

Rabbit Bay Sandstone Lakeshore Cliff ERA Plan



Contents

Administrative Information:.....	1
Conservation Values	1
Threats Assessment	2
Management Goal(s)	2
Management Objectives.....	2
Management Actions.....	2
Site Map:.....	3
Pictures:	4

Administrative Information:

- Location:
 - Baraga Forest Management Unit; Central Keweenaw, Compartment 59
 - Houghton County: T54N R32W, Sections 33,34
T53N R32W, Sections 4
- Contact Information:
 - Plan Writer: [John M. Hamel](#), Inventory and Planning Specialist, Marquette Customer Service Center
 - Local Forester(s) & Biologist(s): Brad Carlson, 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:

- Sandstone lakeshore cliff (EO ID 9468), Last observed 2019.
- 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 Areas
- Other Values for Consideration:
 - Aesthetics/visual management- The area has views of Keweenaw Bay.

Threats Assessment

- Primary threats include logging, shoreline development, invasive species, and erosion from motorized and non-motorized recreation.

Management Goal(s)

- Eliminate invasive species if found
- ERA has representation of native plants, indicator species, and rare species
- 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.
- 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

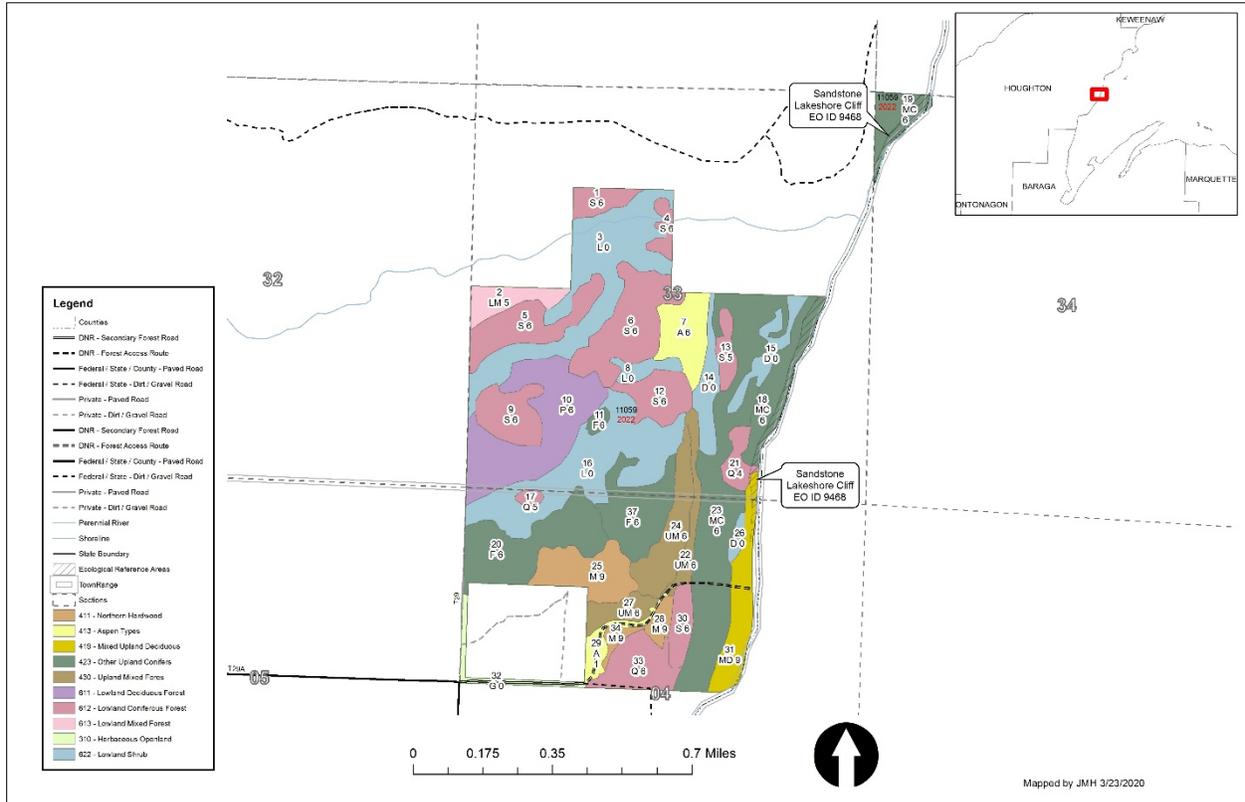
- Identify vectors of invasive species and reduce their introduction to the site.
- Remove invasive plants using appropriate control methods for that particular species.

- Avoid establishment of new fire lines to reduce invasive species encroachment.
- Land acquisition to reduce fragmented ownership.
- Close illegal roads and trails
- Work with LED to increase patrols for illegal ORV activity and enforce state land use rules.
- Maintain a mature forested buffer to protect the cliff edge from erosion and to prevent the spread of invasive plant species.

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:



Pictures:



Rabbit Bay sandstone lakeshore cliff (EO ID 9468). Photos by Joshua G. Cohen.



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