Point Abbaye ERA Complex Plan

Contents

Administrative Information:

- Location:
  - Baraga Forest Management Unit; Huron Mountains Management Area Compartment 1
  - Baraga County: T53N R31W, Sections 25, 35, 36
    T53N R30W, Sections 30, 31
    T52N R31W, Section 3, 11
    T52N R30W, Section 6
- Contact Information:
  - Plan Writer: John M. Hamel, Inventory and Planning Specialist, Marquette 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:

- Boreal forest (EO ID 17295), sandstone bedrock lakeshore (EO IDs 17298 and 17300), sandstone cobble shore (EO IDs 17297 and 17301), and sandstone lakeshore cliff (EO IDs, 17296, and 17299), Last observed 2019.
- Boreal forest is a conifer or conifer/ hardwood forest type that is found on moist to dry sites characterized by species dominant in the Canadian boreal forest. Boreal forest occurs on upland sites along shores of the Great Lakes, on islands in the Great Lakes, and locally inland. This system is found primarily on sand dunes, in glacial lakeplains, and on thin soil over bedrock and cobble. Boreal forest is characterized by sand and sandy loam soils that are typically moderately acid to neutral, but heavier soils and more acid conditions are found. Proximity of boreal forest to the Great Lakes results in high levels of windthrow and climatic conditions characterized by high humidity, snowfall, summer fog and mist, and low summer temperatures. In addition to windthrow, fire and insect epidemics are important components of the natural disturbance regime. For more detailed information refer to the MNFI Community Abstract. https://mnfi.anr.msu.edu/abstracts/ecology/boreal_forest.pdf
- Sandstone bedrock lakeshore is a sparsely vegetated community that occurs along the Lake Superior shoreline in the central and western Upper Peninsula. Exposed sandstone bedrock is prominent, with lichens and mosses locally dominant, and scattered sedges, grasses, forbs, shrubs, and occasionally trees restricted to cracks, joints, and depressions in the bedrock.
- Sandstone cobble shore is a sparsely vegetated community that occupies the edges of Lake Superior, predominantly occurring in coves and gently curving bays in association with bedrock cliff, bedrock outcrop, sandstone bedrock lakeshore, and sand and gravel beach. These cobble shores may be nearly level and support a diversity of herbaceous plants where they border sand and gravel beach or relatively steep and terraced in coves between bedrock outcrops, with vegetation mostly limited to the highest cobble beach ridge, where scattered trees and shrubs are dominant. Sandstone cobble shore is dominated by flat, round-sided sandstones that move readily when subject to intense wave action, limiting soil development and vegetation establishment.
- Sandstone lakeshore cliff occurs where vertical or near-vertical exposures of bedrock are located along the Great Lakes shoreline. These cliffs are characterized by sparse coverage of vascular plants, lichens, mosses, and liverworts. While the majority of the community's distribution is in the central and western Upper Peninsula along Lake Superior, it also occurs along a short stretch of shore along Lake Huron in the thumb region. Sandstone lakeshore cliffs, ranging from 6 to 200 feet (2 to 65 m) high, are characterized by high site moisture due to the proximity of the Great Lakes. The cliffs form a stressed, unstable environment because of severe waves, wind, and winter ice. For more detailed information refer to the MNFI Community Abstract. https://mnfi.anr.msu.edu/abstracts/ecology/Sandstone_lakeshore_cliff.pdf

- Other High Conservation Values Present: Deer Wintering Complex,
- Other Values for Consideration:
    - 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 logging, shoreline development, deer herbivory, invasive species, and erosion from motorized and non-motorized recreation.

Management Goal(s)

- Eliminate invasive species if found
- ERA's have representation of native plants, indicator species, and rare species
- Reduce forest fragmentation
- Reduce threats from, excessive deer browsing, ORV's, excessive foot and mountain bike traffic, shoreline armoring.
- Protect areas susceptible to erosion from logging and other human activities that erode the cliff edge.

Management Objectives

- Identify and prioritize critical areas within the ERA to treat for invasive species.
- Maintain a high diversity of native plants.
- Allow blowdown/windthrow, fire, and insect mortality to occur without salvage harvest.
- Determine if there are impacts to hydrological system.
- Assess forest regeneration within the planning period.
- Assess EO quality every 10-20 years.
- Identify and eliminate illegal ORV access points.
- Identify areas of excessive foot and mountain bike traffic.
- Identify opportunities for acquisition where applicable.

Management Actions

- Identify vectors of invasive species and reduce their introduction to the site.
- Remove invasive plants using appropriate control methods for that particular species.
- Write a wildfire plan to incorporate a "let it burn" policy where safety concerns allow.
- Avoid establishment of new fire lines to reduce invasive species encroachment.
- Land acquisition to reduce fragmented ownership.

- Where forest regeneration is found to be inadequate caused by deer herbivory consider limiting winter cutting intended to feed deer adjacent to the ERA and explore other potential solutions.
- Close illegal roads and trails
- Work with LED to increase patrols for illegal ORV activity and enforce state land use rules.
- Install culverts necessary to restore natural hydrological flow.
- maintaining a mature, unfragmented forested buffer around sandstone bedrock lakeshores to help limit the local seed source for invasive species distributed by wind or birds.
- Maintain a mature forested buffer to protect the cliff edge from erosion and to prevent the spread of invasive plant species.
- Prohibit the cutting of timber in the ERA for any reason.

Monitoring Boreal Forest

Indicator	Current Status	Desired Future Status	Summary Assessment
Presence of Invasive Species	Present	None	MNFI Assessment
Effects of invasive species treatment	Unknown	Eradicated	Treatment report and surveys
EO Rank	AB	AB	MNFI Assessment

Monitoring Sandstone Bedrock Lakeshore

Indicator	Current Status	Desired Future Status	Summary Assessment
Presence of Invasive Species	Present	None	MNFI assessment
Effects of invasive species treatment	Unknown	Eradicated	Treatment report and surveys
EO Rank	AB	AB	MNFI assessment
Illegal ORV activity	Unknown	None	LED data and observations

Monitoring Sandstone Cobble Shoreline

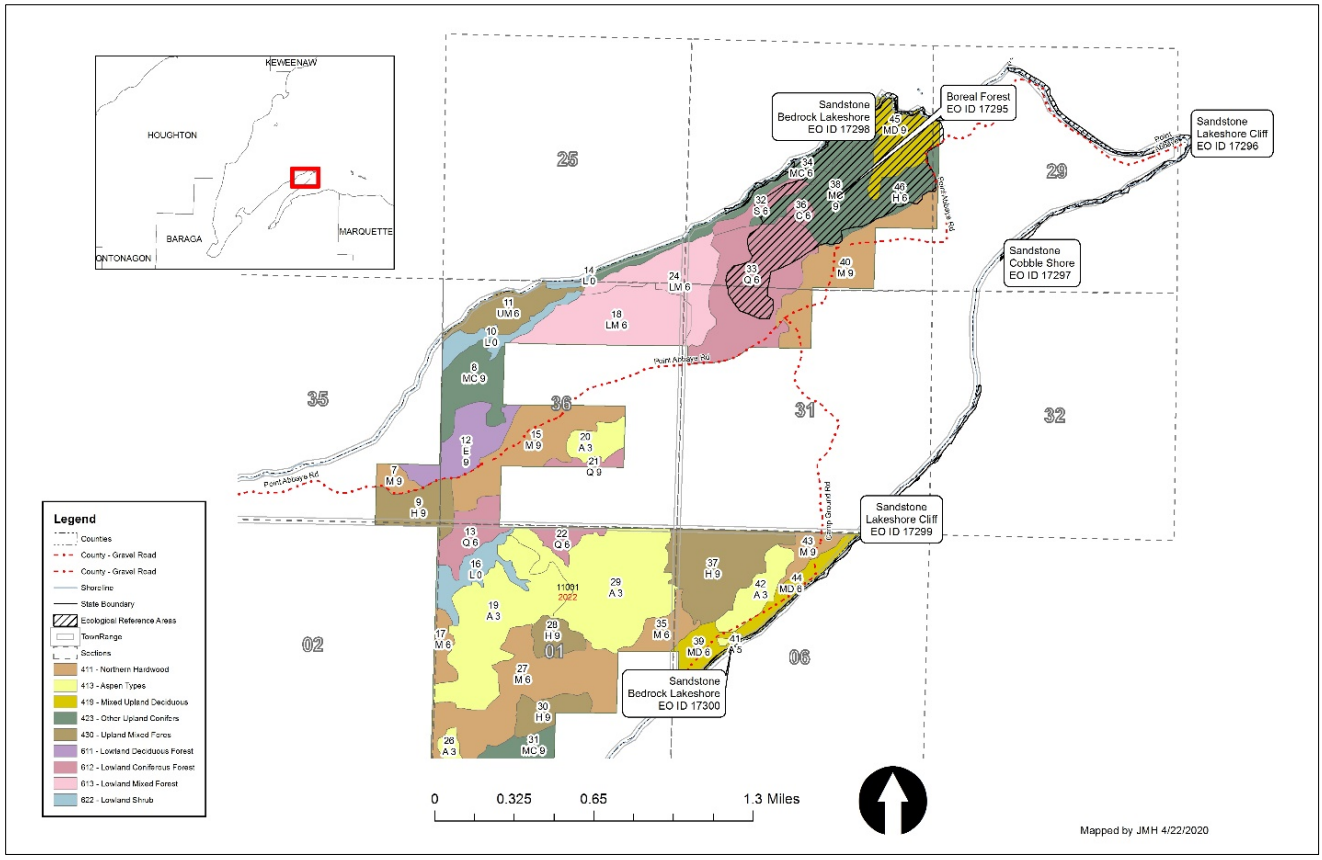
Indicator	Current Status	Desired Future Status	Summary Assessment
Presence of Invasive Species	Present	None	MNFI assessment

Effects of invasive species treatment	Unknown	Eradicated	Treatment report and surveys
EO Rank	AB	AB	MNFI assessment
Illegal ORV activity	Unknown	None	LED data and observations

Monitoring Sandstone Cliff Shoreline

Indicator	Current Status	Desired Future Status	Summary Assessment
Presence of Invasive Species	Present	None	MNFI assessment
Effects of invasive species treatment	Unknown	Eradicated	Treatment report and surveys
EO Rank	AB	AB	MNFI assessment
Illegal ORV activity	Unknown	None	LED data and observations

Site Map:



Michigan Department of Natural Resources.
Michigan.gov/Forestry. April 2020.

Pictures:

Point Abbaye boreal forest (EO ID 17295). Photo by Joshua G. Cohen.

Point Abbaye sandstone lakeshore cliff (EO ID 17296). Photo by Joshua G. Cohen.

Point Abbaye sandstone cobble shore (EO ID 17297). Photo by Joshua G. Cohen.

Point Abbaye sandstone bedrock lakeshore (EO ID 17298). Photo by Joshua G. Cohen.

Point Abbaye SE sandstone lakeshore cliff (EO ID 17299). Photo by Joshua G. Cohen.

Point Abbaye South sandstone bedrock lakeshore (EO ID 17300). Photo by Joshua G. Cohen.

Point Abbaye SE sandstone cobble shore (EO ID 17301). Photo by Joshua G. Cohen.

Point Abbaye sandstone bedrock lakeshore (EO ID 17298). Photo by Joshua G. Cohen.