

Wildlife Habitat & Forest Resource Management Plan

Hickory Hills Park and Casey's Paha

Plan Prepared By

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Hickory Hills Park

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Hickory Hills Park is 723 acres of upland forest, prairie and wetlands. It offers camping, picnicking, sand volleyball, disc golf, hiking, fishing and hunting. A unique live wildlife display includes bison, elk, turkeys, and other small birds. This area includes the unusual geologic feature, Casey's Paha, dedicated as a State Preserve in 1989. Casey Lake provides excellent fishing for bluegill, largemouth bass, crappie, and catfish.



DISCLAIMER:
This map does not represent a survey; no liability is assumed for the accuracy of the data delineated herein, either expressed or implied by Black Hawk County, the Black Hawk County Assessor, or their employees. This map is compiled from official records including plats, surveys, recorded deeds, and contracts, and only contains information required for local government purposes. See the recorded documents for more detailed legal information. 2/20/2014 S. Tech 1:14,800

Property Description

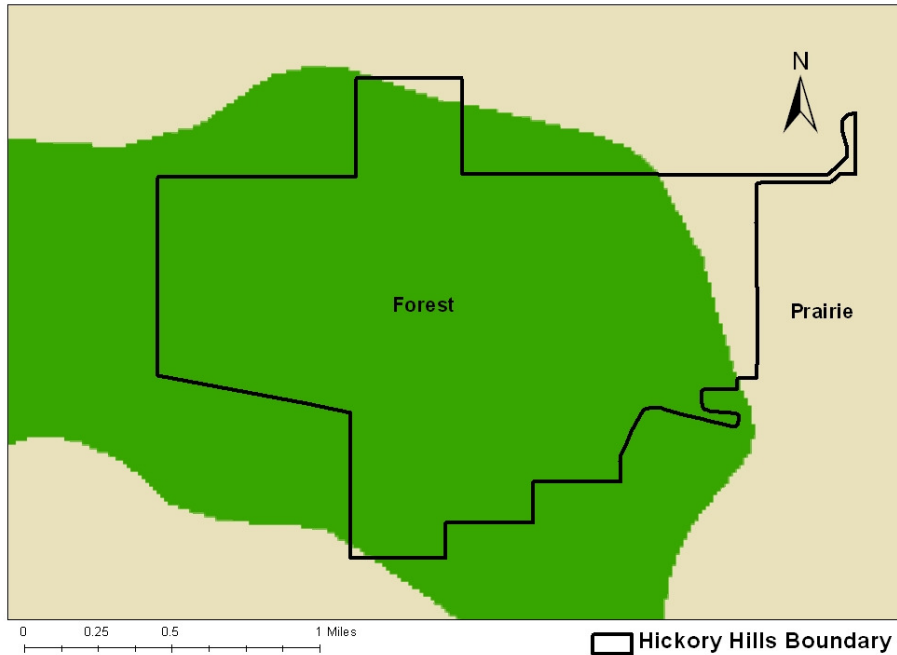
- 723 total acres
- 365 acres in Forest Plan
- Includes Casey's Paha State Preserve (1989)
- Upland forests, prairies, wooded ravines, siltation ponds, and Casey Lake.
- Recreation includes:
 - camping
 - hiking
 - hunting
 - mushrooming
 - wildlife viewing
 - fishing
 - archery course
 - disc golf

Casey's Paha State Preserve

- 175 acres dedicated in 1989
- Paha - “ridge or hill” of wind blown sand or silt (loess)
- Well-drained, steep soils but highly erodible
- A perched water table helps trees survive
- Owned by the DNR – must have written approval to “remove trees or other vegetation” or to “conduct a forest harvest”.



Hickory Hills Park Historic 1800's Vegetative Survey



Historical Vegetation

- Forest and Savanna surrounded by tallgrass prairie.
- Soil type/moisture, topography, and natural disturbances made this an unique area.

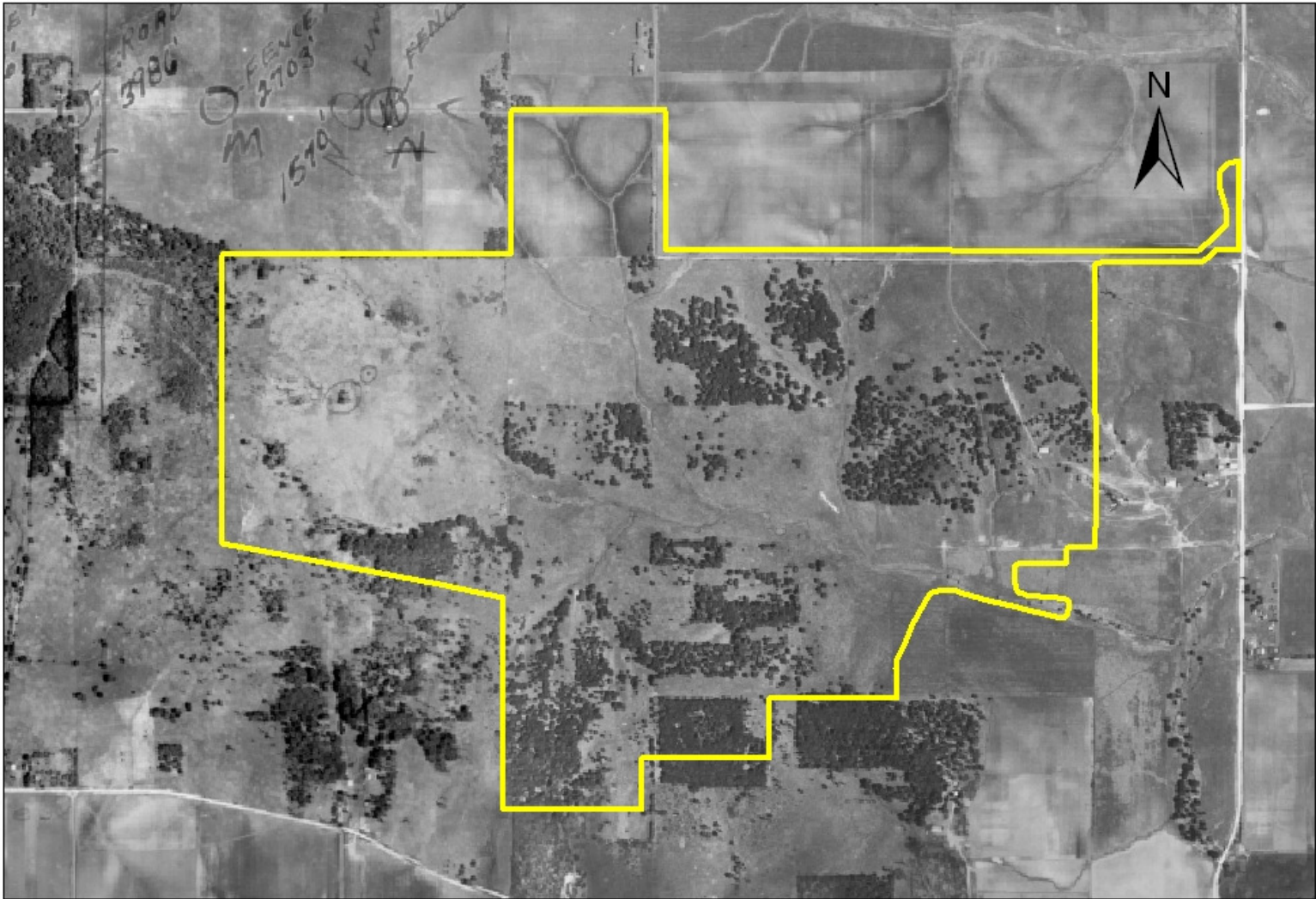
1990 Tree Coring (aging)

- 19 White and Bur Oaks
- White and Bur oaks 130-160 yrs old now.
- White Oak - 236 yrs old
- Indicates more open canopy in the past due to cutting/clearing, grazing, and natural disturbances.



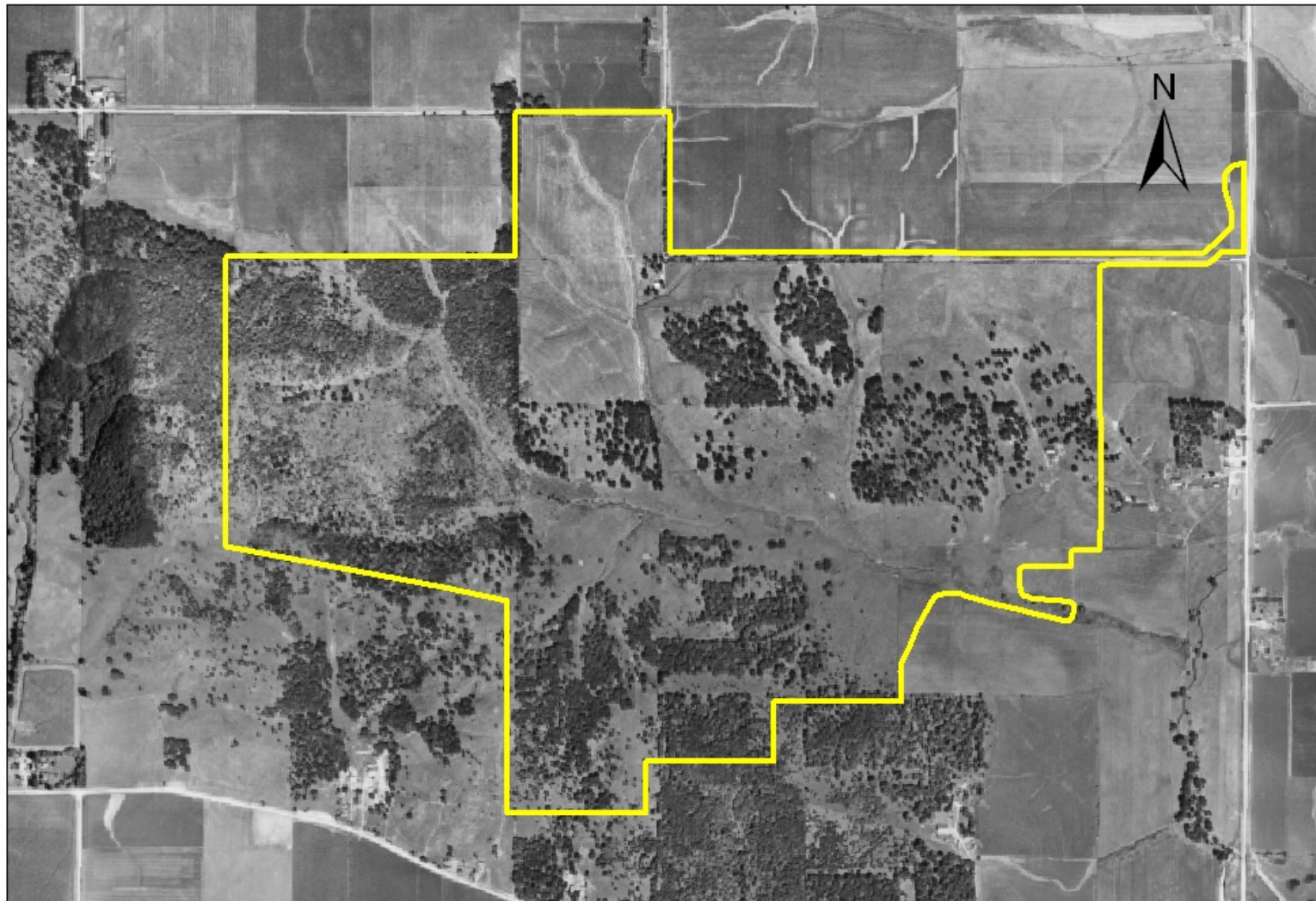
1876 Atlas

Hickory Hills Park circa 1930's



 Hickory Hills Boundary

Hickory Hills Park circa 1950's



0 0.25 0.5 1 Miles

 Hickory Hills Boundary

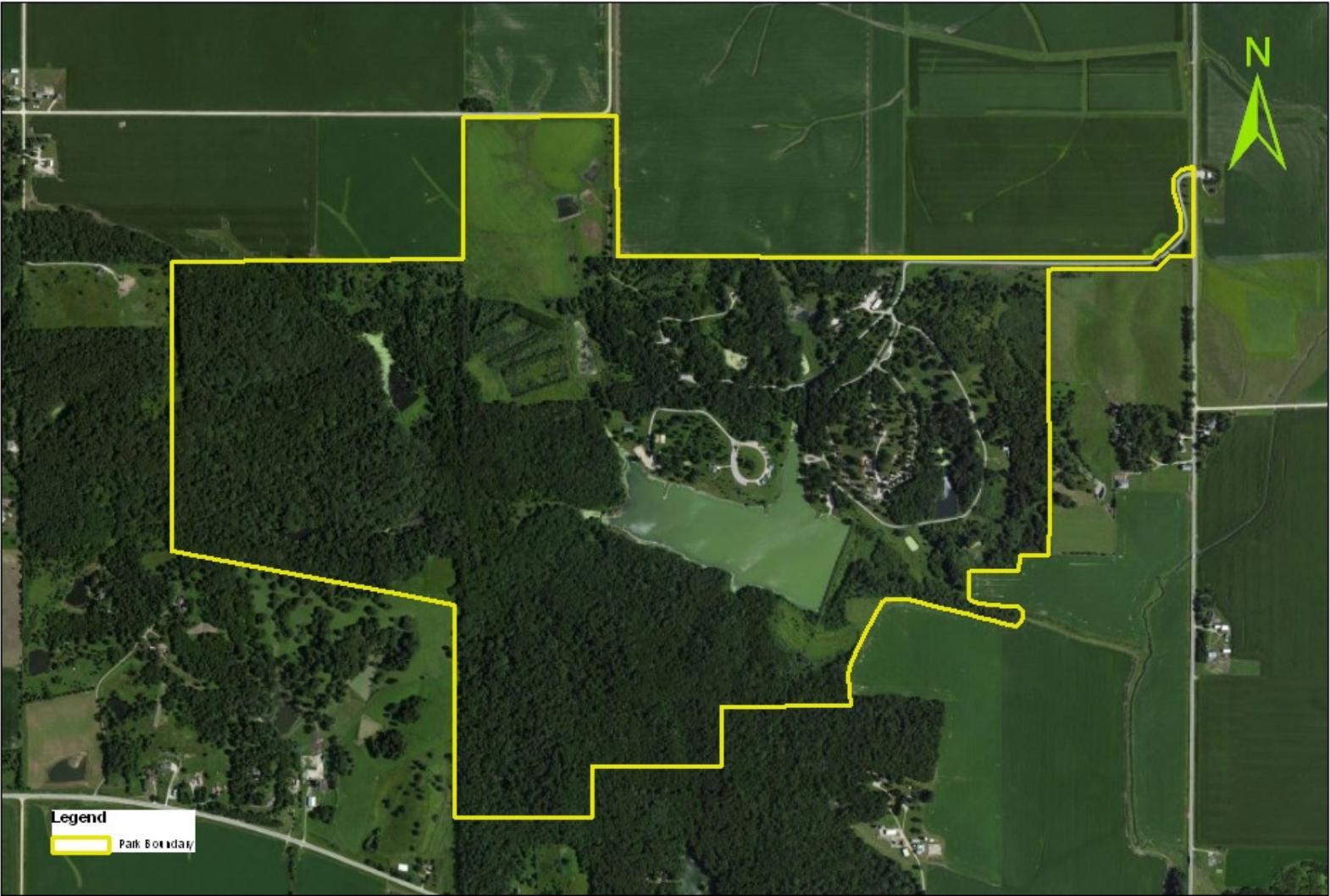
Hickory Hills Park circa 1990's



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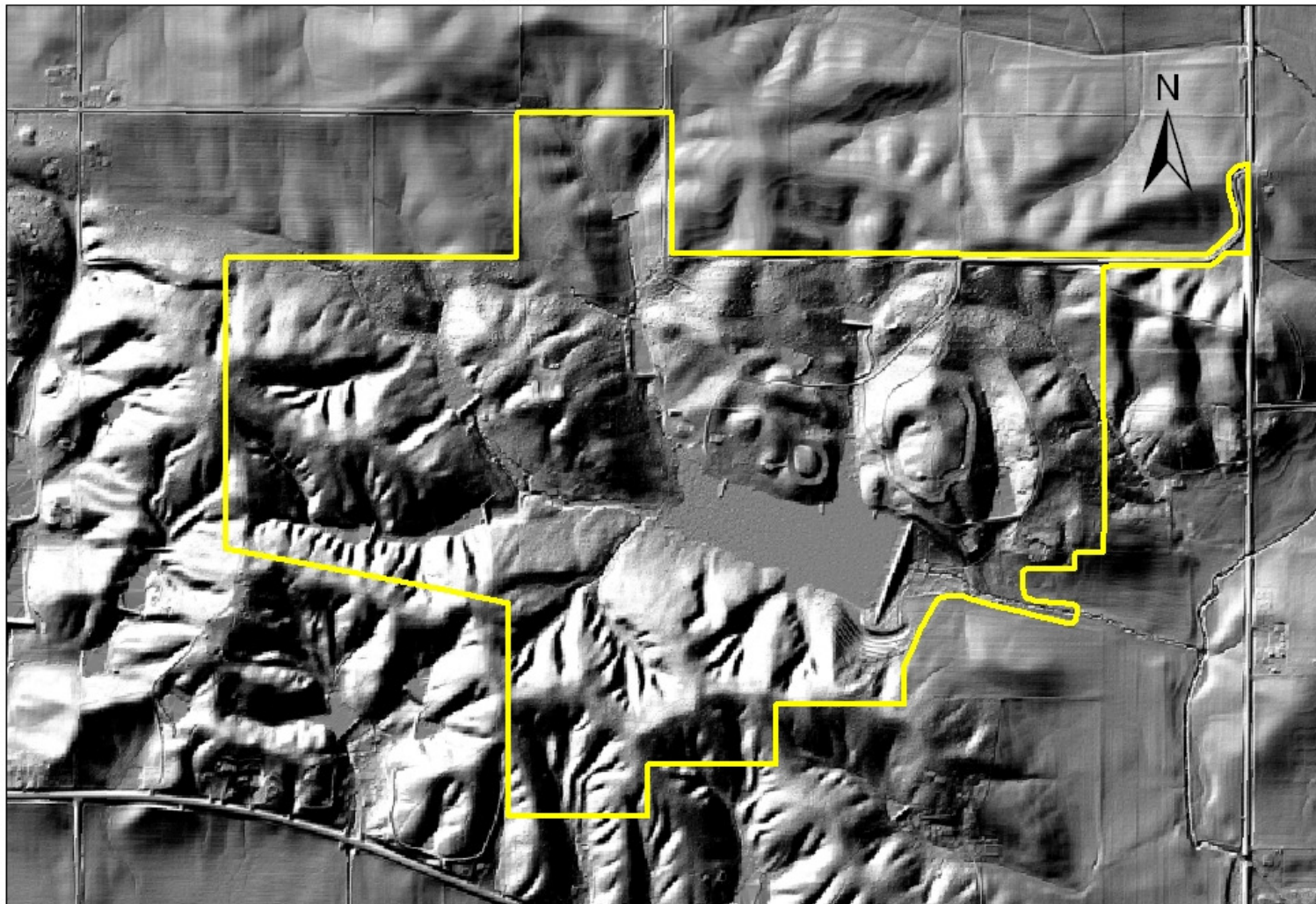
 Hickory Hills Boundary

Hickory Hills Park



0 0.5 1 Miles

Hickory Hills Park
Hillshade from 1-meter LiDAR

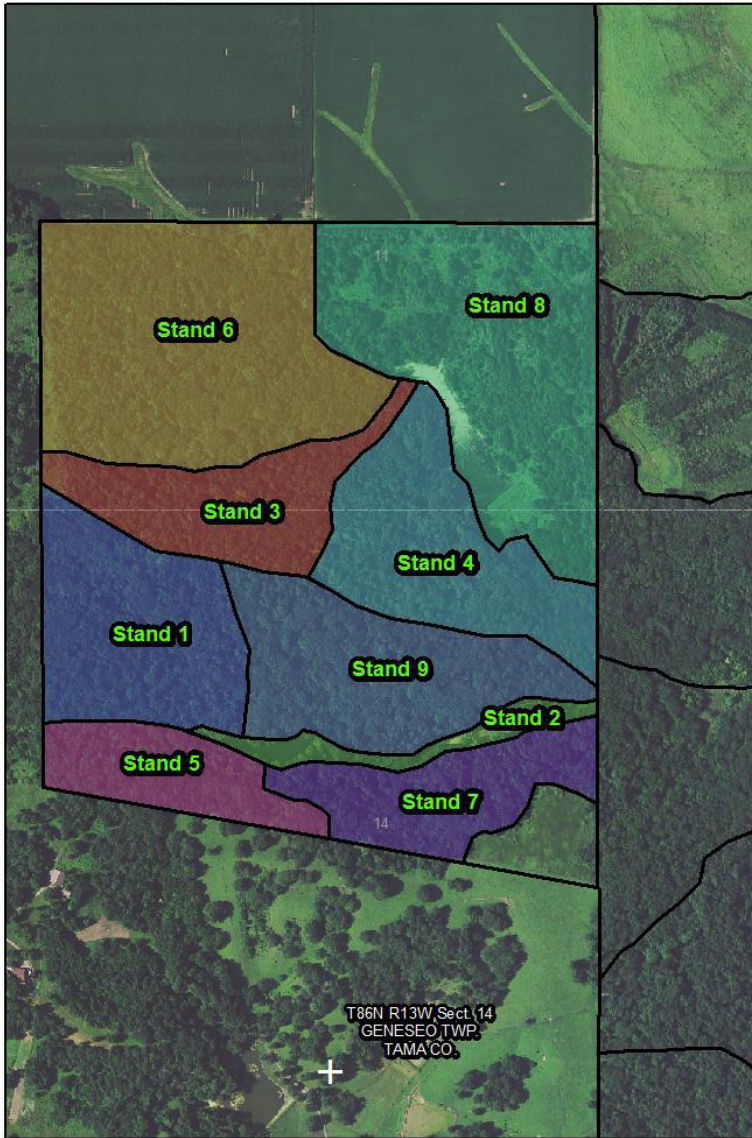


0 0.25 0.5 1 Miles

 Hickory Hills Boundary

Plan Objectives

- 1) Maintain as a healthy, high quality remnant forest.
- 2) Retain the oak/hickory complex and walnut as long term component of the forest.
- 3) Manage forest to enhance wildlife habitat for game and non-game species.
- 4) Manage invasive species.
- 5) Manage for various forest successions.
- 6) Enhance biodiversity of plant communities.
- 7) Protect Casey Lake watershed
- 8) Maintain high quality recreational opportunities.

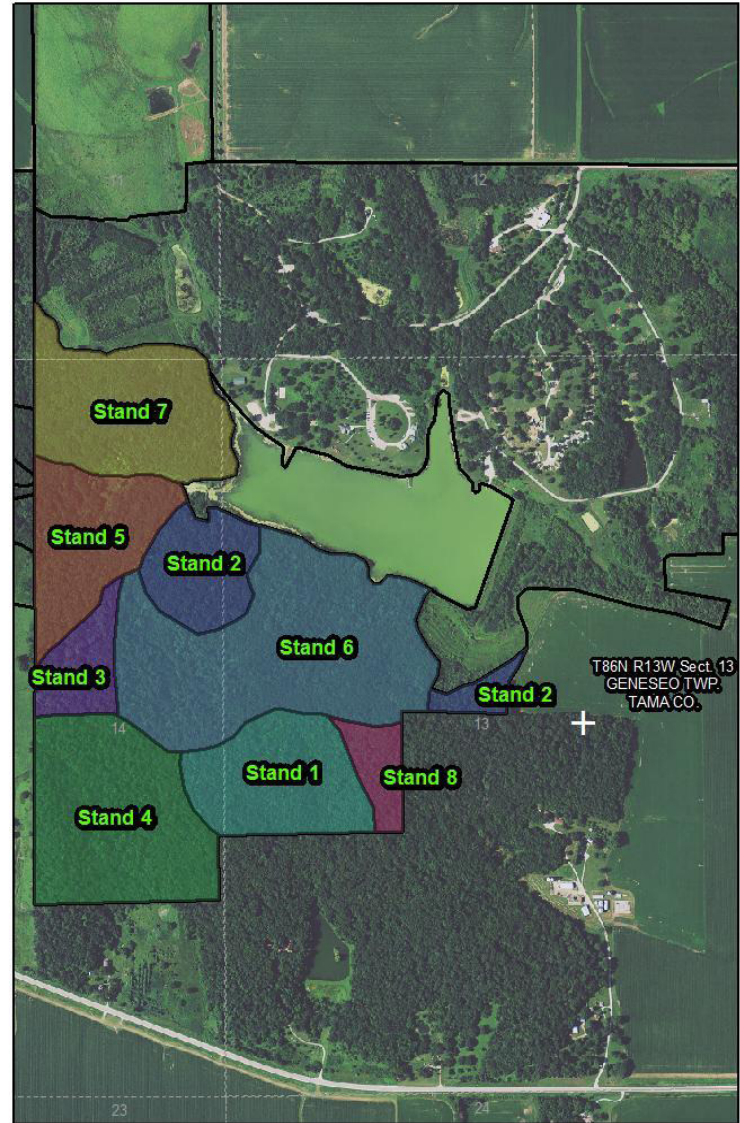


Casey's Paha State Preserve

1 inch = 660 feet



DISCLAIMER: Ownership boundaries and acreages do not represent legally surveyed lines. Map to be used for IDNR Forestry purposes only.



Hickory Hills Stands

1 inch = 990 feet



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Hickory Hills Stands - Priorities

Stand 1 – Walnut overstory removal and crown release thinning (22 acres)

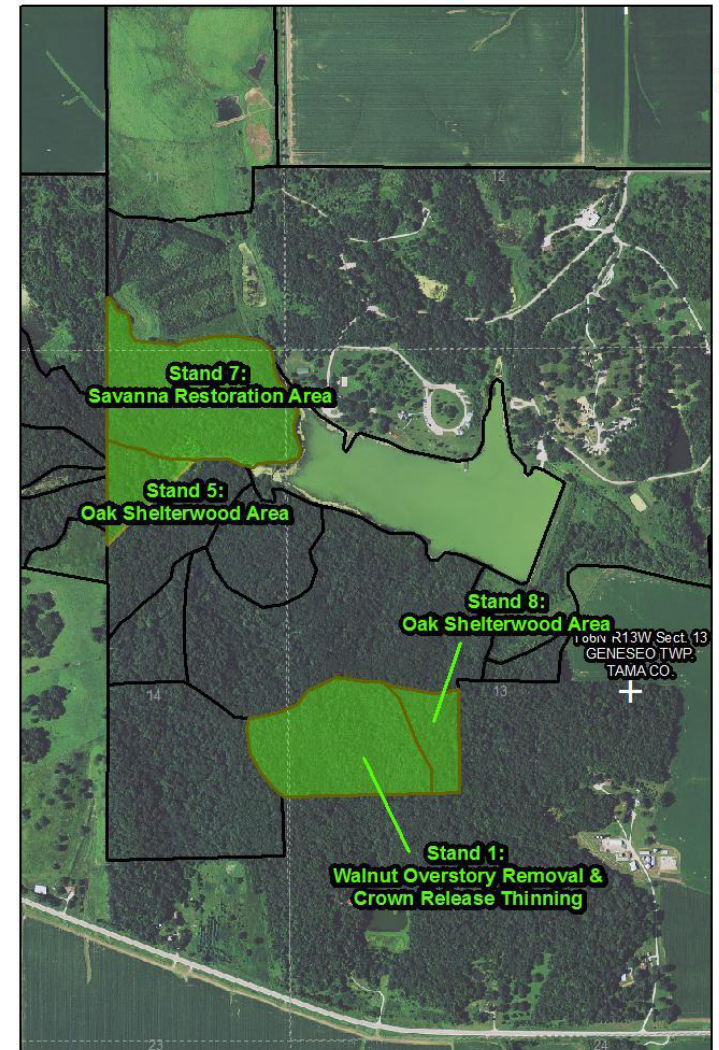
- clear cut in 1980's leaving mature walnuts to re-seed new stand.
- understory of basswood, walnut, hackberry, hickory, and red oak.

Recommendation: Harvest or leave mature walnuts and crown release of oak, hickory, and walnut. Late stage of shelterwood project.

Stand 5 and 8 – Oak shelterwood (27 acres)

- Overstory of mature oaks with understory of elm, hackberry, basswood, and bitternut hickory.
- Oak and walnut lacking in regeneration.

Recommendation: Thin understory leaving mature oaks and walnuts to reseed site (10-15 yrs.) and sell thinned out mature trees.



Hickory Hills Priorities

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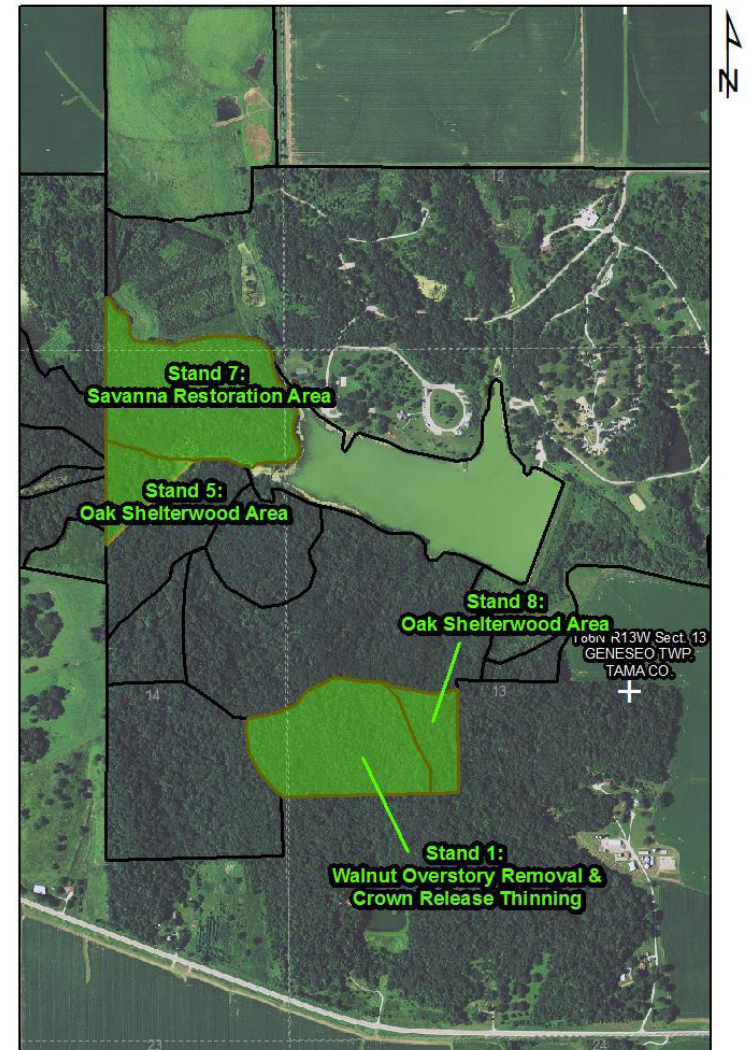


Hickory Hills Stands - Priorities

• Stand 7 – Savanna Restoration (29 acres)

- scattered large bur oaks (20-30")
- understory of walnut, locust, elm, hackberry, and few hickory.
- dense honeysuckle
- contains archery course

Recommendation: Heavy thinning of non-oak trees and brush working in 3-5 acre increments. Introduce prescribed fire under bur oaks.



Hickory Hills Priorities

1 inch = 990 feet

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Shelterwood (10-15 yr process)

- Phase 1 – Weeding of understory layers leaving crop trees to naturally seed site in partial shade.
- Phase 2 – Stand given time to establish new seedlings. Control competition and also plant seedlings.
- Phase 3 – Harvest overstory trees releasing young seedlings to full light.



Phase 1



Phase 2



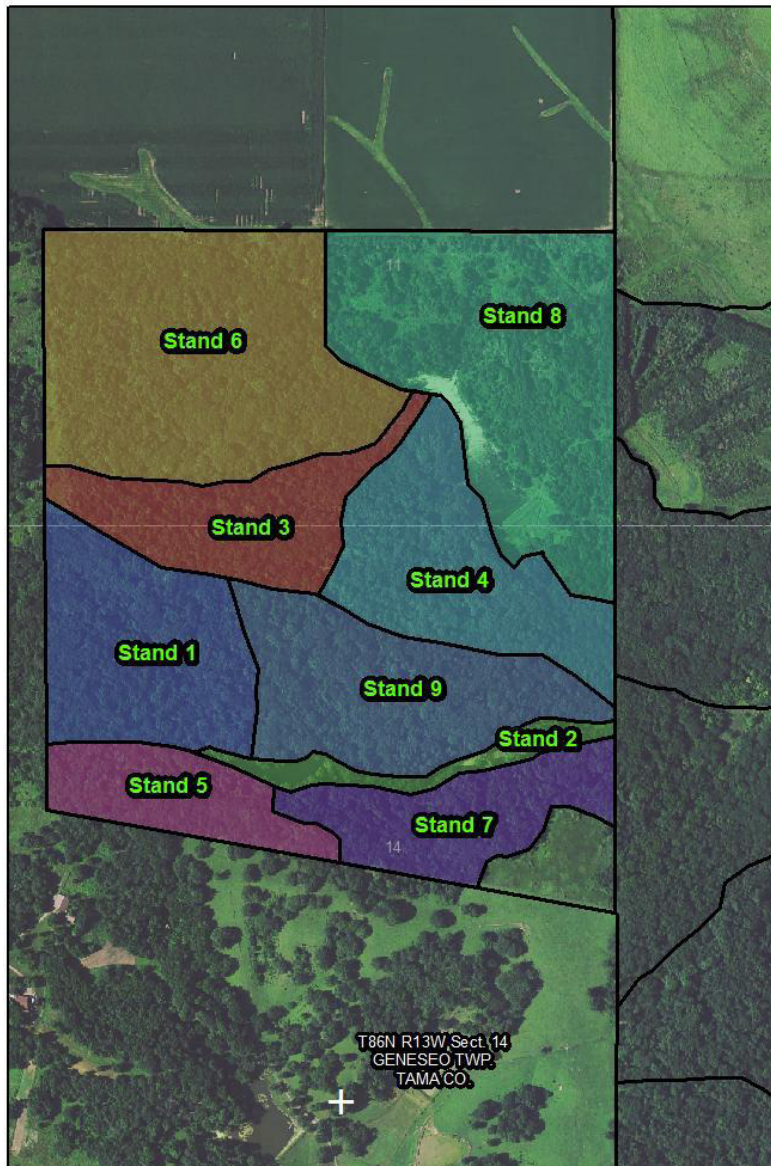
Phase 3

Casey's Paha Stands

Stands 1-6 & 9

- overstory of red oak, hickory, bur oak, and basswood
- understory of hackberry, basswood, ironwood, elm, bitternut.
- Heading towards climax forest with very little oak regeneration.
- Garlic mustard and honeysuckle

Recommendation: Crown release of mast producers (hickory, oak, walnut) 6-14" range. Weed tree removal/thinning along with invasive species control. Prescribed burns under oaks where possible.



Casey's Paha State Preserve

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Casey's Paha Stands

Stand 7 – White oak savanna

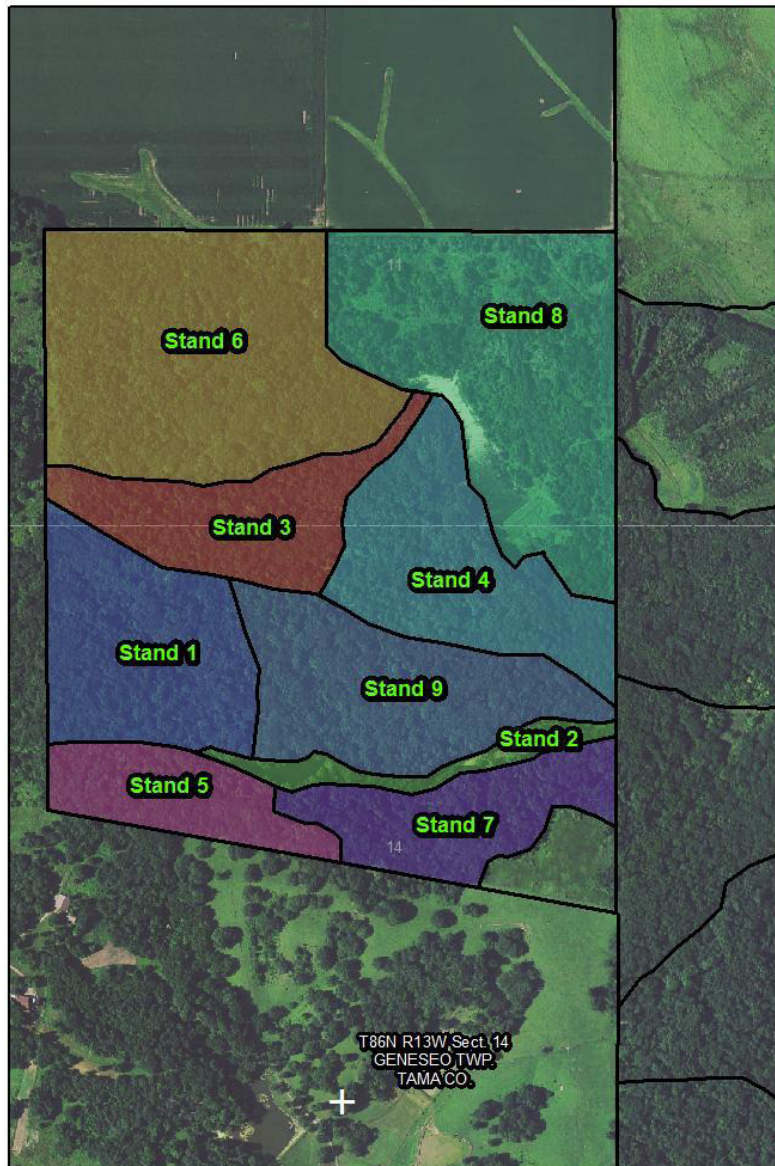
- large, scattered mature white oaks on the south edge of the stand.
- understory of hackberry, elm, basswood with many garlic mustard patches.

Recommendation: Garlic mustard control using chemical, fire, and pulling.
Prescribed fire under the oaks

Stand 8 – Old clearing

- bulldozed in the 1990's,
- filling in with autumn olive & honeysuckle along with cedar, walnut, ash, elm with a few oak/hickory.

Recommendation: Control invasive species and release oak/hickory.



Casey's Paha State Preserve

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Invasive Species – Developed Forest

Includes:

- Honeysuckle
- Autumn olive
- Garlic mustard

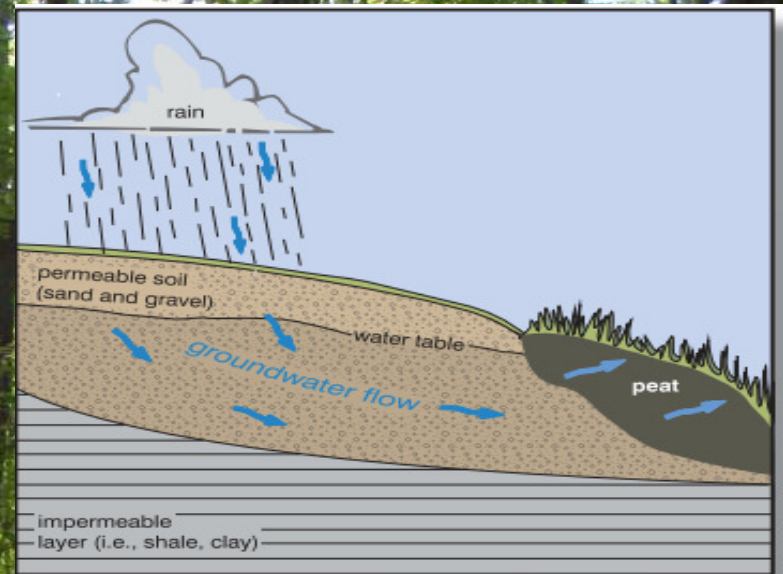
Restoration methods:

- ✓ Mechanical removal with Terex and chainsaws.
- ✓ Chemical treatment
- ✓ Re-seed with native species.
- ✓ Maintain - disturbances such as fire and goats.



Hillside Seep/Fen

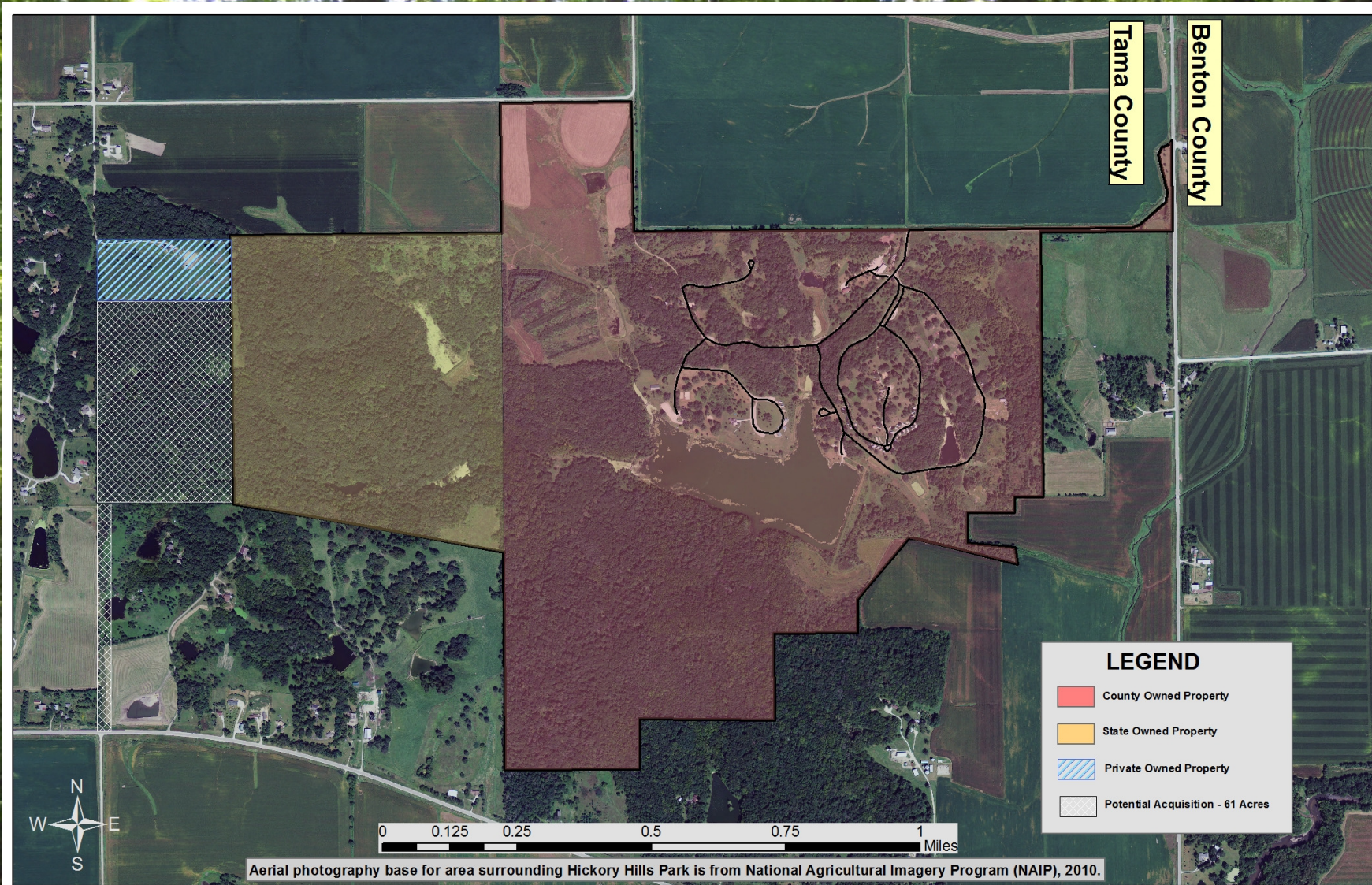
- Approx. 2.4 acres
- Along trail leading to public hunting area
- Management plan (2012)



Hickory Hills Park Hillside Seep



Potential Acquisition to Hickory Hills



Other Considerations

- ❖ Species of Greatest Conservation Need (SGCN)
 - Smooth clustered sedge and Hawthorn (state preserve)
 - No known animal species (threatened/endangered)
- ❖ Hillside Seep/Fen
- ❖ Casey's Paha State Preserve management agreement with DNR
- ❖ Soil protection and erosion control for Casey Lake
- ❖ Possible future acquisitions, easements or conservation programs to create "buffers" around forest



Questions?

Casey's Paha – Upland Forest