
Town of Manitowish Waters, Vilas County, T43N R5E Section 32
Master Plan: Area 3 - Vilas Sandy Plains North Forest Production Area,
Area 10 - Peatland Wetlands Native Community Management Area



Goals for Area 3 Vilas Sandy Plains North are to increase red and white pine and maintain aspen as strong component in mixed stands.

Goals for Area 10 Peatland Wetlands are to protect ecological, water quality, and rare species habitat values. Use active management to increase the age and diversify the composition outside of ecological reference sites.

The natural pine stand will be thinned in the areas of dense pine. Aspen, white birch, red maple, and balsam fir will be harvested to favor red and white pine. Access is through the recycling center.

In the aspenmix area, the aspen, white birch, red maple, and balsom fir will be designated for harvest. The oak and pine will be left in the stand. White birch will be left as a seed source. Aesthetic concerns include a ski trail maintained by the North Lakeland Discovery center. There is a dense balsam fir understory that can be left along the trail. The northwest corner of the aspen stand is part of the Toy lake Swamp State Natural Area. The boundary areas and accessible aspen and hardwoods are open for active management. Frozen ground logging only.

Biomass harvest is allowed in Forest Production Areas.