



Gratiot-Saginaw State Game Area

Master Plan



MICHIGAN DEPARTMENT OF NATURAL RESOURCES

WILDLIFE DIVISION
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(FEBRUARY 18, 2016)

Intended Purpose and General Management Direction

Acquisition of the Gratiot-Saginaw State Game Area (GSSGA) began in November of 1939. Prior to purchase, much of the land consisted of open farmland and recently cut over woodland. Due to sandy and poorly drained soils farming was marginal at best. Since then, plant succession has filled in most of the openings and much of the area is now predominantly forested. Forest management practices (selective and clear cutting) have been the primary habitat management technique on the area. In addition, over 700 acres of artificial impoundments and ditching/potholes were constructed to improve habitat for waterfowl.

The majority of land on the game area was purchased with federal Pittman-Robertson Funds, but some land was acquired through tax reversion, trust fund, and license fee monies. The GSSGA is located in the Southwest Region (SWR) of the Lower Peninsula along Gratiot-Saginaw county border (Figure 2). Over time, the GSSGA has been expanded to include 16,966 acres (Figure 3) and is managed to provide quality habitat for wild turkey, white-tailed deer, ruffed grouse, American woodcock, wood duck, and ring-necked pheasants and for recreational opportunities associated with these species

In the future (50-100 years from now) we want the area to continue to contribute to sustainable populations of important wildlife species, provide valuable hunting and trapping recreation, and maintain a large forested system in an otherwise open landscape.

Background

At a local level, this plan helps fulfill goals and objectives of other higher level Department and Wildlife Division plans and initiatives. 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, 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 Michigan Pheasant Restoration Initiative, 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 1939, 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.

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

Common Name	Featured Species	T&E, SC Species	Climate Change Vulnerable	Remarks
Cottontail Rabbit	X			Brush piles
Ring-necked Pheasant	X			Grassland maintenance
Ruffed Grouse	X		X	Young forests, aspen
White-tailed Deer	X			Openings, food plots, mast trees
Wild Turkey	X			Openings, food plots, oak management
Woodcock	X			Openings, young forests
Wood Duck	X			Floodings, nesting/ brood cover

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. Lowland forests provide critical corridors for species shifting distribution in response to climate change and serve to act as carbon storage and will be maintained for these purposes.

Existing Conditions

The topography of the GSSGA is essentially level with only occasional gentle slopes occurring. Changes in elevation of only a few feet often dictate the difference between dry and wet soil conditions. Elevations on the area range from 725 to 750 feet above sea level. A variety of vegetation types can be found on the area, but a vast majority of the area is forested (Figure 1, Table 2). Most of the forested area consists of lowland deciduous forest followed by mixed upland deciduous, oaks, and aspen. Other non-forested cover types of interest include areas of open grasslands and 700 acres of impoundments and associated wetlands.

Compared to other southern Michigan games areas, the GSSGA is large (nearly 17,000 acres) and provides a diverse variety of cover types (Table 2) that provide valuable habitat for the species we are managing for. With much of the area consisting of forested habitat, management goals are to provide quality habitat for wild turkey, ruffed grouse, American woodcock, white-tailed deer, and cottontail rabbit. Impoundments and associated wetlands will continue to be managed to provide habitat for waterfowl

and furbearing species. The management goals for the larger grassland areas will be to provide quality habitat to support species such as ring-necked pheasants and wild turkey.

Failing wetland infrastructure (water control structures, dikes/dams) and phragmites are current issues impacting the desired future condition of the managed wetlands on the area. Lack of early successional forest management over the last couple of decades has resulted in less acres of young forests that are necessary for several of the featured species inhabiting the area. These issues are impacting the ecological integrity of these habitat types and the recreational opportunities associated with them. As a result, these issues will be treated during this planning period.

Table 2. Current cover types on the Gratiot-Saginaw SGA based on MiFi surveys from 2012.

Cover type	Acres	Percent of Game Area
Lowland Deciduous	8425	49.7
Mixed Upland Deciduous	2689	15.8
Herbaceous Openland	1398	8.2
Oak	1166	6.9
Lowland Shrub	1111	6.5
Marsh	531	3.1
Aspen	528	3.1
Lowland Aspen/Balsam Poplar	267	1.6
Red Pine	211	1.2
Cropland	197	1.2
Other	443	2.6
Total	16966	

Recreational Use

The GSSGA provides a host of recreational opportunities for local residents and visitors alike, including hunting, trapping, bird watching 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

The GSSGA lies in a fairly rural area of Gratiot and Saginaw Counties but is within driving distance to some large population centers (Lansing, Flint, and Saginaw). Management activities on the area do result in contributions to the local economy. Some of these activities include over 300 acres of sharecropping through agreements with several local farmers, timber management activities with loggers, and area use by hunters, trappers, and other wildlife enthusiasts provide a direct boost to local restaurants, convenience stores, and gas stations.

Management Direction

The desired future condition for the Gratiot-Saginaw State Game Area is outlined in the following table.

Table 3. Desired future condition of cover types and habitat issue direction on the Gratiot-Saginaw SGA.

Cover type and Habitat Issues	Desired Future Condition
Oak	Maintain
Northern Hardwoods	Maintain
Mixed Upland Deciduous	Decrease
Natural Pines	Maintain
Planted Pines	Decrease
Lowland Deciduous Forest	Maintain
Lowland Shrub	Maintain
Emergent Wetland	Maintain
Acres of Agriculture	Increase
Acres of Aspen	Increase
Acres of Warm Season Grass	Increase
Acres of Herbaceous Open lands	Maintain
Acres of Cool Season Grass	Increase
# of Forest Openings	Increase
Grassland Patches > 150 Acres	Increase
Mature Forest	Maintain
Unfragmented Forest	Maintain
Managed Wetlands	Decrease

Goals, Objectives, and Management Actions

What follows is the strategic direction for the Gratiot-Saginaw SGA, 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 GSSGA.

Goal I: sustainable populations of ruffed grouse and American woodcock

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 through time based on forest inventory data, number of suitable forest openings

Objective A. Increase the aspen cover type on the SGA to 800 acres and begin to 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 2025

Action 1. Establish an aspen and mixed upland deciduous (with aspen component) harvest regime (~250 acres every decade) that will expand and improve the aspen type and optimize the age classes and juxtaposition of aspen stands

Objective B. To provide suitable forest openings (1-10 acres in size) for breeding and roosting habitat for woodcock within aspen complexes by 2025

Action 1. Maintain and create small herbaceous openings at appropriate locations

Goal II: sustainable populations of wild turkey on the Gratiot-Saginaw SGA

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 MiFi, number of suitable forest openings

Objective A. Maintain the current extent (~1,200 acres) of oak cover type on the SGA

Action 1. Develop and implement an adaptive oak management strategy by 2019 that ensures adequate regeneration of young oak stands

Action 2. Harvest approximately 150 acres of oak forest during the next decade through a selective harvest strategy

Objective B. To maintain suitable forest openings throughout the SGA for foraging, breeding, and brood rearing habitat for wild turkey

Action 1. Maintain herbaceous openings at appropriate locations throughout the SGA

Action 2. Provide food source in selected openings through sharecrop agreements or establishment of food plots

Goal III: sustainable populations of cottontail rabbit throughout the Gratiot-Saginaw SGA

Rationale: rabbits are popular game species and important recreational opportunity for new hunter; 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 60 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 50 brush piles per year (on average)

Action 2. Use DNR staff and volunteers to build 10 brush piles each year

Objective B. Provide suitable forest openings (1-10 acres in size), throughout the SGA for nesting and feeding habitat for rabbits by 2025

Action 1. Maintain and create small herbaceous openings at appropriate locations the SGA (associated with Goals I & II) by 2025

Goal IV: sustainable populations of wood ducks on the Gratiot-Saginaw SGA

Rationale: wood ducks are popular game species; managing habitat for waterfowl also benefits numerous other wildlife species

Metrics: staff observation and contacts with hunters

Objective A. Maintain impoundments and ensure all dikes and water control structures are in good condition

Action 1. Conduct an assessment of all wetland infrastructure and develop a long-term plan for water control structure and spillway replacement by 2018

Action 2. Annual inspection of dikes to identify areas in need of repair

Objective B: Maintain forested and emergent wetlands to provide suitable nesting and brood rearing habitat

Action 1. Manage wetland vegetation/open water conditions through water level manipulation

Action 2. Develop a drawdown schedule for managed wetlands by 2018

Objective C: Control wetland invasive species where appropriate

Action 1. Develop a treatment plan for phragmites that is starting to encroach some wetland areas

Goal V: sustainable populations of ring-necked pheasants

Rationale: Pheasants are a highly desirable game species and the Gratiot-Saginaw SGA lies in priority counties for the Michigan Pheasant Restoration Initiative

Metrics: crowing surveys and hunter satisfaction; observation of pheasants and pheasant sign

Objective A. Establish and maintain large grassland complexes >150 acres

Action 1. Continue planting selected fields to switchgrass or a warm season/forb mix to provide suitable winter and brood-rearing cover

Action 2. Continue sharecrop contracts to keep fields open and provide winter food and cover for pheasants

Objective B. Control invasive species where appropriate in grassland areas

Action 1. use mowing/cutting and herbicide to control autumn olive and other shrubby invasives

Action 2. Spot treat herbaceous invasives such as spotted knapweed, Canada thistle, etc. with herbicide as needed

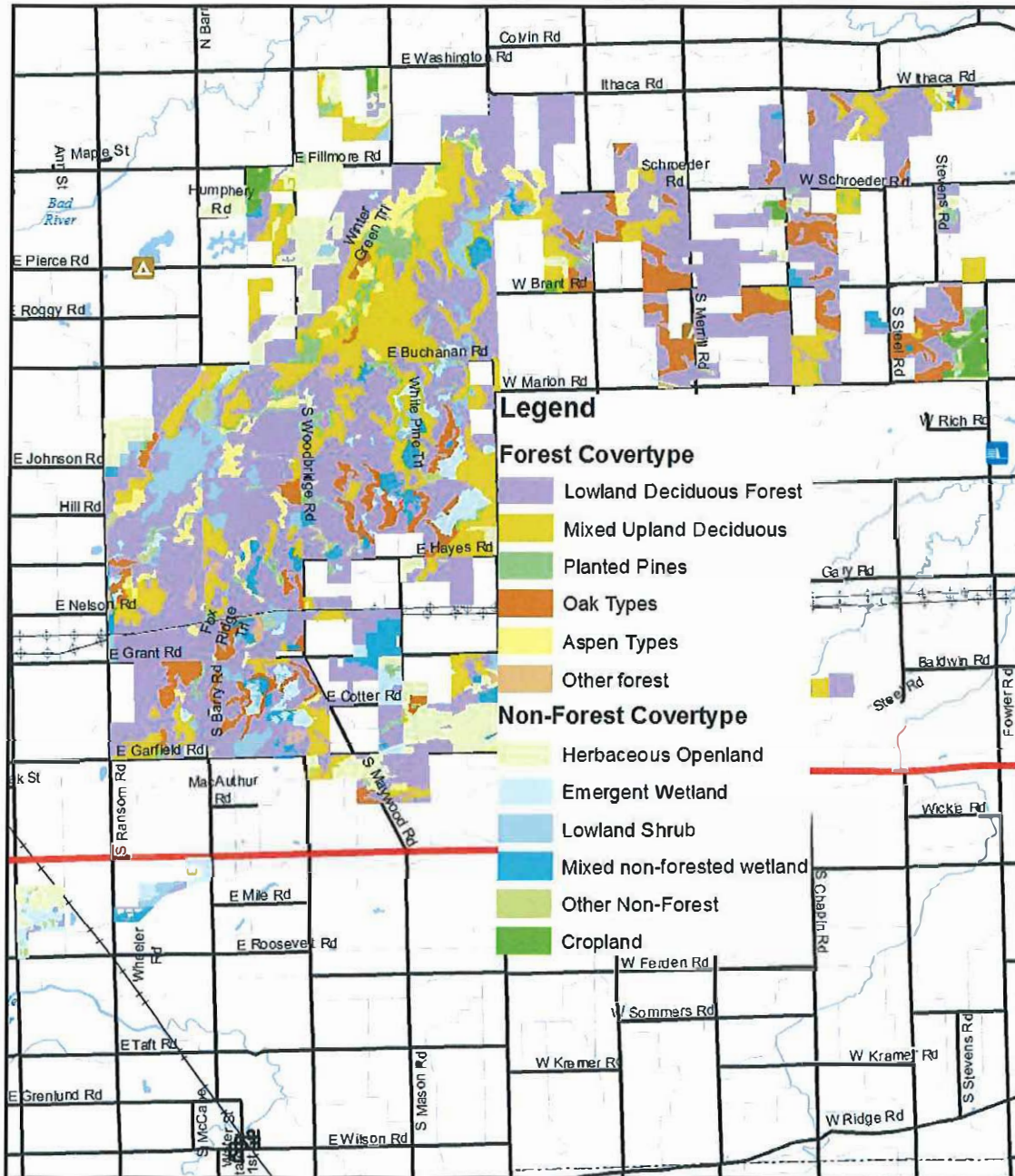


Figure 1. Map representing the major habitat cover type classes in the Gratiot-Saginaw SGA.



Figure 2. Location of the Gratiot-Saginaw SGA.



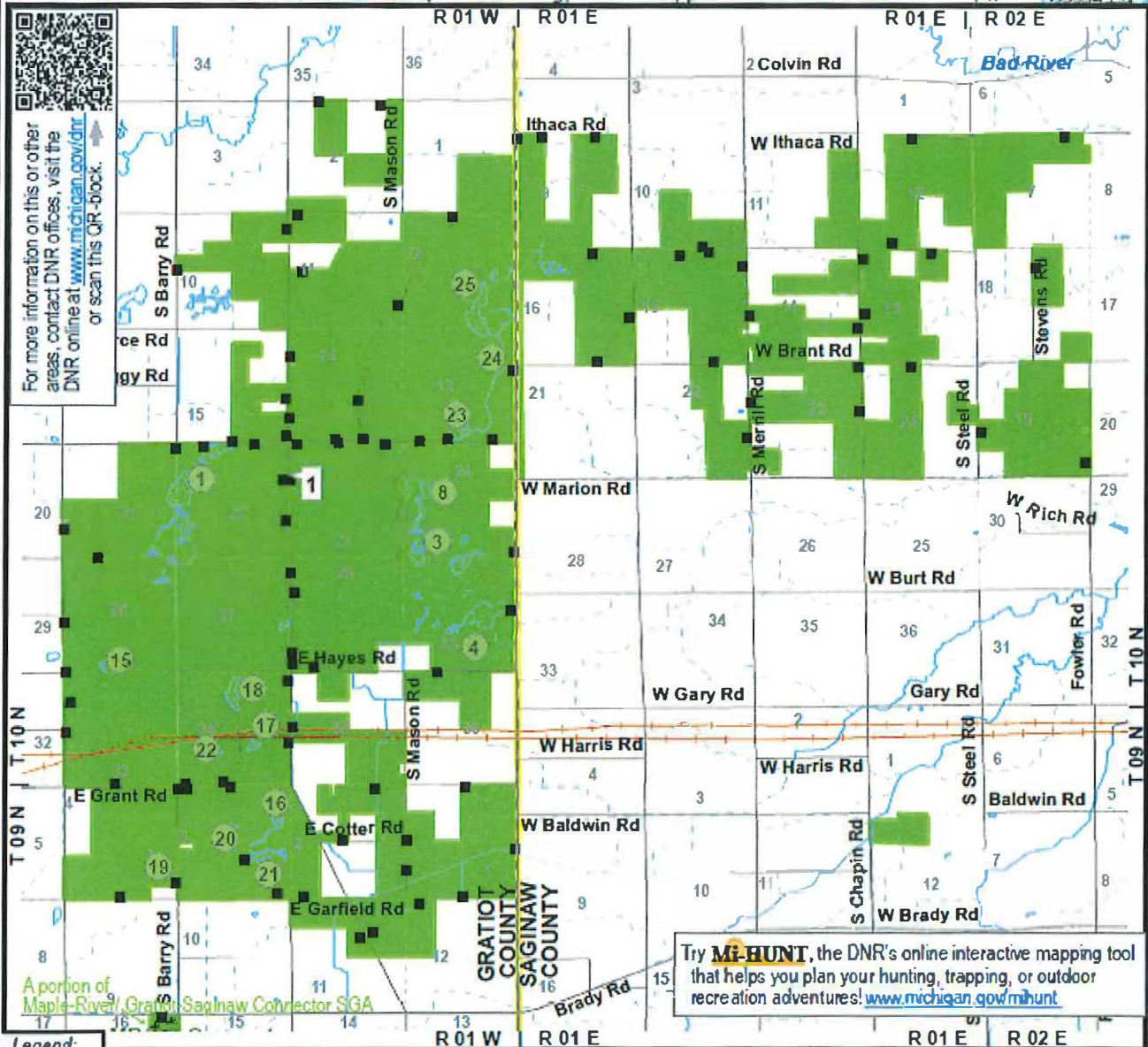
STATE OF MICHIGAN - DEPARTMENT OF NATURAL RESOURCES

GRATIOT-SAGINAW STATE GAME AREA

- General Map -

Gratiot and Saginaw Counties

Area headquarters: Wildlife Office in the Rose Lake DNR Service Center
8562 East Stoll Road, East Lansing, MI 48823 ; phone 517-641-4903



- Legend:**
- State Land: Wildlife/Game Area
 - Parking: Prepared Lots
 - Boating: Prepared Ramp
 - Roads: Highways or Paved
 - Water: Lakes, Ponds
 - Political: Town-Range-Section Lines (labeled 1-36, near center or body)
 - Other: Railroads
 - 1 Impoundment (numbered)
 - Marsh in Area
 - Gravel or Dirt Roads, Two-Tracks, Trails
 - Rivers, Streams
 - Seas, Streams, Drains
 - County Boundary



Important! 150 yards (450 feet) Hunter Safety Zones are enforced around all buildings and structures at all times. Be Safe! Always be careful around water and ditch/dikes for deep water!

Look for Watchable Wildlife viewing area signs in this area, for locations and more information about trails or features.

GPS Coordinates at flag point:
[1] a central Parking Lot off S Woodbridge Rd. Lat.43°14'38.1"N, Long.84°24'30.4"W.

Hunter Monies Help Make This Area Possible

Figure 3. Gratiot-Saginaw SGA boundaries.

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 GSSGA is located in southcentral Michigan and within relatively close distance to population centers, the land acquisition strategy for the GSSGA 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 January 6, 2016 and February 9, 2016. During this period 9 comments were received and considered before finalizing this plan. The final plan was approved on February 18, 2016 and will be reviewed within 10 years of the approved date.

Approvals



(John Niewoonder), Field Operations Manager

2/26/16

Date



(John Niewoonder), Acting Regional Supervisor

2/26/16

Date