Pine Barrens ERA Plan

Little Bear Lake Barrens

Contents

Administrative Information

- Location:
  - This Ecological Reference Area is located within Compartment 3, Stand 18, in the Au Sable Outwash Management Area of the Gaylord Forest Management Unit.
  - It is in Township 29N, Range 01W, NENE of Section 15 & NW of Section 14; Otsego County, MI.
- Contact Information:
  - Plan Writers: Jennifer Kleitch, Wildlife Biologist, Gaylord Operations Service Center; Trevor Kubitskey, Forest Technician, Gaylord Field Office.
  - Local Forester(s) & Biologist(s): Lucas Merrick, Unit Manager, Jennifer Kleitch, Biologist
- State of Michigan lands – State Forest

Conservation Values

- The EO_ID is 10013, with an EO Rank of "BC-Good to Fair Estimated Viability." It was last surveyed by Michigan Natural Features Inventory on July 23, 2015.

- 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 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%. Optimally high-quality pine barren ERAs occur in a matrix with intact dry forests, dry prairies and associated wetlands, exhibit and have a suite of native plant species as described by the MNFI abstract and similar floristic quality as documented in existing field surveys. Populations of invasive species should be at very low levels. Maintenance of periodic fire disturbance is important.
- Little Bear Lake Barren is characterized by a low herbaceous layer, tall shrub layer as well as a scattered overstory. Characteristic species of the herbaceous layer include *Vaccinium angustifolium, Comptonia peregrina, Prunus pumila* and *Salix humilis*. Other associated herbaceous species that are found across this community are *Danthonia spicata, Schizachyrium scoparium, and* Carex *pensylvanica.* The shrub layer is made up of mostly stunted *Quercus ellipsoidalis* as well as *Prunus serotina*. The scattered canopy is dominated by *Pinus banksiana*, and *Pinus resinosa* with the occasional *Quercus ellipsoidalis* as an associate.
- The Little Bear Lake Barren includes several indicator species including an occurrence of *Cirsium hillii, Festuca altacia,* and *Agoseris glauca*. Of these species, *Cirsium hillii* is listed as a state special concern, while *Festuca altacia* and *Agoseris glauca* are listed as state threatened species.

Threats Assessment

- Change in ownership (e.g., from state forest to military lands); if this ERA changes hands from state forest to other ownership, there is potential for hydrological changes to occur, which would threaten species composition.
- Invasive species establishment such as knapweed, hawkweeds, bluegrasses (*Poa* spp.) or sheep sorrel could significantly alter this ERA if introduced and not managed. After the last site visit in 2015, there was no recorded invasive species present; however, the presence of knapweed in the surrounding areas is noted.
- ORV use: if access to ORVs is allowed, there could be negative impacts to this ERA.

Management Objectives

- A goal for canopy closure should consider a percent closure that is less than the maximum of 60% given in the MNFI abstract and should specify the desired species composition for the canopy (ex. Manage for a canopy closure of 40% with Jack Pine, Red Pine and White Pine represented.)
- Identify and eliminate illegal ORV access points.
- Identify and prioritize critical areas within the ERA to treat for invasive species.
- High diversity of native and indicator plants is desirable and *Carex pensylvanica* should not be the most dominant species.
- Assess EO quality every 10-20 years.

Management Actions

- 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
    - Vary seasonality of burning to knock back sprouting of woody species.
- Avoid establishing plow line fuelbreaks within pine barrens. Use existing features such as roads as firebreak when possible to avoid disturbing soil within the pine barrens.
- If detected, remove invasive plants using appropriate control methods for that particular species (hand-pull, herbicide, Rx) (M, R).
- Consider applying Minimum Impact Suppression Tactics (MIST) Guidelines to the area in the event of wildfire if supported by department policy and appropriate for the landscape context.

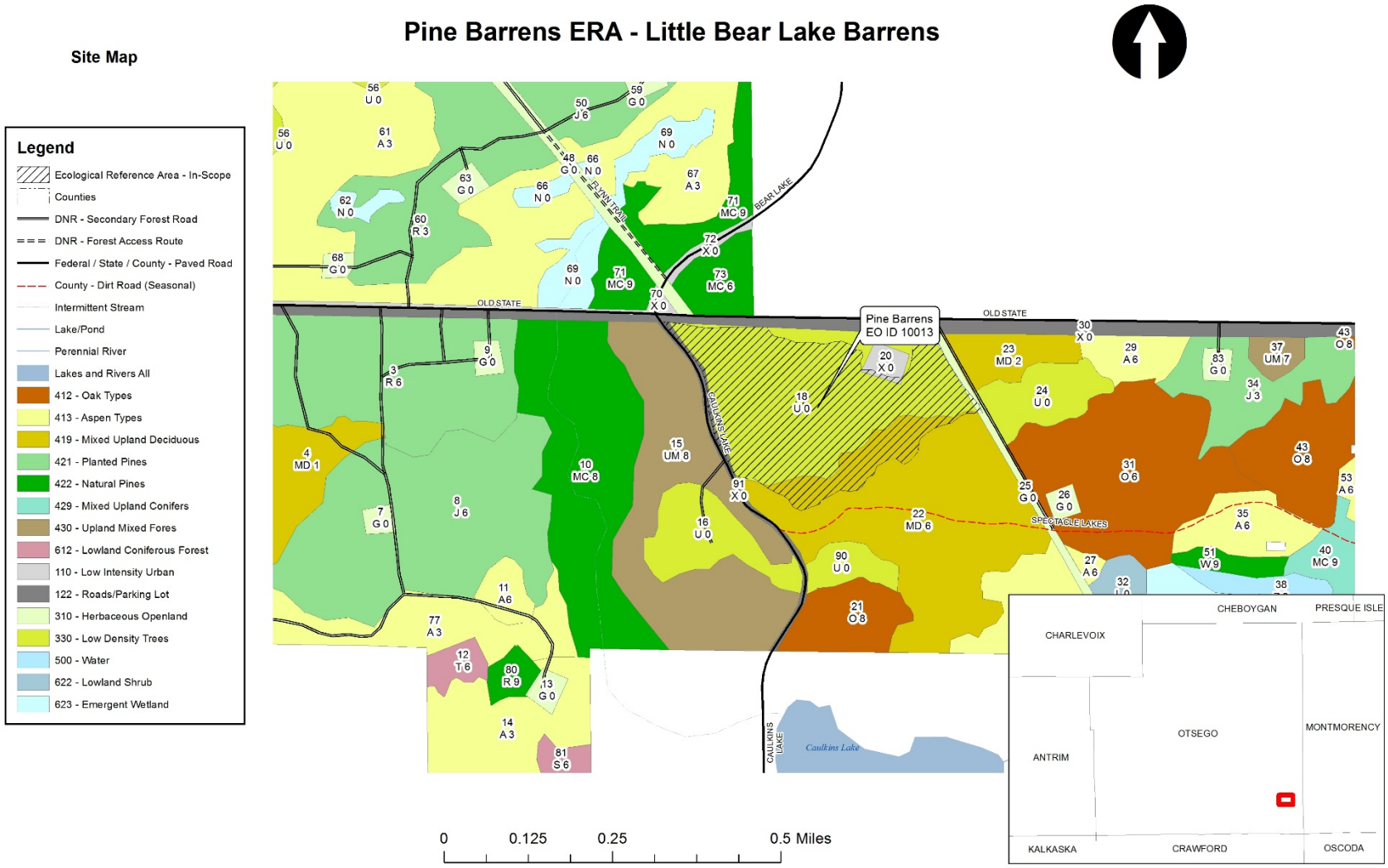
Monitoring

- Monitoring is expected to generally occur on a 10-year frequency to match the 10-year planning cycle – deviations to this will be noted in individual plans.
- Control efforts to detect and remove invasive species before they become widespread are critical to the long-term viability this ERA.

Images

Little Bear Lake Barrens in winter

Site Map


Pine Barrens ERA - Little Bear Lake Barrens
Site Map
Legend
Ecological Reference Area - In-Scope
Counties
DNR - Secondary Forest Road
DNR - Forest Access Route
Federal / State / County - Paved Road
County - Dirt Road (Seasonal)
Intermittent Stream
Lake/Pond
Perennial River
Lakes and Rivers All
412 - Oak Types
413 - Aspen Types
419 - Mixed Upland Deciduous
421 - Planted Pines
422 - Natural Pines
429 - Mixed Upland Conifers
430 - Upland Mixed Fores
612 - Lowland Coniferous Forest
110 - Low Intensity Urban
122 - Roads/Parking Lot
310 - Herbaceous Openland
330 - Low Density Trees
500 - Water
622 - Lowland Shrub
623 - Emergent Wetland
Pine Barrens
EO ID 10013
OLD STATE
BEAR LAKE
PLANT TRAIL
CAULKINS LAKE
SPECTACLE LAKES
Caulkins Lake
0
0.125
0.25
0.5 Miles
CHEBOYGAN
PRESQUE ISLE
CHARLEVOIX
OTSEGO
MONTMORENCY
ANTRIM
KALKASKA
CRAWFORD
OSCODA