

Roscommon Red Pines ERA Plan

Michigan Department of Natural Resources
Forest Resources Division
Roscommon Forest Management Unit



Roscommon Red Pines ERA Plan

Administrative Information:

- Roscommon Red Pines ERA, also called Roscommon Red Pine Natural Area
- Roscommon Forest Management Unit; Au Sable Outwash Management Area (MA),
Compartment 64, Stand 7
- Roscommon County; T24N R01W Section 2
- Contact information

- Plan Writer: Dale Ekdorn, Forester, Roscommon FMU
- Local Foresters & Biologists: Steve Anderson, Roscommon FMU, Unit Manager; Mark Boersen, Roscommon FMU, Wildlife Biologist
- Entirely on State of Michigan owned lands
- Existing infrastructure/facilities: Small parking area adjacent to core area and a 1.3 mile-long hiking trail leading into and looping through the core area.
- Other documents related to this ERA: None

Conservation Values

- Roscommon Red Pines ERA includes the following natural communities:
 - Dry Northern Forest, EO_ID 11065, EORANK AB – Excellent or good estimated viability, and LASTOBS date of 4-14-2005
 - Roscommon Red Pines ERA is recognized for being a representative example of the Dry Northern Forest natural community.
- Dry northern forest is a pine or pine-hardwood dominated forest type that occurs on dry sandy sites lying mostly north of the climatic tension zone. This community occurs principally on sandy glacial outwash and sandy glacial lakeplains, and commonly on sand ridges within peatlands on glacial outwash or glacial lakeplains. Two distinct variants are included within this community type, one dominated by jack pine (*Pinus banksiana*) or jack pine and hardwoods, and the other dominated by red pine (*P. resinosa*). Prior to European settlement, dry northern forest typically originated in the wake of catastrophic fire. Frequent, low-intensity ground fires maintained red pine systems by removing competing hardwoods.
- For more detailed information refer to the MNFI community abstract. http://mnfi.anr.msu.edu/abstracts/ecology/Dry_northern_forest.pdf
- Both red pine and jack pine dominated sites can contain minor components of northern pin oak. Jack pine dominated sites should include or be managed to promote scattered groups of super canopy red and/or white pine. In both variants, other canopy species can be present only at low levels. These include white pine, paper birch, aspen, red oak, and red maple.
- ERAs should resemble pre-settlement forest conditions. This includes the presence of some larger diameter trees (as described above); a fire-maintained understory with conditions suitable for infrequent canopy fire; a relatively high native plant species density and diversity; and an unaltered (or mimicked) natural disturbance regime. This means a lack of evidence of grazing. In subsections where the remaining sites have been harvested, ERAs should be recovered from past harvests meaning the age of dominant jack pine should be greater than 70 years, while red pine should be greater than 100 years.
- Dry northern forest ERAs should be in areas where they are the dominant community. These areas may also contain a mosaic of dry-mesic northern forest and barrens communities or be represented as small patches (1- 50 acres) within a mosaic of either of the above communities or within peatland ecosystems.

- Description from the element Occurrence Record for Roscommon Red Pines: This old-growth dry northern forest is found on rolling outwash and ground moraine. The soils are dry, acidic sands topped by 1 to 2 cm of needle duff. Fire was historically the prevalent natural disturbance factor as indicated by the species composition and fire scars on the canopy dominants. Five structural layers characterize the forest including canopy and supercanopy, subcanopy, tall shrub layer, short shrub layer, and ground cover. The core of the element occurrence is dominated by old-growth red pine (*Pinus resinosa*) and white pine (*P. strobus*) (140 + years old, 60-100 cm DBH, and 80-100 ft tall). Canopy associates include jack pine (*Pinus banksiana*) and northern pin oak (*Quercus ellipsoidalis*). Areas with moderate slope support pockets of white pine-dominated dry-mesic northern forest. Red pine-white pine old growth is surrounded by smaller jack pine and northern pin oak forest, much of which is also old-growth. The subcanopy is dominated by red maple (*Acer rubrum*), the tall shrub layer is characterized by red maple, white pine, and serviceberry (*Amelanchier* sp.), the low shrub layer is dominated by low sweet blueberry (*Vaccinium angustifolium*), and the ground cover is dominated by bracken fern (*Pteridium aquilinum*) with wintergreen (*Gaultheria procumbens*), Pennsylvania sedge (*Carex pennsylvanica*), and starflower (*Trientalis borealis*).
- Other High Conservation Values Present:
 - Roscommon Red Pines ERA includes ***attributes of regional (Great Lakes) importance***, including:
 - Old forests/mixed age stands that include trees >120 years old
 - Pine stands of natural origin
 - Roscommon Red Pines ERA has the potential for Type 1 or Type 2 Old Growth if left alone (no cutting) for the next few inventory cycles.
 - Currently, stand has a 3C: Legally Designated Quiet Area, Natural Area, or Wilderness site condition placed on it making it “Unavailable” for commercial treatments
- Other values in the area surrounding and within the ERA include:
 - Recreation
 - Aesthetics/visual management
 - Timber products
 - Other designations (natural area, habitat area or corridor, etc.)

Threats Assessment

- Primary threats include fire suppression which results in failure of pine to regenerate and the ingrowth of shade tolerant species which can lead to conversion to more mesic forest types.

- Secondary threats include ingrowth of invasive species and deer herbivory which impedes pine regeneration (primarily white pine).
- One identified long term threat is climate change which may push this natural community towards drier or more mesic cover types depending on the effects of the changing environment.

Management Goals

- Restoration and expansion (or at least buffering) of the dry northern forest community type as necessary, reduce fragmentation of this forest community.
- Maintain an absence of invasive species to the extent possible within the ERA boundary.
- Maintain a representation of native plants, indicator species, and rare species within the ERA
- Allow natural processes to occur (i.e. fire, windthrow, insect epidemics, etc.)

Management Objectives

- Identify and prioritize areas within the ERA to treat for invasive species
- Enhance diversity of native plants in and adjacent to the ERA
- Allow blowdown, fire, and insect mortality to occur without salvage harvest
- Assess forest regeneration within the YOE and assess EO quality every 10-20 years

Management Actions

- Monitor for and address invasive species within and adjacent to the ERA
- Write a MOU between all divisions to agree to let natural processes take place in the ERA (i.e. no timber salvage, fire suppression to be confined to adjacent stands, etc.)
- Write treatment prescriptions in the ERA which maintain the diversity of native species, prevent expansion of or reduce the hardwood under-story, and promote pine regeneration

Monitoring

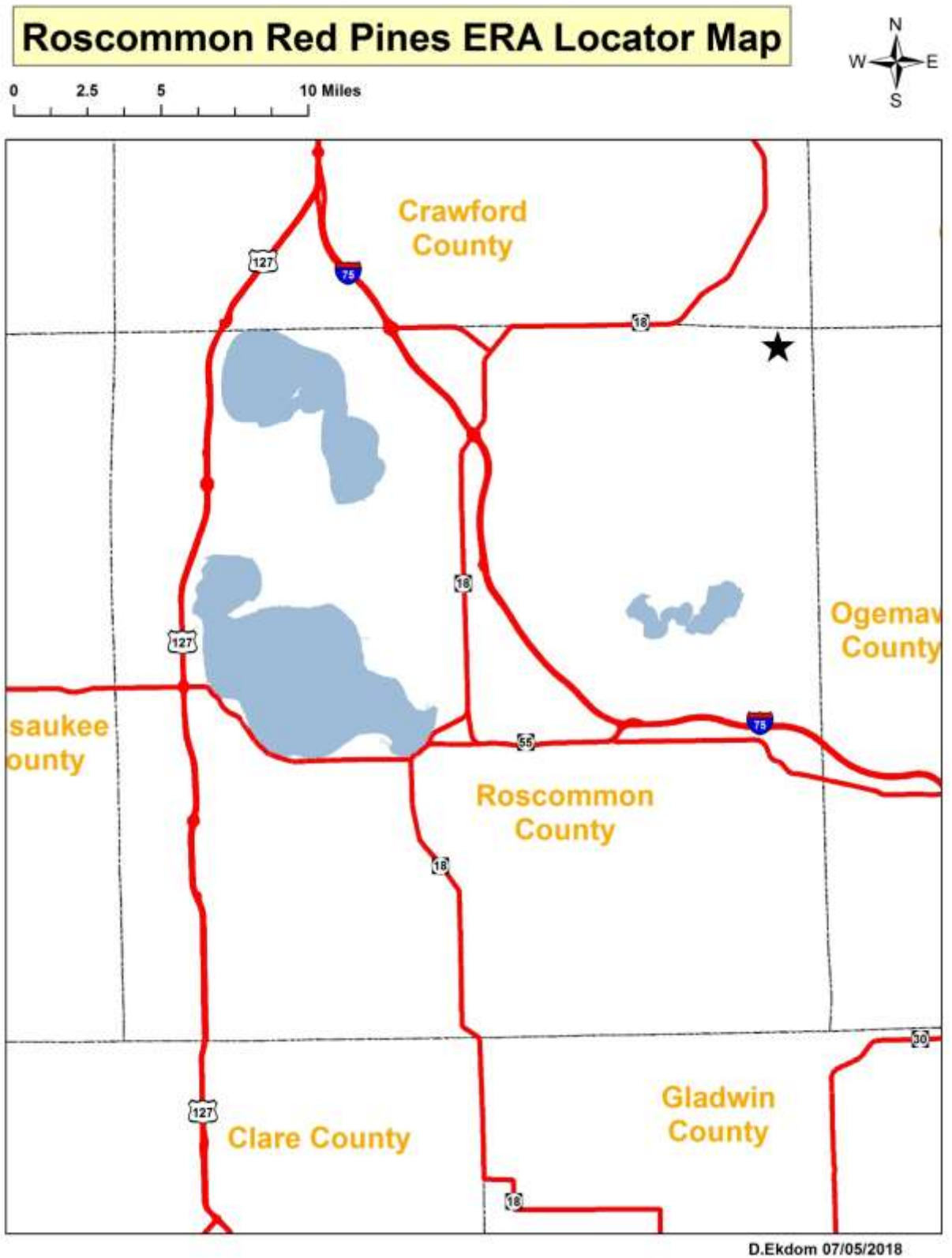
- Natural Processes MOU written and approved
- Prescriptions written and approved
- Assess area for invasive species as needed

Indicator	Current Status	Desired Future Status	Summary Assessment
Natural Processes MOU	None	Approved Plan	TBD
Treatment Rx's	None	Approved at 2020 YOE C.R.	09/27/2018

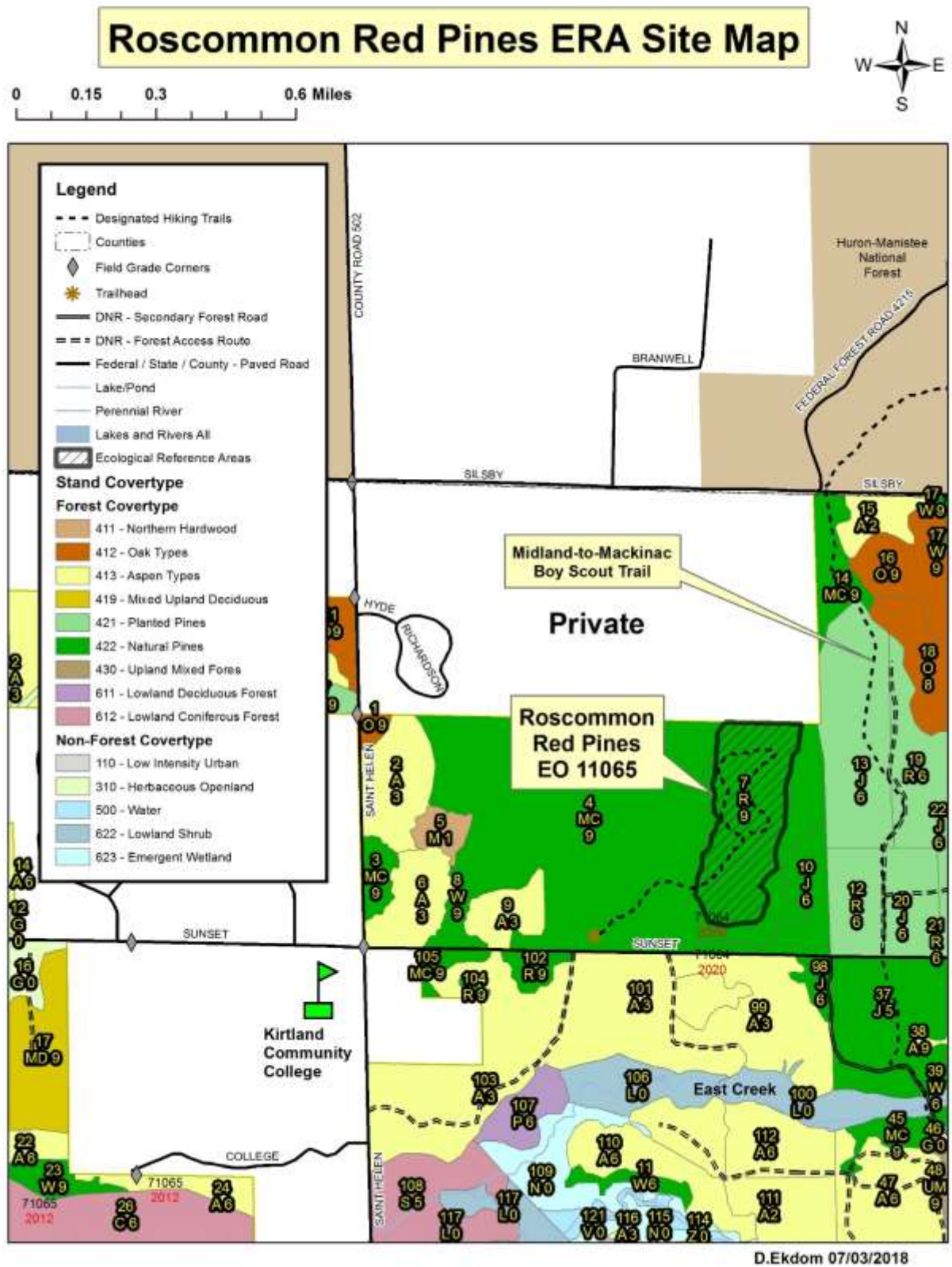
Imagery:

- **NOTE: ERA boundaries are derived from the underlying Natural Community EO boundary which are mapped using NatureServe standards. EO Boundaries are informed by vegetation and other site characteristics including soils, landform, and/or historic aerial imagery. As a result, it is not uncommon for EO/ERA boundaries to differ from forest inventory stand boundaries. If these difference result in potential conflicts with proposed forest activities, consult with the Forest Conservation and Certification Specialist to request a boundary evaluation by Michigan Natural Features Inventory.**

- Site Location Map



- Site Map



Representative Photos





Signatures & Approval Date:

- Each plan will require formal approval from all relevant resource divisions
- Date of final approval

Attachment: Resources for Plan Writers

- Not part of the template itself
- List of internal and external content experts
- List of other individuals who can help to interpret more technical written resources