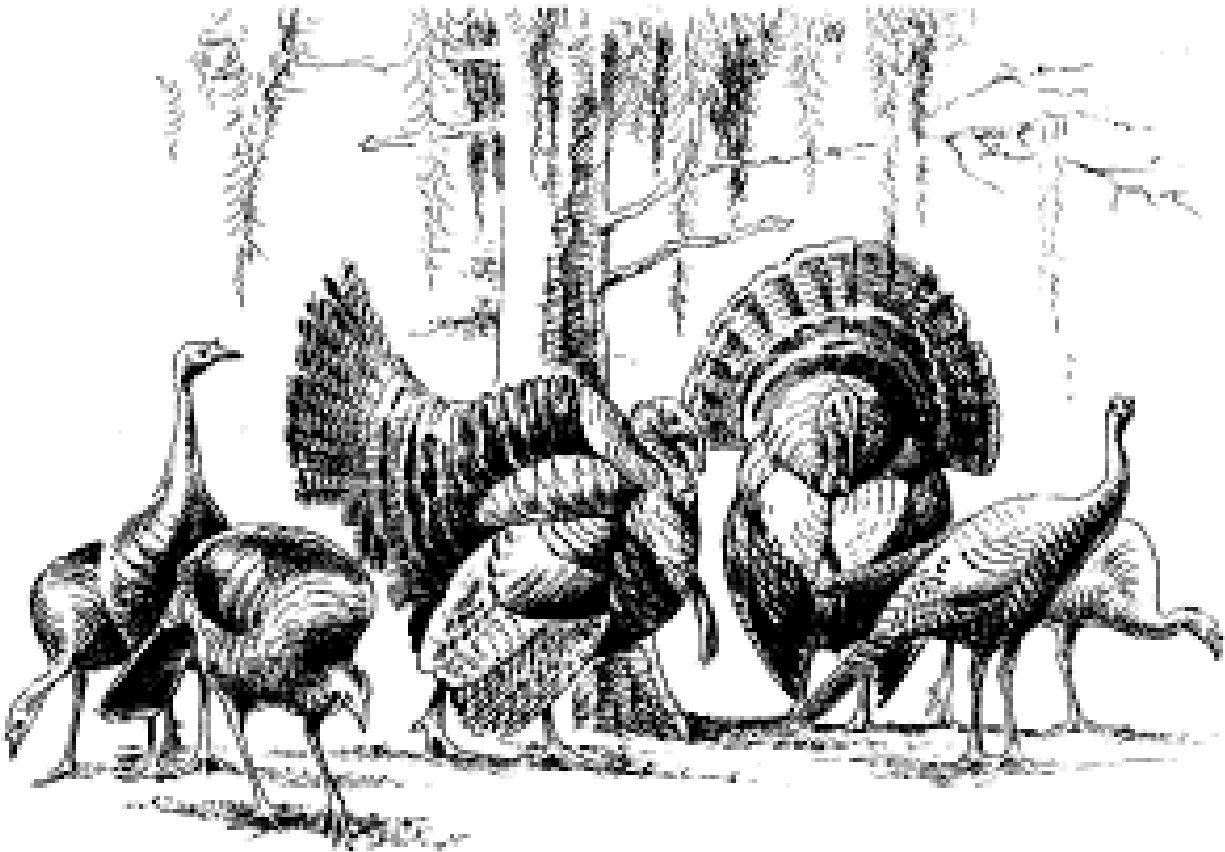


# Flat River State Game Area Master Plan



**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**

**WILDLIFE DIVISION**

**JOHN NIEWOONDER**

**JUNE 2015**

## **Intended Purpose and General Management Direction**

The Flat River State Game Area (FRSGA) was dedicated on May 5, 1950. The Natural Resources Commission dedication memo indicated that “the area provides good game range: pheasants, rabbits, and squirrels are plentiful. Waterfowl also are important”. The majority of land was purchased with federal Pittman-Robertson Funds, but some land was acquired through tax reversion and recreation bond monies. The FRSGA is located in the Southwest Region (SWR) of the Lower Peninsula along the Montcalm-Ionia county border (Figure 1). The SGA was classified as a deer-grouse area and was managed for these and other forest wildlife species including rabbits and squirrels. Forest cutting has been the primary habitat management technique on the area. In addition, the wetland complexes provided by the Flat River, Wabasis Creek and Dickerson Creek have been supplemented by creation and management of numerous floodings and ditching/pothole projects in order to improve habitat for waterfowl. In the last 30 years, habitat management for wild turkeys has been an additional goal and in the early 1990s management for the federally endangered Karner blue butterfly was initiated.

Pittman-Robertson (P-R) funds are a source of federal aid generated from taxes on sporting arms and ammunition and are apportioned to states for the purpose of wildlife population and habitat management, and wildlife-based recreation. Multiple use of areas supported by P-R funding is encouraged, provided it does not interfere with the primary purpose of wildlife management and habitat restoration.

The FRSGA has been expanded to include 11,373 acres (Figure 2) and is managed to provide quality habitat for the following Featured Species: wild turkey, white-tailed deer, ruffed grouse, American woodcock, wood duck, and Karner blue butterfly, and for recreational opportunities associated with these species.

## **Background**

This plan incorporates goals and objectives of other higher level DNR and Wildlife Division plans and initiatives. The DNR Evergreen goals (protect natural and cultural resources, ensure sustainable recreation use and enjoyment, enable strong natural resource-based economies, improve and build strong relationships and partnerships, foster effective business practices and good governance), the Wildlife Division’s Guiding Principles and Strategies (Goal 2-Manage habitat for sustainable wildlife populations, Goal 4-Increase public participation in hunting and trapping), 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 SWR Regional Operational Plan, and the SWR Land Management Plan are all reflected in this plan.

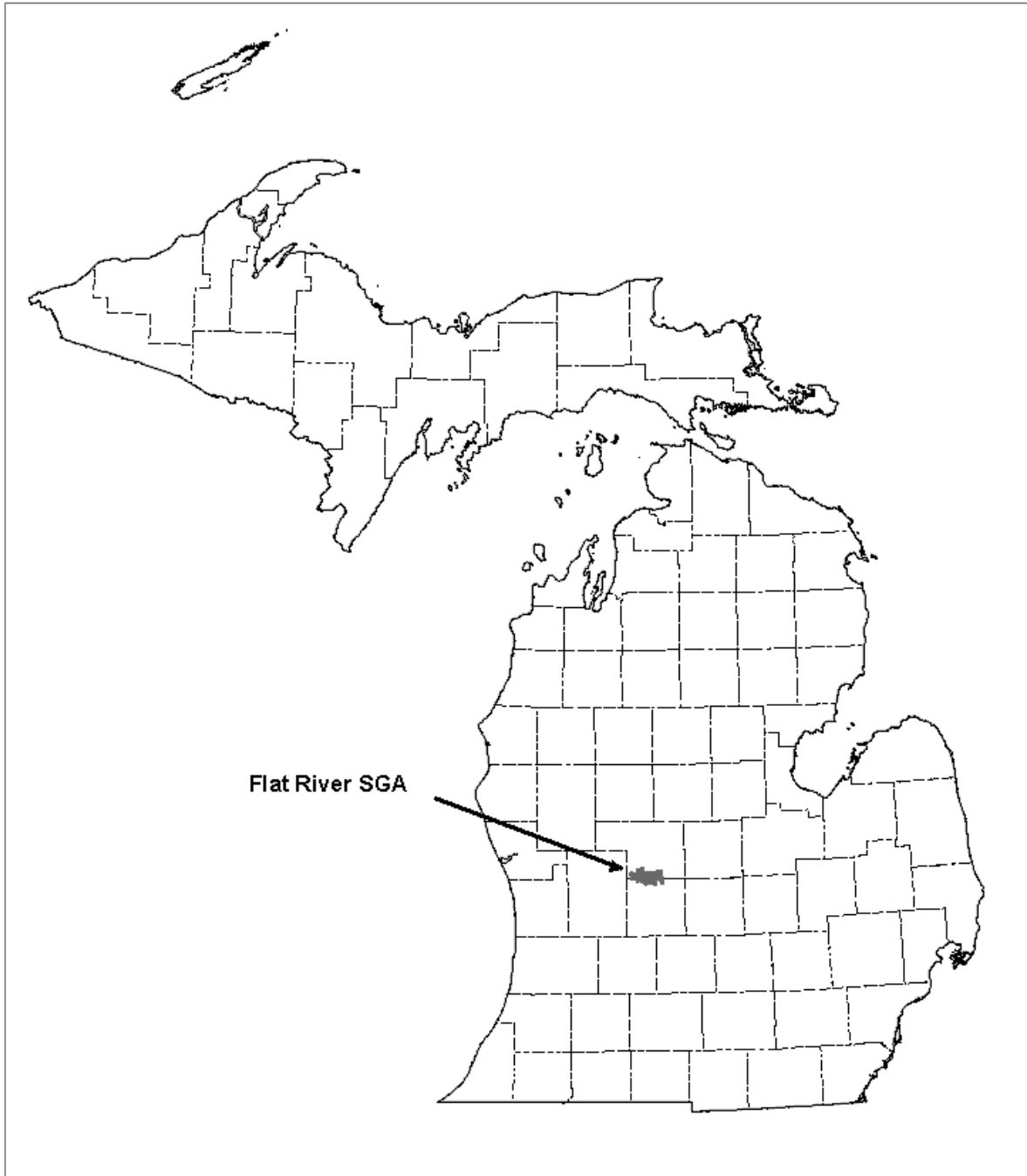


Figure 1. Location of the Flat River SGA.

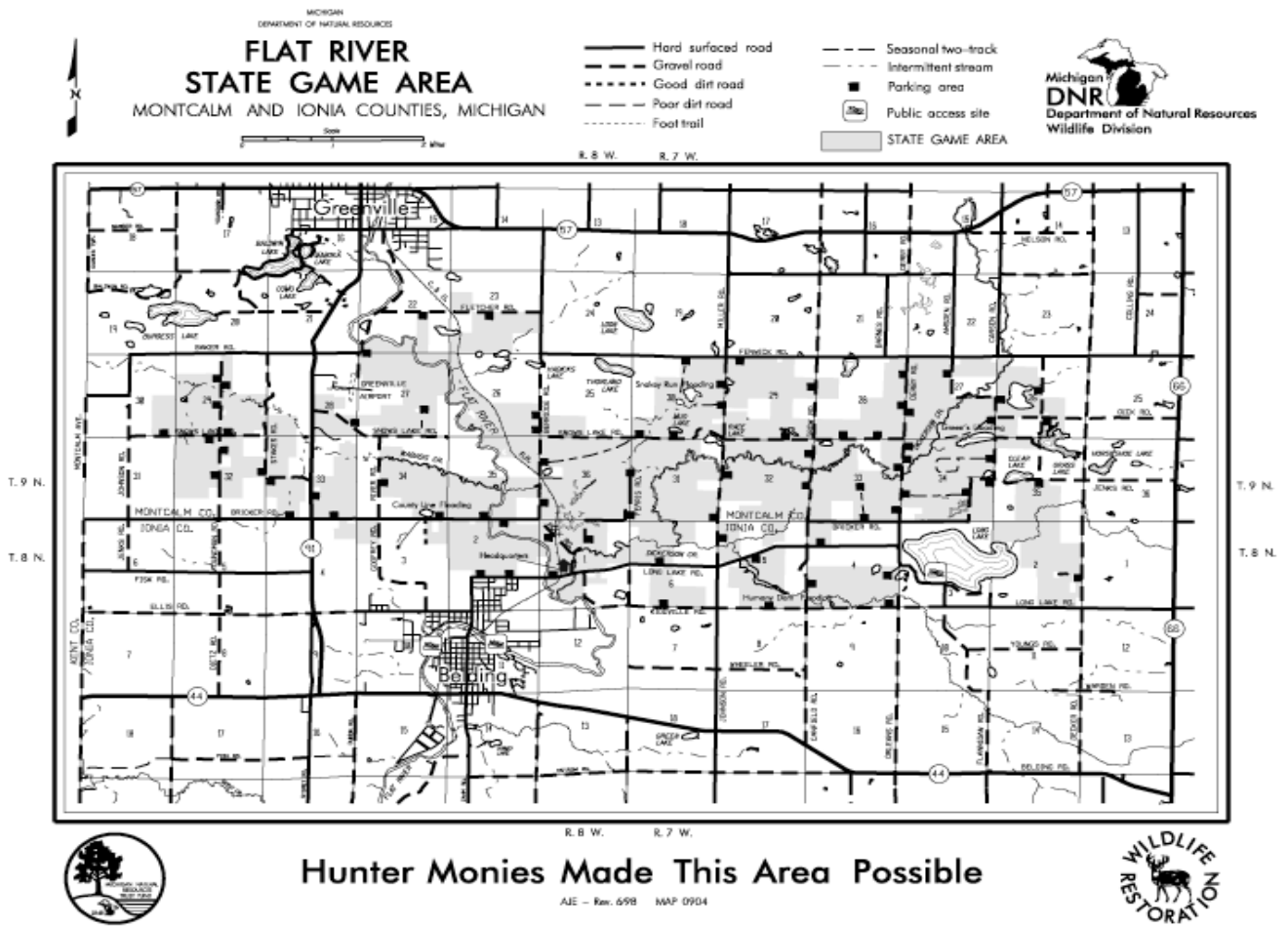


Figure 2. Flat River SGA boundaries.

## Existing Conditions

The FRSGA consists of gently rolling, mostly forested land. A variety of vegetation types can be found on the area including extensive second growth upland forests (mostly oak, aspen, red maple and white pine), lowland forests (silver maple, green ash, elm) associated with the Flat River, Wabasis Creek and Dickerson Creek waterways, forest openings that are remnants of oak savanna/barrens and agricultural activities, and pine plantations.

The FRSGA is large and consists of diverse habitat types (Table 1). The size of the area and the different habitats available provide the opportunity to manage for more than one set of goals and objectives and the SGA is divided into 2 Management Areas (Figure 3). The **Forested Management Area** consists of the majority of the SGA (Compartments I, III, IV, and V) where management goals are to provide quality habitat for wild turkey, ruffed grouse, American woodcock, white-tailed deer, cottontail rabbit, and wood duck. The **Oak Savanna Management Area** consists of Compartment II where potential for restoration of remnant oak savanna and oak barrens exists. Management goals are aimed at maintenance and expansion of Karner Blue Butterfly (KBB) habitat and populations and improvement of turkey habitat.

Table 1. Current habitat of the designated Management Areas (MAs) on the Flat River SGA.

	<b>Total SGA Acres</b>	<b>Total SGA Percent</b>	<b>Forested MA Acres</b>	<b>Forested MA Percent</b>	<b>Savanna MA Acres</b>	<b>Savanna MA Percent</b>
Aspen	824	7.2	805	9.3	19	0.7
Oak	2968	26.1	2002	23.1	966	35.6
Northern Hardwoods	194	1.7	103	1.2	91	3.4
Mixed Upl. Deciduous	1972	17.3	1555	18.0	417	15.4
Low Density Trees	328	2.9	254	2.9	74	2.7
Herbaceous Openland	1021	9.0	785	9.1	236	8.7
Natural Pines	130	1.1	109	1.3	21	0.8
Planted Pines	968	8.5	666	7.7	302	11.1
Mixed Upland Conifers	65	0.6	65	0.8	0	0.0
Upland Shrub	217	1.9	110	1.3	107	3.9
Lowland Deciduous For.	1488	13.1	1233	14.2	255	9.4
Lowland Coniferous For.	47	0.4	32	0.4	15	0.6
Lowland Mixed Forest	122	1.1	83	1.0	39	1.4
Lowland Shrub	551	4.8	545	6.3	6	0.2
Emergent Wetland	302	2.6	218	2.5	84	3.1
Water	115	1.0	43	0.5	72	2.7
Other	61	0.5	54	0.6	7	0.3
<b>Total</b>	<b>11373</b>		<b>8662</b>		<b>2711</b>	

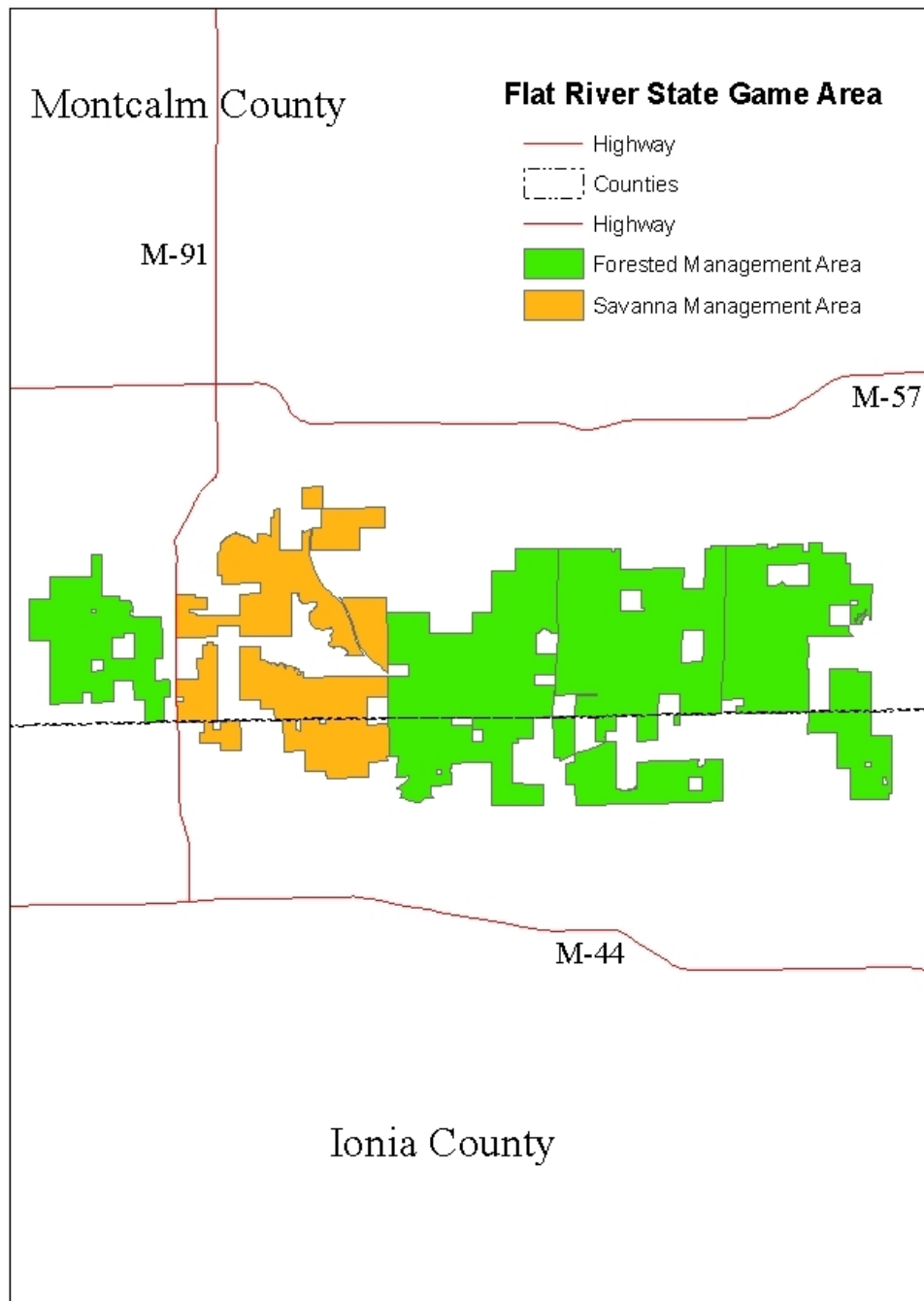


Figure 3. Flat River SGA Management Areas.

What follows is the strategic direction for the Flat River SGA. 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 should come mostly from the featured species and habitat issues relevant for the given SGA, but could also come from recreational infrastructure needs or natural communities. For the purposes of this master plan, the following definitions will be used:

**Goal** – A desired future condition of the area.

**Objective** – A management approach or strategy that the best science suggests can be used to move the area toward the goal. An objective is a quantifiable input to be completed within a defined timeframe that contributes towards accomplishing the goal.

**Action** – An operational means to accomplish an objective. An action is a step needed to complete an objective and is described in sufficient detail to inform implementation in operational and annual work plans. It is expected to take approximately ten years to complete all the objectives.

## **Goals/Objectives/Actions (listed as highest priority to lowest)**

**Goal I.** Promote sustainable populations of ruffed grouse and American woodcock in the Forested Management Area of the SGA.

**Rationale:** Grouse and woodcock are highly desirable game species and managing for their habitat benefits numerous other wildlife species. White-tailed deer also benefit from Actions taken under this Goal.

**Metrics:** Staff observation and hunter surveys; assessment of aspen trends across time within IFMAP, number of suitable forest openings.

**Objective A.** Double the aspen cover type on the Forested Management Area to 1,600 acres (18%) and provide a balance of age classes on a 40-year rotation (25% at age 0-10, 25% at age 11-20, 25% at age 21-30, 25% at age 31-40) in a manner that optimizes the spatial arrangement for the benefit of grouse and woodcock by 2023.

**Action 1.** Establish an aspen harvest regime (approximately 200 acres every decade) that will expand and improve the aspen type and optimize the age classes and juxtaposition of aspen stands on the Forested Management Area.

**Objective B.** Provide suitable forest openings (1-10 acres in size), comprising 10 % of the Forested Management Area for breeding and roosting habitat for woodcock within aspen complexes by 2023.



**Action1.** Maintain and create small herbaceous openings at appropriate locations throughout the Forested Management Area.

**Goal II.** Promote sustainable populations of wild turkey on the Flat River SGA (both Management Areas).

**Rationale:** Wild turkeys are highly desirable game species and managing for their habitat, especially the oak component of the forest, benefits numerous other wildlife species. White-tailed deer also benefit from Actions taken under this Goal.

**Metrics:** Staff observation and hunter surveys; assessment of oak types within IFMAP, number of suitable forest openings.

**Objective A.** Maintain the current extent (~3,000 acres) of oak cover type on the SGA and balance the age class distribution.

**Action 1.** Develop and implement an adaptive oak management strategy by 2018.

**Action 2.** Harvest approximately 300 acres of oak forest during the next decade.

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

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

**Objective C.** Maintain suitable forest openings (1-10 acres in size) on 1,000 acres (9 % of the Flat River SGA) for foraging and breeding habitat for wild turkey.

**Action1.** Maintain herbaceous openings at appropriate locations throughout the Flat River SGA.

**Goal III.** Promote sustainable populations of cottontail rabbit in the Forested Management Area of the SGA.

**Rationale:** Rabbits are popular game species and managing for their habitat benefits numerous other wildlife species.

**Metrics:** Staff observation and discussion with hunters; number of brush piles created

**Objective A.** Provide suitable escape cover by creating 70 brush piles each year.

**Action 1.** Establish a timber harvest regime (associated with Goals I and II) that will require loggers to create 2 brush piles for every acre harvested resulting in 55 brush piles per year (on average).

**Action 2.** Use DNR staff and volunteers to build 15 brush piles each year.

**Objective B.** Provide suitable forest openings (1-10 acres in size) comprising 10% of the Forested Management Area for nesting and feeding habitat for rabbits by 2023.

**Action1.** Maintain and create small herbaceous openings at appropriate locations throughout the Forested Management Area (associated with Goal I) by 2023.

**Goal IV.** Promote sustainable populations of wood ducks on the Flat River SGA (both Management Areas).

**Rationale:** Wood ducks are popular game species and protecting and maintaining their preferred habitat along the Flat River, Wabasis Creek and Dickerson Creek corridors will provide waterfowl hunting opportunities. In addition, these forested riparian corridors are habitat to a variety of wildlife species and protect water quality.

**Metrics:** Staff observation and hunter surveys; assessment of lowland forest types within IFMAP.

**Objective A.** Maintain the current extent (~2,200 acres) of lowland forest and shrub cover type on the SGA.

**Action 1.** Do not implement forest management activities in lowland forest and shrub stands adjacent to the Flat River and Wabasis and Dickerson Creeks.

**Action 2.** Restrict forest management activities in upland stands within 100 feet of the Flat River and Wabasis and Dickerson Creeks.

**Objective B:** Manage emergent wetlands (~300 acres) to provide wetland vegetation and open water areas preferred by wood ducks.

**Action 1.** Manage wetland vegetation/open water conditions through water level manipulation and other methods on the 5 wetlands where water control structures occur.

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

**Goal V:** Promote sustainable populations of Karner blue butterfly in all 3 KBB Management Units (KMUs) within the Oak Savanna Management Area.

**Rationale:** Once found from Minnesota to New England and into Canada, continuous habitat loss and vanishing populations of butterflies have resulted in the federal government listing the KBB as an endangered species. The General Land Office (GLO) indicated that oak savanna was a dominant cover type on what is now Compartment II of the FRSGA and there are known populations of KBB currently on the area.

**Metrics:** KBB presence/absence and abundance via annual surveys.

**Objective A.** Maintain, enhance and restore open oak habitat (oak savanna, oak barrens and oak openings) within all KMUs in the Oak Savanna Management Area (Figures 3, 4).

**Action 1.** As needed, apply prescribed fire to burn no more than 1/3 of an occupied site and the entire potentially occupied site to set back succession and provide optimal habitat conditions for wild lupine and KBB.

**Action 2.** Remove non-native trees and shrubs from all occupied sites by mechanical methods as needed.

**Action 3.** Protect open oak habitats within the Oak Savanna Management Area from damage caused by ORV trespass and other potential threats.

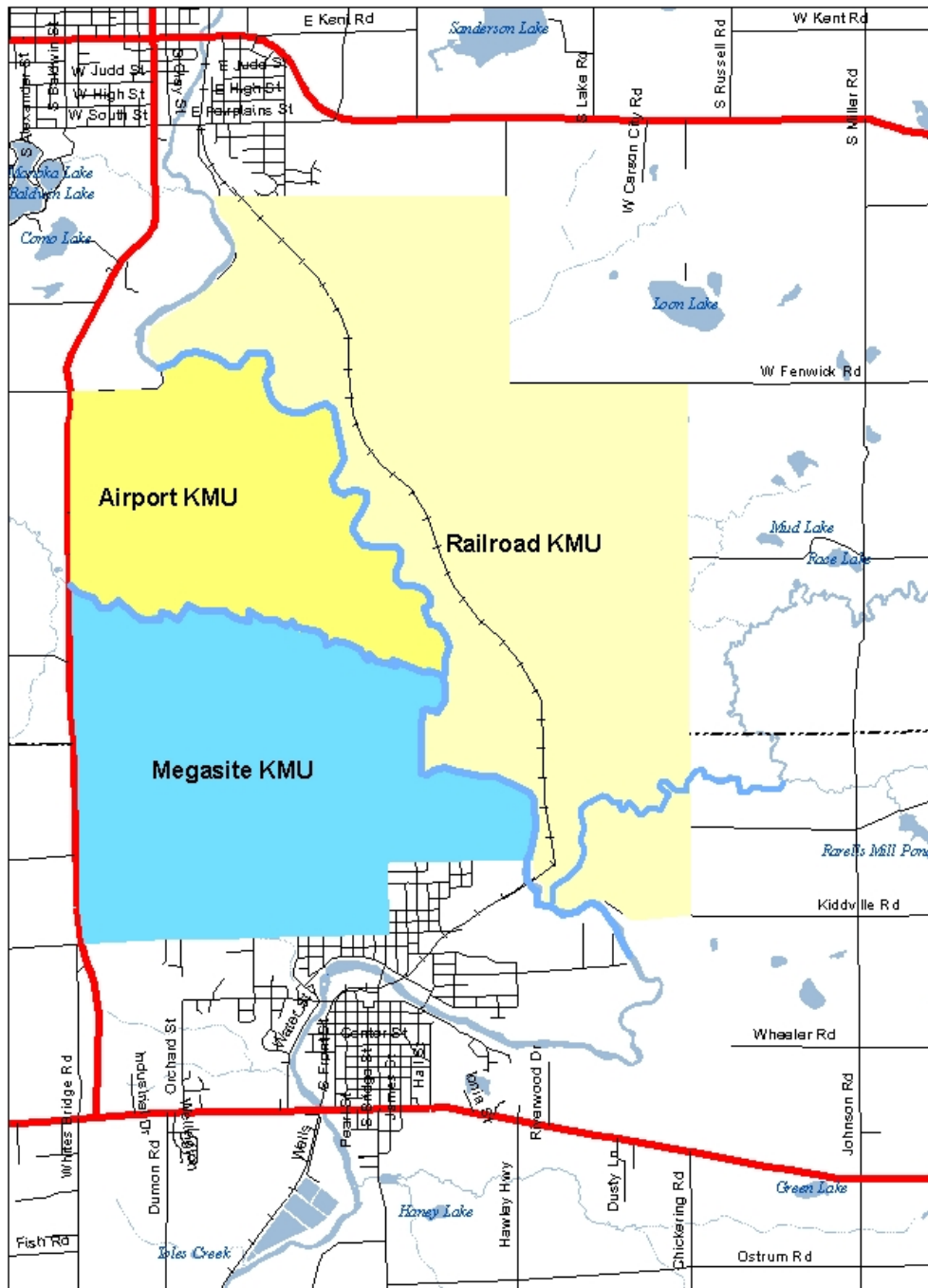


Figure 4. Flat River SGA Karner Management Units.

## **Recreational and Commercial Uses**

Recreational and commercial uses on the area that are not incidental to our management for the purposes described above are generally not allowed. These uses can be allowed, however, under the following circumstances:

1. The uses must not interfere or conflict with the wildlife conservation purposes of the area described above.
2. The DNR 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 DNR 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 DNR always reserves the ability to disallow activities previously allowed as wildlife conservation needs dictate.

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

## **Acquisition and Disposal of Land**

Since the FRSGA is located in southern Michigan and within relatively close distance of the city of Grand Rapids, the land acquisition strategy for the FRSGA 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 was available for public review and comment on the DNR website between May 1, 2015 and May 31, 2015. During this period, no comments were received for this plan. The final plan was approved on June 25, 2015 and will be reviewed within 10 years of the approved date.

## Approvals

  
John Niewoonder, Wildlife Biologist (Author) 9/8/17  
Date

  
John Niewoonder, Field Operations Manager 9/8/17  
Date

  
Mark Sargent, Regional Supervisor 9/26/17  
Date