



# Interim Forest Management Plan

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## Property Identifiers

Property Names and Designation: **Ice Age Trail Properties, including: IAT – Washington County, Polk Kames, and IAT – Waukesha County**

County: **Washington and Waukesha**

Property Acreage: **A total of 494 acres (IAT – Washington County = 130, Polk Kames = 307, IAT – Waukesha County = 57)**

Forestry Property Code(s): **6701, 6705 and 6812 respectively**

Master Plan Date: **Not scheduled**

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## Part 1: Property Assessment (1-2 pages maximum)

The Kettle Moraine State Forest – Pike Lake Unit includes Ice Age trail Properties within the management unit. The properties are located in Washington County. The areas contain a diversity of ecosystems and unique glacial features that include a 1,300 Kamme at Polk Kammes.

Since Euro settlement, large portions of the South East Glacial Plains have been altered for agricultural and urban industrial use. Polk Kammes currently manages part of the parcel with a share crop agreement.

A master plan date is planned to be set within the next couple of years.

The Ice Age trail meanders through each of the properties providing a unique hiking experiences traversing through mixed hardwoods with occasional elevated views.

### Site Specifics

- Current forest types, size classes and successional stages
  - The IAT-Washington County and Polk Kames properties are similar in that the northern hardwood forest type is a dominant presence at both sites, including strong volumes of sugar and red maple, white ash and basswood, but mixed with red and white oak as well. Specifically:
    - **Northern Hardwoods (NH)**: A total of 203 acres which is 71% of the forested area for these two sites, and 47% of the total area for the two areas. 104 acres of the NH is typed as 11 – 15” over 5 – 11”, all but 1 acre being on Polk Kames. 92 acres is typed as 15+” over 5 – 11”, found on both properties. Then on the IAT is a 5 – 11” over 0 – 5” stand totaling 7 acres. With sugar maple being the climax forest type, these stands are well up the successional stage.
    - **Oak (O)**: 22 acres of oak type are included, all on Polk Kames. Two stands are involved dominated by 11 – 15” and 15+” primary size classes. Both are



# Interim Forest Management Plan

on very steep terrain with NH understory, and could easily transition to the more shade tolerant NH type unless management to alter this occurs.

- Central Hardwoods (CH): 48 acres are included in this type, all on the Ice Age Trail (IAT) property. Two stands are involved, and both areas are generally open with grass and scattered brush, with a mix of young ash, cherry, elm and box elder getting established.
- Conifer (white pine and spruce) plantations (PW and SW): Included are 11 acres all on the IAT property. Seven acres are in the 9 – 15” size class, 3 acres in the 5 – 9” size class, and 1 acre of 0 – 5” young plantation. Both species are only moderately shade tolerant, so relatively low on the successional ladder.
- Aspen (A): One stand totaling 3 acres is present on the IAT property. These trees are currently 54 years old.

The IAT-Waukesha County property is dominated by oak and central hardwoods on gently rolling terrain. 23 acres of oak and central hardwoods forest type are present. 21 of these acres are dominated by 15+” size oak sawtimber over 5 – 11” central hardwoods. Two acres are dominated just by central hardwoods (11-15”) with a strong presence of box elder.

- State Natural Area designations
- High Value Conservation Forests (HCVF) or other resources/natural community types limited in the landscape
- Biotic Inventory status
- Deferral/consultation area designations (refer to the following website):
- Rare species
- Invasive species
  - Invasive species are variable at the Washington County sites, with few being present in the northern hardwood areas. Garlic mustard is fairly abundant through these areas, but only a light presence of common buckthorn, honeysuckle or other invasives can be found. Buckthorn and honeysuckle are somewhat more prevalent in more open hardwood stands or in conifer stands that have been thinned.
  - At the Waukesha County property, buckthorn is quite heavy in all the wooded area and open brushy areas. Honeysuckle is present at times, as well as prickly ash and garlic mustard in a few places.
- Soils
  - Numerous soil types are present on each these properties, with eight identified by the Soil Survey at the IAT-Washington County property, ten at Polk Kames, and nine at the IAT-Waukesha County site. a) For the two Washington County properties: nearly all of the soil types are silt loam or loams, with a few small low wet areas at Polk Kames including mucky peats. All of the forested areas are on very good soils, most being listed by the Soil Survey as Woodland Group 1, and two types listed as Woodland Group 5, both being very good soils for growing trees of quality and size. b) For the Waukesha County property, the upland areas are generally sandy loams and loams, with a small area in silt loam. The low areas are either silt loam or muck soils.



# Interim Forest Management Plan

## Cultural and Recreational Considerations

- There are possible historical and archeological hits on the Polk Kames property. In the master plan this will be addressed.
- Recreational opportunities include hiking along the Ice Age, hunting and trapping..

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## Part 2: IFMP Components (1-2 pages maximum)

**Management Objectives:** In general the forest management objectives for all three of these areas is to promote healthy, vigorous stands that are better able to withstand insect and disease attacks, and that offer good aesthetic values, wildlife habitat and quality forest products. Management objective by species is as follows:

- 1) Northern Hardwoods: The primary objectives for this type are to maintain quality aesthetics through these areas, and to promote wildlife habitat and benefit by encouraging mast-producing species, and long-lived trees on these sites that can serve as den trees. With the Emerald ash Borer (EAB) being a threat in this area, ash will be often selected for harvesting, although not with the objective of eliminating them, just reducing their presence.
- 2) Oak: The primary objective in these stands will be to promote the oak type and encourage regeneration. However with the Polk Kames stands often on steep terrain, management will be limited, with care of the site being a priority. The Waukesha County property is easier terrain, but access is difficult and will be a problem for any management efforts.
- 3) Central Hardwoods: The management objective in these stands will be to promote the growth of desirable tree species through tree planting and brush control.
- 4) Conifer plantations: The management objective for these areas is to maintain healthy growth and development of these stands, in order to promote their long-term growth for the aesthetic value and wildlife cover that they offer, and the diversity they create on this landscape.
- 5) Aspen: With few aspen present on the IAT property, the management objective here is to promote successful regeneration of aspen in this area for the benefit of wildlife species present, and again to maintain diversity on the landscape.

**Property Prescriptions** (Identify specific and pertinent prescriptions by area or forest type, including passive management areas, extended rotation, and other information that will help achieve the objectives):

- 1) Northern Hardwoods: These areas will be managed using selection harvesting and uneven-aged management with a goal of promoting a desirable mix of tree species, and maintaining an all-aged stand character. In these stands, oak and hickory will be favored as possible to promote wildlife benefit. Good quality sugar and red maple, and basswood will also be encouraged in the stand. Ash will be often selected for removal when marking timber harvests due to Emerald Ash Borer (EAB) concerns, although no effort will be made to eradicate ash from these stands. Healthy, vigorous young ash will be left at times through the area.



# Interim Forest Management Plan

- 2) Oak: a) With the difficulty of management on the Polk Kames steep terrain, management will be limited to spot treatments, clearing pockets where appropriate and planting oak seedlings. Other areas will be allowed to transition over time to a NH type. b) At the Waukesha County property, management will involve invasive species control initially to allow for the regeneration of desirable hardwoods. Once the invasives are under control, shelterwood harvesting will be employed (if access is available) to encourage oak regeneration, with supplemental tree planting if natural regeneration is inadequate.
- 3) Central Hardwoods: Management in these areas will involve brush control using a combination of cutting or mowing and herbicide, followed by planting of desirable trees.
- 4) Conifer plantations: Periodic thinning will be used to promote the health and vigor of these stands. An extended rotation will be followed with aesthetics being a primary objective for this area. A mix of white pine and spruce will be favored, with any red pine being transitioned to PW or SW over time.
- 5) Aspen: The aspen stand will be managed using a clearcut for coppice regeneration. Herbicide treatments may be applied to keep undesirable exotic brush from competing with the young aspen.

Approvals:

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Regional Ecologist Date

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Forester Date

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Property Manager Date

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Area/Team Supervisor Date