

# Ongoing Prairie Management

Go Native: Plain to Prairie Workshop Series  
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# Overview

- Healthy Prairies
- Management Issues
- Management Plan
- Implementation of Plan
- Management Activities



# Healthy Prairies

- Biodiversity
- Presence of Rarer Species
- Number of Invasive/Non-native Species
- Size of Prairie and Conditions & Land Use of Adjacent Tracts



# Topics in Prairie Management

A photograph of a vibrant prairie landscape. The foreground and middle ground are filled with tall, green grasses and numerous flowers, including many pink and white coneflowers (Echinacea) with dark brown centers. The background shows a dense line of trees under a bright, overcast sky.

- Management Issues
- Management Plan
- Plan Implementation
- Management Activities

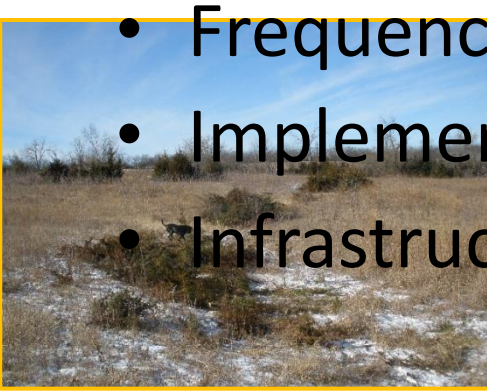
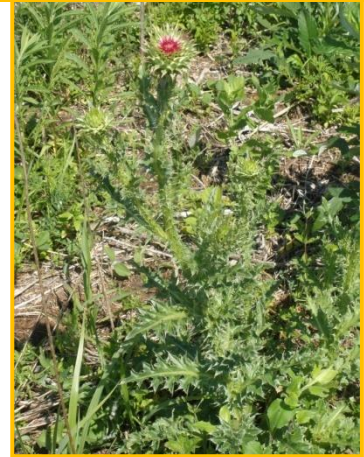
# Topics in Prairie Management

A photograph of a vibrant prairie landscape. The foreground and middle ground are filled with tall, green grasses and numerous flowers, including many white and pinkish-purple coneflowers (Echinacea) with dark brown centers. The background shows a dense line of trees under a bright, slightly overcast sky.

- Management Issues
- Management Plan
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# Prairie Management Issues

- Woody encroachment
  - Red cedars, honey locust, Osage orange, rough-leaved dogwood
- Invasives
  - Sericea lespedeza, musk thistle, tall fescue, smooth brome, old world bluestem
- Low diversity
  - Limited native forbs and grasses
- Frequency/timing of haying and burning
- Implementation of grazing
- Infrastructure disrepair—gates, fencing



# Management Issue

## WOODY ENCROACHMENT



1942



1991

# Management Issue

FOLLOW UP



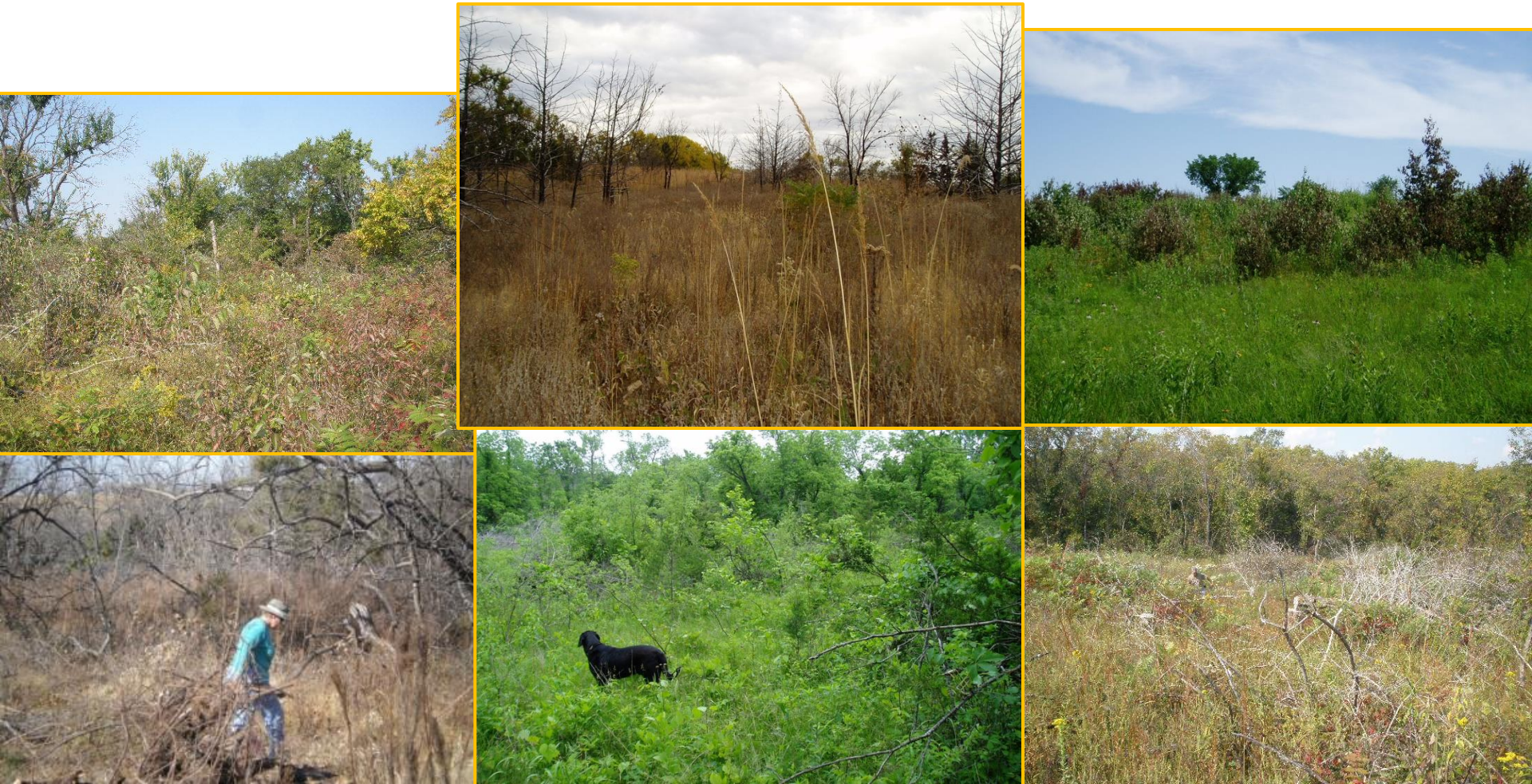
2005



1991

# Management Issue

- Control of Brushy Vegetation



# Management Issue

- Control of Noxious Weeds
  - *Sericea lespedeza*



# Management Issue

- Improve or Maintain Diversity



# Topics in Prairie Management

- Management Issues
- **Management Plan**
- Plan Implementation
- Management Activities

# Management Plan

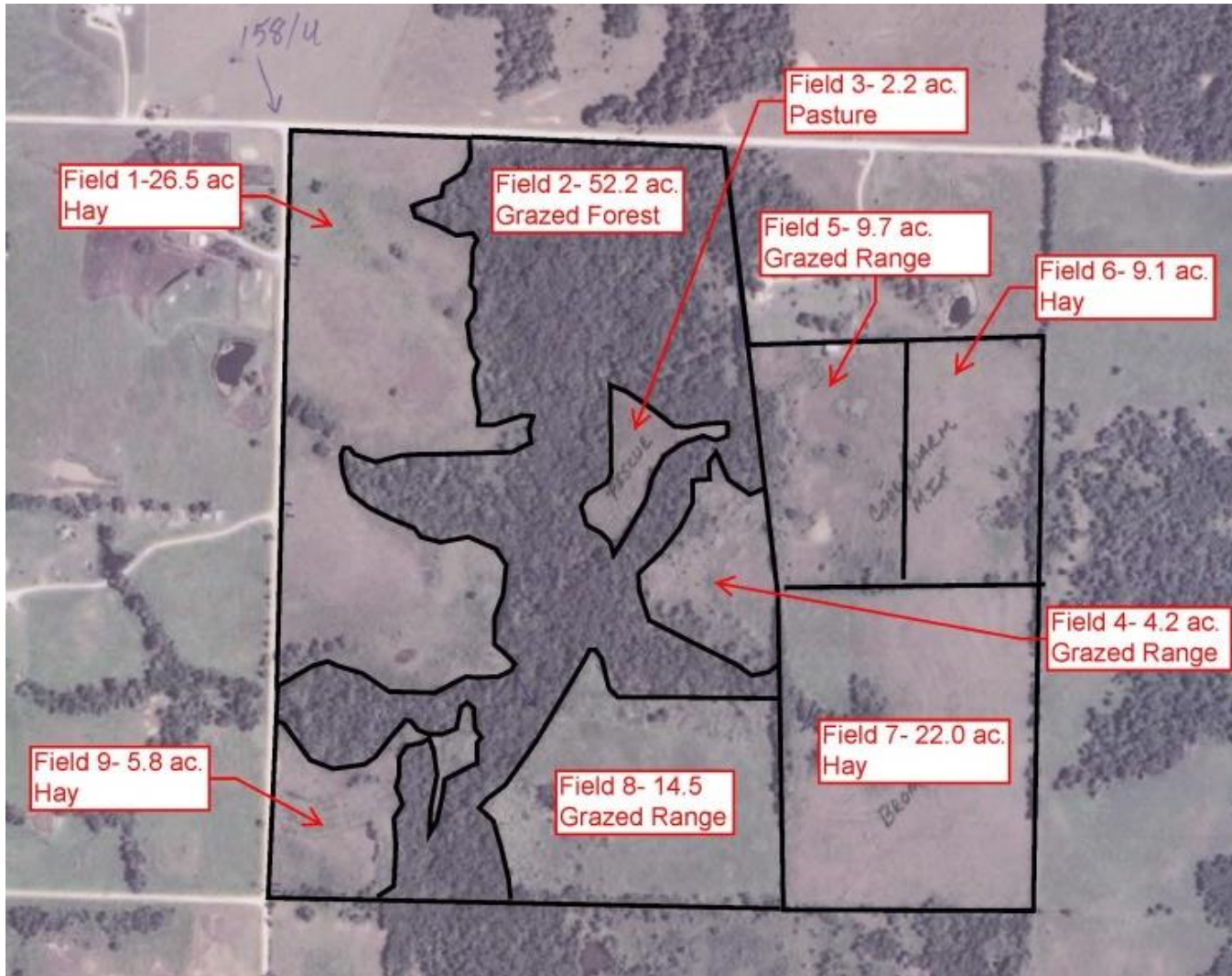
## (Action Plan)

- Description of Conditions On-site
  - By Location, management unit, etc.
- Description of Problems On-site
  - By Location, management unit, etc.
- Description of Proposed Restorative Actions
  - Objectives and goals
  - By Locations or units
- Provide Timeline of Actions
- Description of Expected Results
- Be flexible—knowing full well that things will change

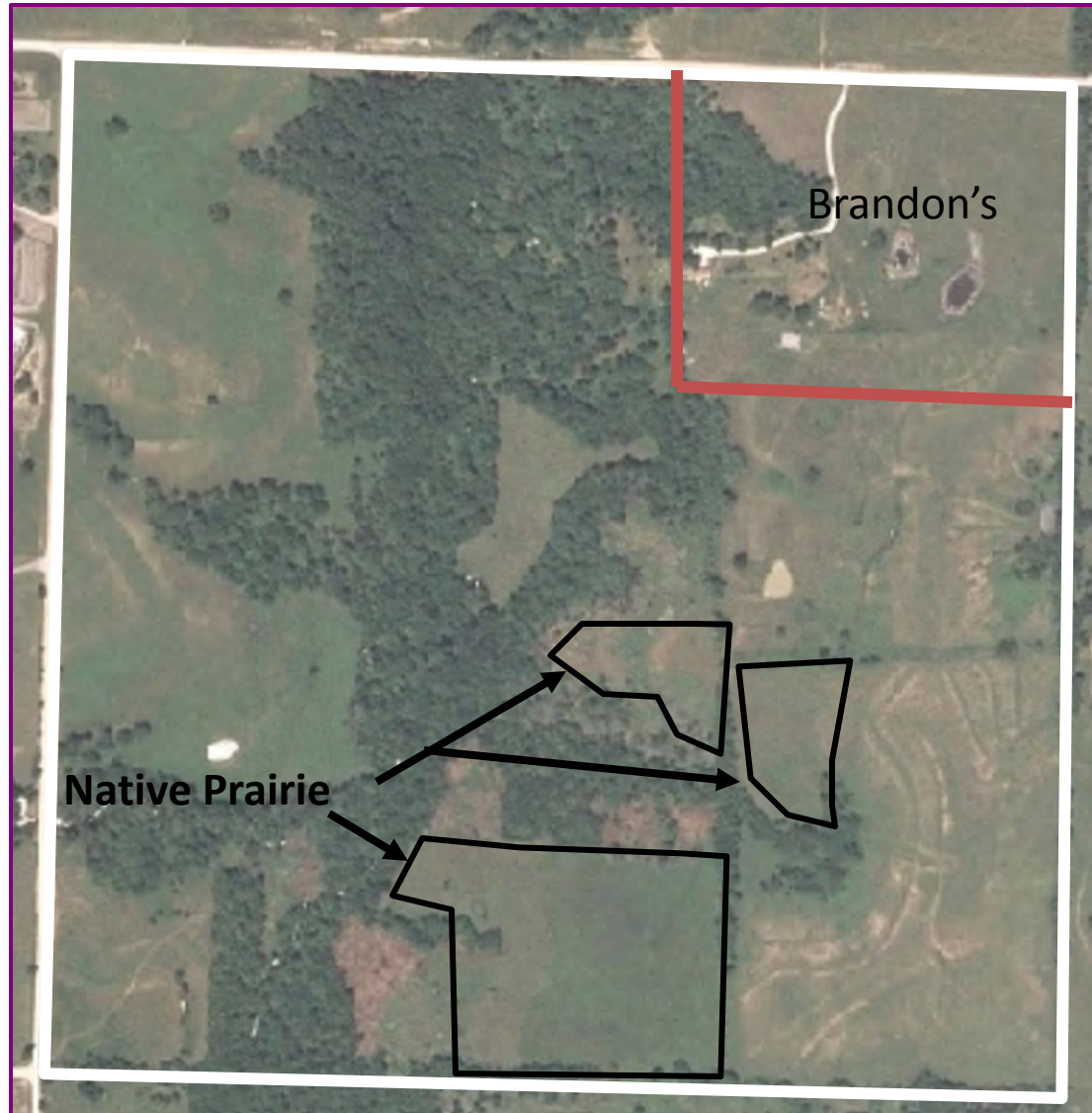
# MANAGEMENT UNITS OF SNYDER PRAIRIE



# NRCS Conservation Plan Map



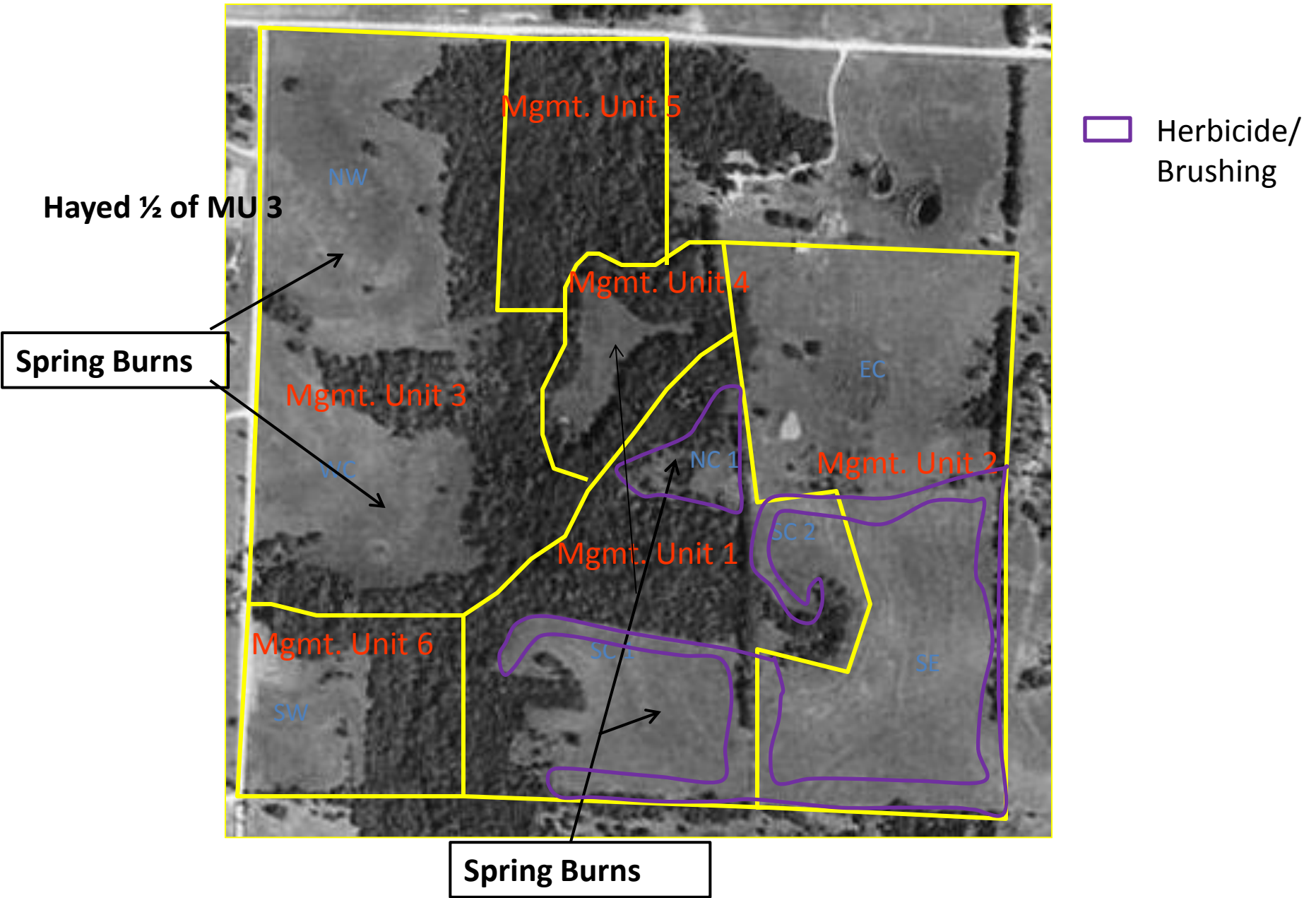
# GHF's 140-acre Snyder Prairie



# MANAGEMENT UNITS OF SNYDER PRAIRIE



# Tree and Shrubby Removal in 2011



# Tree Clearings Since 2003



2005

Tree Clearing 



1991

# Restoration Areas



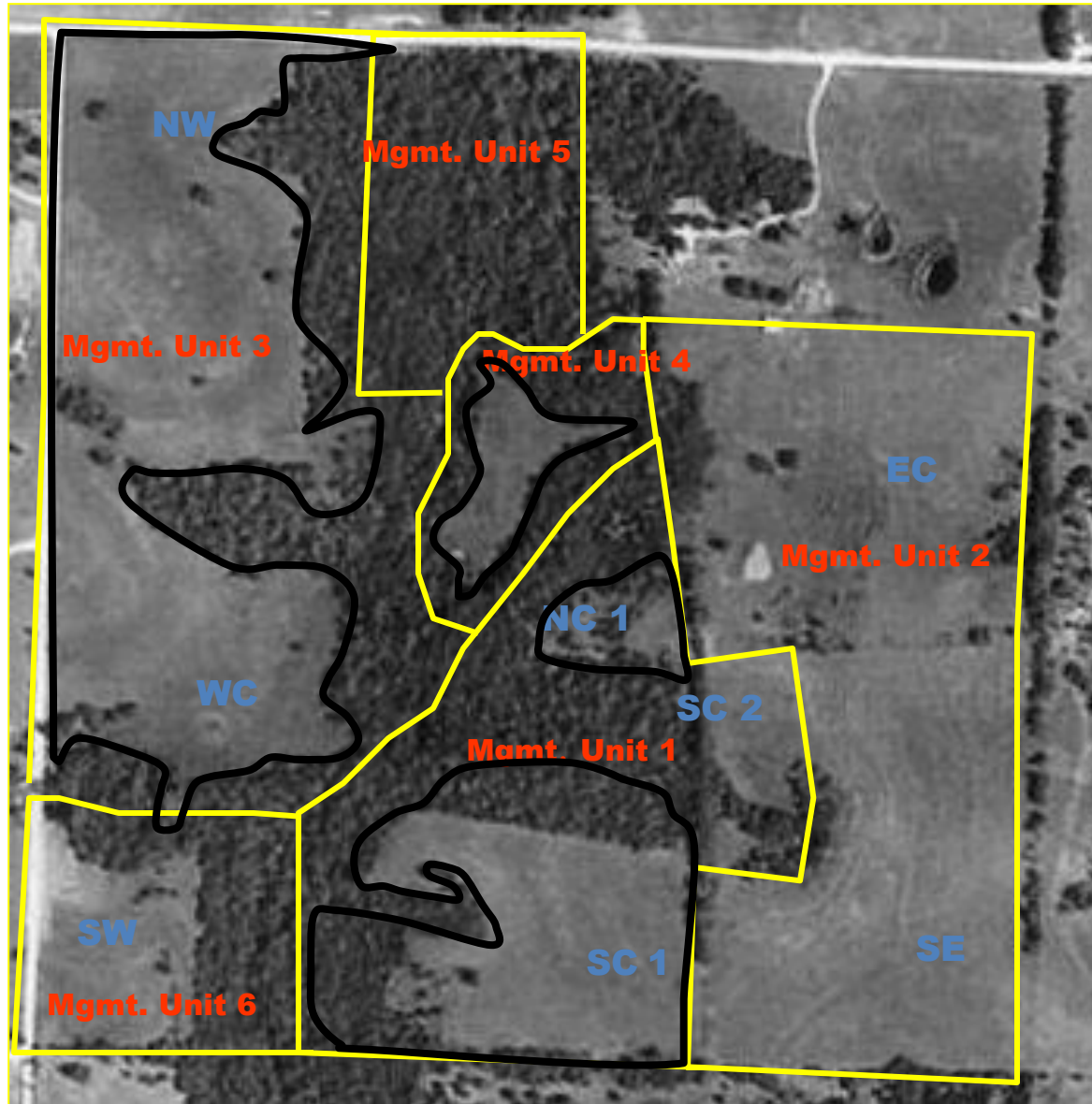
2005

Clearings becoming  
overgrown 



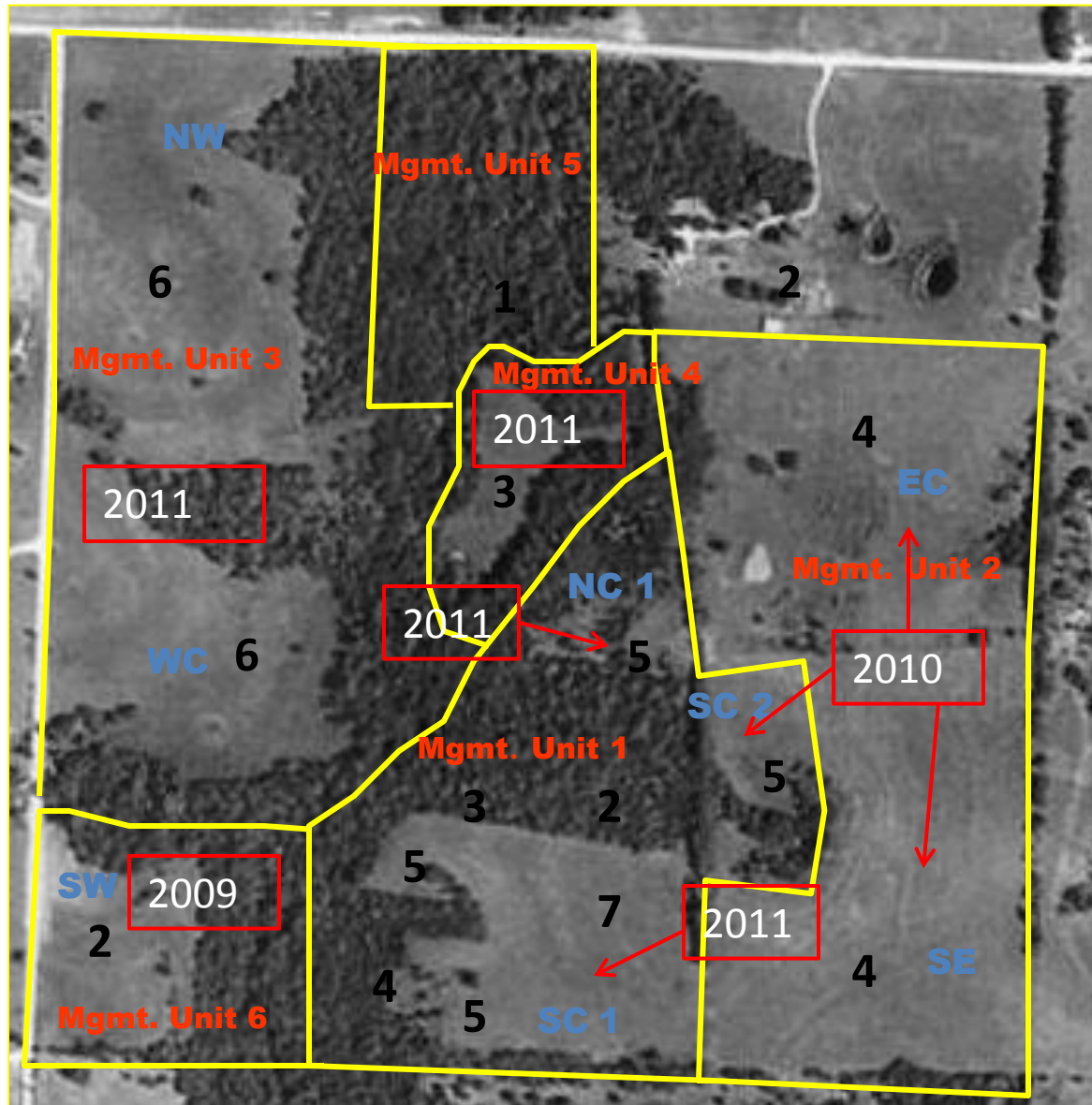
1991

# Prescribed Burns of 2011—GHF Snyder Prairie



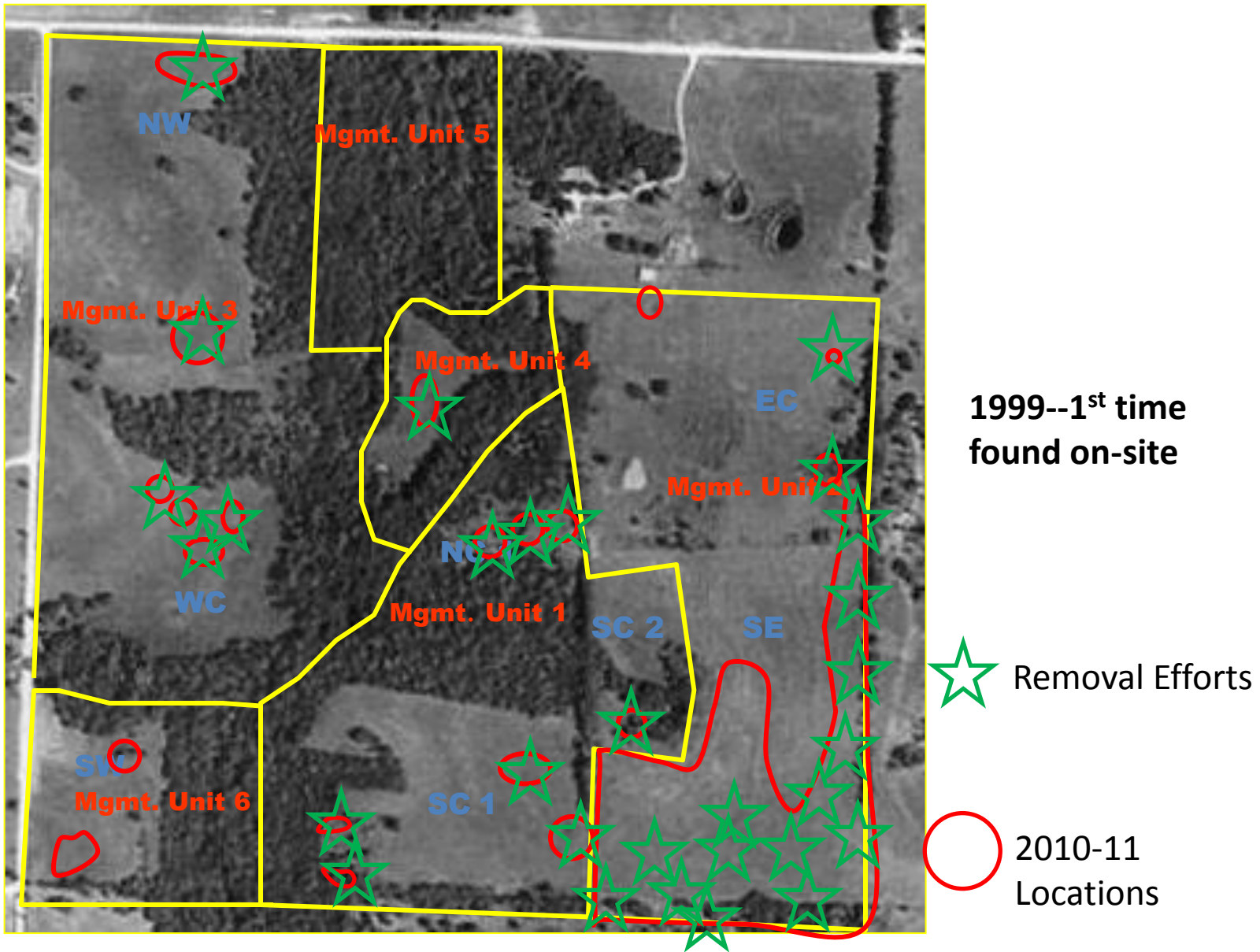
 2011 Prescribed Burns

# Burns Per Unit 1998-2011—GHF Snyder Prairie



Year of Last Burn

# Current Locations of Sericea Lespedeza



# Management Schedule

**TABLE 1. FIVE YEAR RESTORATION AND MANAGEMENT SCHEDULE FOR YOUR LAND**

	YEAR 1 QTR	YEAR 2 QTR	YEAR 3 QTR	YEAR 4 QTR	YEAR 5 QTR
*[Bracket] indicates quarter when work will be conducted.					
<b>1 Brushing &amp; Herbiciding (riparian, savanna, woodland &amp; forest):</b> Cut and stump treat or girdle non-native woody species and selected weedy native woody species.	[1] 2 3 4	[1] 2 3 4	[1] 2 3 4	1 2 3 4	1 2 3 4
<b>2 Prescribed Burn Site Inspection (all areas):</b> Assess site conditions to determine feasibility and appropriate fuel load conditions.	[1] 2 [3] 4	[1] 2 3 4	[1] 2 3 4	[1] 2 3 4	1 2 3 4
<b>3 Burn Management (all areas):</b> Apply for permits, schedule burn, contact local authorities, and finalize burn plan.	[1] 2 [3] 4	[1] 2 3 4	[1] 2 3 4	[1] 2 3 4	[1] 2 3 4
<b>4a Conduct Burn (woodland, forest &amp; riparian):</b>	1 [2] 3 [4]	1 2 3 4	1 [2] 3 4	1 2 3 4	1 [2] 3 4
<b>4b Conduct Burn (prairie, floodplain &amp; savanna):</b>	1 2 3 4	1 2 3 4	1 [2] 3 4	1 2 3 4	1 [2] 3 4
<b>5 Site Inspection to recommend future management (all areas):</b> Assess site conditions to identify needs for aggressive species management, brushing, herbiciding, and enhancement seeding where necessary.	1 [2] 3 4	1 [2] 3 4	1 [2] 3 4	1 [2] 3 4	1 [2] 3 4
<b>6a Enhancement Seeding/Planting (woodland, forest &amp; riparian):</b>	1 2 [3] 4	1 2 3 4	1 2 3 4	1 2 [3] 4	1 2 3 4
<b>6b Seeding/Planting (prairie, savanna &amp; floodplain):</b>	1 2 [3] 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
<b>7 Mowing (prairie, floodplain &amp; savanna):</b> Conducted for weedy species control.	1 [2] [3] 4	1 [2] 3 4	1 2 3 4	1 2 3 4	1 2 3 4
<b>8a Herbicide Management (woodland, forest &amp; riparian):</b> Spot herbicide application to native aggressive and non-native shrubs and herbaceous species.	1 [2] 3 4	1 [2] 3 4	1 [2] 3 4	1 2 3 4	1 2 3 4
<b>8b Herbicide Management (prairie, floodplain &amp; savanna):</b> Spot herbicide application to non-native invasive species (e.g. cool season grasses).	1 2 [3] 4	1 [2] 3 4	1 [2] 3 4	1 2 3 4	1 2 3 4
<b>9 Summary Report (all areas):</b> Annual report to client to provide specifics on activity and recommendations.	1 2 3 [4]	1 2 3 [4]	1 2 3 [4]	1 2 3 [4]	1 2 3 [4]

# Topics in Prairie Management

- Management Issues
- Management Plan
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# Implementation of Management Plan

- GO FOR IT!
- Use management plan as guide
- Follow time line
- Use common sense, trust your instincts
- Use 'Adaptive Management'
  - Be willing to change as needed
  - Implement new and different approaches

# Topics in Prairie Management

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# Management Activities

- Selective Herbicide Application
- Haying
- Grazing
- Prescribed Burns
- Thinning/Brushing
- Interseeding
- Monitoring



# Selective Herbicide Application

- Why?
  - Remove perennials including woody seedlings
  - Eliminate pesky invasives
    - Sericea lespedeza, brome and fescue, musk thistle, reed canary grass
- How?
  - Follow directions and use carefully!!!
  - Use certified personnel
  - Back pack sprayer, tank sprayer on ATV
  - Use protection
- Where?
  - Selectively on perennials, especially the more invasive species



# Selective Application

**NOT THIS!**



# Herbicide Application

- When?
  - Seasonally as perennials emerge
  - Before they set seed
  - As needed; combine with burning
- Drawbacks
  - Toxic pollutant, with long-term ramifications unknown
  - Detrimental to birds and other wildlife
- Why not pull weeds?
  - Disturbing ground will prompt weed germination
  - Time-consuming and often ineffective
- Source
  - County—Noxious Weed Department
  - Local Stores
  - By mail, by internet



# Herbicide Application

- **Sericea lespedeza**
  - Pasture Guard, Escort, Remedy
  - Alternative—use goats, mowing, solarization, pray!
- **Other legumes**
  - Crown and hairy vetches, bird's-foot trefoil, clovers
  - Transline
- **Reed canary grass**
  - Invasive wetland species
  - Combination of fire and herbicide (Fusilade, Rodeo, Oust)
- **Musk thistle**
  - Dig up rosettes and flowering stems (remove flowers and seeds)
  - 2,4-D ester—rosettes and aboveground parts
- **Woody seedlings**
  - Cut stems and apply Tordon or 20% Roundup



# Haying

- Hay Production
  - Maintains biodiversity and ecological value
  - Economic benefit
  - Helps control woody encroachment
  - “Somewhat” mimics grazing
- When to Hay
  - 1 time yearly (if that frequent)
    - Early July in S Kansas; mid-July in N Kansas
  - Height
    - 4 inches tall in normal year
    - 5 to 7 inches in dry year



# Haying



- MIXED MANAGEMENT
- Rotational Approach
  - Divide hay meadow into sections
    - Burn, hay, and rest
  - Benefits biodiversity providing refugia—birds nest, plants set seed
  - And still economically viable
    - For example:
      - Year 1: Rest 1/3, Hay 2/3
      - Year 2: Burn:Hay 1/3, Rest 1/3, Hay 1/3
      - Year 3: Hay 1/3, Burn:Hay 1/3, Rest
- Check with NRCS for Going Rate \$/acre or Trade for Bales

# Grazing

- Not my cup of tea
- No expert
- High quality hay meadows (and small prairie tracts) shouldn't be grazed unless done very carefully at lower than recommended stocking rates.
- Refer you to NRCS, DGCD, others for guidance