

Baraga Plains Pine Barrens ERA Plan

- Administrative Information: The Baraga Plains Pine Barrens ERA is located within the Baraga Forest Management Unit, Baraga Plains Management Area in Compartment 12, Stands 37, 38, 41 and 42. It is a 95 acre pine barrens in Baraga County; T49N R34W, Sections 31 and 32. Contact Information:
 - Plan Writer: Brad Carlson, Unit Manager, Baraga Customer Service Center
 - Local Forester(s) & Biologist(s): Jason Mittlestat, John DePue
- State of Michigan owned lands. The Natural Community Element Occurrence extends on to adjacent land administered by the US Forest Service (USFS) Ottawa National Forest.
- Existing Infrastructure/Facilities: None
- Other Documents Related to This ERA: None Conservation Values

Describe the natural community occurrence for which the ERA is recognized:

- Pine Barrens, EO_ID 4388, EO Rank-D (Poor estimated viability), Last observed 8/3/2015
- ERA designation is for a rare natural community
- Pine Barrens are a coniferous, fire dependent savanna community that occurs on level sandy outwash plains and sandy glacial lakeplains in the northern Lower Peninsula and infrequently in the Upper Peninsula. Pine barrens are found on very strongly to strongly acidic droughty sands with very poor water retaining capacity and low nutrient availability. Pine barrens are characterized by a scattered overstory of pine with a grass/sedge dominated ground layer. Canopy cover is typically less than 60%. More details can be found in the MNFI abstract:
http://mnfi.anr.msu.edu/abstracts/ecology/Pine_barrens.pdf
- Description from the Element Occurrence Record: A scattered canopy of the pine barrens is dominated by jack pine with canopy associates including red pine and red oak. Canopy closure range from semi-open to fully closed and canopy trees typically range from 15-30cm. Decades of fire suppression and timber management have contributed to a closed canopy condition and have allowed black cherry become established in the understory. The pine barrens is characterized by scattered clumps of trees and shrubs. The scattered understory includes sapling jack pine along with black cherry. The sapling jack pine have established in the absence of fire and therefore the canopy jack pine have semi-serotinous cones. The patchy low shrub layer is dominated by sweet fern, lowbush blueberry and bearberry. The graminoid dominated herbaceous layer is dominated by Pennsylvania sedge, poverty grass, big bluestem, little bluestem, wavy hair-grass, bluebell, goldenrod spp., trailing arbutus, tufted hair-grass, narrowleaf cow wheat, American wintergreen. Reindeer lichen (Cladonia spp.) are locally abundant.
- Other High Conservation Values Present: None
- Other Values for Consideration:
 - Recreation- There is a snowmobile trail that runs through the area and an ATV trail that run adjacent to the area.

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- Aesthetics/visual management- All red pine that are located in the ERA and in adjacent stands will be retained for visual management.
- Timber products- There are short-term values that will be gained for timber products, but the long-term management for timber products will be minimal.

Threats Assessment

- Primary threats include roads, a natural gas pipeline and a snowmobile trail within the ERA boundary, invasive species establishment and illegal ORV use. Existing invasive species include spotted knapweed and scotch pine. These threats individually or combined have the potential to cause irreversible damage that could jeopardize the ecology of the site.
- Potential long term threats include ORV disturbance to the soils which can lead to invasive species establishment, natural gas leak which could potentially destroy habitat and the conversion to plantation management which would lead to a closed canopy.

Management Goal(s)

- Restoration and/or expansion of the Pine Barrens ERA where applicable.
- Invasive Species: Ideally, the best goal would be to eliminate invasive species (or maintain an absence of invasive species), but in some areas that may not be possible and a goal that recognizes this may be necessary
- The ERA has representation of native plants, indicator species, and rare species
- Reduce Fragmentation
- Reduce other Threats (Encroachment of Woody Vegetation, ORVs, etc.)

Management Objectives

- Reduce canopy closure to at least 40% through overstory removal and maintain open understory conditions for the next 10 year planning cycle
- Close all temporary forest roads used for timber harvesting operations (YOE 2017) to discourage illegal ORV use.
- Promote biological legacies within the barrens area. Large dead and dying red oak and red pine and sparse bushy jack pine will be some of the composition to promote.
- Maintain a high diversity of native plants while minimizing dominance of *Carex Pennsylvanica* (Pennsylvania sedge).
- Assess area for invasive species.
- Assess forest regeneration within the planning period
- Assess EO quality every 10-20 years
- Work with adaptation specialist to determine threats associated with climate change
- Seek opportunities to coordinate management activities with USFS Ottawa National Forest.

Management Actions

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- Conduct thinning treatment to reduce canopy closure to 40% or less in ERA portion of stand 37, possibly a final harvest reserving red pine and red oak and all jack pine 4" and less at DBH. Also, consider leave tree marking large open grown jack pine at a rate of 1-3 per acre.
- Only harvest between December 1st and March 31st to limit ground scarification.
- Harvesting operation shall utilize shortwood system only.
- Include decontamination requirements in Timber Sale specifications.
- Working with local CISMA, Remove invasive plants using appropriate control methods for that particular species (hand-pull, herbicide, Rx) (M, R) Coordinate invasive plant surveys and removal with the Ottawa National Forest where applicable.
- Use periodic burning to maintain presence of native plant species, reduce invasives, and to reduce woody encroachment (M, R)
 - ideal/range fire return interval for ground fires is 5-10 years
 - Ideal/range fire cycle for crown fires is 15-60 years
- Write a wildfire plan to incorporate a "let it burn" policy in ERA where safety concerns allow. (M, R)
- Avoid establishment of new fire lines to reduce invasive species encroachment (M, R)

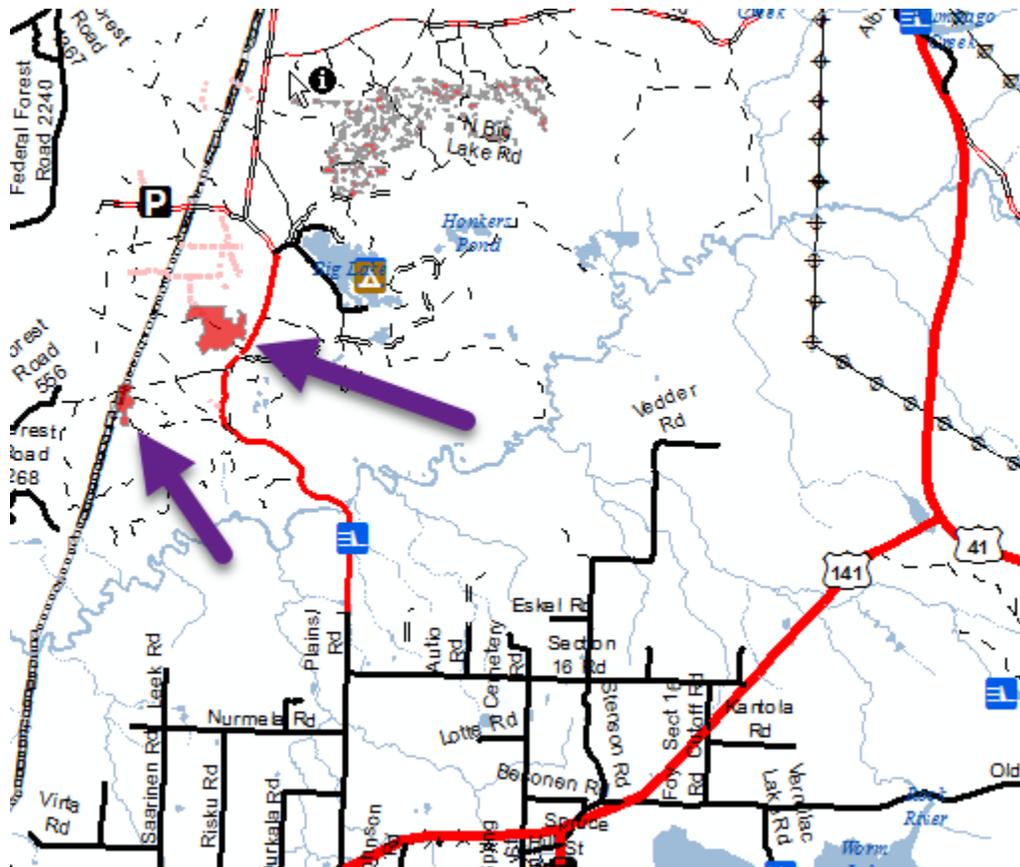
Monitoring

| Indicator | Current Status | Desired Future Status | Summary Assessment |
|--|---|---|--------------------|
| % Canopy Closure | 75% | 40% | TBD |
| Regeneration of tree species | Baseline inventory data taken every decade | Representative species present and regenerating | |
| Representative and rare species- species occurrences | Baseline EO Records; updated when EO's are updated every 10-20 years or opportunistically No decreases | No decreases | |
| Populations of Invasive Species- number and scope by species | Severity unknown; treatments should be monitored appropriately; | Eliminated/fewer occurrences | |

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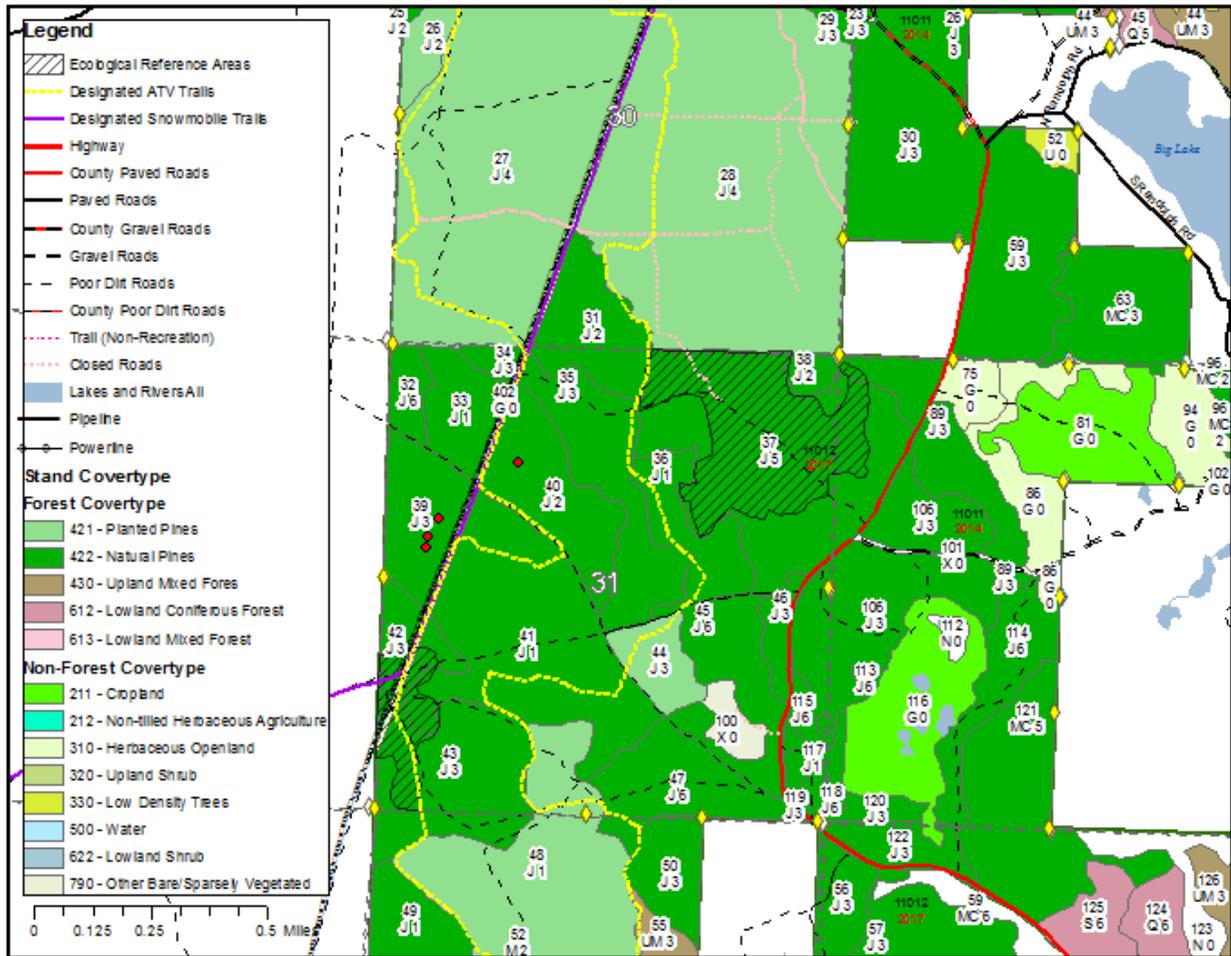
| Indicator | Current Status | Desired Future Status | Summary Assessment |
|-----------|--|-----------------------|--------------------|
| | detection monitoring opportunistically or every five- ten years' maximum | | |

Site Location:



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Site Map:



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Pictures:

