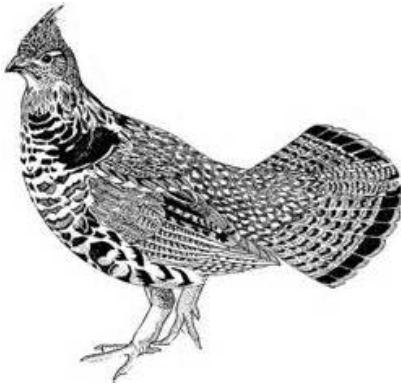


Haymarsh State Game Area Master Plan



Michigan Department of Natural Resources

[Michigan DNR Website](http://www.michigan.gov/dnr)

Wildlife Division
Peter J. Kailing
May 11, 2011

Intended Purpose and General Management Direction

The Haymarsh Lakes State Game Area (HLSGA) is comprised of 6,771 acres and is located in the northwest portion of Mecosta County, approximately six miles northeast of Big Rapids, MI. It occupies portions of three townships (T16N, R9W, T16N, R10W and T15N, R9W (Figures 1, 2 and 3). Most of the HLSGA property was purchased between 1940 and 1959. Formal dedication took place on Feb. 8, 1950. The property is contiguous with the exception of a 206 acre parcel located near the Paris Field Office. The HLSGA was originally managed as part of the Michigan State Forest system but was transferred to Wildlife Division as a State Game Area in 1960. The majority of lands within the HLSGA were purchased with Game and Fish Protection Fund monies. Federal Aid in Wildlife Restoration (Pittman-Robertson (PR) Funds were also used, along with a limited amount of tax-reversion acres and Natural Resource Trust Fund acres.

Because of the large amount of contiguous forest cover (surrounded by heavily farmed private land) HLSGA has always been popular for deer and grouse hunters. The diverse habitats of hilly upland forests and dense lowland forests provide a variety of food and cover for deer, grouse, and cotton tailed rabbit. The open water and wetlands, both natural and man-made, are good habitat for wood duck, migrating woodcock and Canada Geese. Haymarsh Lake is a popular fishing lake, and is especially popular for winter bluegill fishing. Other popular activities on the HLSGA include morel mushroom picking, birdwatching, waterfowl hunting, furbearer trapping and winter predator hunting.

Forest management practices (select and clear cutting) have been the primary historical management techniques on the area. Four historic impoundments, including Haymarsh Lake, are maintained to provide more diversity for wetland and open water habitat.

The Haymarsh Campground is a seasonal campground. It offers 19 rustic campsites and two boat launches accessing Haymarsh Lake. This campground has been leased and administered by the Mecosta County Parks Commission for many years. Wildlife Division retains the right to conduct wildlife habitat management in and around this campground.

We want the HLSGA to continue to contribute to sustainable populations of important wildlife species and provide valuable hunting recreation. Deer, rabbit, turkey, grouse and wood duck are the featured species for the future (50- 100 years) management of the game area.

Background

At a local level, this plan helps fulfill goals and objectives of other higher level Department and Wildlife Division plans and initiatives. These include the Department goals (protect natural resources, sustainable recreation, strong natural resource-based economies, and strong relationships and partnerships), the Wildlife Division's Guiding Principles and Strategies (Goal 2-Manage habitat for sustainable wildlife populations and wildlife-based recreation, Goal 4-Enhance sustainable wildlife-based recreation use and enjoyment), More Bang For Your Buck concepts (outstanding grouse, woodcock and turkey hunting, challenge of small game hunting, and great diversity of high quality waterfowl hunting). The Division's Southwest Regional Operational Plan, Southwest

Region Habitat Guidance documents, and the Southwest Region Land Management Plan are all reflected in this master plan.

Wildlife Species

True to the intended purpose of the game area when it was dedicated in 1950, we will continue to focus our efforts on species and habitats that help meet our goals to provide quality hunting opportunities and our other public trust responsibilities. Wildlife species that will be specifically addressed to meet our planning goals are listed in Table 1.

Table 1. A list of species to be addressed during this planning period, reflecting opportunities for habitat or recreational management.

| Common Name | Featured Species | T&E, SC Species | Climate Change Vulnerable | Remarks |
|----------------------|-------------------------|----------------------------|----------------------------------|--|
| White-tailed deer | X | | | Young forests, openings, food plots |
| Cotton tailed rabbit | X | | | Openings and early successional habitat creation and maintenance |
| Eastern Wild Turkey | X | | | Maintain hard and soft mast, forest openings, food plots, roost trees, grass lands |
| Ruffed Grouse | X | | X | Young forests, maintain riparian vegetation |
| Wood duck | X | | | Keep wooded Floodings, Mature mast trees adjacent forest ponds, control invasive emergent wetland species |

Ruffed grouse and aspen are both predicted to be climate change vulnerable which may impact our ability to effectively meet our desired future conditions outlined in Goal 1 (see below). We will monitor aspen regeneration as part of routine forest inventory and consider alternatives to aspen, as necessary. In general, younger forests are better able to withstand climate shocks and lowering the average age of forested area is likely a good adaptation strategy.

Existing Conditions

Habitat on the HLSGA is quite varied (Table 2). Much of the game area is comprised of forested rolling hills dominated by aspen stands. Oak and other hardwoods are interspersed with some of the aspen. Other mixed hardwood stands of ash, maple, oak, black cherry and beech are also present. Mixed native conifers such as white pine and red pine are scattered throughout, and there are a few planting of red pine. Less

common are historic openings from abandoned farms or old field habitats. There are no buildings or other structures on the game area. The wetlands and open waters are also diverse, and range from small pothole wetlands of emergent wetland, to conifer forest, leatherleaf bogs and large impoundments.

Wetlands and waterbodies make up approximately one-third of the game area. Two distinctive impoundments are part of the HLSGA. Haymarsh Lake was once six smaller lakes, which were impounded in 1949 by construction of the Haymarsh Lake Dam. Today, this state-owned concrete dam impounds approximately 375 acres of open water. The other impoundment is the Featherbed Marsh which was originally impounded by an earthen berm dam constructed in 1952. It impounds approximately 350 acres of mixed open water and wetlands. Both of these impoundments were originally developed to benefit waterfowl species and waterfowl hunting. Both Haymarsh and Featherbed are still important to waterfowlers, but other uses have also become important over the years, including fishing, birdwatching and furbearer trapping. Two other smaller impoundments are maintained for wildlife diversity and they are the Little John Flooding and the Pickerel Creek Flooding. The HLSGA is entirely located within the Muskegon River Watershed. The HLSGA is the northern-most state game area in the Wildlife Division Southwest Management Unit.

Timber harvests have occurred historically and are currently active in the game area. Due to a predominance of older aged aspen stands, a more aggressive rotational cut sequence is being initiated to provide a long-term balanced mix of young, middle aged and older aspen across the entire game area.

Because of the large size and ecological diversity of the HLSGA, it is divided into three Management Units (Figure 4), including the Haymarsh Lake Unit, the Burgess Lake Unit and the Paris Unit. These Unit divisions provide more efficient management for planning and tracking habitat work.

The **Haymarsh Lake Unit** includes approximately the northern half of the game area. The **Burgess Lake Unit** includes approximately the southern half of the game area. Management goals for both management units are to provide quality habitat for white-tailed deer, ruffed grouse, wild turkey, cottontail rabbit, and wood duck. Both Haymarsh Lake and Burgess Lake Units contain a mix of natural and artificial impoundments, and woodlands dominated by rolling hills of aspen with other hardwoods and conifers interspersed. The **Paris Unit** is located within what is locally known as the Paris Swamp, Green Township, approximately eight miles west of the main body of the HLSGA. The Paris Unit is within a historically important conifer wintering yard for white tail deer. It is all wooded, mostly flat, with a dominance of mature conifer swamp, hardwood swamp and has patches of maple and beech upland. It is managed for deer and grouse. Current Natural Community ecological surveys have not been completed at this time for the HLSGA

Table 2. Current cover types on the Haymarsh Lake State Game Area based on MiFi surveys from 2014.

| <i>Cover Type</i> | <i>Acres</i> | <i>Percentage of Game Area</i> |
|------------------------|--------------|--------------------------------|
| Aspen | 2,914 | 43.0 |
| Mixed Upland Deciduous | 904 | 13.4 |
| Lowland Conifer | 437 | 6.5 |

| | | |
|----------------------|--------------|------------|
| Marsh | 415 | 6.1 |
| Water | 409 | 6.0 |
| Herbaceous Openland | 328 | 4.8 |
| Lowland Shrub | 307 | 4.5 |
| Lowland Deciduous | 255 | 3.8 |
| Bog | 253 | 3.7 |
| Mixed Upland Conifer | 212 | 3.1 |
| Oak | 154 | 2.3 |
| Other | 135 | 2.0 |
| Upland Shrub | 49 | 0.7 |
| Total | 6,771 | 100 |

Recreational Use

The HLSGA provides a host of recreational opportunities for local residents and visitors alike, including hunting, fishing, trapping, bird watching, mushroom harvesting and wildlife viewing. State game areas in southern Michigan are under continual pressure for other uses, however under Federal and State regulations, recreational and commercial uses on the area that are not incidental to our management for the purposes described above are generally not allowed. Some of these uses can be allowed, under the following circumstances:

1. The uses do not interfere or conflict with the wildlife conservation purposes of the area described above.
2. The Department has no obligations to determine if requested uses would conflict or interfere; the burden of determining must remain with those requesting the uses.
3. The requested uses cannot be exclusive of other allowable uses and must not result in the Department losing management control of any portion of the area.
4. A lack of a specific prohibition in rules and regulations for the area does not constitute approval of the activity.
5. The Department always reserves the ability to disallow activities previously allowed as wildlife conservation needs dictate.

Additionally, the Department will continue to monitor any existing commercial and recreational uses for interference with the intended purposes of the area as described in this plan.

Impacts on the Local Economy

Contributions to the local economy resulting from activities on the game area include approximately 50-100 acres of timber management activities per year through competitive bidding, plus thousands of hunter, fisher and other recreational user days per year that provide a direct boost to local restaurants, sporting goods stores, convenience stores and gas stations.

Management Direction

The desired future condition for the Haymarsh Lake SGA is outlined in Table 3.

Table 3. Desired future condition of cover types and habitat issue direction on the HLSGA

| <i>Cover type and Habitat Issues</i> | <i>Desired Future Condition</i> |
|---|--|
| Oak | Increase |
| Northern Hardwoods | Maintain |
| Mixed Upland Deciduous | Maintain |
| Herbaceous Open land | Maintain |
| Natural Pines | Maintain |
| Planted Pines | Decrease |
| Mixed Upland Conifers | Maintain |
| Lowland Deciduous Forest | Maintain |
| Lowland Coniferous Forest | Maintain |
| Lowland Mixed Forest | Maintain |
| Lowland Shrub | Maintain |
| Emergent Wetland | Maintain |
| Acres of Agriculture | Maintain |
| Acres of Aspen | Maintain |
| Acres of Warm Season Grass | Maintain |
| Acres of Herbaceous Open lands | Increase |
| Acres of Cool Season Grass | Maintain |
| # of Forest Openings | Increase |
| Grassland Patches > 150 Acres | NA |
| Grassland Patches >250 Acres | NA |
| Mature Forest | Decrease |
| Unfragmented Forest | Maintain |
| Riparian Corridor | Maintain |
| Managed Wetlands | Maintain |
| Unmanaged Wetlands | Maintain |

Goals, Objectives, and Management Actions

What follows is the strategic direction for the HLSGA, to be implemented during this planning cycle. This plan describes the **goals** or desired future condition for the area, the **objectives** under each goal, and the **actions** associated with each objective. Goals come mostly from the featured species and habitat issues relevant to HLSGA.

Goal I sustainable populations of white-tailed deer, ruffed grouse, turkey, cottontail rabbit in the Haymarsh Lake, Burgess Lake and Paris Management Units.

Rationale: deer, grouse, turkey and rabbit are highly desirable game species that benefit from a variety of age class of forest types mixed with some openings. All four species tend to benefit more from early successional forest habitats than older age class habitats. Managing for early successional forest habitats also benefits a diversity of other wildlife species, such as song birds.

Metrics: staff observation and hunter surveys; assessment of aspen trends through time based on forest inventory data, timber sales, number of suitable forest openings, number of brush piles created.

Objective A. Redistribute aspen cover type on all aforementioned Management Units, providing a balance of age classes on a 60 year rotation (16.5% at age 0-10, 16.5% at age 11-20, 16.5% at age 21-30, 16.5% at age 31-40, 16.5% at age 41-50 and 16.5% at age 51-60) in a manner that optimizes the spatial arrangement for the benefit of deer, grouse and turkey by 2036.

Action 1. Establish an aspen harvest regime (50-100 acres every year) that will improve the aspen type and optimize the age classes and juxtaposition of aspen stands on all upland aspen stands within the aforementioned three management units that comprise the entire HLPGA.

Objective B. To provide suitable forest openings (0.25 - 2 acres in size), comprising up to 5% of all upland aspen stands in the three management areas of the HLPGA, by 2036. Openings include permanent herbaceous cover and/or periodic mowing of regenerating forbs and shrubs.

Action 1. Maintain and create small herbaceous openings at appropriate locations throughout the managed upland forests, including the conversion of most timber sale landings to herbaceous openings.

Objective C. Provide suitable escape cover and loafing cover for rabbits by creating 50 brush piles each year (on average) primarily within or adjacent aspen timber sales.

Action 1. Establish a timber harvest regime (associated with Goals I) that will require loggers to create 1 brush pile for every acre harvested resulting in 50 brush piles per year (on average).

Objective D. Maintain the current extent (acres) of oak cover type on the SGA and regenerate a balance of the age class distribution.

Action 1. Maintain healthy mixed age class of oak in all timber harvests by selecting out degraded, injured or crowded oak to maintain stand vigor. Select harvest approximately 100 acres of oak forest during the next decade.

Action 2. Retain turkey roost trees (mature oak, maple, other hardwoods) when designing timber sales.

Action 3. Monitor oak regeneration in an adaptive framework to ensure regeneration.

Objective E. Maintain or increase the oak component in non-oak stands

Action 1. When managing other forested cover types, including mixed natural pine stands and red pine plantations, identify opportunities for maintaining or increasing the oak component.

Goal II sustainable populations of wood duck on the lakes and wetlands of HLSGA

Rationale: wood ducks are highly desirable game species. Wood duck habitat on the MLSGA includes a variety of wetland types and wooded riparian corridors adjacent wooded uplands for feeding, brood rearing and nesting opportunities for for both local reproducing wood duck and migratory wood duck populations. These habitats also benefit numerous other wildlife species such as white-tailed deer, wild turkey, woodpeckers, and protect water quality.

Metrics: staff observation and hunter surveys; assessment of oak types within IFMAP, assessment of riparian corridor integrity.

Objective A. Maintain the current extent of lowland forest and wetland shrub cover type on the entire MLSGA.

Action 1. Do not implement forest management activities in lowland forest, floodplain and shrub stands adjacent the drainages from Haymarsh Lake to Burgess Lake.

Objective B: Manage emergent wetlands to provide wetland vegetation and open water areas preferred by wood ducks

Action 1. Maintain wetland vegetation/open water conditions through water level maintenance of the Haymarsh Dam, Featherbed impoundment, Pickerel Creek impoundment and Little John Flooding impoundment.

Action 2. Monitor (and treat as necessary) all emergent wetlands (impounded and natural) for presence of invasive plant species including phragmites and purple loosestrife.

Objective C. Maintain the current extent of oak cover type on the HLSGA and balance the age class distribution

Action 1. Maintain mature oak and other mature cavity trees adjacent aquatic wood duck habitats by establishing riparian and wetland buffers no less than 100 feet wide. Select harvest within the buffer as determined by local biologist is appropriate.

Action 2. Maintain healthy mixed age class of oak in all timber harvests by selecting out degraded, injured or crowded oak to maintain stand vigor.

Objective D. Maintain or increase the oak component in non-oak stands

Action 1. When managing other forested cover types, including natural white pine stands and red pine plantations, identify opportunities for maintaining or increasing the oak component.

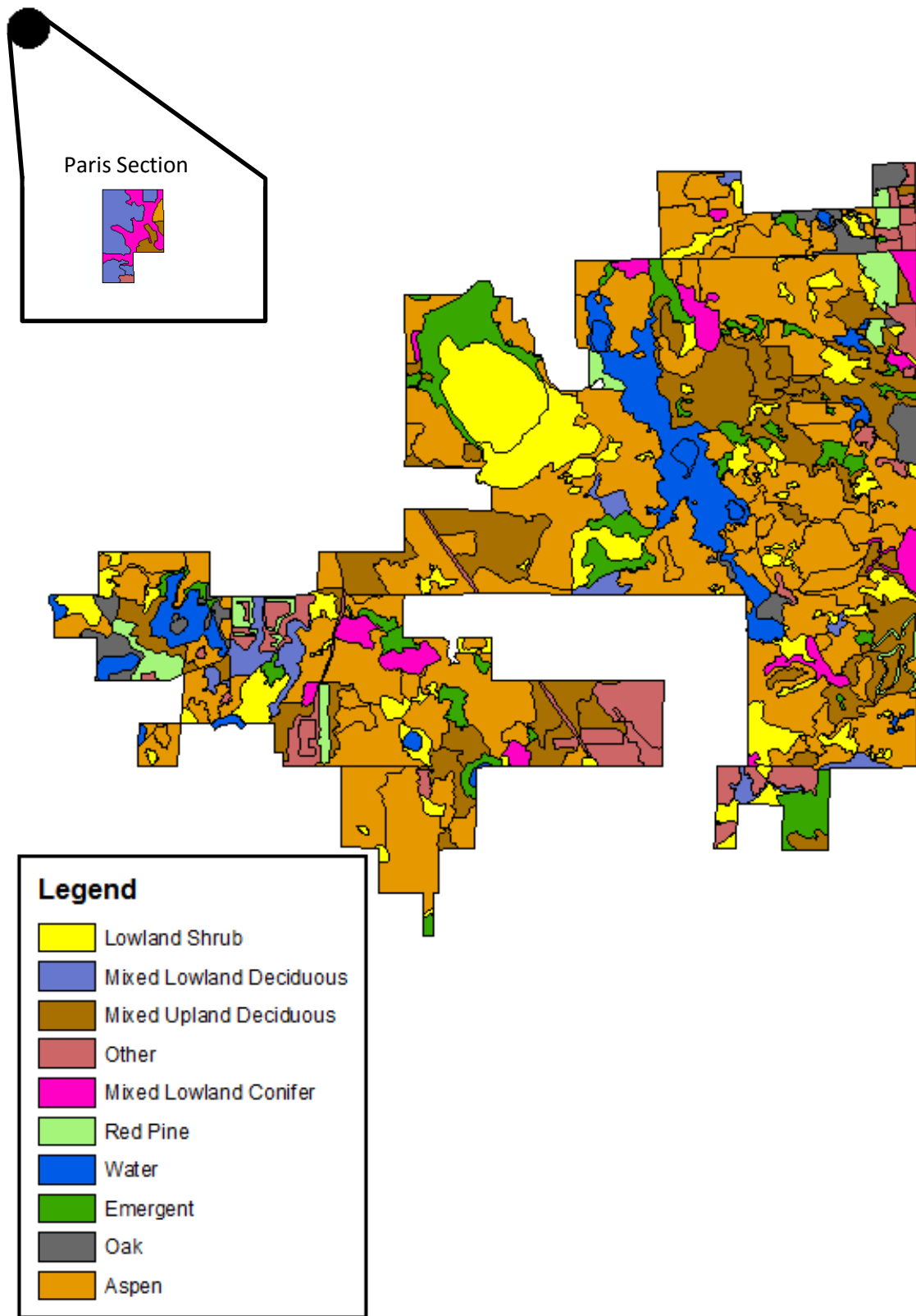
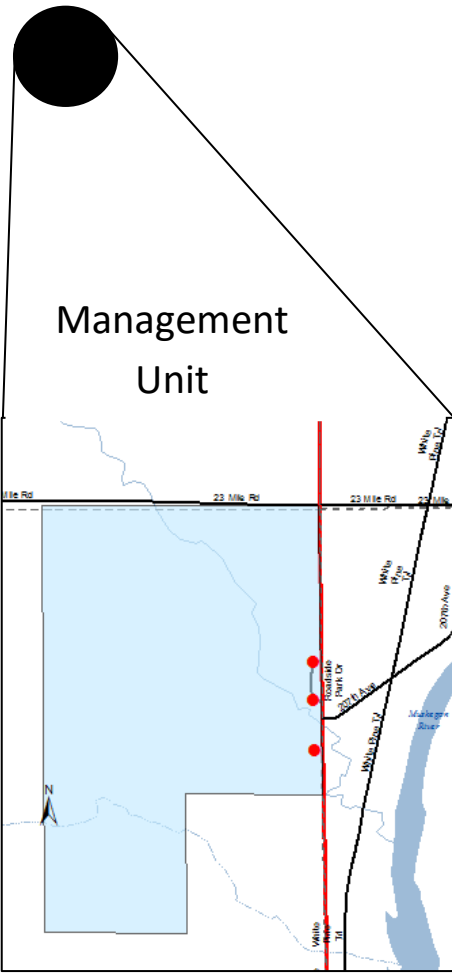


Figure 1. Haymarsh Lake SGA Habitat Cover Map.

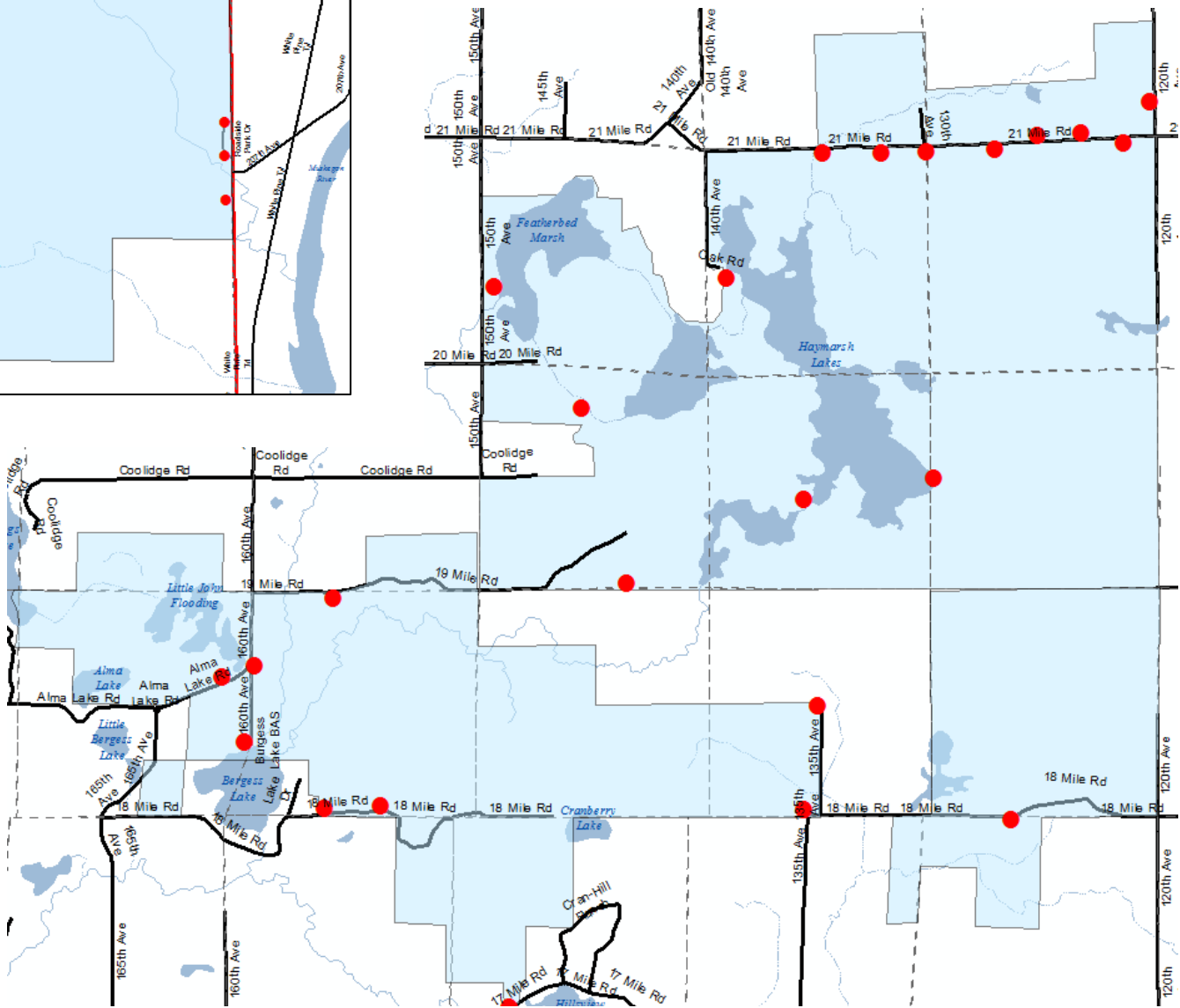


Figure 2. Location of the Haymarsh Lake SGA.



Legend

- Parking_Lots
- Highway
- Lakes and Rivers
- Town Range



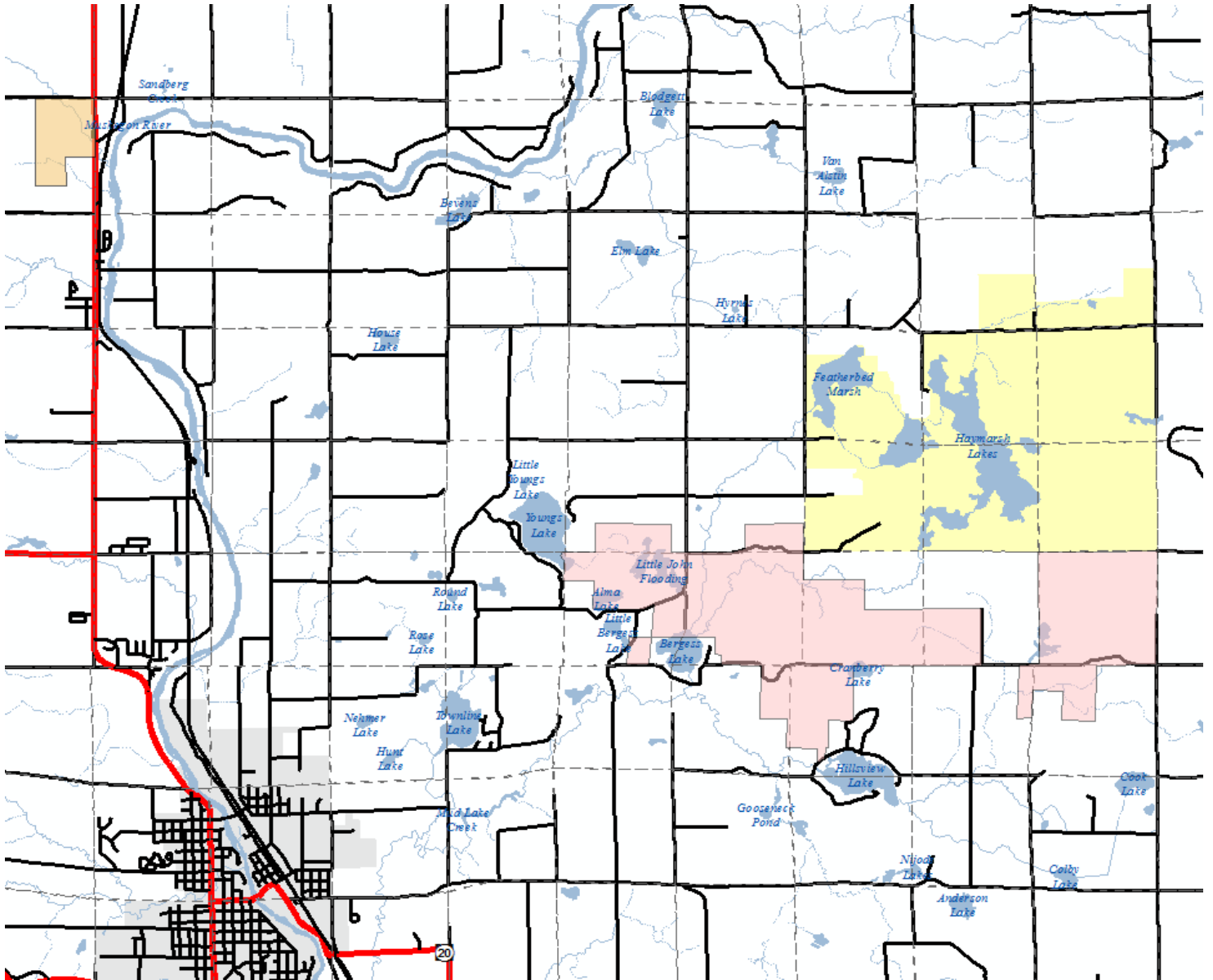


Figure 4. Haymarsh Lake SGA Management Units



Acquisition and Disposal of Land

This is an important game area that provides a host of recreational opportunities for local resident and visitors. Our overall goal is to continue to provide these opportunities. Since the HLSGA is located in west central Michigan and within relatively close distance of the city of Grand Rapids, the land acquisition strategy for the FCSGA is to both fill in state ownership by acquiring available blocks located within and among current state ownership and to expand the area by obtaining appropriate parcels that are outside the

current ownership but within the acquisition boundary. Parcels will be evaluated as they become available and will be acquired on a willing seller basis only.

Public Input

This plan will be available for public review and comment on the DNR website between July 1, 2016 and July 31, 2016. Changes will be made, as necessary, based on public feedback. Once the plan is approved it will be placed on the [DNR website](#), and will be reviewed again within 10 years of the approved date. Send comments to: Peter J. Kailing KAILINGP@michigan.gov

Approvals

(Name), Field Operations Manager

Date

(Name), Regional Supervisor

Date