Yankee Springs Recreation Area

Appendix A – Supporting Analysis

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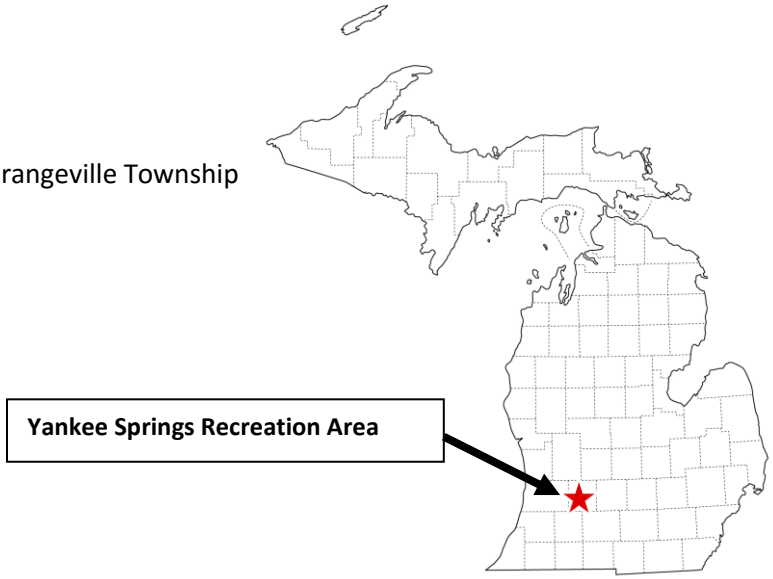
A.1 PARK SETTING

Park Profile

Area: 5200 acres
County: Barry County
Township: Yankee Springs Township & Orangeville Township
Latitude: 42.639
Longitude: -85.499

Address: 2104 S. Briggs Road
Middleville, MI 49333
Phone #: (269) 795-9081



Location & Community

Yankee Springs Recreation Area is located in the central west portion of Barry County adjacent to Allegan County. The Recreation Area is a popular destination for residents of Western Michigan and is situated about thirty miles south of Grand Rapids, thirty-five miles north of Kalamazoo, and sixty miles west of Lansing. It is located within Yankee Springs and Orangeville Townships and neighbors the communities of Hastings, Middleville, and Wayland.

Yankee Springs Recreation Area has numerous inland lakes such as Gun Lake, Payne Lake, Chief Noonday Lake, McDonald Lake, Williams Lake, Long Lake, Hall Lake, and Deep Lake. Gun Lake is the most prominent lake in the area, covering nearly 2,680 acres and containing approximately 17.8 miles of shoreline and an additional 1.4 miles of island shoreline. The Gun Lake Watershed comprises 30 square miles and is part of the Kalamazoo River Basin which drains into Lake Michigan.

Gun Lake has long been a vacation destination. Today the lake is largely surrounded by both year-round and seasonal residences. The Gun Lake community is served by over 80 local businesses, including restaurants, stores, cottage rentals and boat sales, storage and rentals.

Yankee Springs Recreation Area is accessible by State Highways M-131, M-37, M-43, and M-179.

A.2 DEMOGRAPHICS

Yankee Springs Recreation Area is contained within Barry County and borders Allegan County to the west. Barry County reports an estimated population of 59,097 in 2013, a 0.1% decrease from 2010. This is in contrast to the state of Michigan which saw a slight increase in population between 2010 and the estimated population in 2013. Barry County is characterized by its more rural character with a population density of 107 persons per square mile which is considerably lower than the state of Michigan's average of 174.8 persons per square mile.

In 2012, the per capita personal income in Barry County was $24,995, slightly lower than the state of Michigan's per capita income of $25,547.

2012 U.S. Census Data for Barry County

People QuickFacts	Barry County	Michigan
Population, 2013 estimate	59,097	9,895,622
Population, 2012 estimate	59,004	9,882,519
Population, 2010 (April 1) estimates base	59,175	9,883,701
Population, percent change, April 1, 2010 to July 1, 2013	-0.1%	0.1%
Population, percent change, April 1, 2010 to July 1, 2012	-0.3%	Z
Population, 2010	59,173	9,883,640
Persons under 5 years, percent, 2012	5.5%	5.8%
Persons under 18 years, percent, 2012	23.5%	22.9%
Persons 65 years and over, percent, 2012	15.9%	14.6%
Female persons, percent, 2012	49.7%	50.9%
White alone, percent, 2012 (a)	97.3%	80.1%
Black or African American alone, percent, 2012 (a)	0.5%	14.3%
American Indian and Alaska Native alone, percent, 2012 (a)	0.5%	0.7%
Asian alone, percent, 2012 (a)	0.4%	2.6%
Native Hawaiian and Other Pacific Islander alone, percent, 2012 (a)	Z	Z
Two or More Races, percent, 2012	1.3%	2.2%
Hispanic or Latino, percent, 2012 (b)	2.4%	4.6%
White alone, not Hispanic or Latino, percent, 2012	95.1%	76.2%
Living in same house 1 year & over, percent, 2008-2012	90.4%	85.4%
Foreign born persons, percent, 2008-2012	1.4%	6.0%
Language other than English spoken at home, pct age 5+, 2008-2012	2.6%	9.0%
High school graduate or higher, percent of persons age 25+, 2008-2012	90.9%	88.7%
Bachelor's degree or higher, percent of persons age 25+, 2008-2012	17.3%	25.5%
Veterans, 2008-2012	5,071	692,582
Mean travel time to work (minutes), workers age 16+, 2008-2012	26.5	23.9
Housing units, 2012	27,007	4,525,004
Homeownership rate, 2008-2012	85.7%	72.8%
Housing units in multi-unit structures, percent, 2008-2012	6.5%	18.0%
Median value of owner-occupied housing units, 2008-2012	$137,200	$128,600
Households, 2008-2012	22,455	3,818,931
Persons per household, 2008-2012	2.62	2.53

Per capita money income in past 12 months (2012 dollars), 2008-2012	$24,995	$25,547
Median household income, 2008-2012	$53,541	$48,471
Persons below poverty level, percent, 2008-2012	10.8%	16.3%
Geography QuickFacts	**Barry County**	**Michigan**
Land area in square miles, 2010	553.09	56,538.90
Persons per square mile, 2010	107.0	174.8
FIPS Code	015	26
Metropolitan or Micropolitan Statistical Area	Grand Rapids-Wyoming, MI Metro Area	

(a) Includes persons reporting only one race.
(b) Hispanics may be of any race, so also are included in applicable race categories.
Z: Value greater than zero but less than half unit of measure shown
Source U.S. Census Bureau: State and County QuickFacts

Allegan County has almost double the population of Barry County with 112,531 estimated in 2013; an increase of 1.0% from the 2010 level of 111,408. Allegan County is larger in area than Barry County, 825 square miles versus 553 square miles. It also is slightly less rural in character than Barry County, with 135 persons per square mile.

Allegan County and Barry County residents will find a wide variety of recreational opportunities within the region, including inland lakes and forested areas as well as access to Lake Michigan. With 5,200 acres, Yankee Springs Recreation Area provides one the largest recreational opportunities in the region.

A.3 HISTORY OF YANKEE SPRINGS RECREATION AREA

The area was historically part of the borderland region between the Potawatomi (Bodowadomi), the Ottawa (Odawa), and the Chippewa (Ojibwa) branches of the Algonquin family of tribes. The various tribes were attracted by the abundant game and wild fruit found around the numerous lakes and forests of the region.

In 1833, the territorial legislature passed an act for the establishment of a territorial road to link Middle Village (Middleville) to an existing road between Grand Rapids and Kalamazoo. This former Indian trail became a busy stagecoach route shuttling passengers between Battle Creek and Grand Rapids providing a route for pioneer migration into and through Barry County. The Yankee Springs Inn was a famous inn that served stagecoach passengers and travelers through what is now the east end of the Yankee Springs Recreation Area from the mid-1830s to the mid-1850s.

Towards the end of the nineteenth century, there was an exodus from the area as agricultural pursuits slackened due to the first settlers growing crops that stripped the soil of its fertility. Recreation increased around the shores of Gun Lake and the numerous smaller lakes in the region. Early resorts and cottages established in the area served as camp meeting sites for church associations and rustic getaways for city dwellers from southern Michigan, Ohio, Illinois, and Indiana. Yankee Springs continued to develop as a recreation spot with the loss of productive farmlands during the early 1900s.

Federal land-related aid to Yankee Springs came in 1935 when the regional inspector with the Resettlement Administration classified the lands around Yankee Springs to be submarginal and therefore eligible for funding as a Work Relief Project. Later that year, final approval of the project was given and the Yankee Springs Recreational Demonstration Project was begun.

The Recreational Demonstration Area (RDA) program was implemented to acquire submarginal farmlands for the dual purpose of conservation and recreation. In the course of its existence, the National Park Service (NPS), through the RDA program, developed a total of 34 group camp facilities in 24 states. Two RDAs were established in Michigan, at Yankee Springs and Waterloo, which provided four group camp facilities, two at each site. The camps for Yankee Springs were named Chief Noonday and Camp Long Lake. The camp layouts and the designs for the camp facilities were created by the NPS. Construction work on the camps was done by the Civilian Conservation Corps (CCC). In addition to the camp development, the NPS carried out extensive erosion control plantings and reforestation of denuded areas.

One of the many structures at Yankee Springs Recreation Area built by the CCC.

Through the RDA program, the NPS sought to initiate a conservation program along with a social welfare program. Landscape architecture and good design were key to the success of the group camps, ensuring that the physical form of the land was well integrated into the camp plan. The RDA utilized decentralized camps based on the innovative ideas of NPS landscape architect Julian Salomon. The architecture of the camp buildings reflected the rustic architectural style developed by the NPS for state and national parks. This style was based on the great camps of the Adirondacks and the Arts and Crafts movement. The buildings at both the Chief Noonday and Long Lake camps were designed by Michigan architect, Ernest Hartwick. The buildings at Long Lake are less rustic and more Arts and Crafts in design and use less fieldstone decoration than the more rustic style buildings at Chief Noonday. The landscape architect for both camps was Theodore Zaetsch of Lansing, Michigan.

Camp Chief Noonday opened in 1938 and Camp Long Lake opened in 1939. The Yankee Springs Recreation Area was turned over to the State of Michigan's Department of Conservation on July 1, 1943. At that time, facilities were reported to include the two group camps and a public use unit on Gun Lake, with picnic grounds, playgrounds, beach, bath house and parking lot. Use of the group camps was strong until the 1970s.

Major development at the park occurred in the mid-1950s, when fill was added to Murphy's Point to facilitate the development of a day-use area with roads and parking for 1,500 cars, a boat launch, beach, bath house, modern toilets, and large picnic area. The Gun Lake campground was also planned, separated from the day use area by a man-made lagoon.

The 1966 Yankee Springs Recreation Area Master Plan identified the need for expansion of both the day-use area and camping facilities in response to increased demand as a result of the growing population trend in the surrounding metropolitan areas. It recommended expansion of the day-use facilities south on Murphy's Point, to include a new beach area and expanded parking, an additional 167 modern campsites adjacent to the existing campground facility and expansion of the Deep Lake rustic campground to a capacity of 126 sites. Improvements were made with the exception the expansion of the modern campground, which was never implemented. In 1981, 20 cabins from Chief Noonday were sold and moved. That same year, 24 cabins from Camp Long Lake were sold and moved. With the exception of the loss of these cabins, both group camps retain a high degree of their historic integrity.

A.4 LAND OWNERSHIP

Land Ownership

The lands that make up Yankee Springs Recreation Area have been acquired by the State of Michigan through a variety of funding sources. Often, conditions attached to the original funding source, or other details of the property transaction, encumber the future use of the land.

Funds:

The information below outlines the funding sources used at Yankee Springs Recreation Area. The Funding Source Map graphically illustrates the distribution of funding sources, see Section A.13, Resource Maps.

- Disposition/Gift - The overwhelming majority (4,123 acres) of the Recreation Area along with its facilities was deeded to the State of Michigan from the United States Government (Secretary of the Interior) in 1943 as authorized by Public Law 594. The disposition of the recreational demonstration projects was conditioned upon the property being used exclusively for public park, recreational and conservation purposes. Additional smaller parcels were gifted to the Recreation Area or acquired through land exchange in the 1940s and 1950s.

- Michigan Land Trust Fund - Nine parcels totaling almost 56 acres were funded by this source. Public Act 204, 1976 created the State Recreation Land Trust Fund, funded by the sale of oil, gas and mineral leases on state land. Lands purchased using this source must be used for recreation purposes.

- Pittman/Robertson Wildlife Conservation Act - Established in 1937, Pittman Robertson created an 11 percent excise tax on guns, ammunition, bows, arrows and other hunting related equipment. These funds are apportioned to state wildlife agencies and matched by the states with their hunting license fees to pay for wildlife restoration. Approximately 139 acres of the Recreation Area bordering the State Game Area were acquired using this fund, which has specific restrictions for use.

- Michigan Natural Resources Trust Fund (MNRTF) - The MNRTF was established by Public Act 101 of 1985 to provide funding for the acquisition of land for resource protection and public outdoor recreation. The funding is derived from the sale and lease of state owned mineral rights. Two small parcels within Recreation Area boundary, were purchased using MNRTF monies and must be used for public outdoor recreation purposes in perpetuity.

- Federal Land and Water Conservation Fund (LWCF) - The LWCF is a federal program administered in Michigan by the Department of Natural Resources on behalf of the National Park Service (NPS). Land purchased using LWCF funding must be used for public outdoor recreation purposes. One parcel was purchased using this fund in 1970, with the required 50% match provided by Special Legislation funds.

- Recreation Bond Fund - 29 acres was purchased in 1975 using the old Recreation Bond Fund, founded by Act 257, P.A. 1968, matched with Special Legislation dollars.

- Game and Fish - One parcel of 66 acres, south of Chief Noonday Lake, was purchased in 1994 using the State Game and Fish Fund (Part 435, Act 451, P.A. 1994). The fund is derived from fishing and hunting licenses or mineral revenue from fishing and hunting license purchased land deposited into the Game and Fish Protection account for the purposes of wildlife and fisheries management.

Easements

The department, county, and companies listed below have interests within the state park:

- Ameritech – Easement needed to provide phone service. Easement granted 01/11/1999

- Barry County – Easement needed for special needs. Easements granted 04/19/1951, 05/15/1953, and 04/25/1977

- Barry County Road Commission – Easement needed to keep county roads clear and safe year-round. Easements granted 06/10/1955 and 01/11/1957

- Consumers Power Company – Easement needed for electrical service. Easements granted 09/05/1952, 09/29/1952, 06/12/1962, 05/30/1970, 05/23/1972, and 04/19/1978

- Michigan Bell Telephone Company – Easement needed to provide phone service. Easements granted 11/08/1948, 02/08/1950, 09/05/1952

- Michigan Department of Transportation – Easement needed to survey and improve the roads within the park. Easements granted 05/11/1978, and 04/23/1979

- O & E Electrical Company – Easement needed for electrical service. Easement granted 1/11/1971

- SBC Ameritech - Easement needed to provide phone service. Easement granted 05/20/1994

A.5 LEGAL MANDATES

For all park General Management Plans, legal mandates are identified that serve to further guide the development of the General Management Plan and subsequent Action Plans. For our planning purposes, the term "Legal Mandates" refers to not only state law, but also the administrative tools of "Policy" and "Directive" of the Natural Resource Commission, the Department, and the Parks & Recreation Division. Examples include Wildlife Conservation Orders, Orders of the Director, and all other laws, commission orders, and rules or directives that apply to the park. Specific to Yankee Springs Recreation Area, several legal mandates have been identified, which are listed below.

FEDERAL STATUTE

ENDANGERED SPECIES ACT, 1973
The purposes of this Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the Act.
NATIONAL HISTORIC PRESERVATION ACT, 1973 (As amended)
This is the primary federal law governing the preservation of cultural and historic resources in the United States. The law establishes a national preservation program and a system of procedural protections which encourage the identification and protection of cultural and historic resources of national, state, tribal and local significance.
NATIONAL TRAILS SYSTEM ACT, 1968 (P.L. 90-543, as amended through P.L. 111-11, March 30, 2009)
This Act established the Appalachian and Pacific Crest National Scenic Trails and authorized a national system of trails to provide additional outdoor recreation opportunities and to promote the preservation of access to the outdoor areas and historic resources of the nation. The National Trails System includes four classes of trails: National Scenic Trails (NST), National Historic Trails (NHT), National Recreation Trails (NRT) and Connecting or Side Trails. The North Country National Scenic Trail (NCNST) was designated by P.L. 96-199 in 1980.

STATE STATUTE

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (NREPA) AND AMENDMENTS	
PA 451 of 1994, Part 5	Gives the DNR authority to make rules to support its mission. This includes State Land Rules, Land Use Orders, Wildlife Conservation Orders, Fisheries Orders and Watercraft Control.
PA 451 of 1994, Part 31 Water Resources Protection	Provides authority to DEQ to require a permit for any occupation, construction, filling, or grade change within the 100-year floodplain of a river, stream, drain, or inland lake.
PA 451 of 1994, Part 301 Inland Lakes and Streams	Requires a permit from the state (DEQ) to undertake certain activities relating to inland lakes and streams, such as dredging, fill, marinas, structures, alteration of flow, etc.
PA 451 of 1994, Part 419 Hunting Area Control	Section 324.41901 establishes the powers of the Department to establish safety zones for hunting.
PA 451 of 1994, Part 741 State Park System	The department shall create, maintain, operate, promote, and make available for public use and enjoyment a system of state parks to preserve and protect Michigan's significant natural resources and areas of natural beauty or historic significance, to provide open space for public recreation, and to provide an opportunity to understand Michigan's natural resources and the need to protect and manage those resources.
PA 451 of 1994, Part 761 Aboriginal Records and Antiquities	The state reserves the exclusive right and privilege to all aboriginal records and other antiquities including those found on the bottomlands of the Great Lakes.
PA 35 of 2010, Part 741 Recreation Passport	This act amended the Michigan Motor Vehicle Code to provide for a State Park and State-operated public boating access site “Recreation Passport” that a Michigan resident may obtain by paying an additional fee when registering a motor vehicle.
PA 46 of 2010 Natural Resource and Environmental Protection Act	Amends the Natural Resources and Environmental Protection Act (PA 451 of 1994) with a finding that a statewide system of trails, trailways, and pack and saddle trailways is in the best interest of the state; requires the DNR to establish an “adopt-a-trail” program that allows volunteer groups to assist in maintaining and enhancing Michigan trailways, pack and saddle trailways, and rail-trails; and creates the Michigan Snowmobile and Trails Advisory Council within the department.

PUBLIC HEALTH CODE	
PA 368 of 1978, Part 125, Campgrounds, Swimming Areas and Swimmers' Itch	Established to protect and promote the public health by establishing health code requirements and regulations that all public (including DNR) and private campgrounds must meet. Campground wastewater system must meet the construction permit, design, and operation requirements under Michigan's Public Health Code.
PA 451 of 1994, Part 22 – Campground Wastewater Systems	These rules apply to all campground wastewater systems and regulate discharges to groundwater; administered by the Water Division, Groundwater Discharge Unit.

ORDERS

The following Orders apply specifically to Yankee Springs Recreation Area

Land Use Orders of the Director

There are two land use orders relating specifically to Yankee Springs Recreation Area:

- **5.2 Possession or consumption of alcoholic beverages in certain state parks and recreation areas, prohibited conduct.** Order 5.2 A person shall not do any of the following:

  (4) Possess or consume an alcoholic beverage within the following described locations from April 15 through Labor Day:
  (e) Yankee Springs RA - Gun Lake Day-Use Area
  (7) Possess or consume an alcoholic beverage at any time within the following described locations:
  (f) Yankee springs RA – Deep Lake Campground, mountain bike parking lot, and boating access site 8-18, T3N, R10W, section 26, Barry County.

Fisheries Order

FO-206.15A

- **Special Fishing Regulations for Warmwater Species on Select Waters**
  By authority conferred on the Natural Resources Commission and the Department of Natural Resources by Part 487 of 1994 PA 451, MCL 324.48701 to 324.48740, it is ordered that effective November 5, 2015, the following section(s) of the Fisheries Order shall read as follows:

  The following special regulations are in effect for warmwater species on the selected waters and supersede those regulations that in any way conflict with those listed below:

Barry County

Williams Lake: the fishing season shall be the last Saturday in April through December 15, inclusive. The daily possession limit is zero (0).

Wildlife Conservation Orders

Wildlife is owned by all the people of the state of Michigan, and protection is administered and managed by the Michigan DNR. Hunting and trapping regulations including methods of take, bag limits, license quotas, and season dates are established by the Natural Resources Commission (NRC) and are described in the Wildlife Conservation Orders.

Under Section 7.59 (1) a person shall not take an animal from those lands of the Yankee springs recreation area described as follows: All lands in the S 1/2 of section 16, the SE 1/4 of section 17, the NE 1/4 of section 20, and the N 1/2 of section 21, lying north of Chief Noonday road and the SW 1/4 of section 21, lying southwest of Sand Trail road, all of section 27 lying north of Gun lake road and west of Bassett road; all of section 28 lying north of Gun lake road and southwest and southeast of the forked sand trail roads; and all of sections 29 and 32, T3N, R10W, Yankee Springs township, all in Barry County. Signs containing the hunting closure shall be posted in such a manner and at such locations as will provide reasonable notice of the closure to the public. History: Eff. Mar 31, 1989; Am. 16, 1989, Eff. Aug 1, 1989: Am. 9, 1994, Eff. Sep 1, 1994.

STATE LAND RULES

Parks and Recreation Areas – State Land Rules are issued by authority conferred on the Michigan DNR by Section 504 of 1994 PA 451 MCL 324.504. The rules cover entry, use and occupation of state lands and unlawful acts.

LOCAL REGULATIONS

Watercraft Controls

Regulation No. 8, Barry County.

- **R 281.708.1 Gun Lake, canals on Englands Point; slow--no wake speed.**

  Rule 1. On all waters of the canals of Gun Lake, whose entrance is on the west side of Englands Point, sections 5 and 6, town 2 north, range 10 west, township of Orangeville, county of Barry, state of Michigan, lying easterly of a line 750 feet west of and parallel to the east section line of section 6, no operator of any motorboat shall exceed a slow--no wake speed. History: 1979 AC.

- **R 281.708.3 Cuddy drain to Gun Lake; slow--no wake speed.**

  Rule 3. On the waters of Cuddy drain to Gun Lake, sections 19 and 30, town 3 north, range 10 west, Yankee Springs Township, Barry County, it shall be unlawful for the operator of a vessel to

- **R 281.708.7 Deep Lake; slow--no wake speed.**

  Rule 7. On the waters of Deep Lake, section 26, T3N, R10W, Yankee Springs Township, Barry County, it is unlawful for the operator of a vessel to exceed a slow--no wake speed.

History: 1979 AC.

- **R 281.708.8 Gun Lake; channels and canals; slow--no wake speed.**

  Rule 8. On the waters of the canals and channels connected to Gun Lake, sections 19 and 30, T3N, R10W, Yankee Springs Township, Barry County, it is unlawful for the operator of a vessel to exceed a slow--no wake speed. History: 1979 AC.

A.6 RELATIONSHIP OF YANKEE SPRINGS TO OTHER RECREATION RESOURCES

Federal and State Recreation Resources near Yankee Springs Recreation Area

- Barry State Game Area in Barry County is approximately 16,755 acres of dedicated wildlife conservation and management land and borders much of the Recreation Area.
- Middleville State Game Area is located approximately seven miles northeast of Yankee Springs Recreation Area. It provides 4,000 acres of recreation land available for hunting, and wildlife viewing.
- Edger Waterfowl Production Area (WPA), established by the U.S. Fish and Wildlife Service in 2007 is located between the city of Hastings and Yankee Springs Recreation Area. The WPA is open for public use including hunting and other wildlife dependent activities such as wildlife observation, photography, and environment education. No vehicles or equestrian use is permitted.
- Allegan State Game Area located approximately 35 miles southeast of Yankee Spring Recreation Area is approximately 50,000 acres and offers a wide variety of year-round recreational activities. The Game Area is noted for its extensive hiking and equestrian trails.
- Fort Custer Recreation Area is located west of Battle Creek in Calhoun County and approximately thirty miles southeast of Yankee Springs Recreation Area. The 3,033 acres feature second growth forests and remnant areas of prairie, three lakes, the Kalamazoo River, an extensive trail system for hikers, mountain bikers and equestrians, and a modern campsite.
- Ionia Recreation Area, located 45 miles to the northeast, is 4,500 acres of flat to rolling terrain, including four miles of the Grand River floodplain. Recreation opportunities include, modern and equestrian camping, hiking, equestrian and mountain bike trails, beach, paddling and boating, fishing, hunting, and a field trial area.
- Saugatuck Dunes State Park, located 58 miles west, provides rustic facilities and sandy beaches on the Lake Michigan shoreline within an hour's drive of Yankee Springs Recreation Area.

Municipal and County Recreation Land

- Allegan County
  - Bysterveld County Park - Located in Dorr Township, the 70-acre natural resource area contains 1.5 miles of ADA accessible nature trails, fishing pier, wetlands, meadows, ADA restroom facilities, picnic shelter and a playground.
  - Gun Lake County Park – The four-acre park is located on the west shore of Gun Lake. The park provides the community with 45 feet of beach, a playground, basketball court, picnic area, a pavilion, horseshoe pits, and a boat launch with an ADA accessible dock.
  - Silver Creek Park & Campground – Located in Heath Township between Saugatuck Dunes State Park and Yankee Springs Recreation Area, the 320 acre park serves a regional equestrian park. The park contains primitive campgrounds with 65 horseman sites and 10 non-horseman sites, trails, trout stream and is adjacent to Allegan State Game Area's special use area for horses.

- Barry County
  - Charlton Park - Located on Thornapple Lake between Hastings and Nashville, the 342-acre park is comprised of an historic village and 322 acres of lakeshore, wetlands and grassed and forested lands. The village contains a museum and 22 restored buildings, all original to Barry County. Approximately 80-acres is designated for active and passive recreation including a boat launch, volleyball courts, a pavilion, two picnic shelters, and 2 miles of trails for hiking and cross-country skiing. According to the Barry County Park and Recreation Plan (2014-2018), the park hosts a variety of special events throughout the year
  - McKeown Bridge – Consisting of 23-acres of land, the McKeown Bridge facility includes the county's last metal truss highway bridge. Redevelopment of the park in 2010 provided the site with two barrier free parking locations, hard surface walkways that link all of the park's facilities, and two barrier-free fishing decks. Also included in the park are a shelter, canoe launch, a riverside boardwalk, a quarter-mile path, and a picnic facility.
  - Norris Road Forest Property – Currently managed by the Barry County Michigan State University Extension, the Norris Road Forest Property consists of 40-acres of undeveloped land, located in Orangeville Township. The State of Michigan deeded the property to the county in 1938 for forestry usage.

- Yankee Springs Township
  - Yankee Township Park – The Yankee Township Park consists of a picnic pavilion and playground equipment.

- Orangeville Township
  - Orangeville Township Park – The Orangeville Township Park consists of softball fields, a designated youth soccer area, horseshoe pits, a picnic pavilion and playground equipment.

- City of Hastings
  - The City of Hastings provides two community parks: Tyden Park featuring 11-acres on the Thornapple River near the City center, and Fish Hatchery Park, a former DNR property. In addition, there are several less developed natural areas and three neighborhood parks. These sites provide a full range of recreation facilities including sports fields and courts, playgrounds, picnic facilities, fishing and canoe/kayak access, hiking trails, disc golf course, dog park and skate park.
    - Hastings Riverwalk is a 2.2 mile paved non-motorized trail following the river corridor and linking several of the City's parks. An extension is currently construction, scheduled for completion in 2015.

- Village of Middleville
  - The Village of Middleville offers eight recreational sites. Lions Spring Park consists of 24 acres of land and provides the community with a baseball/softball diamond, disc golf, picnic shelter, play equipment and natural area. Crane Road Ball Fields offers three ball fields for community recreational programming. Other smaller sites in the City provide a skate park, walking and mountain bike trails and picnic facilities and river access on the Thornapple River.
  - The City of Middleville owns and maintains a 3.6 mile paved, non-motorized, section of the Paul Henry Thornapple Trail between Middleville and Irving.

- City of Wayland
  - Four small parks in the City of Wayland offer basketball courts, tennis courts, picnic shelters, a gazebo, skate park, walking paths and playground equipment.
  - Rabbit River Natural Trail – this 35-acre site offers an accessible trail along the Rabbit River and a picnic pavilion and restrooms. The site was developed in 2011with the assistance of a Michigan Natural Resource Trust Fund grant.

Semi-Public/Private Recreational Facilities

- Barry Expo Center – The fairgrounds are located on a 160-acre site and consists of 6 barns, 3 outdoor arenas, a half mile track, a 260 site campground, and an expo center with two banquet halls.
- Historic Bowens Mills – Located on 19-acres, Historic Bowen's Mills hold a still operational 1864 grist and cider mill. They offer site visitors a chance to view several historic structures from the 1800's and host history encampments.
- YMCA of Barry County and Camp Algonquin – The YMCA provides youth and adult sports programs, as well as summer and youth social programs. Camp Algonquin provides daytime and High Adventure activities and a facility for community use.
- YMCA Camp Manitou-lin - 155 acre Camp Manitou-lin on Barlow Lake features fishing and water sports areas, fitness, hiking and nature study trails, volleyball, baseball, basketball and playground facilities, tennis courts and a high ropes course.
- Battle Creek Outdoor Education Center - This 176-acre facility located near Delton and owned by the Battle Creek Public Schools provides school camping for 5th and 6th graders from approximately 40 regional schools. Recreation opportunities include swimming, and boating on Clear Lake, hiking trails and a high-ropes course.
- Circle Pines Center - Circle Pines Center is a member-owned and run non-profit cooperative organization featuring a children's summer camp and year round retreat and conference center with programs for families, children and adults. The co-op owns 294 acres of land with trails for hiking and cross-country skiing, rolling hills, hardwood and pine forests, meadows and frontage on Stewart Lake.
- Camp Michawana - A Christian based campground, Camp Michawana consists of 188-acres of rolling hills, woodlands and wetlands. It offers year-round camping opportunities with access to swimming, fishing, zip lines, a climbing wall, games, riding trails, playgrounds, winter sports, and target sports.
- Pierce Cedar Creek Institute - Set on 661 acres, this environmental education center provides visitors with a unique exposure to a rare blend of diverse habitats including wetlands, forests, marshes, streams, lakes, and prairies. Visitors can explore over seven miles of nature trails, participate in programs and classes, or stop by the Visitor Center.
- Kellogg Biological Station - The 4000 acre Lux Arbor facility, which extends into Kalamazoo County, includes Kellogg Farm, Kellogg Bird Sanctuary and the 32 acre Eagle Heights Conference facility. The Farm and Bird Sanctuary are open for self-guided and public tours at any time year round.
- Barry Conservation Club – Located in Hastings, the club features a clubhouse and shooting ranges.
- Michigan Audubon Warner Sanctuary is a 100-acre wildlife sanctuary that contains one of Barry County's last remaining stands of old growth forest.
- Michigan Audubon Otis Sanctuary - this 120 acre sanctuary borders Glass Creek and has hiking trails, a canoe access, and a cabin available for rent by members.

- Golf Courses
  - Golf courses open to the public within reach of Yankee Springs Recreation Area, include Yankee Springs Golf Course offering 27 holes of golf on 200 acres. Amenities onsite include a practice range and putting green, a full service golf shop and a restaurant and bar. Gun Ridge Golf Course features nine holes, a pro shop and practice facilities.

- Campgrounds
  - There are several privately owned and operated campgrounds in the Yankee Springs area. The closest campgrounds are Sharp Park Campground, located just east of the Recreation Area, which offers a beach and boat access with modern campsites, and Parkside Campground in Middleville, with a small campground and RV facilities.

National, State, and Regional Trails

- North Country National Scenic Trail (NCNST) - This nationally designated trail (established by an Act of Congress in 1980) extends approximately 4,600 miles across seven states from New York to North Dakota. The trail passes through Yankee Springs Recreation Area and Barry State Game Area and is maintained by the Chief Noonday Chapter. Locally, the trail connects Yankee Springs to the Paul Henry Thornapple Trail in Middleville and Fort Custer Recreation Area, although much of this route is currently on roads.
- Paul Henry Thornapple Trail – This is a non-motorized rail trail that runs from Grand Rapids to Jackson. Barry County owns seven miles of the trail from River Road, southeast of Hastings to Nashville. The trail is transected in several parts by land under private ownership. Within Barry County, 3.85 miles of paved pathways provide an accessible trail.
- Iron Belle Trail – this DNR initiative will create a 1,259 mile hiking trail from Belle Isle in Detroit to Ironwood on the Wisconsin border. Through Yankee Springs Recreation Area the Iron Belle will use the route of the NCNST.
- Allegan County Equestrian Trail System – With over 50 miles of trails in southwest Michigan, the equestrian trails connect Pine Point, Ely Lake and Silver Creek campgrounds.
- Snowmobile Trails – Two State Designated Snowmobile Trails are in the vicinity of the Rercreation Area (although not connected). Route 59 is a 202 mile trail from Berrien County, through Allegan County and continuing north of the Village of Middleville. Route 591 is a 36 mile trail running north of Hopkins and Wayland to Middleville.

Boat Access Points

- There are ten boating access sites within Yankee Springs Recreation Area as described in the recreation Resources Section.
- The Yankee Springs Recreation Area staff also administers the following: Airport Road (Thornapple River access point), Irving Road (Thornapple River access), Carter Lake, Green Lake, Middle Lake, Leech Lake, Long Lake Cloverdale, Duncan Lake and Thornapple Lake.

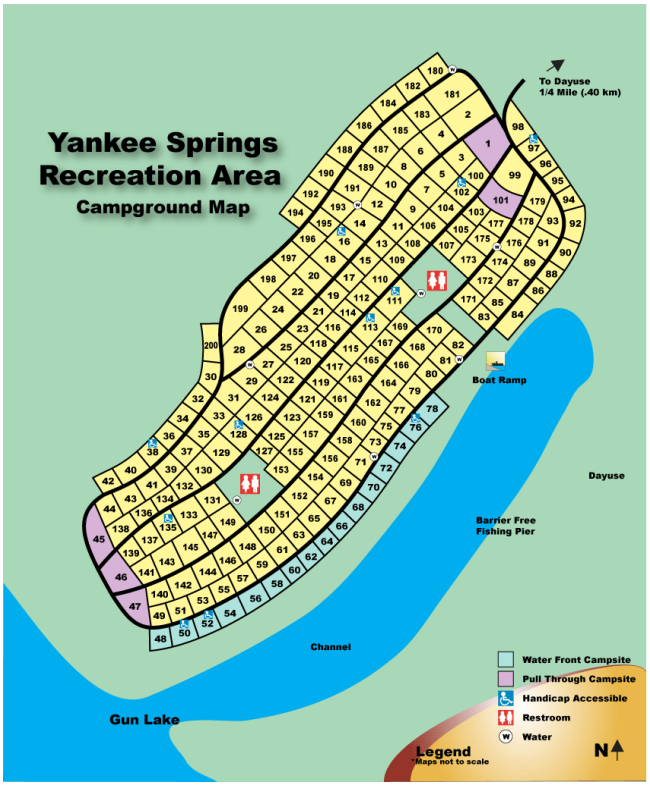
A.7 RECREATION RESOURCES

Yankee Springs Recreation Area is a multi-use park with a variety of recreation opportunities including camping, picnicking, metal detecting, fishing, hunting, snowmobiling, hiking, mountain biking, orienteering and horseback riding. As a year-round park, cross-county skiing on its more than 10 miles of Nordic ski trails, snowmobiling, snowshoeing and ice fishing are all popular winter activities. Three special points of interest in the park are: Devil's Soup Bowl, a glacial kettle depression, Graves Hill Overlook and Pines Scenic Area, accessible from the extensive trail systems. Favorite fair-weather activities include 30 miles of hiking trails, 13 miles of challenging mountain bike trails, 10 miles of horseback trails along with an additional 9 mile loop located in the Barry State Game Area. There are also two public beaches and numerous picnic shelters and day use facilities. There are two universally accessible fishing piers at Gun Lake and Deep Lake campgrounds. Ten lakes are located within the park boundaries providing excellent fishing and water sports of all kinds. The campgrounds are available April 1st through November 30th. The cabins are available year-round.

FACILITIES

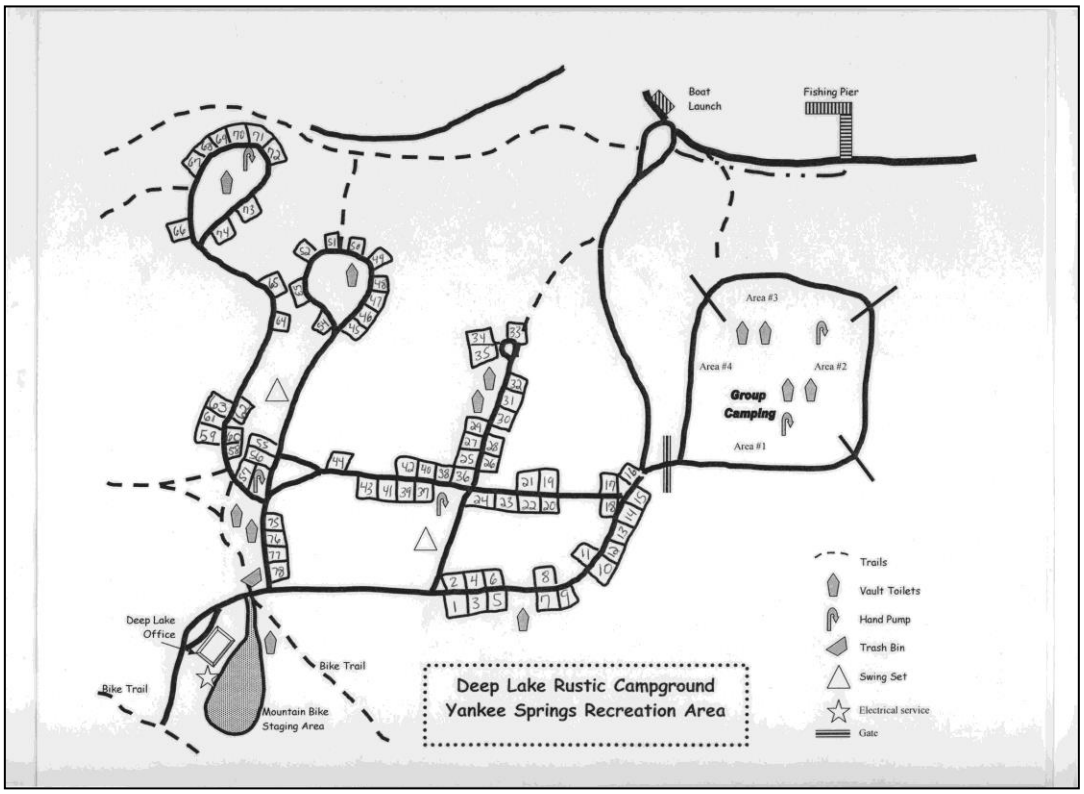
<u>The Gun Lake Campground</u>

The modern campground has 200 sites (shown below) located on the west side of the park. Gun Lake campground offers electrical service, two restroom facilities, eight drinking water access sites, eleven accessible campsites, a sanitation station and dumpsters for trash removal. It also includes a swimming beach and a boat ramp at the campground.



Deep Lake Campground

Yankee Springs Deep Lake Campground is a rustic facility with 78 site specific camp sites. This campground is located next to Deep Lake on the east side of the park, and has access to a fishing pier and boat launch as well as miles of challenging mountain bike trails. The group campground consists of four areas with a maximum occupancy of 25 per area for a total of 100.



Campers utilizing a site at Yankee Springs Recreation Area

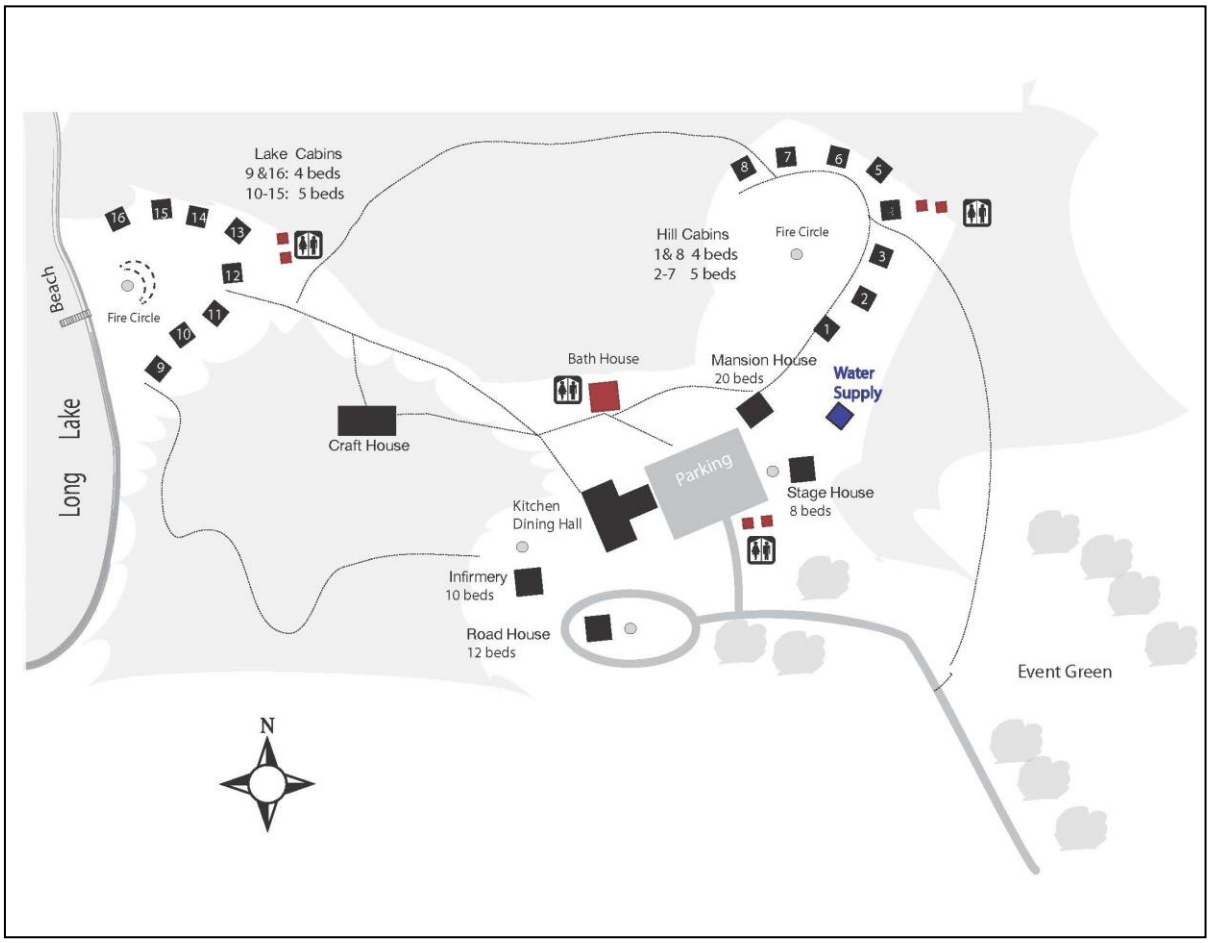
Chief Noonday Outdoor Center

The Chief Noonday Outdoor Center, also known as the Chief Noonday Group Camp (formerly Mud Lake Camp), currently offers four cabins for rent, sleeping between four and eight. The camp, constructed in 1936 is listed on the National Register of Historic Places. Recently, the park has begun to renovate the cabins, with the Crane House cabin being the first to be refurbished. Three of the larger cabins, Bear Den, Crane House, and Deer Lodge, and one smaller cabin, Chickadee Cabin, have been renovated with wooden bunk beds, electricity, microwave, dining area, and outdoor fire circle and picnic table. The Bear Den will open in 2015 with similar improvements as Crane House and Deer Lodge. The rustic cabins are also served by vault toilets and parking located nearby. See Section A.9, Historic and Cultural Resources for a diagram of the outdoor center.

Rustic cabins at the Chief Noonday Outdoor Center

Long Lake Outdoor Center

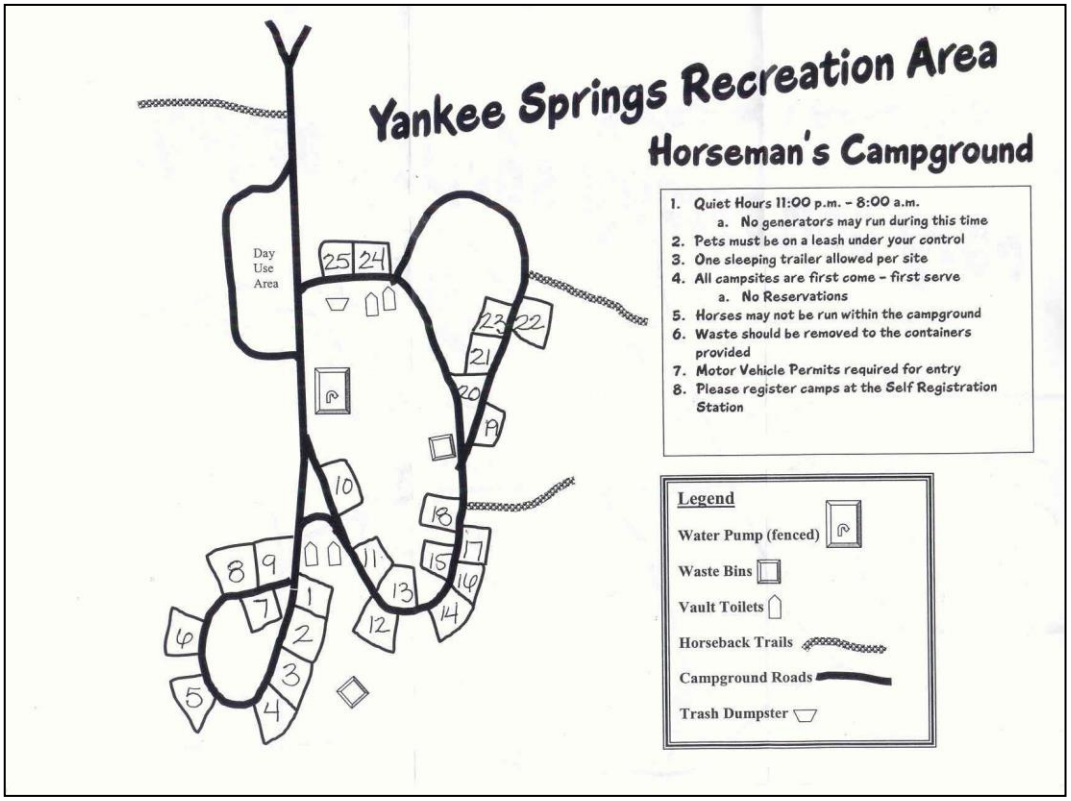
The Long Lake Outdoor Center, listed on the National Register of Historic Places, was built by the Civilian Conservation Corps in 1938. The DNR maintains ownership of the Outdoor Center but the 300 acre facility is leased, managed and maintained privately. The Outdoor Center consists of a lodge with fully operational kitchen and dining facilities, a modern bathhouse, and 20 cabins that sleep up to 120 persons. The cabins are leased individually or for group activities. The Outdoor Center also provides a boat dock onto the serene and peaceful Long Lake.



Long Lake Outdoor Center map.

Horeseman's Campground

Within Yankee Springs Recreation Area, equestrians will find ten miles of trails along with a campground designed for equestrian's overnight accommodations. The Horseman's Campground is located along the horseback trail in the southeast portion of the park. There is a 25 site rustic campground that is equipped with vault toilets, a group fire ring and gathering space and kiosk. These sites were specifically built to accommodate most horseback riders providing space for trailer parking, hitching posts and group activities.



Equestrian campground

Day Use Areas

Gun Lake Beach

Gun Lake Beach is located along the western edge of Gun Lake and is the main day use beach. Bathrooms, a concession building, and picnic tables and grills can be found in this area. A designated swimming area is also provided.

Murphy's Point

Formerly designated as a beach, Murphy's Point is now host to a variety of recreational activities. Murphy's Point consists of a large shoreline area frequented by both boaters arriving through the park gates and residents of Gun Lake. Although, traditional use has changed over the years the area is now used for multiple recreational activities including: picnicking, boating, swimming, kite and wind surfing, along with ice fishing during the winter months. Murphy's Point Shelter lies at the end of the peninsular day use area. The area includes a roofed picnic shelter with open sides, electricity, picnic tables, a large grill and trash disposal nearby. Restrooms for the area are located nearby in a former concession building.

In the 1966 Master Plan, it was recommended that Murphy's Point be expanded to include a new beach and additional parking. The Murphy's Point beach has not been designated as such for several years and the concession building is used for storage and restroom facilities only.

Roosevelt Beach

Roosevelt Beach was developed in the late 1930's on the east side of the day use area as the original Gun Lake Bathing Beach. Roosevelt Beach Shelter, a historic structure, was one of the first buildings built by the National Park Service in the park. The original CCC structure was renovated in 1971. As it now stands, this large building has picnic shelter facilities on one end and bathrooms on the opposite end with a pass-through area between. The building is partially enclosed with walls on each end. Access to Gun Lake consists of a grassy rise near the shelter and on each side, descending to a small sandy beach. The lake floor is somewhat stony in places.

Roosevelt Beach

Boating Access Sites

Boat access site.

There are ten access sites located within Yankee Springs Recreation Area.

- Gun Lake Day Use Area contains a large improved ramp and a shallow water launch area
- Gun Lake Campground and Deep Lake Campground offer improved boating ramps
- Unimproved Boating Access Sites include: Baker Lake, Payne Lake, Chief Noonday Lake, Hall Lake, Long Lake, and Williams Lake.
- A hike-in/carry-in access site is located at McDonald Lake

Trails

Yankee Springs Recreation Area offers a trail network that supports year-round activities use by hikers, mountain bikers, equestrians, and cross-country skiers. The park's 38-mile trail system also connects with trail networks within the Barry State Game Area and includes a portion of the North Country Trail National Scenic Trail. Yankee Springs Recreation Area offers the following trails:

- Hall Lake Trail (2 Miles)

  This trail starts across from the entrance of the Long Lake Outdoor Center, follows the shoreline of Hall Lake, and continues to Graves Hill.

- Chief Noonday Trail (4 Miles)

  This trail was named after a famous Ottawa Indian Chief who resided in the area. The trail begins just off Chief Noonday Road and travels to the Devil's Soup Bowl and returns. McDonald Lake Overlook gives a panoramic view of the area along the way.

- Deep Lake Trail (4 Miles)

  This trail starts across from the campground office. The trail winds around the bog area at the south end of Deep Lake, proceeds across open fields and old farm homesteads, and leads to the Devil's Soup Bowl where it winds around the little Soup Bowl and returns by the trail north of Deep Lake. Portions of this trail are shared with the Mountain Biking Trail.

- Long Lake Trail (5 Miles)

  This trail adjoins the Sassafras Nature Trail and has a starting point from Briggs Road just north of the area headquarters. The trail enters a boardwalk crossing a bog area, and leads to Grave Hill. From this point, the trail leads to the Devil's Soup Bowl where it connects with the Chief Noonday Trail.

- Sassafras Nature Trail (1 Mile)

  The trail begins by the Gun Lake Campground office. This trail was recently converted to an interpretive trail with fourteen informational markers, benches, and a boardwalk.

- Gun Lake Trail (0.5 Miles)

  This non-motorized, accessible trail connects the Gun Lake Campground with the day use area. Starting at the campground, the trail enters a boardwalk crossing a bog area, then continues parallel with the day use entrance road and leads to the accessible fishing pier on Gun Lake.

- Mountain Bike Trail (12 Miles)

  This trail starts out flat for a warm-up and then leads through some of the most rugged hills in the area. Bike helmets are highly recommended.

- Equestrian Trail (10 Miles)

  This winding trail takes riders to the top of Baird Hill, then through the marsh land, to Duck Lake and the Pines Scenic Area, ending with a ride through hilly and woodland terrain. The trail contains two loops, four miles and six miles, respectively. In addition, the trails connect to an additional nine miles of trails in the Barry State Game Area, resulting in approximately 19 miles of equestrian trails. Along the equestrian trail system covered picnic pavilions, grills and two sets of rustic toilets are offered for users. Trails in the Game Area are closed from October 1 through January 1.

RECREATIONAL ACTIVITIES

Hiking

There are over 16.5 miles of hiking trails within Yankee Springs Recreation Area. The North Country Trail includes six miles within the recreation area and connects with Barry State Game Area. This national scenic trail hiking route from North Dakota to New York includes more than 1,500 miles in Michigan. Yankee Springs has seven trails to enjoy year round. The hiking trails are identified under Trails in this Section. In additional, all of the mountain bike and equestrian trails are also open to hiking.

Cross Country Skiing

The wide diversity of terrain attracts skiers from the first timer to the expert. There are nine miles of ungroomed trails within the park.

Mountain Biking

The twelve-mile mountain bike trail, which includes a four-mile loop of the Deep Lake Trail, leads through some of the most rugged hills in the area. A mountain bike trail staging and parking area are located to the west of Deep Lake. With the increased popularity of Fat Bikes, the trails are becoming increasingly popular for year-round use.

Horseback Riding

The park provides 10 miles of equestrian trails and a campground, which contains 25 rustic camping sites. The equestrian trails and campground are located in the southeast portion of the park

Snowmobiling

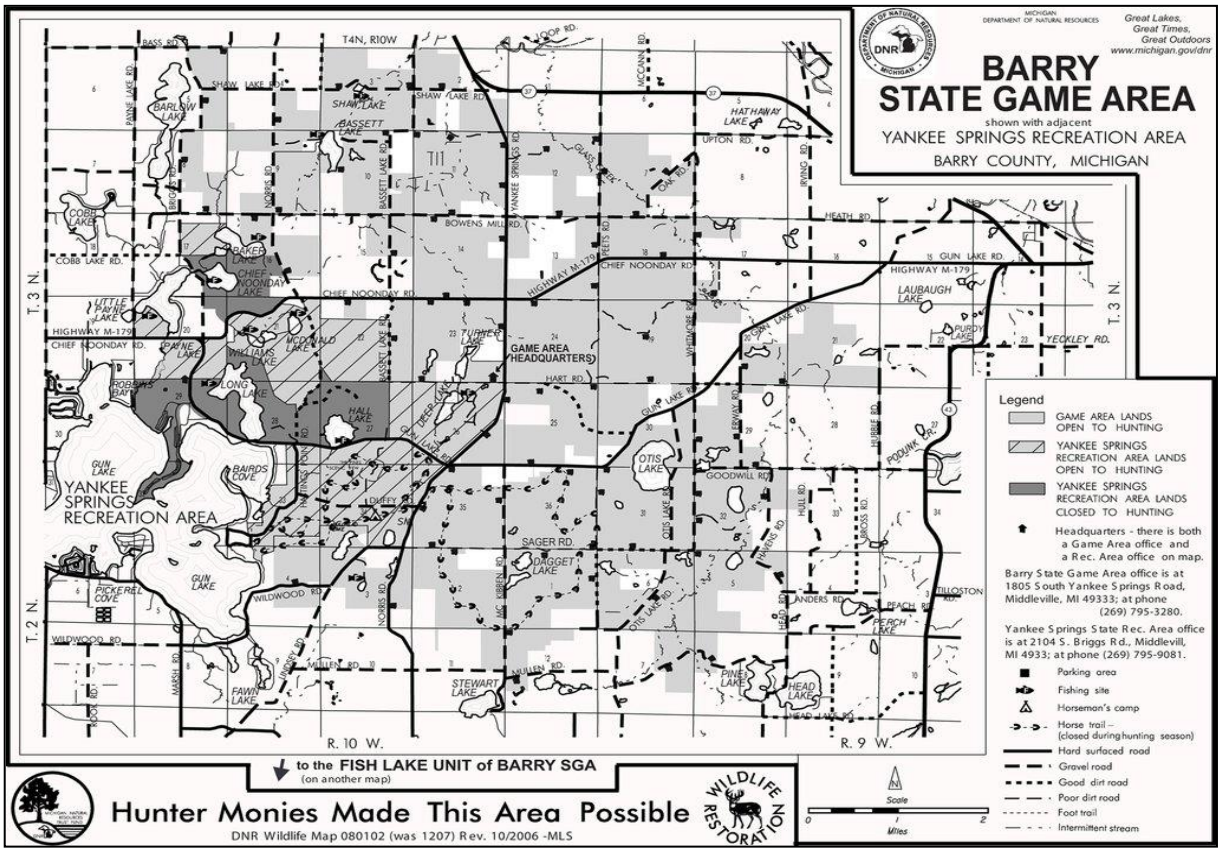
Snowmobiling is permitted within Yankee Springs Recreation Area although there are no designated trails.

Swimming

Yankee Springs Recreation Area is home to ten lakes, the largest of which is Gun Lake at 2,600-acres. Day use guests and campers have a wide array of options during their visit to include: a beach with swimming area, concession and beach buildings, picnic areas, picnic shelters, a boat launch, and Murphy's point. There are three designated swimming beaches in the park: Gun Lake campground, Gun Lake day use beach and Roosevelt Beach.

Hunting

About 3,500 of the area's 5,200 acres are open to hunting during the established hunting seasons. In addition, the Recreation Area is adjacent to the 13,000 acre Barry State Game Area which is a managed wildlife and public hunting area. Wildlife is abundant, with deer, turkey, and waterfowl hunting being the most popular. Small game hunting is primarily for rabbit, squirrel, woodcock and ruffed grouse.

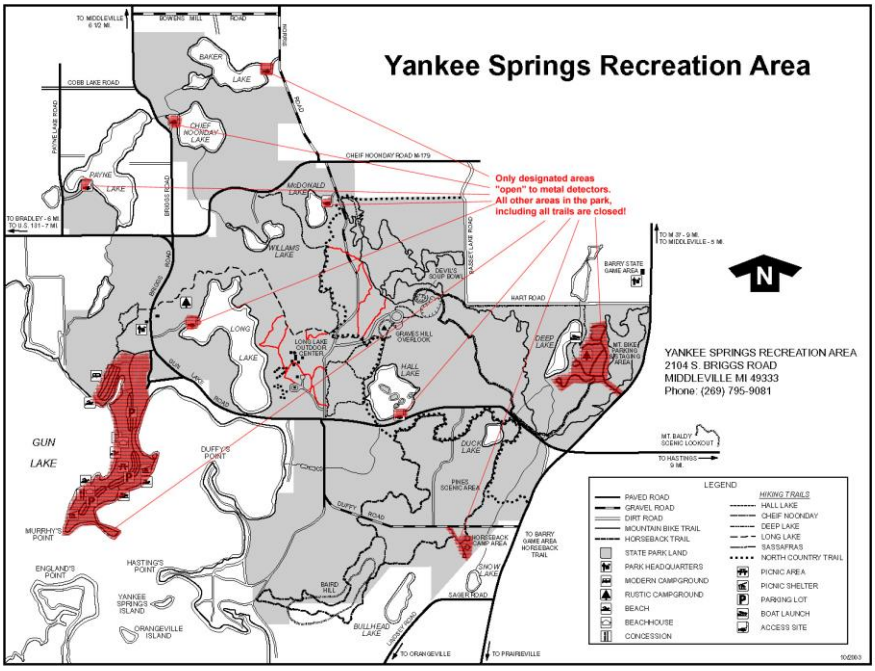


Fishing

Gun Lake is a popular year round fishing destination, with opportunities for boat fishing using one of three launches in the Recreation Area, pier fishing from an accessible dock on the channel, or shore fishing from Murphy's Point. Species include catfish, crappie, largemouth bass, northern pike, smallmouth bass, sunfish, walleye, and yellow perch. Many of the other lakes in the Recreation Area also provide fishing opportunities (see list of lakes within the Yankee Springs Recreation Area under Natural Resources). An accessible fishing pier is also available on Deep Lake.

Metal Detecting Areas

Metal detecting is recognized as a legitimate recreation activity when it is conducted in ways that do not damage the natural and cultural resources in Michigan State Parks and Recreation Areas nor violate the state Antiquities Statute or lost property statutes. In Yankee Springs Recreation Area metal detecting is allowed in the primary developed areas of the park such as campgrounds, day use areas and boat launches, as indicated in the following map.



Orienteering

Orienteering is a sport involving navigation with map and compass. The traditional form (sometimes referred to as Foot Orienteering or Foot-O) involves cross-country running, though other forms have evolved. The South Michigan Orienteering club is granted a permit for a permanent course at Yankee Springs Recreation Area with about 30 permanent control markers at locations ranging in difficulty from beginner to advanced and holds an annual event in the fall.

Wildlife Watching

When combined with the adjacent Barry State Game Area, these properties total more than 22,000 acres of rolling, forested hills, pine plantations, shrubby old fields, wildlife openings, wetlands, and small lakes and ponds. White-tailed deer and wild turkeys are very common on both areas and the winter months offer excellent viewing opportunities. The Long Lake Trail provides opportunities to view waterfowl and wading birds such as great blue herons and sandhill cranes are common around the northern section of Barry State Game Area. Warbler viewing during spring migration is also very good.

Annual Events

In addition to the individual recreational activities, the park also hosts many annual events including mountain bike time trials, triathlons and trail races, weddings and reunions, equestrian trail rides, fireworks over Gun Lake, Harvest Festivals, and geocaching.

Recreation Groups associated with the Park

The following is a partial list of associations that play an active role in recreational programming within Yankee Springs Recreation Area.

- Yankee Springs Trail Riders Association are equestrians who maintain and mark horseback riding trails. Maintenance includes monitoring trails for erosion problems as well as constructing and installing horseback trail features to address accessibility. The association also works closely with the Recreation Area's staff to maintain and improve camping and day use activities at the Horseman's Campground.

- The West Michigan Mountain Bike Alliance (WMMBA) is a chapter of the International Mountain Bicycling Association (IMBA). This non-profit volunteer organization promotes and maintains the mountain bike trails in Yankee Springs Recreation Area and educates users to encourage responsible use. Volunteers are trained by IMBA using standards developed by the National Park Service and U.S. Forest Service.

- The North Country National Scenic Trail (NCNST) is maintained by the Chief Noonday Chapter of the North Country Trail in the counties of Barry, Calhoun and Kalamazoo, including the portion running through the Recreation Area. The North County Trail Association (NCTA) is the nationwide nonprofit organization that works in partnership with the National Park Service to build, maintain, and promote the North Country National Scenic Trail.

- Southern Michigan Orienteering Club (SMOC) maintains a permanent course in Yankee Springs and holds orienteering events in the spring and fall.

Key Infrastructure

- Dam on Hall Lake
- Rearing ponds on Hall Creek
- Ten Hand Pumps
    - Group Site (2)
    - Chief Noonday Outdoor Center (1)
    - Horseman's Campground (1)
    - Former Organization Site (1)
    - Deep Lake Campground (3 units)
- Vault Toilets
    - Rustic lodges (3 units)
    - Horseman's Campground (4 units)
    - Group Site (4 units)
    - Gun Lake Campground (1 unit)
    - Gun Lake Day Use Area (2 units)
    - Deep Lake Campground (7 units)
    - Boat Access Sites
- Two Pump houses (Day Use and Gun Lake Campground)
- Abandoned pump house across from former supervisor's residence
- Drain fields at park headquarters, former manager's residence and shop
- Four lift stations (three located in Day Use Area and one in the Gun Lake Campground)
- Five Wells (located in Day Use Area, Gun Lake Campground, former supervisor's residence, former manager's residence and park headquarters)
- Gun Lake Sewer System (forced main and gravity feed sewer lines) – Gun Lake Sewer and Water Authority provides service for Gun Lake Unit

A.8 NATURAL RESOURCES

Geology

The Yankee Springs Recreation Area lies within the Kalamazoo Interlobate. The recreation area is underlain by Mississippian (Paleozoic) shale covered by glacial drift 250 to 350 feet thick. The western half of the park occurs on glacial outwash plain. The eastern half of the park occurs on the ice contact and end-moraine ridges.

Eco-Regional Context

The following information was obtained from the United States Department of Agriculture, General Technical Report NC-178, Regional Landscape Ecosystems of Michigan, Minnesota, and Wisconsin, prepared by Dennis Albert in 1994.

The Yankee Springs Recreation Area is almost equally divided between two ecological subsubsections. The recreation area's topography reflects this difference in landforms.

The west half of Yankee Springs Recreation Area is located in Subsubsection VI.2.1., Battle Creek Outwash Plain. "Subsubsection is described as broad, flat outwash plain containing numerous small lakes and wetland and small ridges of ground moraine. Major streams flow through the plain, which is divided into two parts of a band of steep ice-contact ridges." (Albert, 1994).

The east half of Yankee Spring Recreation Area is located in the SubSection VI.2.2, Casspolis Ice-contact Ridges. "Subsubsection consists of the narrow bands of end moraines at the northern edge of the subsection, and also the band of steep, ice-contact features that run roughly north-south through the western half of the subsection."

Climate

The table below summarizes the local climate at Yankee Springs Recreation Area.

MONTH	AVG. MIN TEMP	AVG. MAX TEMP
January	15° F / -9° C	30° F / -1° C
July	59° F / 15° C	84° F / 29° C
PRECIPITATION	**RAINFALL**	**SNOWFALL**
Average Annual	31 in. / 79 cm.	52 in. / 132 cm.
GROWING SEASON	**DAYS ABOVE 90° F / 32° C**	**DAY BELOWS 0° F / -18° C**
139	13	11

Source: NOAA Climate Summary, 1995

Land Cover

Prior to European settlement, the Battle Creek Outwash Plain in the west of the recreation area was characterized by broad expanses of prairie and oak savanna. Tall grass prairies occupied areas as large as 20 square miles; with nearly 50 prairies identified in the sub-subsection. Rolling hills and sandy soils characterize the landform of the area. (Albert, 1994).

Prior to European settlement the steep upland ridges of the Cassopolis Ice Contact Ridges in the east were dominated by oak-hickory forest. Steep bands of ice contact ridges and end-moraine ridges characterize the landform of the area. Kettle depressions supported hardwood swamps, tamarack swamps, shrub-carr and bog.

Water Resources

Yankee Springs encompasses ten lakes. Chief Noonday Lake, McDonald Lake, William's Lake, Hall Lake and Deep Lake are all entirely within the recreation area. Long Lake has a very small private lot on the southeast portion along Gun Lake Road. The recreation area includes considerable frontage on both Payne Lake and Baker Lake. Gun Lake, 2,680 acres, is an oasis for water sports and activities. The day use area on Gun Lake provides visitors with a wide array of recreation options.

Lakes in Yankee Springs Recreation Area

Lake	Area (Acres)	Inlet	Outlet	Depth (ft)	Bottom
Baker	58.8	Yes	Yes	30	80% Organic / 20% Mineral
Chief Noonday	50.7	Yes	Yes	5	Organic
Gun	2611.0	Yes	Yes	68	40% Organic / 60% Mineral
Deep	32.4	Yes	Yes	35	Organic
Hall	42.5	No	Yes	12	Organic
Long	146.0	Yes	Yes	3	40% Organic / 60% Mineral
McDonald	16.8	Yes	Yes	10	Organic
Round	6.7	Yes	Yes	25	
Williams	18.0	No	Yes	22	Organic

Source: Yankee Springs Management Plan, 1966

Mineral Resources

The surface of Yankee Springs Recreation Area (YSRA) and surrounding area is covered with glacial drift of varying thickness (200-400 feet). The majority of the lakes in the region are kettle lakes that formed as glaciers retreated from the area around 14,000 years ago. The undulating hills of the region are attributed to glacial moraines while the flat-lying areas represent outwash plain. The coarser glacial deposits are frequently quarried across the state for sand and gravel, primarily for use in road construction and maintenance. A number of sand and gravel pits are known to occur in areas around YSRA.

Beneath the glacial drift, the Mississippian Marshall Sandstone subcrops. The Marshall Sandstone has been used in the past as a building stone in some parts of the state.

Modest oil and gas exploration has occurred west of Gun Lake over the years, mostly resulting in dry holes. The closest producing field is the Wayland Field, roughly four miles northwest of Gun Lake in Allegan County. This field has produced over two million barrels of oil from the Silurian Salina Group and Devonian Traverse Limestone since the mid-1940s. Nearly all of the State mineral rights in YSRA and to the northeast are currently under lease for oil and gas exploration and development. All of the State leases have been classified as non-development, indicating that construction of drill sites on the surface will not be allowed.

Significant Natural Features

Yankee Springs Recreation Area supports many significant natural features: rare and protected species and exemplary natural communities. Refer to the Michigan Natural Features Inventories' 2001 report for more information and visit their website http://mnfi.anr.msu.edu.

Common Name	Scientific Name	Classification	Federal Protection	State Protection
Angular spittlebug	Lepyronia angulifera	Animal		SC
Barrens buckmoth	Hemileuca maia	Animal		SC
Blanchard's cricket frog	Acris crepitans blanchardi	Animal		T
Cerulean warbler	Dendroica cerulea	Animal		T
Eastern box turtle	Terrapene carolina carolina	Animal		SC
Eastern massasauga	Sistrurus catenatus catenatus	Animal	C	SC
Henry's elfin	Incisalia henrici	Animal		T
Leafhopper	Flexamia delongi	Animal		SC
Mitchell's satyr	Neonympha mitchellii mitchellii	Animal	E	E
Osprey	Pandion haliaetus	Animal		SC
Ottoe skipper	Hesperia ottoe	Animal		T
Persius dusky wing	Erynnis persius persius	Animal		T
Regal fern borer	Papaipema speciosissima	Animal		SC
Spotted turtle	Clemmys guttata	Animal		T
Tamarack tree cricket	Oecanthus laricis	Animal		SC
Watercress snail	Fontigens nickliniana	Animal		SC
Wavyrayed lampmussel	Lampsilis fasciola	Animal		T

Common Name	Scientific Name	Classification	Federal Protection	State Protection
Beaked agrimony	Agrimonia rostellata	Plant		T
Bog bluegrass	Poa paludigena	Plant		T
False boneset	Kuhnia eupatoriodes	Plant		SC
Horsetail spike rush	Elocharis equisetoides	Plant		SC
Ginseng	Panax quinquefolius	Plant		T
Prairie indian-plantain	Cacalia plantaginea	Plant		SC
Prairie white-fringed orchid	Platanthera leucophaea	Plant	T	E
Spotted Pondweed	Potamogeton pulcher	Plant		E
Whiskered sunflower	Helianthus hirsutus	Plant		SC

SC= Special Concern (rare or uncertain; legally protected under MDNR Director's Order FO-224.13)

C= Candidate species being considered for federal status

E=Endangered

T=Threatened

Common Name	Type	Community
Oak hickory hardwood forest	Dry-mesic Southern Forest	Exemplary Community
Mixed Lowland hardwood - conifer minerotrophic forested wetland	Hardwood-Conifer Swamp	Exemplary Community
Shrub wetland	Southern Shrub-carr	Exemplary Community
Nutrient-poor peatland (wetland)	Bog	Exemplary Community
Alkaline shrub/herb fen (wetland)	Prairie Fen	Exemplary Community

<u>Rare Species:</u>

Mitchell's Satyr Butterfly

Now found only in Michigan and Indiana, Mitchell's Satyr Butterfly is considered one of the world's rarest butterflies. The Mitchell's satyr butterfly was first discovered at Yankee Springs Recreation Area in 1986 just south of Deep Lake and north of Gun Lake Road. Despite many searches in multiple years satyrs have not been documented at this site north of the road since 1986. Satyrs were first documented south of Gun Lake Road in 1998 and have been confirmed each subsequent year between 1999 and 2004. Despite significant habitat enhancement efforts, Mitchell's satyr are now considered extirpated from the Yankee Springs Recreation Area.

Mitchell's Satyr butterfly.

Eastern Massasauga Rattlesnake

Eastern massasauga rattlesnake.

The Eastern massasauga rattlesnake (EMR) is a federal candidate species. Michigan and Yankee Springs Recreation Area are strongholds for the species.

The Michigan Department of Natural Resources (DNR) is currently seeking a Candidate Conservation Agreement with Assurances (CCAA) from the United State Fish and Wildlife Service (USFWS).

If and when EMR becomes listed under the federal Endangered Species Act (ESA) that action triggers both a regulatory and a conservation responsibility for Federal, State, and private landowners. These responsibilities stem from section 9 of the ESA that prohibits "take" (i.e., harass, harm, pursue, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct) of listed species.

The concept behind a Candidate Conservation Agreement with Assurances is to simultaneously capitalize on the opportunity to conserve the candidate species while reducing the uncertainty that the DNR will face in managing lands with candidate species. The USFWS and the DNR will voluntarily agree to a conservation program for the candidate species, which may include management restrictions, mitigation, education, other conservation tools, or some combination. In return the USFWS provides formal assurances that the DNR will not face new restrictions or prohibitions. Thus, a CCAA provides a species with a conservation program and relieves the DNR and PRD of uncertainty in land management

Much of the Yankee Springs Recreation Area will be included in the CCAA as EMR managed (occupied) lands. Once the CCAA is signed, these areas of Yankee Springs Recreation Area will be managed according to the CCAA.

Prairie White-Fringed Orchid

Prairie White-Fringed orchid.

This tall strikingly beautiful orchid was widespread and common in Michigan. It is a protected state endangered and federal threatened species. Once known to occur in more than 20 counties, it is now extant in fewer than 10 counties, persisting mostly in the remnant lake plain prairies of Saginaw Bay and Western Lake Erie. The Yankee Springs population is one of only two inland populations occurring within Michigan State Parks. Prairie white-fringed orchid is critically imperiled.

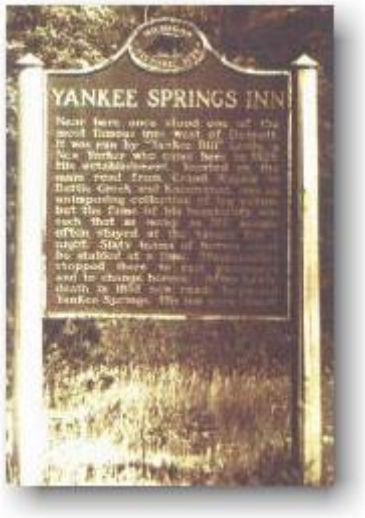
A.9 HISTORIC AND CULTURAL RESOURCES

Both Camps Long Lake and Camp Chief Noonday were listed on the National Register of Historic Places on December 13, 1996 as historic districts. The following maps illustrate the contributing resources to each historic district and their location within each group camp.

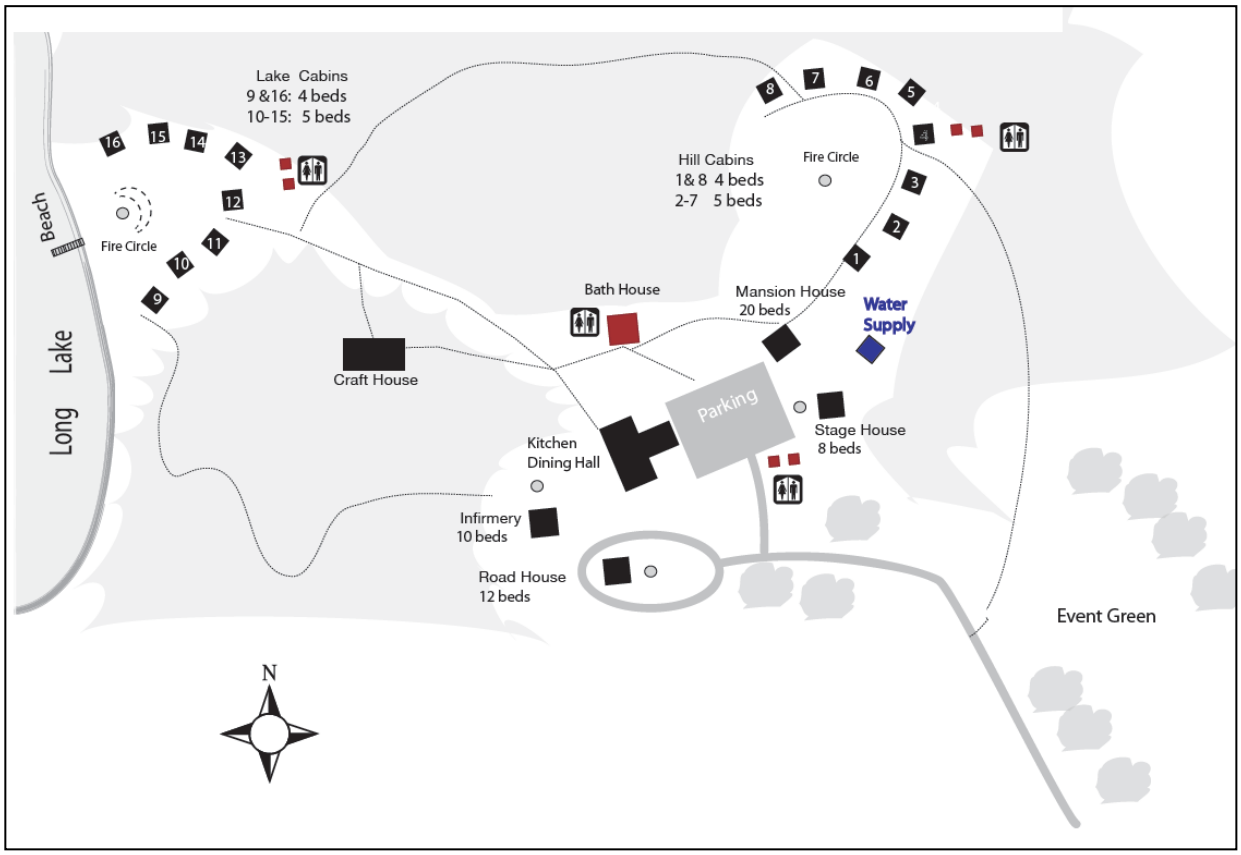
Three other historic structures can be found at Yankee Springs Recreation Area in association with Camp Long Lake. The three structures, found nearby at Hall Lake, are; Park Manager's Residence, Manager's Residence Garage and the Pump House to the Manager's Residence.

There are at least nine known archaeological sites that can be found in the Yankee Springs area, most are ruins of old farmsteads.

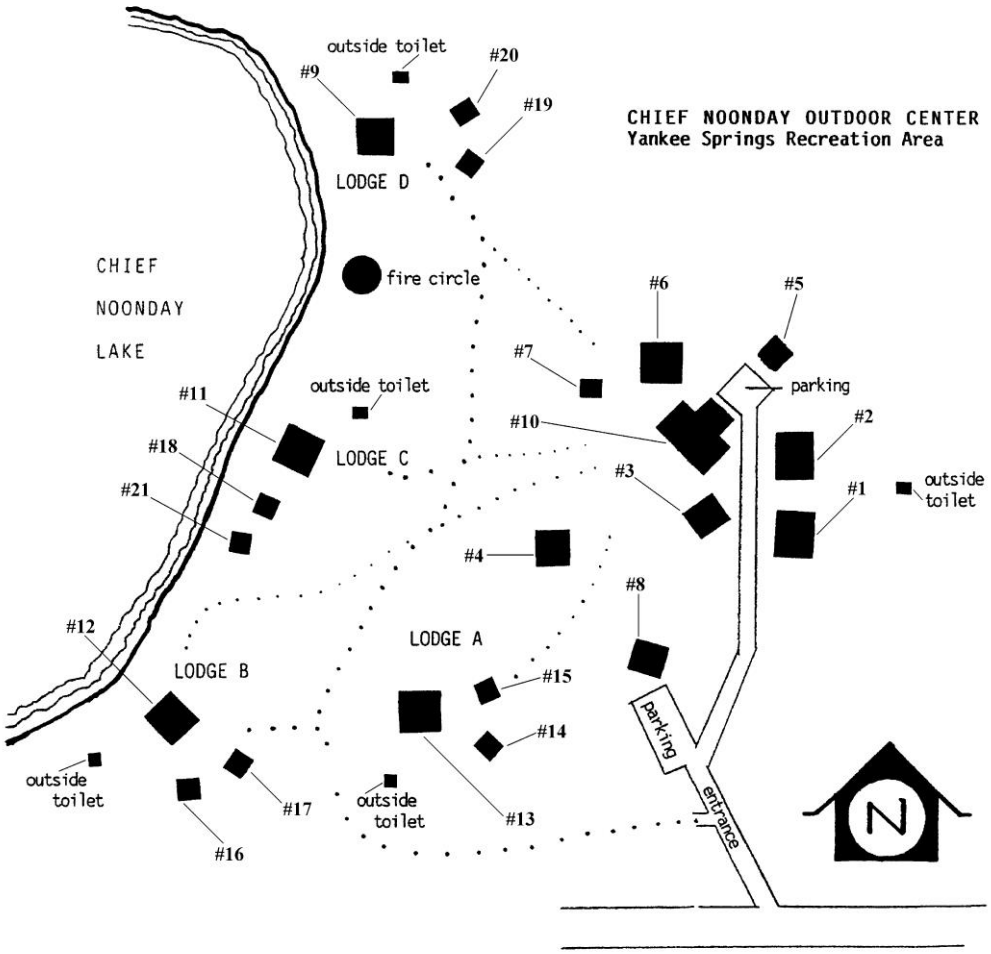
The Recreation Area also features a designated historic site, which was commemorated in 1958 through the placement of a historical marker (the marker is now missing). The Historical Marker Program begun in 1955, and continues under the direction of the Michigan Historical Commission and the Michigan Historical Center. The site marks the location where a famous inn once stood. The text on the sign read as follows:



Near here once stood one of the most famous inns west of Detroit. It was run by "Yankee Bill" Lewis, a New Yorker who came here in 1836. His establishment, located on the main road from Grand Rapids to Battle Creek and Kalamazoo, was an unimposing collection of log cabins, but the fame of his hospitality was such that as many as one hundred people often stayed at the tavern for a night. Sixty teams of horses could be stabled at a time. Stagecoaches stopped there to rest passengers and to change horses. After Lewis' death in 1853 new roads bypassed Yankee Springs. His inn soon closed.



Long Lake Outdoor Center Map.



1 Staff Quarters (Long House)
2 Help's Quarters (Wigwam)
3 Infirmary
4 Craft Shop
5 Two-car Garage (Garage)
6 Central Latrine
7 Pump House
8 Administration Bldg (Library)
9 Unit Lodge D
10 Mess Hall & Kitchen
11 Unit Lodge C
12 Unit Lodge B
13 Unit Lodge A
14 Sleeping Cabin A-2
15 Sleeping Cabin A-1
16 Sleeping Cabin B-1
17 Sleeping Cabin B-2
18 Sleeping Cabin C-1
19 Sleeping Cabin D-1
20 Sleeping Cabin D-2
21 Sleeping Cabin C-2

Chief Noonday Outdoor Center map.

A.10 EDUCATIONAL AND INTERPRETATION

State Park Explorer Program

Each summer, state park explorer programs are offered to campers and day visitors at forty-one of Michigan's state parks. Armed with field guides, animal skins, bug boxes and other hands-on materials, state park explorer guides lead informal programs and hikes that feature each location's unique natural, cultural and historic resources. Program topics include forests, insects, night hikes, pond studies and other topics covering the variety of plants, animals and natural features found within each park. These programs are designed for children and adults, often in a family setting. Yankee Springs was the first state park to offer this program and provides a range of programming Tuesday through Saturday during the summer.

Explorer Guides lead programs in the park

Hook, Line & Sinker

This program is an introductory lesson in fishing basics such as knot-tying, setting up your pole, casting, selecting and using bait, and removing fish from the hook. After the 20-30 minute lesson, participants are ready to start fishing. This program is typically offered weekly through the summer.

Hiking Spree Program

Hiking Spree cards are available for free in order to keep track of the trails visitors have hiked. Hiking staffs and medallions are available for purchase. After hiking three different trails, visitors are eligible for a free medallion at the park office.

Sassafras Nature Trail

The Sassafras Nature Trail begins near the Gun Lake Campground office. This flat, wooded, loop trail offers interpretive signage to aid trail users in understanding the natural features they view along the trail.

Sassafras Nature Trail

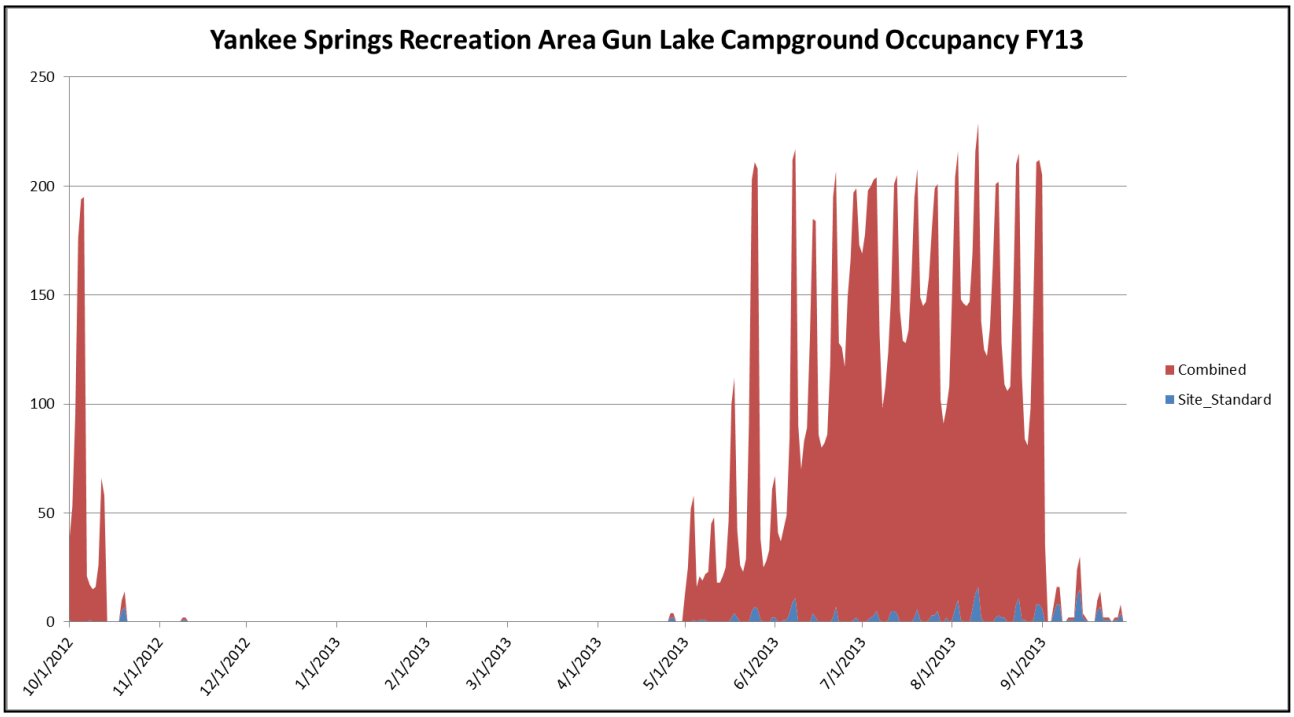
A.11 ISSUES AND OPPORTUNITIES

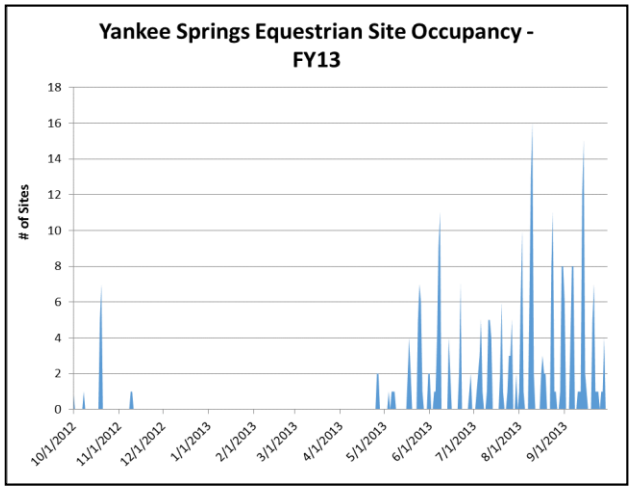
Areas of issues and opportunities within and around Yankee Springs State Recreational Area include:

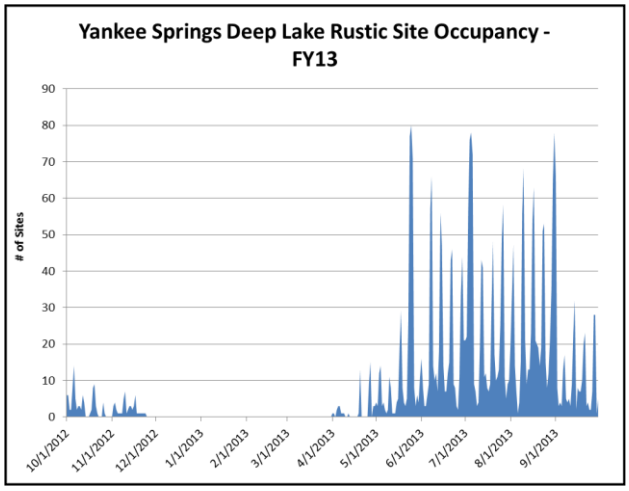
- Gun Lake fishing pier/dock
- Flooding campgrounds
- Protection of natural features, i.e. Massasauga rattlesnake
- Protect historic properties/sites
- Erosion at Devil's Soup Bowl
- Illegal use of trails
- Repair/rebuild Roosevelt Shelter
- Replace shop building
- Roads and parking in site (campground/beach
- Upgrade playground equipment
- Upgrade Chief Noonday structures
- Equestrian campground improvements
- Gun Lake Peoples Trail (Round Lake trail)
- Sewer lines are beyond their useful life, need replacement to resolve water quality issues
- Trolley system
- Parking by Hall Lake launch
- Resident's houses (reuse or remove)
- Boat trailer parking in campground
- Boat mooring
- Geese
- Beach accessibility
- Lake water quality (avoid beach closures)
- Encroachment issues by neighboring residents
- Erosion on Mountain Bike trails

A.12 PARK USE STATISTICS

The chart to the below illustrates the overall occupancy of the campsites at Gun Lake Campground. It is apparent that while the campground is typically over 50% full in mid-week through the summer months, the peak times are weekends and holidays.







Yankee Springs is primarily used as a "local" recreational facility with the top ten cities for campsite reservations located within 40 miles of the park.

YANKEE SPRINGS RECREATION AREA TOP 10 CITIES FOR CAMPERS

City & State	Reservations	Number of Nights
GRAND RAPIDS, MI	476	1,613
KALAMAZOO, MI	381	1,112
WAYLAND, MI	208	840
MIDDLEVILLE, MI	206	737
HASTINGS, MI	205	622
WYOMING, MI	173	538
CALEDONIA, MI	168	681
HUDSONVILLE, MI	164	732
PLAINWELL, MI	159	507
KENTWOOD, MI	156	570

The park is located in an area of good Recreation Passport participation. The overall participation rate is 35.8% for Barry County and 31.0% for Allegan County, both above the state average rate of 28.5%.

YANKEE SPRINGS PARK ATTENDANCE BY MONTH, October 2012 – September 2013

	Campers	Day-use
October 2012	6,571	36,840
November 2012	1,065	21,453
December 2012	52	19,987
January 2013	0	26,074
February 2013	0	27,033
March 2013	0	29,277
April 2013	1,836	41,658
May 2013	8,458	74,173
June 2013	21,827	197,379
July 2013	24,579	172,506
August 2013	23,350	147,956
September 2013	15,303	57,625
TOTAL	**103,041**	**851,961**

A.13 RESOURCE MAPS See separate file

- Boundary Aerial
- Location
- Topography
- Elevations
- Eastern Massasauga Rattlesnake Habitat
- Woodlands
- Wetlands
- Trails
- Regional Recreation Resources
- Funding Sources
- Lease Classification
- Ownership Rights