

# Forest Management Planning



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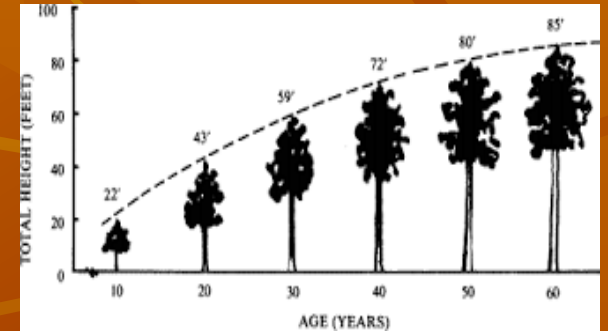
# Forest Management:

Forest  $\approx$  Forested Land  $\approx$  Woods  $\approx$  Woodlot

Management practices – harvesting, planting

Health indicators – growth rates, stocking

Productivity measures – timber revenue, wildlife numbers





# Why Manage?

## Protection of the Soil, Water & Habitat

- Overland flow, erosion, soil loss
- Turbidity, Sedimentation
- Fish & Aquatic organisms





# Why Manage?

## Improve or Create Wildlife Habitat

- Big & Small Game
- Diversity
- Threatened species

## Habitat Requirements:

- Multiple cover types
- Appropriate acreage
- Cover Patterns



# Why Manage?

## Generate Revenue

- Timber
- Firewood
- Maple sap → syrup
- Other Specialty Products

## Forest crops

- as with all crops planning, preparation, and tending impact yield





# Timber Management

## Products:

- Veneer
- Saw Logs
- Low Grade Logs
- Pulp



## Timber management practices balance:

- Timber production
- Sustainable harvests
- Revenue gains
- Forest Health





# Timber Management Practices – Thinning

## Stand Dynamics

- Tree size ↑
- Competition ↑
- Carrying Capacity ↓

## Purpose of Thinning

- Maximize growth rates
- Capitalize on mortality
- Choose residual trees





# Thinning and Timber Production



Overstocked – closed canopy

Thinned  
→



Well stocked



# Types of Thinning

## Pre-commercial Thinning – Sapling/Pole Stands

- undesired species
- crowding

## Non-commercial Thinning – Pole/Sawtimber Stands

- poor form & low grade trees
- salvage

## Commercial Thinning/ Harvesting – Sawtimber Stands

- mature timber
- regeneration





# Why Not Manage? - Common Hurdles

- Time



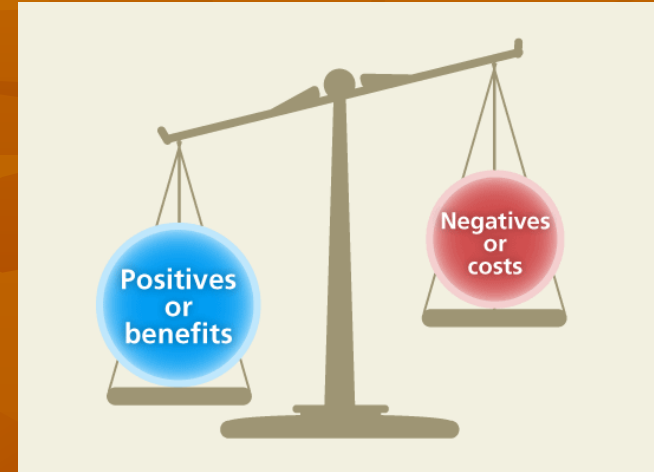
- Trust





# Why Not Manage? - Common Hurdles

- Costs



- Approach



# Overcoming the Hurdles

Every Task Deserves a Good Plan

Every Plan Deserves Good Advice

Good Advice Comes from Good Advisors

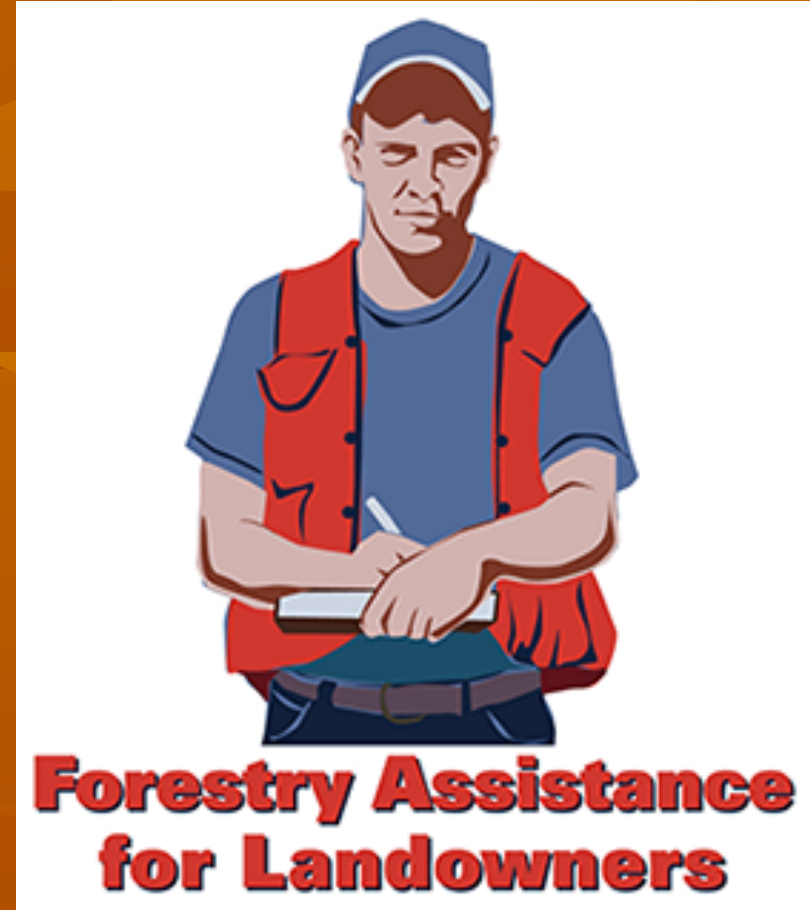
Forest Resource Advisors  $\approx$  Foresters





# Free Services, Advice & Conservation Programs

- State Forestry Department
- Land Grant College,  
Cooperative Extension
- Soil & Water Conservation Districts
- Forest Landowner Organizations



# Environmental Quality Incentive Program (EQIP)

## EQIP Forestry

- Cost-share program available through the NRCS
- Supports conservation practices beneficial to the environment and long-term forest productivity

## Eligible Practices

- non-commercial thinning
- forest trails & landings
- tree planting
- Invasive species treatment



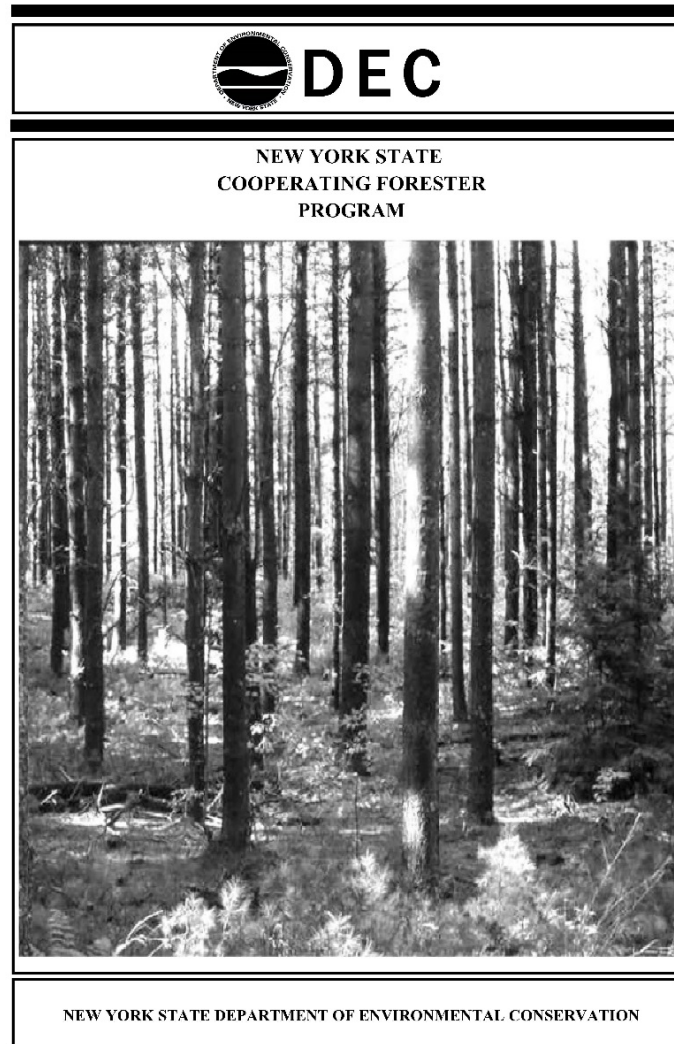


# Professional Services

## Private Industry Foresters:

- Industrial Foresters
  - work for wood using manufacturers or exporters. Have economic interests in purchasing and procuring wood for their employer.
- Consulting Foresters
  - work in the private sector. They may be hired on a fee or contingency basis. Do not have an economic interest in procuring wood for another entity.

# How to Find a Consulting Forester





# What Does A Consulting Forester Do For You?

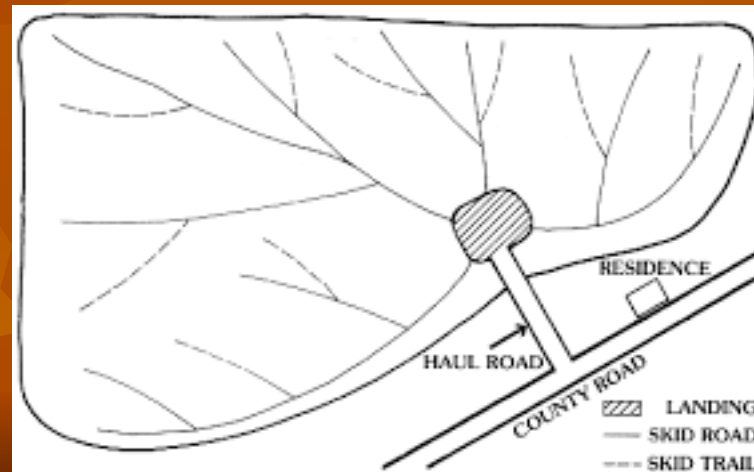
- Property Visits
- Forest Inventories
- Management Plans
- Timber Sale Marking





# What Does A Consulting Forester Do For You?

- Timber Sale Layout
- Sale Bidding
- Contract Administration
- Logging Inspections





# Developing a Plan

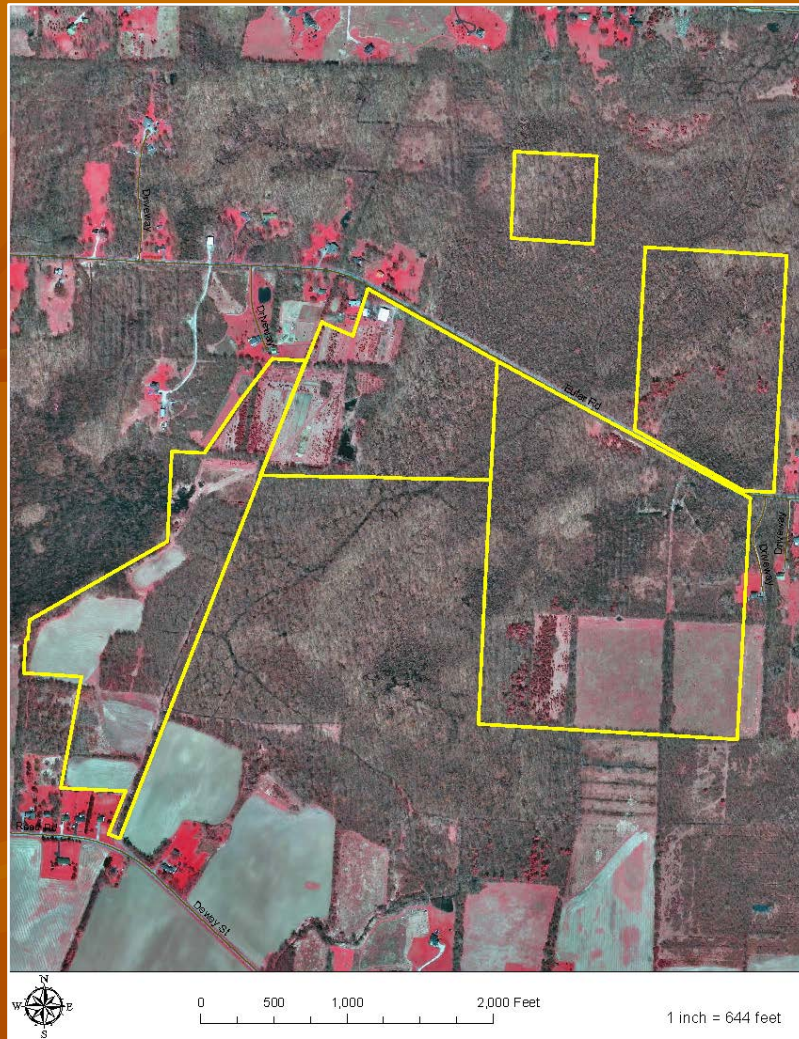
## Forest Management Plan

- A guide for the landowner to achieve specific goals according to their ownership objectives and the capabilities of the land
1. Acknowledge Landowner Objectives
  2. Inventory Forest Resources
  3. Assess Resources and Site Qualities;  
Compare with Objectives
  4. Identify Concerns & Opportunities
  5. Create Management Schedule

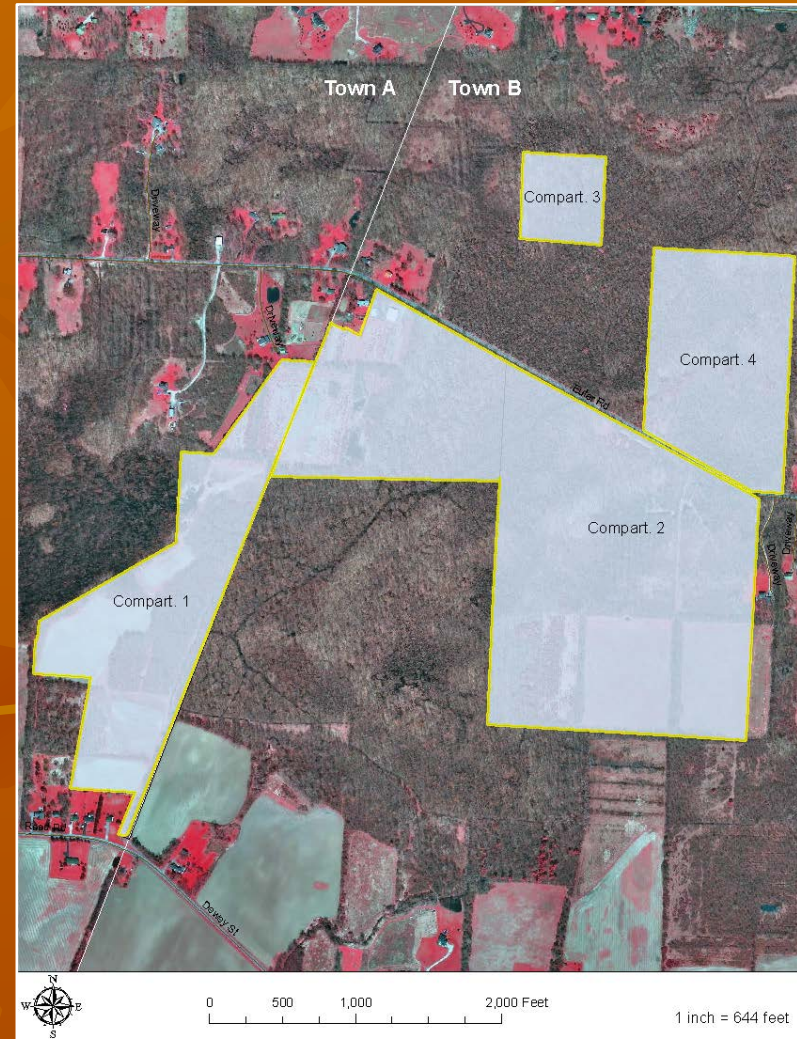




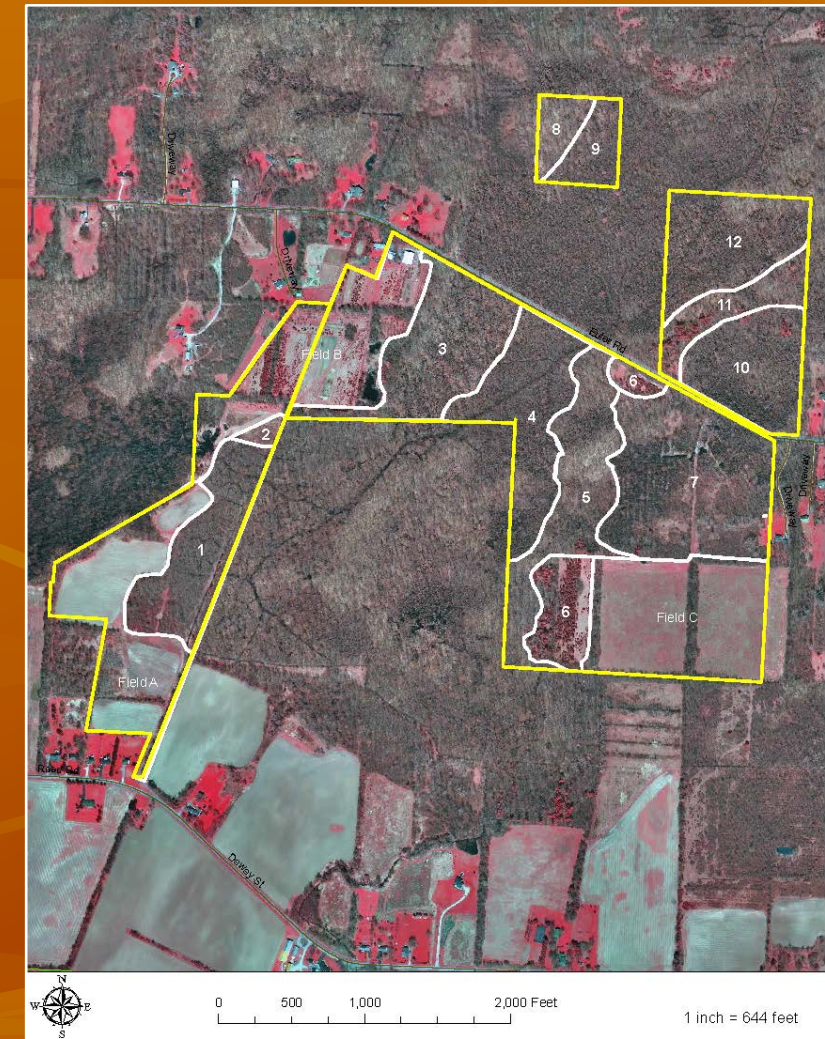
# Breakdown into Components



Tax Parcels



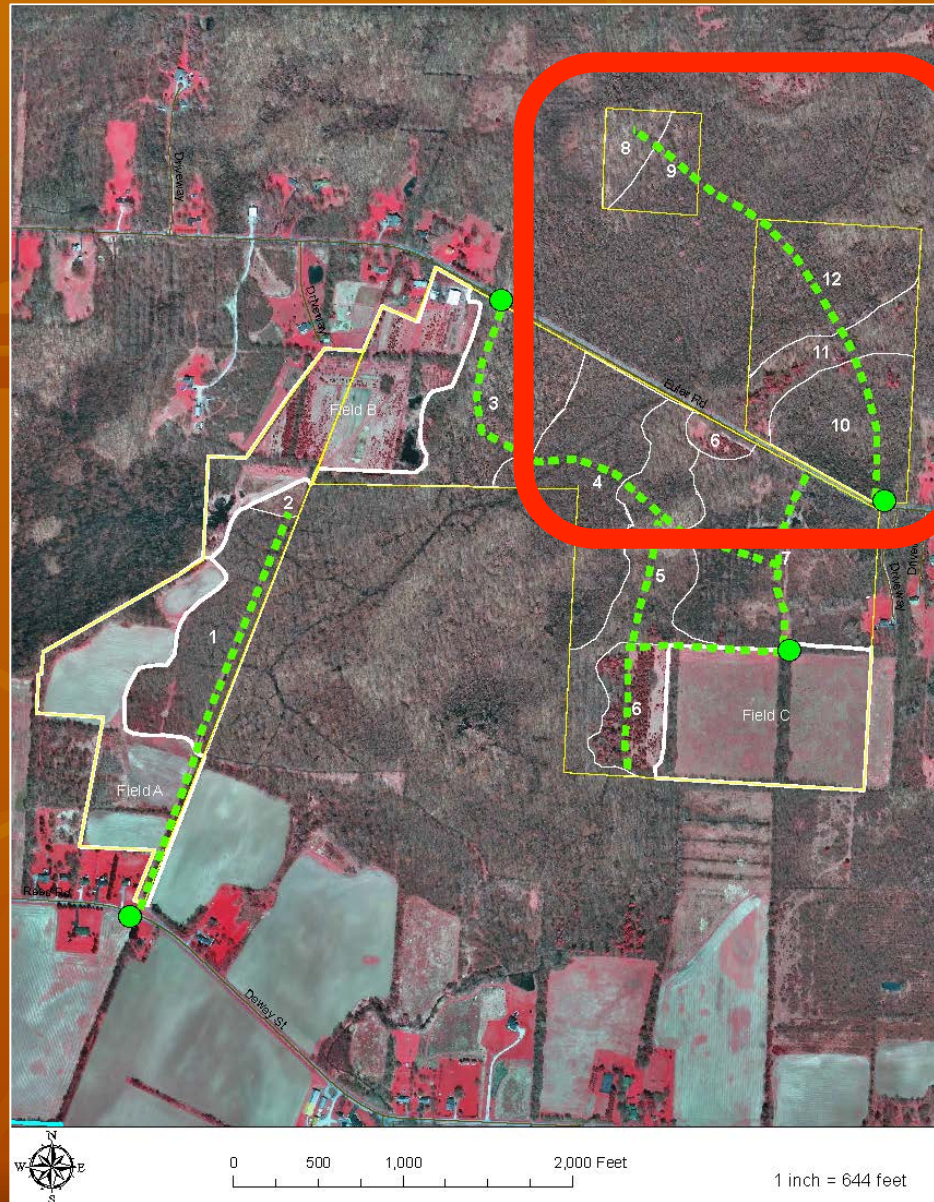
Compartments



Forest Stands



# Breakdown into Components





# Schedule Matched to Components

Management Schedule

Fiscal Year	Stand(s)	Acres	Treatment	Description	Projected (\$)
2015 - 2016	10, 11, 12	15	Skid trails	Add 1,200' & repair 800' thinning (from below)	-2,000
	10, 11, 12	15	Commercial thinning		3,000
2016 - 2017					
2017 - 2018	Other 8,9	8	Purchase Right-of-Way Commercial thinning	ROW & extension of trail thinning (from below)	-2,700 1,800
2018 - 2019					
	11	2	Harvest	Clearcut	1,800
2019 - 2020	11	2	Tree Planting	Hazelnut, Chestnut, Walnut	2,000
	10	3	Prepare for maple sap production	Purchase taps, lines, collection tanks	-5,000
2020 - 2021	10	3	maple sap collection	wholesale to syrup producer	1,500
2021 - 2022	10	3	maple sap collection	wholesale to syrup producer	1,500
2022 - 2023	10	3	maple sap collection	wholesale to syrup producer	1,500
	8, 9, 10, 12	20	Commercial thinning	thinning (from below)	12,000





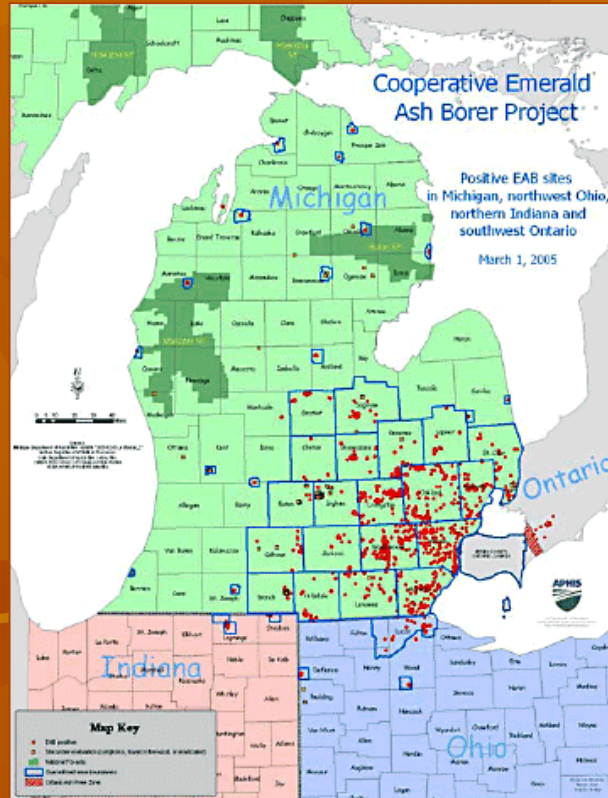
# Management Scenario - Threat

## Invasive Species:

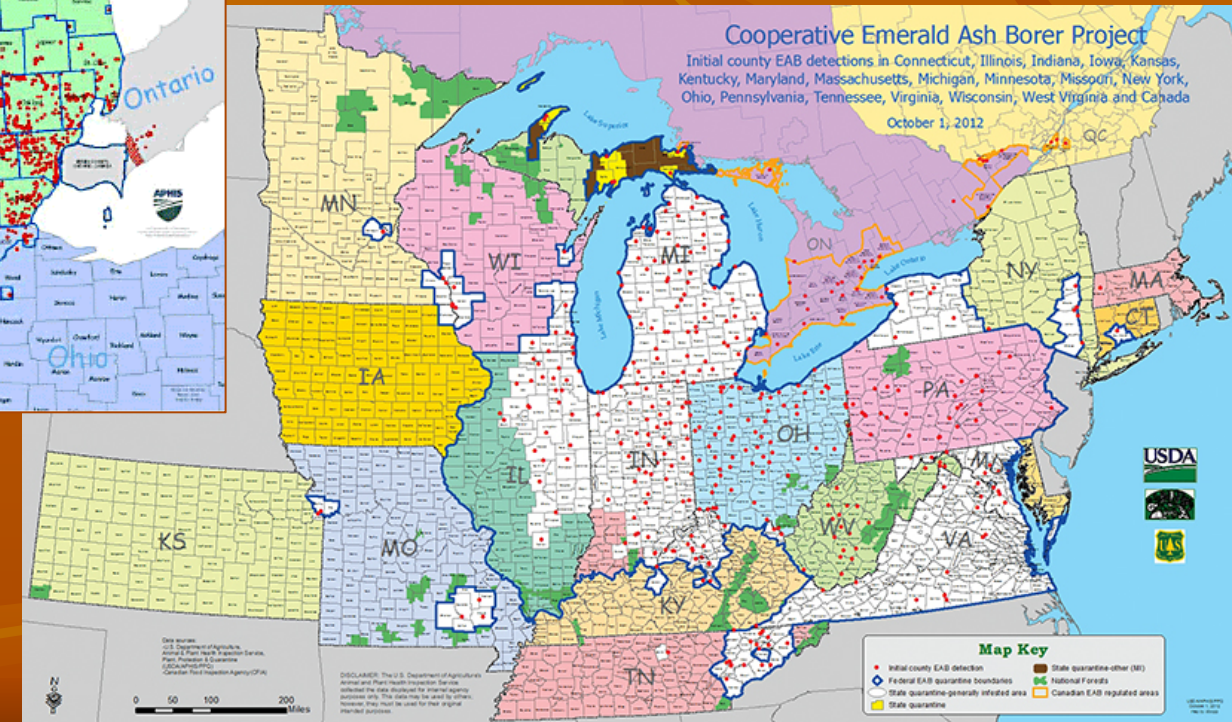
### - Emerald Ash Borer

- Introduced near Lansing, MI early 1990s
- Officially acknowledged in 2002
- Found in NYS 2009
- Found in 19 States by 2012

2005



2012





# Management Scenario - Threat

## Emerald Ash Borer

- Feed on inner bark & cambium
- Slowly Girdle Trees
- Gradual Crown Decline
- Fatality 3-10 years





# Management Action - Preparation

## Emerald Ash Borer

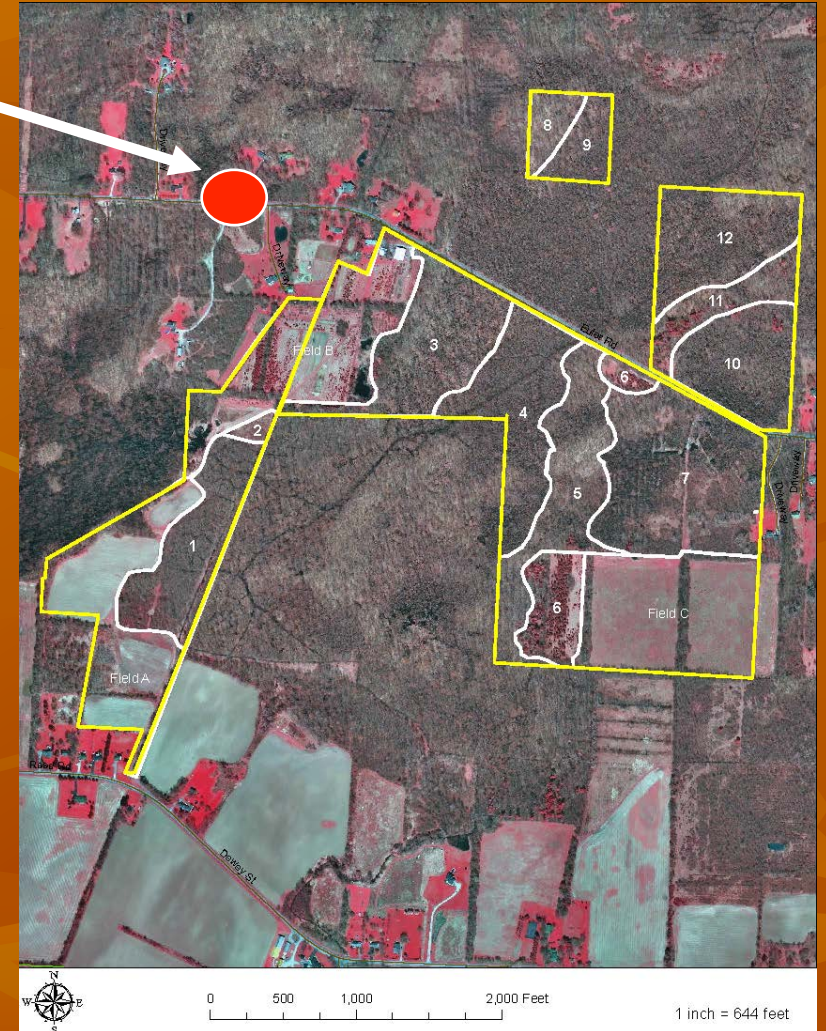
### Evaluate:

- Closest known EAB Location
- Age and % in forest stands
- Other species
- Available markets

### Recommendations:

- Favor removal of ash when thinning
- Thin to regenerate other species
- Protect select ash trees

EAB located here



# Management Action - Preparation

## The forest inventory indicates:

- Heavy Components of Ash in Stands 9, 10 & 12
- Valuable Ash Sawlogs in Stand 9 & 12
- Mostly low value Ash Poles in Stand 10

## Management Schedule

Fiscal Year	Stand(s)	Acres	Treatment	Description	Projected (\$)
2015 - 2016	9, 12	10	Commercial thinning	thinning (from below & above) - focus on sawtimber Ash; go light on maple & cherry	6,000
2016 - 2017	All	105	Examine for EAB	if found hasten schedule	
2017 - 2018	All	105	Examine for EAB	if found hasten schedule	
2018 - 2019	All	105	Examine for EAB	if found hasten schedule	
2019 - 2020	All	105	Examine for EAB	if found hasten schedule	
2020 - 2021	10	8	Commercial thinning	thinning (from below & above) - focus on sawtimber Ash; go light on maple & cherry	2,500





# Management Scenario - Opportunity

Emerging Markets:

Craft Breweries ↑

Local NYS Hops ↑

Rot Resistant Poles ↑

Pole Size Locust Trees ↑





# Management Scenario - Opportunity

Black Locust:





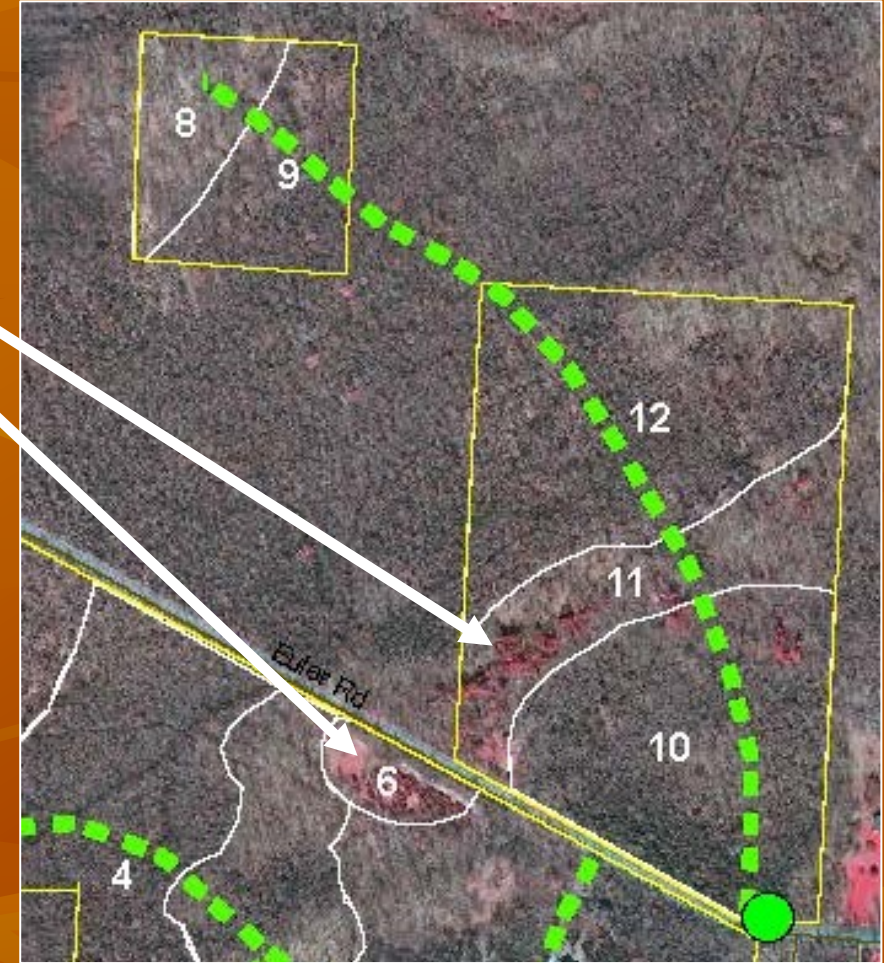
# Management Action – Encourage black locust

The forest inventory indicates:

- Heavy Components of Locust in Stands 6 & 11
- Locust non-merchantable – twisted trunks
- Mix of ash, black cherry, and Red pine sawlogs

Management Schedule

Fiscal Year	Stand(s)	Acres	Treatment	Description	Projected (\$)
2015 - 2016	6, 11	3	Clearcut	Harvest all valuable timber	1,500
2016 - 2017	6, 11	3	Prune black locust sprouts	encourage single, straight stems	-100
2017 - 2018	6, 11	3	Prune black locust sprouts	encourage single, straight stems	-100
2018 - 2019	6, 11	3	Prune black locust sprouts	encourage single, straight stems	-100
2019 - 2020	6, 11	3	Prune black locust sprouts	encourage single, straight stems	-100
2020 - 2021	6, 11	3	Prune black locust sprouts	encourage single, straight stems	-100
2021 - 2022	6, 11	3	Harvest black locust Poles	Sell to hop pole distributor	3,200





# Additional Benefits

## Forest Certifications:





# Additional Benefits

## Tax Considerations:

- Right-Offs
- Deductions
- Amortization
- Forest Tax Law  
Incentive Programs



**The cost for hiring a forester is an operating expense that may be deducted if you are growing timber for profit**

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# Any Questions ?

