

Peshekee Highlands Dry-Mesic Northern Forest and Mesic Northern Forest ERA Plan

Administrative Information:

- Location:
 - Baraga Forest Management Unit; Peshekee Highlands Management Area
Compartment 14
 - Baraga County; T48N R32W, Section 5

T49N R32W, Section 31, 32
- Contact Information:
 - Plan Writer: Brad Carlson, Unit Manager, Baraga Customer Service Center
 - Local Forester(s) & Biologist(s): Ryan Mattila, John DePue
- State of Michigan owned lands
- Existing Infrastructure/Facilities: None
- Other Documents Related to This ERA: None

Conservation Values

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

- Dry-mesic Northern Forest, EO_ID 18890, EO Rank-C (Fair estimated viability), Last observed 7/11/2012; and Mesic Northern Forest, EO_ID 18891, EO Rank-B (Good estimated viability), Last observed 7/11/11.
- ERA designations are for a rare natural communities
- Dry-mesic northern forests are pine or pine/hardwood dominated communities, principally occurring on sandy glacial outwash, sandy glacial lakeplains, and less often on inland dune ridges, coarse-textured moraines, and thin glacial drift over bedrock. Prior to settlement, it originated in the wake of catastrophic stand replacing fire, and was maintained by frequent, low intensity ground fires. For more detailed information refer to the MNFI Community Abstract. http://mnfi.anr.msu.edu/abstracts/ecology/Dry-mesic_northern_forest.pdf.
- Description from the Element Occurrence Record: The relatively open overstory of the Dry-mesic Northern Forest is dominated by white pine with canopy associates including white spruce, paper birch, northern white cedar, balsam fir, red maple, sugar maple, quaking aspen and big tooth aspen. Canopy trees typically range from 20-40cm with some pines reaching 50-70cm. The Dry-mesic Northern Forest is characterized by young post-fire forest situated on thin soils over bedrock. Fire and windthrow are primary disturbance factors species composition and vegetative The scattered subcanopy is represented by balsam fir, maple spp. and northern white cedar. Prevalent species on the dense understory include balsam fir, mountain maple, beaked hazelnut, sugar maple and red maple. The low shrub layer is characterized by fly honeysuckle, thimbleberry, raspberry, bush honeysuckle with occasional patches of Canadian yew. The patchy graminoid herbaceous layer is represented by bracken fern, spinulose woodfern, Canada mayflower, star flower, big-leaved aster, wild sarsaparilla, twinflower and bunchberry.

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- Mesic Northern Forests are northern hardwood/pine/hemlock dominated communities that mainly occurring on coarse-textured ground and end moraines, but they also occur commonly on silty/clayey lake plains, thin glacial till over bedrock and medium-textured moraines. Pre-settlement mesic northern forests in the western Upper Peninsula were commonly comprised of eastern hemlock and yellow birch with components of sugar maple and white pine. The natural disturbance regime is characterized by gap-phase dynamics; frequent, small windthrow gaps allow for the regeneration of the shade-tolerant canopy species. Catastrophic windthrow occurred infrequently with several generations of trees passing between large-scale, severe disturbance events. For more information refer to the MNFI Community Abstract [http://mnfi.anr.msu.edu/abstracts/ecology/Mesic Northern Forest.pdf](http://mnfi.anr.msu.edu/abstracts/ecology/Mesic_Northern_Forest.pdf)
- Description from the Element Occurrence Record: The rugged topography of the area has protected this mesic northern forest from logging. This site is characterized by uneven aged, large diameter yellow birch, white pine, eastern hemlock, white spruce and sugar maple, some diameters reaching 40-70cm. Other dominant associates included northern white cedar and paper birch. The Mesic Northern Forest is characterized by old growth forest with pit mound topography indicative of hundreds of years of gap phase dynamics. Windthrow is the primary disturbance factor in species composition and vegetation. Prevalent species on the dense understory include sugar maple, striped maple and beaked hazelnut. The low shrub layer is characterized by sugar maple, fly honeysuckle, thimbleberry and Canadian yew. The patchy graminoid herbaceous layer is represented by Canada mayflower, star flower, sugar maple, blue bead lily, wild sarsaparilla, twinflower and bunchberry
- Other High Conservation Values Present: None
- Other Values for Consideration:
 - Recreation- The Sturgeon River is adjacent to this ERA and offers some superior fishing for enthusiast who isn't afraid to get off the beaten path. There is one old logging road that enters the east side of the ERA that is grown over.
 - Aesthetics/visual management- The area contains many large diameter white pine which should survive the recommended low intensity surface fires.
 - 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 invasive species establishment, increased deer herbivory and wildfire suppression.
- Potential long term threats include mineral extraction on the site, increased ORV activity which can lead to invasive species establishment, and the conversion to maple dominated forest canopy through constant wildfire suppression.

Management Goal(s)

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- Allow natural processes to operate unhindered over most of the ERAs.
- On low slope areas along eastern boundary of Dry-mesic NF ERA, use timber harvesting and prescribed fire to mimic natural processes and promote pine regeneration.
- Monitor the site to ascertain if pine is recruiting.

Management Objectives

- Final harvest all tree species on operational slopes in the Dry-Mesic Northern Forest except white pine, red pine, northern white cedar, red oak and hemlock.
- Used low intensity prescribed fire to increase pine establishment within the timber harvest area of the Dry-Mesic Northern Forest.
- Block all roads into the area after the timber harvest and prescribed fire to reduce the threat of invasive species introduction.
- Monitor for and address invasive species.

Management Actions

- Conduct thinning treatment to reduce canopy closure to 30% in harvestable area of stand 60.
- Conduct a prescribed burn 1 growing season after the timber sale. Additional burns may be necessary if aspen regeneration prohibits pine recruitment.
- All forest roads entering the timber sale area will be closed to vehicle traffic to protect the area from off-road vehicles and invasive species.
- Assess area for invasive species.

Monitoring Dry-Mesic Northern Forest

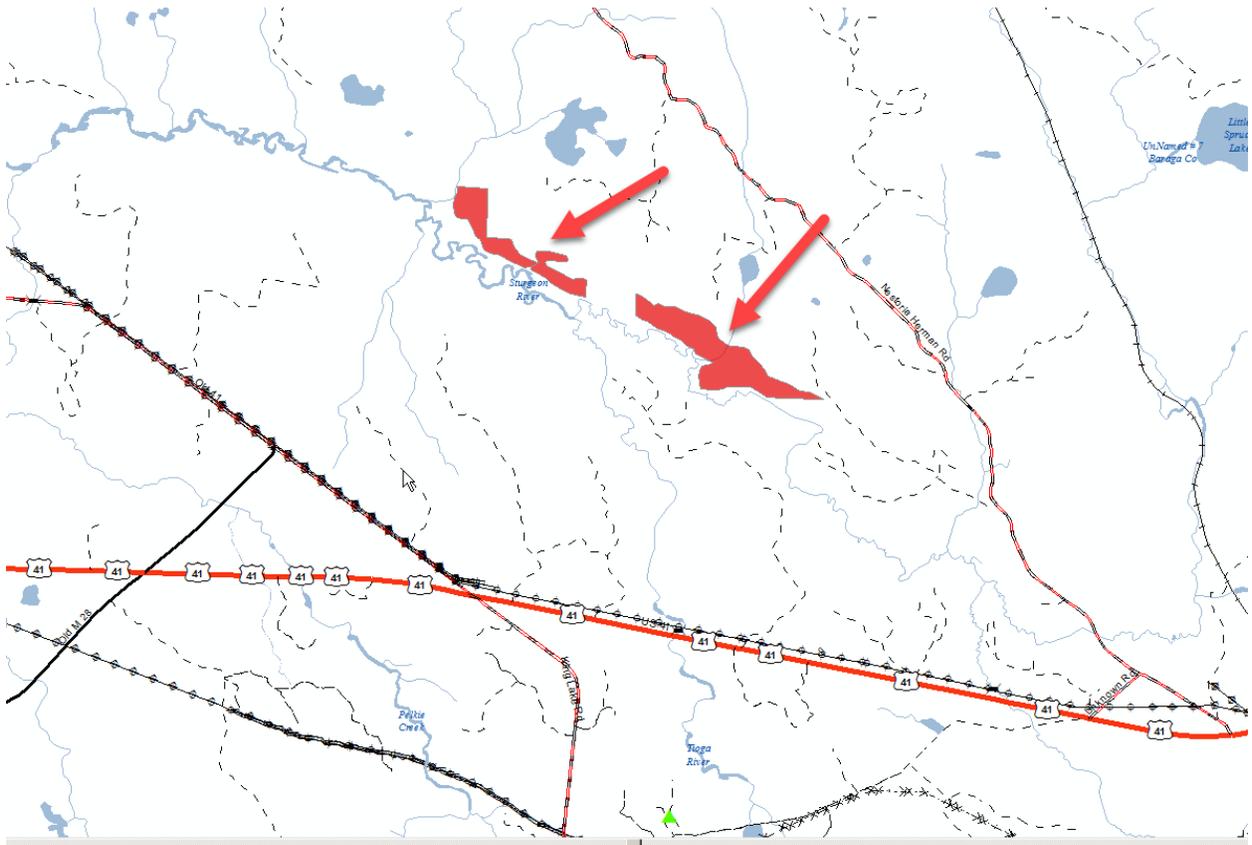
Indicator	Current Status	Desired Future Status	Summary Assessment
% Pine Canopy Closure	30%	50%	TBD

Monitoring Mesic Northern Forest

Indicator	Current Status	Desired Future Status	Summary Assessment
% Canopy Closure	>90%	>90%	TBD

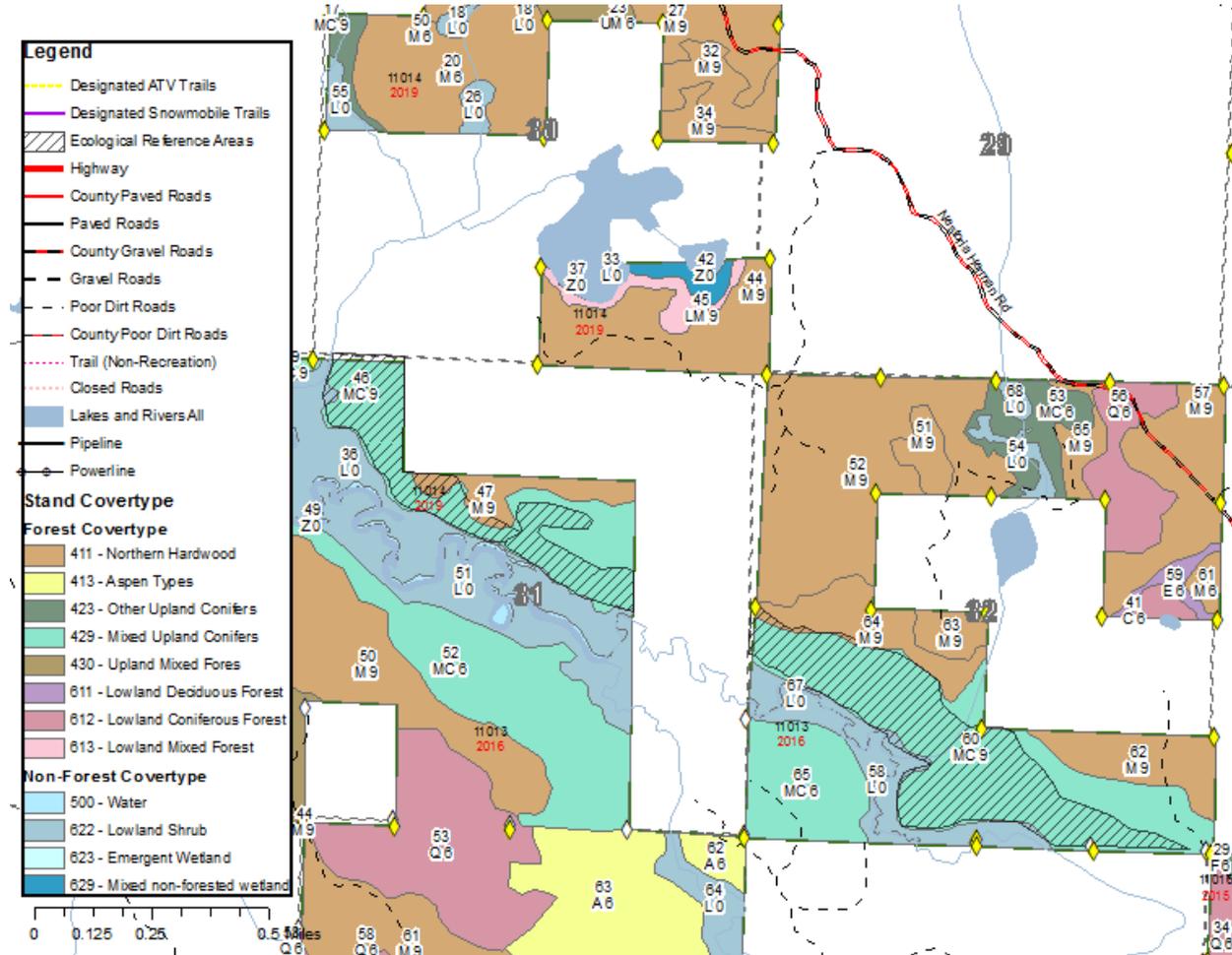
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Site Location:



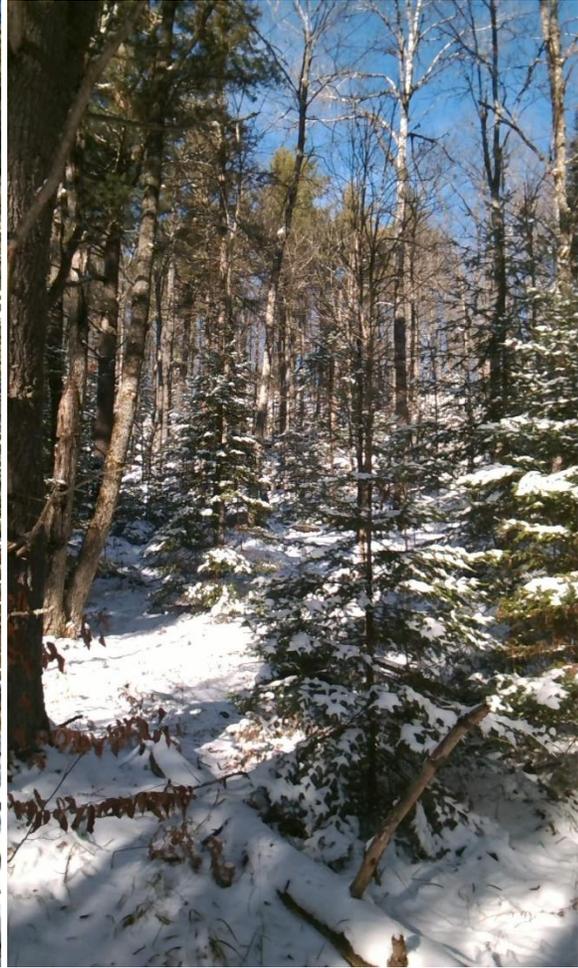
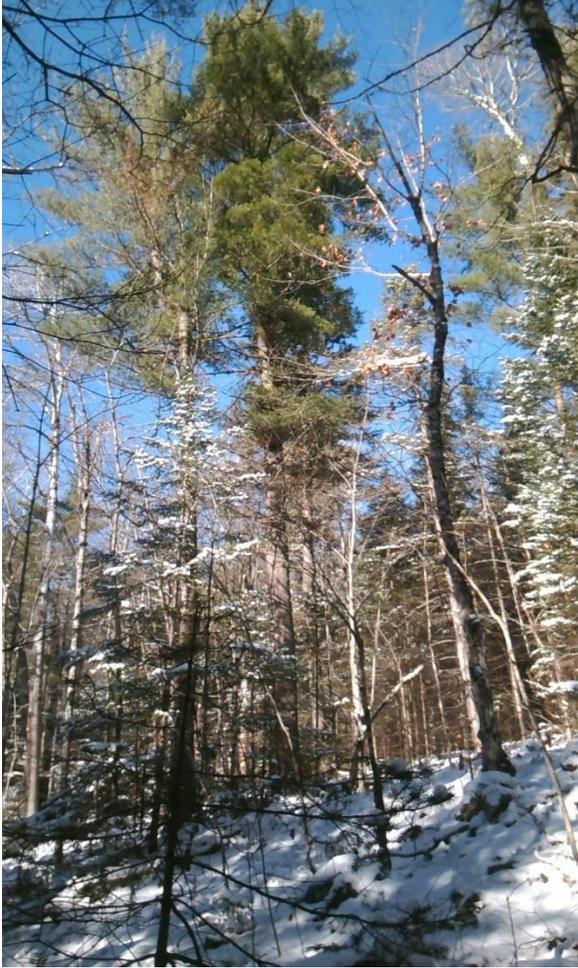
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Site Map:



Pictures:

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