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Sharonville State Game Area Master Plan



MICHIGAN DEPARTMENT OF NATURAL RESOURCES

**WILDLIFE DIVISION
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Intended Purpose and General Management Direction

The Sharonville State Game Area (SGA) is located in Jackson and Washtenaw Counties in southern Michigan (Appendix A). The area was originally recommended for purchase and dedication as a game area because “after reviewing all of the factors involved, that the land is well suited for game purposes” and lands “appear to be suited and well adapted for the purpose [game land use]” (September 19, 1951, Director Memo). The Sharonville SGA boundary was dedicated on November 2, 1951.

The original parcels within the dedication boundary were purchased using the Game and Fish Protection Fund (September 19, 1951, Director Memo). Subsequent parcels were purchased using Natural Resources Trust Fund, Pittman-Robertson Fund, tax reversion, and land exchange. The Sharonville SGA is currently 4,387 acres (Appendix B).

From 1973 to 1984, the Sharonville SGA was part of the Put-Take Pheasant Program. Additionally, in 1989, 15 wild turkeys were released on the SGA; and, it has been popular for spring turkey hunting since 1992. This highlights the importance of the upland gamebird hunting recreational opportunity on the area.

In August 2015, the Natural Resources Commission approved the Wildlife Conservation Order (WCO) 13.18 designating the Pierce Road Unit (PRU) of the Sharonville SGA as a 600-acre parcel that would only be open access by people with health challenges during specific hunting periods (Appendix C). These hunting periods coincide with the Liberty Hunt, Independence Hunt, the first week of Archery Deer Season, and the Regular Firearm Deer Season. The location of the PRU is identified in Appendix B. This restricted access area is meant to improve the deer hunting experiences of people with health challenges through a special hunt where competing hunter activity in the area would be greatly reduced. This designation will be rescinded on August 14, 2018. The restricted designation will be reviewed and may be implanted permanently at that time.

In the future (50-100 years from now) we want the area to continue to contribute to sustainable populations of important wildlife species (game and non-game), provide valuable wildlife related recreation with an emphasis on upland gamebird and small game hunting and bird watching, and increase accessibility to these opportunities and resources for people with health challenges while still maintaining ecological integrity of the unique natural communities and features associated with the area.

Background

At a local level, this plan helps fulfill goals and objectives of other higher level Department and Wildlife Division plans and initiatives including:

- [Michigan Department of Natural Resources \(DNR\)](#) goals to 1) Protect natural and cultural resources, 2) Ensure sustainable recreation use and enjoyment, 3)

Enable strong natural resource-based economies, and 4) Improve and build strong relationships and partnerships;

- [Michigan's Wildlife Action Plan \(WAP\)](#) goals to implement conservation actions that address key habitat issues 1) [Large Grasslands](#), 2) [Prairies and Savannas](#), 3) [Fens](#), and 4) [Warmwater Streams and their Headwaters](#);
- [Michigan Pheasant Restoration Initiative \(MPRI\)](#) goal to provide 1,200-2,000 acres of high-quality pheasant habitat within a larger area of approximately 10,000 acres;
- [Wildlife Division's Guiding Principles and Strategies \(GPS\)](#) Goal 2) Manage habitat for sustainable wildlife populations and wildlife-based recreation, Goal 3) Administer and promote effective stewardship of lands for wildlife habitats and wildlife-based recreation, and Goal 4) Enhance sustainable wildlife-based recreation use and enjoyment;
- [More Bang For Your Buck \(BFYB\)](#) goals 2) Bringing back quality pheasant hunting to Michigan, 4) Creating outstanding grouse, woodcock and turkey hunting in Michigan, 5) Expanding the challenge of small game hunting for squirrel, rabbit and hare, and 7) Preserving and promoting Michigan's hunting and trapping heritage.
- [Michigan Operation Freedom Outdoors \(MiOFO\)](#) objective to minimize physical barriers to access and enjoyment of SGAs and wildlife-related recreation.

In future years, the Sharonville SGA will also align with a Wildlife Division Southeast Region Land Management Plan, which is currently in early stages of development.

Wildlife Species

The Sharonville SGA will be managed for its intended purpose of providing wildlife habitat and wildlife-related recreation opportunities for current and future generations. The main focus of the area will be for upland gamebird management. Historically, this area has been popular for pheasant and turkey hunting and is now a popular destination for birding and deer hunting. This area is also well suited for meeting the BFYB goal of expanding the challenge of small game hunting for squirrel and rabbit, so we have incorporated this goal in our plan for management.

The importance of Sharonville SGA to grassland bird populations is undeniable. We will continue to work towards the MPRI goals at Sharonville SGA. We will also work to address key habitat issues identified in the WAP. Habitat needs for Species of Greatest Conservation Need (SGCN) will be considered and will help direct management decisions and selected techniques for implementation. We will also be using the Wildlife Division's [Featured Species Approach](#) to habitat management. See Table 1 for a list of these species that occur on the Sharonville SGA for which habitat will be managed and conserved.

Table 1. A list of wildlife species for which projects will support during this planning period, reflecting opportunities for habitat or recreational management.

Taxa	Common Name	Scientific Name	Featured Species	Species of Greatest Conservation Need (SGCN)	State Conservation Status ¹	Federal Conservation Status ²	Climate Change Vulnerability ³	Habitat Remarks
Birds	American Woodcock	<i>Scolopax minor</i>	X				IL	Young forests, aspen
Birds	Bobolink	<i>Dolichonyx oryzivorus</i>	X				IL	Grassland blocks ≥75 acres, prairie management
Birds	Dickcissel	<i>Spiza americana</i>		X	SC		IL	Grassland blocks ≥25 acres, prairie management
Birds	Eastern Wild Turkey	<i>Meleagris gallopavo</i>	X				IL	Prairie planting, soft & hard mast trees, food plots
Birds	Grasshopper Sparrow	<i>Ammodramus savannarum</i>		X	SC		PS	Grassland blocks 25-75 acres, prairie management
Birds	Henslow's Sparrow	<i>Ammodramus henslowii</i>		X	E		PS	Grassland blocks ≥75 acres, prairie management
Birds	Ring-necked Pheasant	<i>Phasianus colchicus</i>	X				PS	Prairie planting/enhancement, grassland complexes ≥250 acres
Birds	Ruffed Grouse	<i>Bonasa umbellus</i>	X				PS	Young forests, aspen
Insects	Monarch Butterfly	<i>Danaus plexippus</i>		X				Pollinator BMPs
Insects	Swamp Metalmark	<i>Calephelis mutica</i>		X	SC		HV	Consideration
Insects	Tamarack Tree Cricket	<i>Oecanthus laricus</i>		X	SC		EV	Consideration
Mammals	Eastern Cottontail Rabbit	<i>Sylvilagus floridanus</i>	X				PS	Brush piles, food plots
Mammals	Indiana Bat	<i>Myotis sodalis</i>		X	E	LE	MV	Promote & conserve roosting trees, promote foraging opportunity
Mammals	White-tailed Deer	<i>Odocoileus virginianus</i>	X				PS	Soft & hard mast trees, openings, food plots
Mussels	Purple Wartyback	<i>Cyclonaias tuberculata</i>		X	T		MV	Consideration
Mussels	Wavyrayed Lampmussel	<i>Lampsilis fasciola</i>		X	T			Consideration
Reptiles	Blanding's Turtle	<i>Emydoidea blandingii</i>		X			HV	Consideration
Reptiles	Eastern Box Turtle	<i>Terrapene carolina carolina</i>		X	SC		HV	Prairie/Savanna enhancement & management, consideration in timing & type of management
Reptiles	Massasauga Rattlesnake	<i>Sistrurus c. catenatus</i>	X	X	SC	C	HV	Follow CCAA Management Guidelines
Snails	Banded Globe	<i>Anguispira kochi</i>		X	SC		EV	Consideration
Snails	Brown Walker	<i>Pomatiopsis cincinnatiensis</i>		X	SC		HV	Consideration

¹Michigan Natural Features Inventory: SC=Special Concern, T=Threatened, E=Endangered

²Michigan Natural Features Inventory: C=Candidate Species for Federal Status, LT=Listed Threatened, LE=Listed Endangered

³Hoving et al. 2013: EV=Extremely Vulnerable, HV=Highly Vulnerable, MV=Moderately Vulnerable, PS=Presumed Stable, IL= Increase Likely

Existing Conditions

Sharonville SGA displays characteristics typical of glacial recession. Soils in the SGA are generally poor for farming and marginal for second growth hardwoods. The topography is undulating to hilly.

The majority of the SGA (76 percent) is in upland habitat type (Figure 1). Twenty six percent of the area is in herbaceous openland and cropland. The most common upland forest types are mixed upland deciduous, northern hardwoods, and oaks; making up 33 percent of the SGA. Historically (circa 1800), oak barrens and oak woods were the most dominant cover types on the area. Encouraging oak regeneration on this area will be important for future wildlife management. See Appendix D for a vegetation cover map of the area.

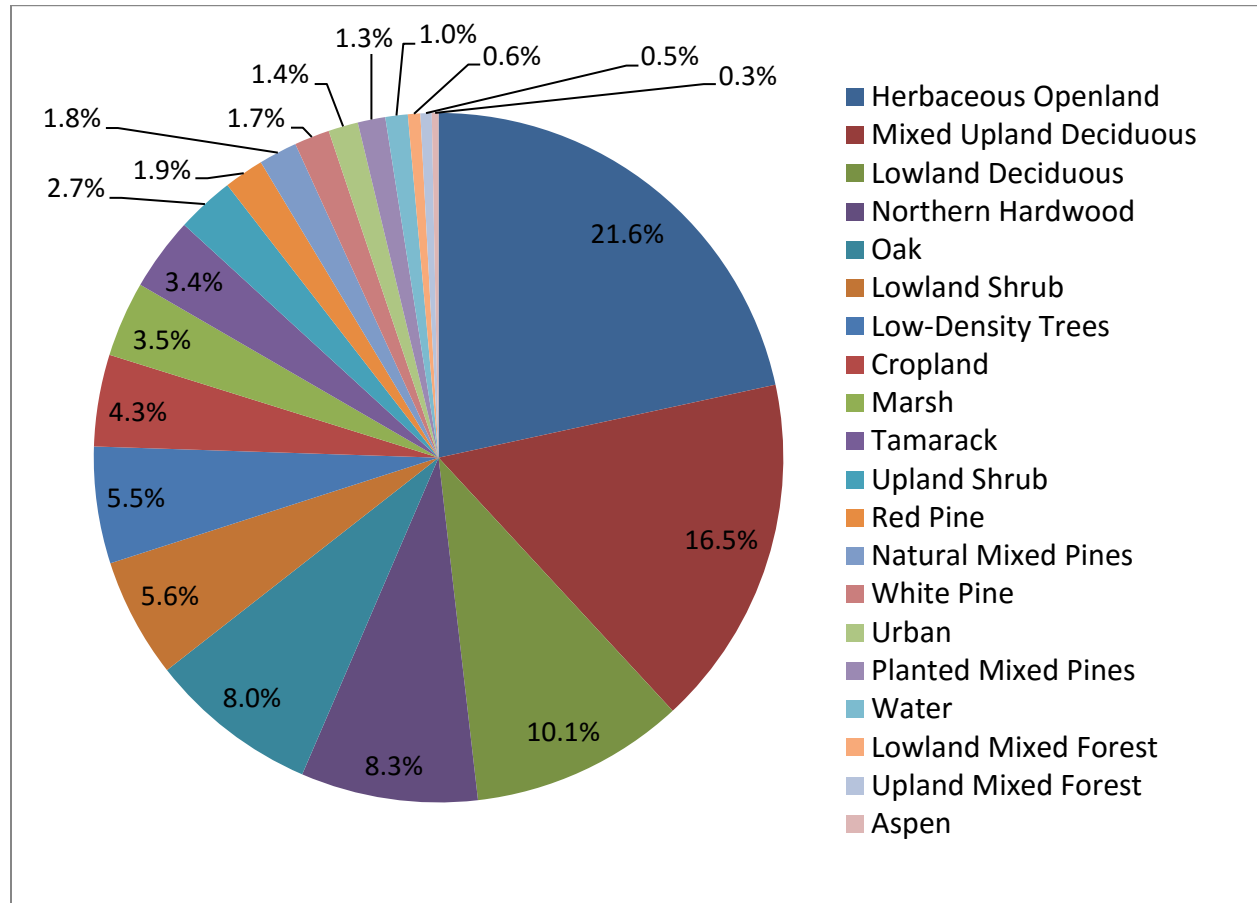


Figure 1. Current proportions of vegetation cover types for the Sharonville State Game Area based on vegetation surveys completed by Michigan Department of Natural Resources (2006) and Michigan Natural Features Inventory (2012).

Of the lowland area, approximately 61 percent is lowland forest of some type; non-forested wetland makes up only nine percent of the entire SGA cover. Open water on the area includes Tamarack Lake and Tucker Lake. Additionally, approximately 1.7 miles of the River Raisin headwaters flow through the Sharonville SGA and onto neighboring conservation properties.

Sharonville SGA also supports several rare natural communities. These include three prairie fens, two southern hardwood swamps, one rich tamarack swamp, oak barrens, and mesic southern forest (Table 2). It is notable that although it is just a C level [element occurrence rank](#), there are not better ranked oak barrens in the region than the one identified at Sharonville SGA. All management activities implemented on the SGA will be done in a way that is sensitive to the conservation needs of these unique vegetation types and maintains/improves their ecological integrity.

Table 2. Michigan's natural community occurrences documented for the Sharonville State Game Area.

Element Occurrence Number	Natural Community	Type	Viability	State Rank ¹	Survey Site
54	Mesic Southern Forest	Rich Forest, Central Midwest Type	Good estimated viability	S3	Sharon Hollow
10	Oak Barrens	Barrens, Central Midwest Type	Fair estimated viability	S1	Sharonville Barrens
129	Prairie Fen	Alkaline Shrub/herb Fen, Midwest Type	Fair estimated viability	S3	Tucker Lake Fen
124	Prairie Fen	Alkaline Shrub/herb Fen, Midwest Type	Fair estimated viability	S3	Sharonville Fen
171	Prairie Fen	Alkaline Shrub/herb Fen, Midwest Type	Fair estimated viability	S3	Pierce Road East
27	Rich Tamarack Swamp	Forested Bog, Central Midwest Type	Good or fair estimated viability	S3	Pierce Road
20	Southern Hardwood Swamp		Good estimated viability	S3	Sharon Hollow
25	Southern Hardwood Swamp		Good or fair estimated viability	S3	Pierce Road W

¹**S1** = Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

S2 = Imperiled in the state because of rarity due to very restricted range, very few occurrences (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

S3 = Vulnerable in the state due to a restricted range, relatively few occurrences (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

S4 = Uncommon but not rare; some cause for long-term concern due to declines or other factors.

Although objectives will overlap throughout the SGA, there are four main portions of Sharonville SGA where we will focus grassland establishment and enhancement efforts (Figure 2). These areas were selected based on existing vegetation and conditions and proximity to additional open vegetation types within the landscape. Management goals and strategies implemented in these areas will align with those outlined in the WAP, MPRI, and MBFYB. Management will be expected to benefit featured species and SGCN as listed in Table 1.

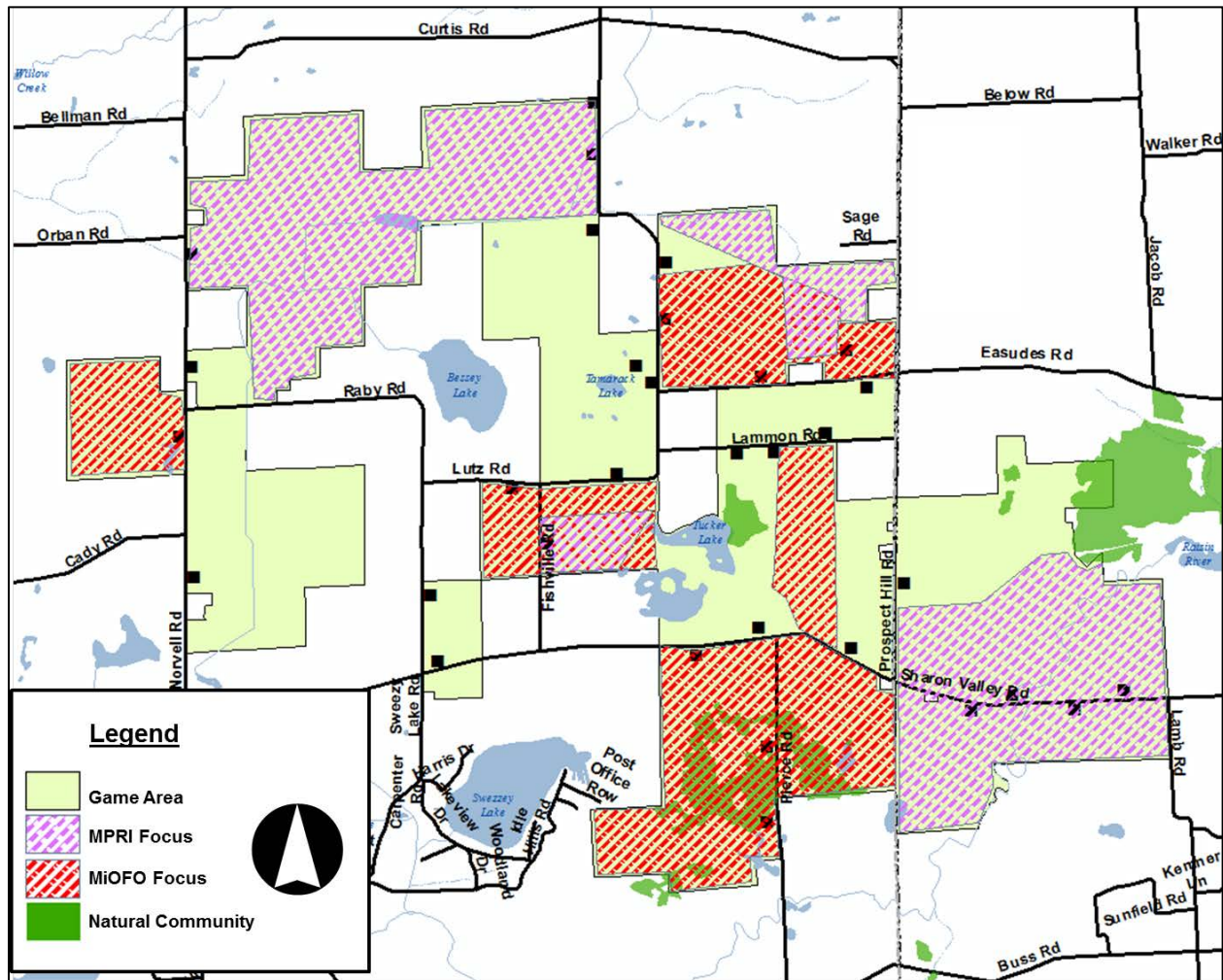


Figure 2. Project focus areas at the Sharonville State Game Area for the Michigan Pheasant Restoration Initiative (MPRI) and Michigan Operation Freedom Outdoors (MiOFO).

Sharonville is also a pilot area for increasing SGA accessibility to people with health challenges. Although the goal is to progressively improve accessibility across the entire area, there are some focus areas for accessibility projects and related projects to enhance hunting experience through improved trails, blinds, food plots, and brush piles. See Figure 2 for these current areas.

Recreational Use

Sharonville SGA provides recreational opportunities that include hunting, trapping, bird watching, berry picking, mushroom picking, hiking, dog training, fishing, and kayaking/canoeing to some degree. Sharonville is a very popular SGA for turkey hunting, deer hunting, and bird watching. Historically, it was popular for pheasant hunting and is still one of the top public properties in the area for pheasant hunting activity.

Sharonville SGA is also a pilot area for MiOFO. Since the first season of MiOFO supported activities in 2014, area has become popular for the associated hunt events and opportunities for rustic, wildlife-related recreation among people with health challenges. We will continue to work on improving accessibility for wounded veterans and people with health challenges to come back to the outdoors. The therapeutic benefits of outdoor recreation to MiOFO participants have been clearly positive.

There has been a desire among neighboring conservation land managers to establish a trail that would come from Washtenaw County Parks Sharon Mills County Park, through The Nature Conservancy Nan Weston Preserve, onto the Sharonville SGA. If a trail were to be established, it would be a mowed trail that would be open to foot traffic only. Such a trail would likely require a memorandum of understanding/agreement among landowners and would need to be discussed with the Public Lands Specialist prior to implementation.

There is also potential for a water trail between the properties, as well; however, work to clear the River Raisin for navigation by kayak or canoe would be labor intensive and would need to be done in a way that would not harm rare species in the riverbed. There is interest among the neighboring property at Camp Liberty to have an accessible navigable water trail to Sharonville SGA. Natural Resource Trust Fund grant applications for the project have been denied two times in a row.

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 SGA include sharecropping on 143 acres through an agreement with a local farmer, fuelwood sales as pipeline and powerline easements are cleared, and timber sales (once they are successfully sold). The area is also providing an economic boost through the MiOFO program. The MiOFO coordinator has organized events that have drawn business to the local hotels and restaurants, even with such businesses donating supplies and services.

Management Direction

The desired future condition for the SGA for the Sharonville SGA follows:

- Increase and enhance large blocks/complexes of grasslands 250 acres in size
- Increase structural and species diversity of grassland vegetation types on the SGA
- Increase unfragmented grassland stands ≥ 25 acres and ≥ 75 acres in size
- Decrease acres in agriculture production
- Increase acres and enhance remnant oak barrens
- Maintain and enhance prairie fen
- Increase oak
- Decrease mixed upland deciduous
- Maintain lowland deciduous
- Maintain northern hardwood
- Maintain lowland shrub
- Decrease low density trees
- Maintain marsh
- Maintain tamarack
- Decrease upland shrub
- Decrease red pine
- Maintain natural mixed pines
- Maintain white pine
- Decrease planted mixed pines
- Maintain water

- Maintain lowland mixed forest
- Maintain upland mixed forest
- Increase aspen
- Increase features that promote access to positive wildlife-related recreation experiences

Goals, Objectives, and Management Actions

What follows is the strategic direction for the Sharonville 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 for the Sharonville SGA are set using the featured species approach and align with goals of the DNR, WAP, MPRI, GPS, BFYB, and MiOFO.

Goal I. Increase and support sustainable populations of Ring-necked Pheasants (featured species) and associated grassland birds (Henslow's Sparrow [SGCN], Grasshopper Sparrow [SGCN], Dickcissel [SGCN], and Bobolink [featured species]).

Rationale: Ring-necked Pheasants are a valued game species. In the past, pheasant hunters composed a significant portion of the hunting public. Pheasants Forever and other enthusiasts are active partners in pheasant restoration. Nationally, pheasant decline has been linked to a decrease in suitable grasslands (MDNR 2016).

Grassland birds (i.e. Henslow's Sparrow, Grasshopper Sparrow, Dickcissel, and Bobolink) are experiencing population declines across their range. Habitat loss and degradation are main culprits for these declines. Land management (i.e. mowing) practices have negatively impacted nesting success, as well. Sustainable populations of these grassland birds indicate ecosystem function. In addition, these animals are valued species. Birding is a popular pastime and the Sharonville SGA attracts people in pursuit of encounters with these birds.

Metrics: Point-count survey routes will be established by our staff and conducted by partners, volunteers, and/or staff as resources allow. We will also consider the observations of hunters, birders, and staff as anecdotal information. Acres of improved grassland stands and grassland complexes will also be tracked and reported.

Objective A. Provide suitable nesting and brood rearing habitat for pheasants and other grassland birds.

Action 1. Improve, convert, and expand grassland vegetation types in MPRI focus areas (Figure 2) to create two complexes ≥ 350 acres in size.

Action 2. Focus on restoring MPRI complexes by establishing/improving native vegetation species and increasing structural and species diversity.

Action 3. Emulate the historical disturbance regime using fire to maintain the grassland complexes when possible using an operational burn plan.

a. Follow conservation measures from the [Candidate Conservation Agreement with Assurances for the Eastern Massasauga Rattlesnake in Michigan](#), as research on habitat management for the species began at the SGA in 2015.

b. Ensure that refugia are available for grassland bird nesting seasons.

Action 4. Use current invasive species strategy (Higman and Campbell 2009) to address any new invading vegetation that threatens grassland structural and compositional diversity. Address invasive vegetation surrounding new plantings and remnants.

Action 5. Whenever possible, create or convert grassland stands to ≥ 25 acres in size (may remove fence rows to do so).

Action 6. Follow pollinator-friendly best management practices to maintain ecological diversity and improve forage diversity and quality for chicks.

Objective B. Provide suitable winter cover for pheasants

Action 1. Maintain or plant native grasses that stand up to winter weather in grassland complexes.

Action 2. Maintain emergent wetlands and will explore opportunities to restore wetlands through breaking tiles.

Goal II. Provide habitat for sustainable populations of Eastern Wild Turkey and White-tailed Deer.

Rationale: The wild turkey is a highly valued game bird in Michigan (MDNR 2016). There are three well-established stakeholder groups that support and partner on turkey restoration projects. The Sharonville SGA is particularly popular for turkey hunting.

White-tailed deer are a cultural keystone species and are the most highly valued game species in Michigan. Habitat is generally not limiting in the southern Lower Peninsula, where a milder climate and better year-round nutrition support more abundant and productive deer (MDNR2016).

Metrics: We will consider the observations of hunters, birders, and staff as anecdotal information. Acres of food plots and maintained or created openings will also be tracked and reported. Point-count survey routes for turkeys may be

established by our staff and conducted by partners, volunteers, and/or staff as resources allow.

Objective A. Promote natural food source and cover.

Action 1. Conserve the oak component in forest stands; promote oak regeneration and acorn production.

- a. Follow guidelines to minimize risk of spreading [Oak Wilt](#) (avoid conducting management that may result in injuring trees between April 15 and July 1).
- b. Use prescribed burning when possible to manage oak systems.
- c. Design timber treatments that allow for improving sun exposure to oak crowns to optimize acorn production

Action 2. Improve soft mast production.

- a. Remove and treat invasive shrubs crowding crabapples and other beneficial, mast producing shrubs and trees
- b. Prune crabapples and other soft mast producing trees to increase health and production.

Objective B. Maintain and increase the number of turkey brood-rearing openings (forest openings, savannas, barrens).

Action 1. Enhance and restore remnant Oak Barrens.

- a. Emulate historical disturbance regime using prescribed fire when possible.
- b. Address invasive species to maintain/improve ecological integrity of remnant barrens.

Action 2. Restore/create vegetation stands with open spaces between plants.

- a. Manage for native prairie/forb stands with diverse species mixes.

Action 3: Provide vegetation that is 16-28 inches tall.

- a. Use native grass plantings to provide cover structure.

Action 4. Follow pollinator-friendly best management practices to maintain ecological diversity and improve forage diversity and quality for poults.

Objective C: Maintain quality turkey and deer hunting on public accessible lands.

Action 1. Plant food plots designed to support turkeys and deer throughout the seasons.

Action 2. Improve parking lots, signage, and access trails for hunters on the SGA.

Goal III. Provide habitat to support populations of American Woodcock and Ruffed Grouse.

Rationale: Although both species are not prevalent at the Sharonville SGA, the game area does support birds; however, not in the typical sense as aspen comprises only 0.3 percent of the area vegetation cover.

Woodcock are an Upper Mississippi River and Great Lakes Region Joint Venture focal species are valued game birds with a strong contingent of stakeholders who support management. Michigan is a top woodcock production state and is important to populations as woodcock numbers have been declining for decades (MDNR 2016).

The ruffed grouse is another important game bird in Michigan with a strong contingent of stakeholders who support management. Although Michigan is a top producer of ruffed grouse, and populations are still huntable, grouse numbers have declining, particularly in areas where young-forests have declined (MDNR 2016).

Metrics: Point-count survey routes are established and will be conducted by partners, volunteers, and/or staff as resources allow. We will also consider the observations of hunters, birders, and staff as anecdotal information. Acres of forest treatments to create early successional forested stands will also be tracked and reported.

Objective A. Conduct timber management to increase the number of stands in age classes under 15 years old and 40 years old.

Action 1. Focus early successional forest treatments in areas with the most potential to provide early successional forest structure and Sections 23, 25, and 27 of T.03S.-R.02E and Sections 1 and 2 of T.04S.-R.02E.

Objective B. Maintain ecological integrity of lowland forested and shrub vegetation types.

Action 1. Practice decontamination strategies when working in these and other systems.

Action 2. Do not implement management that threatens hydrology of lowland systems.

Action 3. Use current invasive species strategy (Higman and Campbell 2009) to address invasive vegetation.

Goal IV. Provide habitat for sustainable populations of Eastern Cottontail Rabbit.

Rationale: The eastern cottontail is a valued small game species. The cottontail is a “gateway” species that frequently introduces individuals to hunting. It is a primary prey species for many raptors and mammalian carnivores.

Metrics: We will consider the observations of hunters/ wildlife-recreation participants and staff as anecdotal information. Number of brush piles constructed will be tracked and reported.

Objective A. Provide suitable nesting, resting, and escape cover where low growing vegetation is not suitable.

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. When clearing woody species from stands to meet grassland objectives, construct brush piles.

- a. Place brush piles along the edge of the habitat type. Every 200 to 300 feet to provide adequate cover and travel lanes between food sources (NRCS 2016).
- b. In fields and other early successional habitat, create at least two piles per acre (NRCS 2016).

Objective B. Provide suitable winter cover where needed.

Action 1. Create large (at least 10-15 feet in diameter and 5-8 feet in height) brush piles with a foundation (NRCS 2016).

- a. Place approximately 2 brush piles per acre.

Goal V Provide suitable habitat conditions for the Eastern Massasauga Rattlesnake.

Rationale: The massasauga is the only free-ranging venomous snake in Michigan, which has been described as the last stronghold for the species. The massasauga is a candidate for federal listing by the U.S. Fish and Wildlife Service. The Michigan DNR has developed a Candidate Conservation Agreement with Assurances (CCAA) that is under review with the USFWS. Although Sharonville is not designated as a managed area under the currently proposed CCAA, the area supports massasauga habitat and is part of a DNR funded study through Michigan State University (MSU) that began in 2015. The greatest threat to massasauga populations is the loss and degradation of suitable habitat and factors that may increase mortality rates (e.g. snake fungal disease).

Metrics: Presence-absence surveys should be conducted in potential habitat where management is conducted. The MSU researchers will provide information regarding habitat suitability and presence of snakes. We will also consider the observations of hunters, birders, and staff as anecdotal information. Acres of improved habitat types will be recorded and reported.

Objective A. Provide suitable thermoregulatory, forage, and gestation conditions for the massasauga (active season).

Action 1. Manage for $\leq 50\%$ canopy from trees and shrubs in wetland and upland vegetation types.

- a. Maintain suitable habitat patches ≥ 250 acres (Durbian et al. 2008).
- b. Focus management around remnant oak barrens, restored/planted grasslands, and fens.
- c. This management will initially be focused in the portion of the SGA that falls in Washtenaw County.

Action 2. Maintain the ecological integrity, hydrology, and function of fens and other wetland systems.

- a. Do not manipulate water where it may impact fen conditions.
- b. Use current invasive species strategy (Higman and Campbell 2009) to address any invasive vegetation that threatens hydrology and structural and compositional diversity.

Objective B. Protect potential/probable hibernacula.

Action 1. If hibernacula can be identified, avoid manipulations in the area during the active season and refrain from any activity that could damage underground conditions (i.e. soil compaction).

Objective C. Minimize habitat related mortalities.

Action 1. Follow conservation measures from the Eastern Massasauga Candidate Conservation Agreement with Assurances.

Action 2. Do not fragment or develop separations between upland and wetland vegetation types (e.g. do not develop new trails that fragment the transition from upland to wetland).

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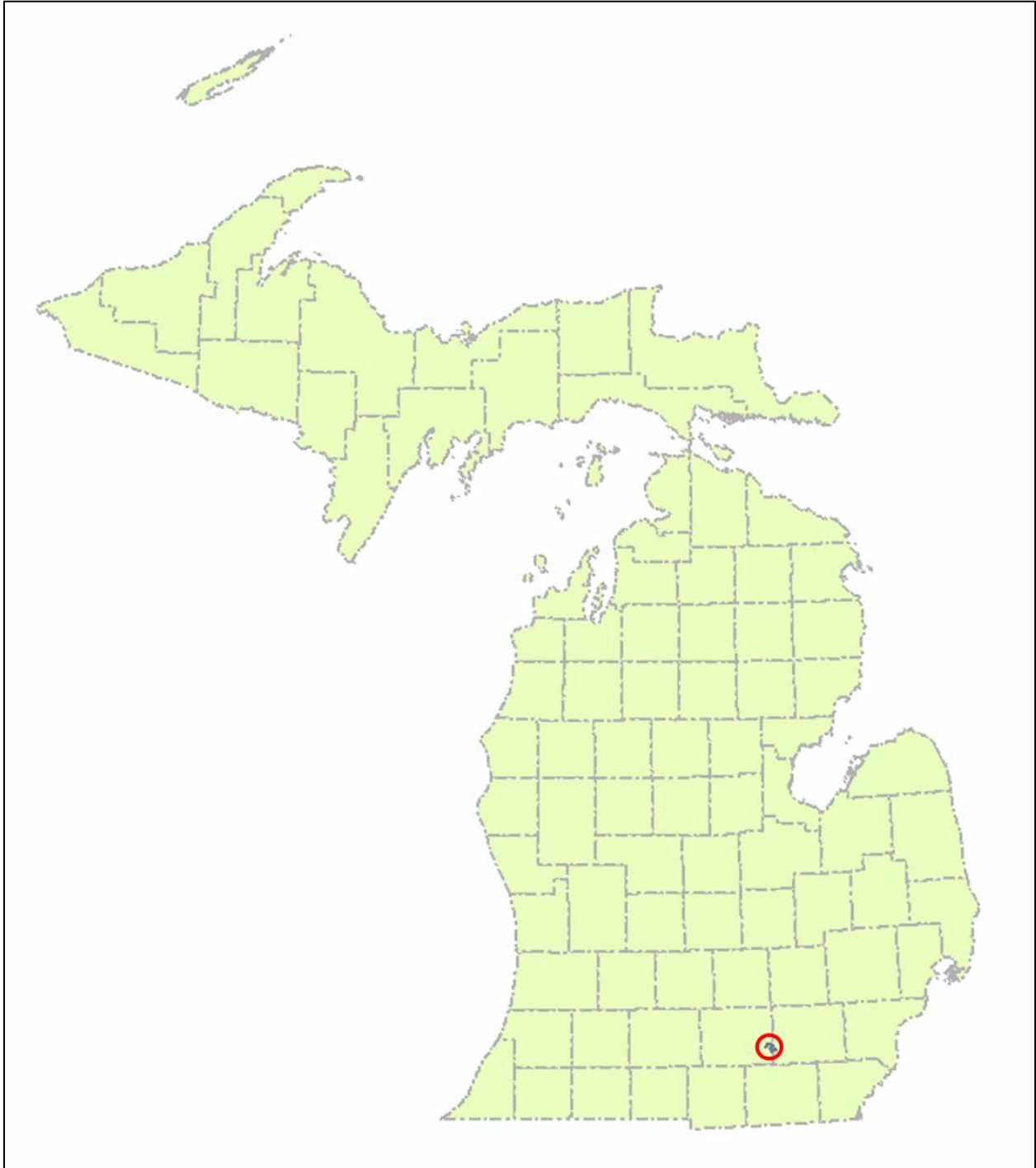
Acquisition and Disposal of Land

The Sharonville SGA is an important area that provides wildlife-related outdoor recreation opportunities approximately 30 miles from Ann Arbor and Jackson and approximately 60 miles from Lansing and Detroit. The area is also has great wildlife conservation value as it is part of a complex of conservation lands stretching from southern Livingston County south to Lenawee County. The overall goal is to continue to provide these recreation opportunities and increase access to include more of the public regardless of health challenges they may face.

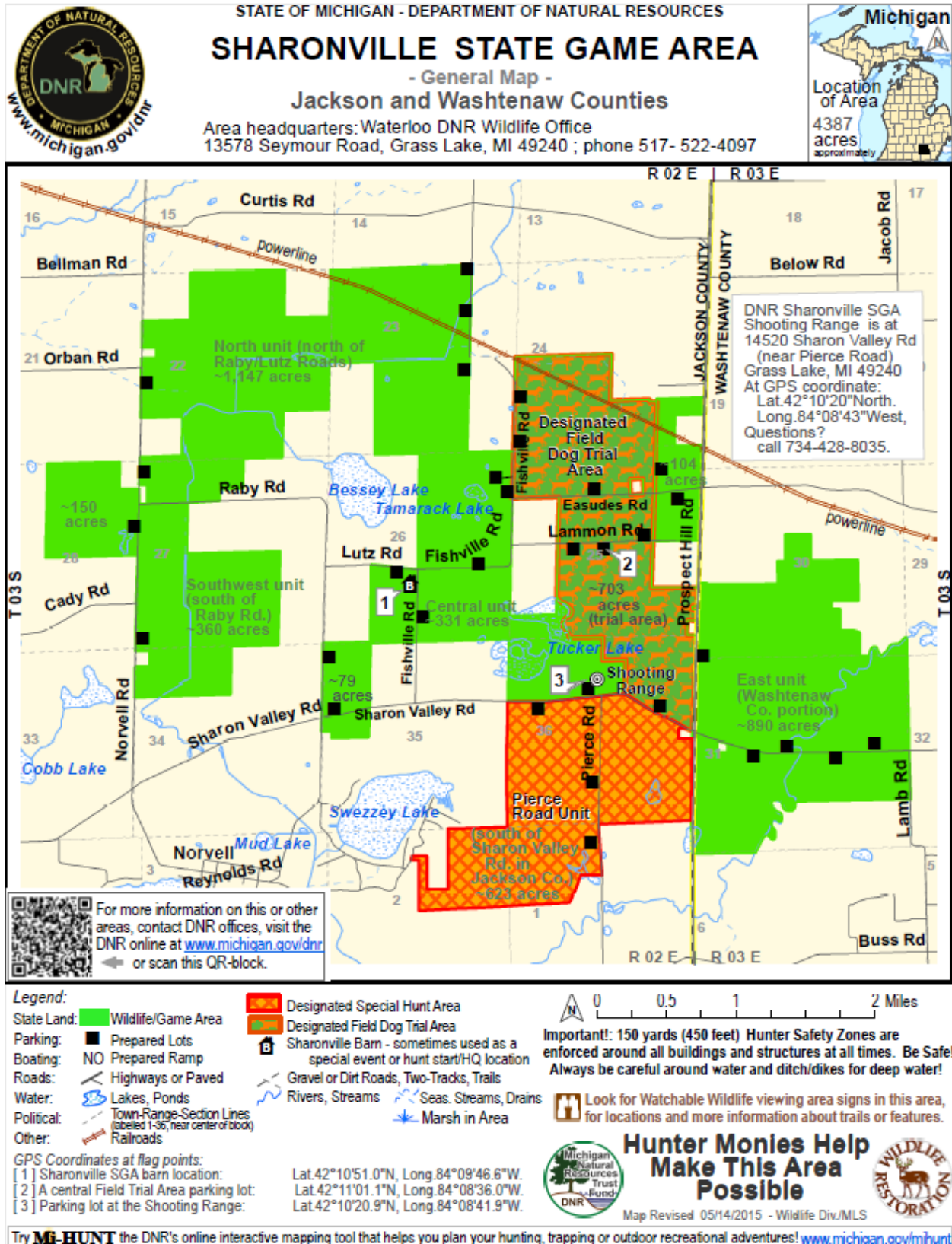
Since the Sharonville is located in southern Michigan close to urban centers, the land acquisition strategy for the SGA is to fill in state ownership by acquiring available blocks located within and among current state ownership and to expand the area by obtaining appropriate parcels that are outside 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.

Appendices

Appendix A. Location of the Sharonville State Game Area within the state of Michigan.



Appendix B. Michigan Department of Natural Resources state game area map for the Sharonville State Game Area.



Appendix C. Excerpt from [Chapter 3](#) of the Michigan Department of Natural Resources Wildlife Conservation Order regarding the Sharonville State Game Area Pierce Road Unit.

13.18 Sharonville state game area; Pierce road unit definition, rules.

THIS SECTION IS RESCINDED BY AMENDMENT NO. 7 OF 2015 EFFECTIVE AUGUST 14, 2018

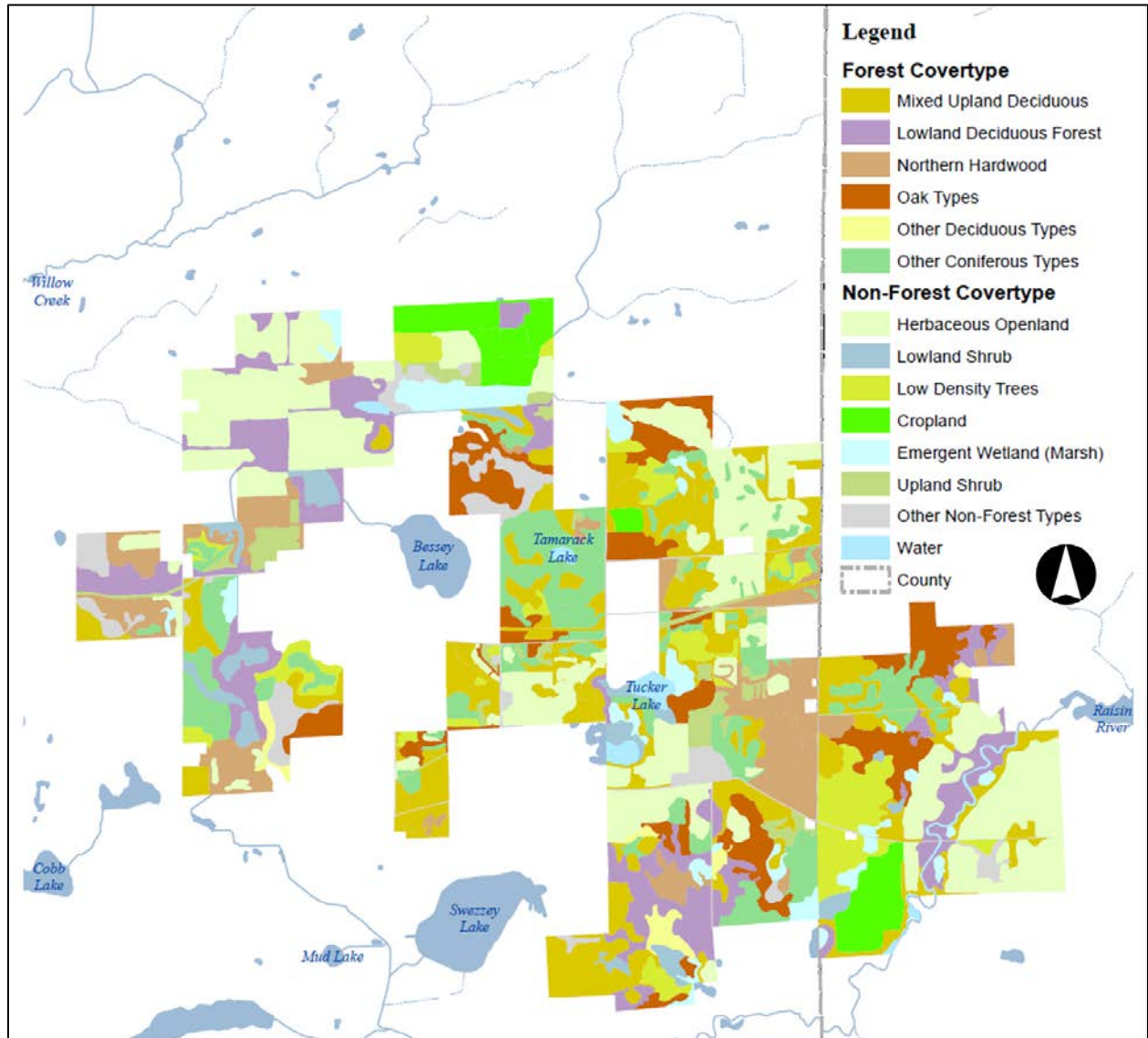
Sec. 13.18 The following rules are established on those portions of the Sharonville state game area, Jackson county, posted “designated Pierce road unit – permit required for access and hunting on dates posted” being portions south of

Sharon valley road in section 36, T03S R02E and sections 1 to 2 of T04S R04S:

- (1) The management unit supervisor or their representative may designate special hunt opportunity days for the Pierce road unit during any deer hunting season.
- (2) During designated special hunt opportunity days as posted by the department, all access to the Pierce road unit is prohibited without a permit. This subsection shall not apply to authorized employees and designated agents of the department performing official job responsibilities.
- (3) An individual wishing to participate in restricted hunting days shall be eligible to apply for a permit if one of the following applies:
 - (a) The individual possesses a department issued permit to hunt from a standing vehicle.
 - (b) The individual is a veteran with 100 percent disability as defined by the United States department of veterans affairs. Documentation from the United States department of veterans affairs indicating 100 percent disability shall be in the possession of a veteran participating in restricted hunting days.
 - (c) The individual is a resident rated by the United States department of veterans affairs as individually unemployable. Documentation from the United States department of veterans affairs indicating an individually unemployable rating shall be in the possession of a veteran participating in restricted hunting days.
 - (d) The individual is blind as defined by section 1 of 1978 PA 260, MCL 393.351.
 - (e) The individual possesses a department issued permit to hunt using a laser sighting device.
- (4) Permits for special hunt opportunity days may be issued to qualifying individuals chosen in random drawings. Permits shall not be transferred or altered.
- (5) During the special hunt opportunities, a qualifying permitted hunter may designate up to three accompanying operators. “Operator” means an individual who accompanies the permitted hunter during the special hunt opportunity days. The operator(s) shall be capable of providing immediate aid to the permitted hunter and shall maintain uninterrupted, unaided visual contact with the permitted hunter. At least one operator in the hunting party shall be 18 years of age or older and shall possess a valid license to hunt deer, other than an apprentice, or a certificate of completion of training in hunter safety.
- (6) A qualifying permitted hunter participating in special hunt opportunity days shall possess a deer license, deer combination license, or an antlerless deer license valid for deer management unit 038. A qualifying permitted hunter may take one deer during the period for which the permit is valid. Notwithstanding any other provisions of this order, during the restricted hunting days, a deer license or deer combination license is valid for either an antlered or an antlerless deer.
- (7) Except as otherwise specifically provided in this section, all regulations of state law and this order regarding the taking, possession, transportation, and storage of deer during a deer season shall apply to an individual participating in special hunt opportunity days.
- (8) This section shall be rescinded on August 14, 2018.

History: Am. 7, 2015, Eff. August 14, 2015.

Appendix D. Map of the major vegetation cover types based vegetation surveys completed by Michigan Department of Natural Resources (2006) and Michigan Natural Features Inventory (2012).



Appendix E. Comments received via e-mail during the public review period from October 1, 2016 to October 31, 2016.

Sent: Tue 10/04/2016 8:43 AM

Hi Kristin,

I would make one suggestion as to the native grasses. They do not hold up well in the winter.

As private land owners in Jackson County approximately 50 acres surrounded by agriculture, woods and a stream we planted Big Bluestem, Little Bluestem, and Indian grass 12 plus years ago under the advise of the USDA and DNR. We have since planted some pines, balsam, and fruit bearing shrubs. Every winter has all but flattened our fields of native grasses. My advise would be to consider Switchgrass plots throughout the area. It holds up much better throughout the winter which we have seen in the western states (South Dakota, Iowa). We planted some Michigan genome Switchgrass a couple of years ago, so it is just starting to take hold. We are hoping it will produce a better winter habitat which we feel is critical to our wildlife.

Sent: Tue 10/04/2016 12:21 PM

The plan should be to increase the number of deer, pheasants. Rabbits, quail. Not to protect rattle snakes and etc. plant food crops and cover improvements. Anything short of this is not acceptable. How about planting elk?

Sent from my iPhone

Sent: Sun 10/09/2016 11:48 AM

The proposed Master Plan for Sharonville State Game Area appears to be very good. I am impressed by all the items that were considered in developing this plan. A high level of intelligence and professionalism is apparent. I support the goals and objectives.

The one recommendation that I wish to make is that the map of the Sharonville State Game Area, contained in Appendix B, should be updated to show the pipeline easement which crossed Norvell Rd, between Cady and Raby Rd, and continues in an easterly direction.

Thank you

Sent: Wed 10/12/2016 9:36 PM

I would like to comment on the management plan for the future of the Sharonville State Game Area. I am an avid outdoorsman and live on Sweezy Lake, very close to the area. I have been hunting, fishing, trapping, and enjoying the wildlife on this land for over 45 years. I am familiar with almost every acre of this land. When I was a teenager we used to drive our cars on the trails that crisscrossed this State Land before they were closed to traffic. I saw the pheasant era come and go. I saw the state land double in size. I spent many hours there bird watching in the 1980s when I participated in the Michigan Bird Breeding Atlas. I saw the pheasants disappear and the turkeys and coyotes go from none to a large population. Although I have private land available to me for hunting and trapping, Sharonville State Game Area has been a big part of my outdoor enjoyment for most of my life.

I like the idea of you folks putting up your ideas on a long term management of the area on line and asking for comments. I have no professional training on this, but feel that my many years of enjoying this land might make my opinions worth listening to.

I like the idea of planting native grasses for the songbirds, but question designating large tracts of land and spending time and money on trying to get back the pheasant population. I feel it will not work and is a waste of time.

I think that the area has some excellent squirrel habitat. I've spent many enjoyable hours there hunting squirrels, with very little hunting pressure. The same goes for turkeys now a days. I've always felt that the rabbit hunting could be better. Maybe there are management ideas that would help with this.

I have trapped it intensely in early November for raccoon and muskrat for the past 20 years. I've had very little competition. I see a few bow hunters, some of them year after year, and have had no problems with any of them. When I first started trapping Sharonville, there were a few pheasant hunters with dogs to worry about, but there hasn't been any for many years now. I don't trap canines there but have certainly noticed the increase in coyote numbers in the last couple decades.

Once gun deer season opens I leave the area. It gets very crowded and the quality of hunters also goes down. And although it's not the type of hunting that I would enjoy, I have to say that a large number of hunters do. Most of them probably have no other place to hunt. Maybe it's a little too crowded during the gun season, but you have to say that there is a large number of hunters getting a whole lot of enjoyment on that land during this

time. Good bang for the buck, you might say. I guess I feel that planting more food crops in some of those medium sized fields might hold some more deer for these hunters, as well as for the earlier bow hunters.

I like the idea making some of the areas more accessible for hunters in "wheelchairs". Improving some of the walking trails to make it easier for these folks to access some good hunting and birding areas is great, as long as it doesn't take away land that non handicapped hunters use. I don't feel these areas have to be exclusively for hunters with disabilities.

I've spent many many hours on the Raisin River hunting, fishing, and trapping. Clearing the logs on the river would be a big task, but being able to canoe from that Camp Liberty all the way to the millpond in Sharonville would be a great experience for outdoorsmen and women with disabilities. At any time of year.

The last thing I just have to mention is all the olive bushes on the state land. I believe that the state planted these bushes back in the early 1960s, thinking they would be great cover and food for birds and game. But we all know now that they are horrible. A lesson learned? I don't know how we could get rid of them, it's probably impossible, but I would be in favor of such a project.

Like I said, I'm not a professional wildlife area manager. But I hope that my thoughts might help you with your project.

Plan Review

This plan was available for public review and comment on the DNR website between October 1, 2016 and October 31, 2016. During this period, four comments were received by the Waterloo Wildlife Office and considered before finalizing this plan. The received e-mail comments can be found in Appendix E. They are summarized here with our response.

- 1) Recommends planting switchgrass plots throughout the area, as other native grasses do not hold up to snow in winter.

Response: Switchgrass is and will be incorporated in plantings where providing winter cover is the main goal; however, we will continue with diverse native plantings that provide nesting and brood rearing habitat components for pheasants, turkeys, and other grassland birds with similar habitat requirements. No changes to this current plan were made in response to this comment.

- 2) Feels the plan should be to increase game species populations, not to protect rattlesnakes. Suggests planting food plots and elk.

Response: This plan outlines strategies to improve habitat for a number of game species, including those listed in the e-mail. Habitat improvement and management on the game area may influence population growth for some species, but certainly not all. We are required to protect federally and state threatened and endangered species. Protection and proper management of rattlesnake habitat is likely to have great habitat benefits to other game and non-game species alike. We currently plant food plots for the improvement of hunter experiences on the game area and we plan to continue to provide food habitat components at Sharonville into the future. We will not plant elk on the Sharonville SGA. The game area could not support an elk population and the species could quickly become a nuisance within this largely privately-owned landscape. No changes to this current plan were made in response to this comment.

- 3) Compliments the plan and suggests the state game area map should show the Panhandle Eastern Pipe Line Co. pipeline.

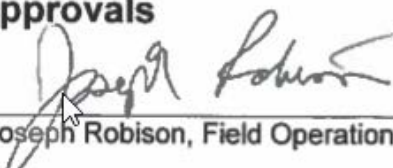
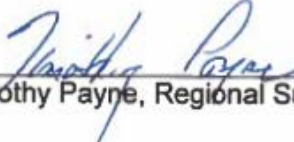
Response: This recommendation was submitted to the Wildlife Division Mapping & Geotechnology Program Specialist for potential future map edits; however, will not be changed for this plan.

- 4) Traps, hunts, and enjoys the area. Approves of planting native grasses, but does not feel the pheasant population will increase. Feels that squirrel and turkey hunting is good, and rabbit could get better. The area gets crowded during regular firearm, but hunters really seem to enjoy it. Is in favor of making the area more accessible, as long as it doesn't take away land from hunters without disabilities; doesn't feel these areas have to be exclusively for hunters with disabilities. Would also like to see autumn olive removed and hopes the DNR learned a lesson about planting invasive vegetation.

Response: This was a much appreciated description of a person's use and experience with the Sharonville SGA over the years. We will continue to move forward with grassland habitat restoration because we do expect to see wildlife benefits; regardless of our ability to affect overall pheasant numbers. We intend to continue to provide suitable habitat for squirrel, turkey, and rabbits. We will work remove invasive vegetation on the area as it meets habitat management priorities using the current invasive species strategy as stated in this plan. We appreciate the comments regarding accessibility and the suggestion that we keep the area more inclusive rather than exclusive. No changes to this current plan were made in response to this comment, as we feel the strategic direction set in this plan addresses these points.

Approvals

Approvals

	11/3/2016
Joseph Robison, Field Operations Manager	Date
	11-4-2016
Timothy Payne, Regional Supervisor	Date