

Goose Lake State Game Area Master Plan



MICHIGAN DEPARTMENT OF NATURAL RESOURCES

WILDLIFE DIVISION

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INTRODUCTION

Purpose of the Plan

The mission of the Michigan Department of Natural Resources, Wildlife Division, is to enhance, restore, and conserve the State's wildlife resources, natural communities and ecosystems for the benefit of Michigan's citizens, visitors, and future generations. This master plan was written to fulfill this mission as it pertains to the Goose Lake State Game Area (SGA).

The primary purpose of this plan is to set strategic direction and guide future management activities used to achieve desired conditions for Goose Lake SGA. Obligations to the funding sources used to acquire and manage this area require that it be maintained for the purpose of managing wildlife, wildlife habitat and associated recreation including hunting and trapping. Other activities and uses of the area that complement or do not conflict with wildlife management have been considered and incorporated where appropriate. This plan also describes an adaptive approach to management, in which biologists assess the effectiveness of their management efforts.

This plan describes management on Goose Lake SGA that is expected to take approximately ten years to complete. However in developing this plan, time frames beyond the decade-long interval and land outside the boundaries of the area were taken into consideration. The management planned in this document was a good faith effort considering the conditions, anticipated resources, and state of knowledge at the time the plan was written. It is not guaranteed that the management activities will be accomplished as planned. The master plan process provides the public with an opportunity, through public meetings and written communications, to have input regarding the future of areas managed by the Wildlife Division. Although public input was encouraged and considered in developing this plan, given the legal requirements and funding obligations for the area, this is not necessarily a consensus document.

PRESENT CONDITION

Area Location and Project Boundary

The Goose Lake SGA is located in Washtenaw County, which is in the Wildlife Division's Southeast Region (see Figure 1). The area totals approximately 202 acres, located in Section 31 of Sylvan Township, tier 2 S, range 3 E.

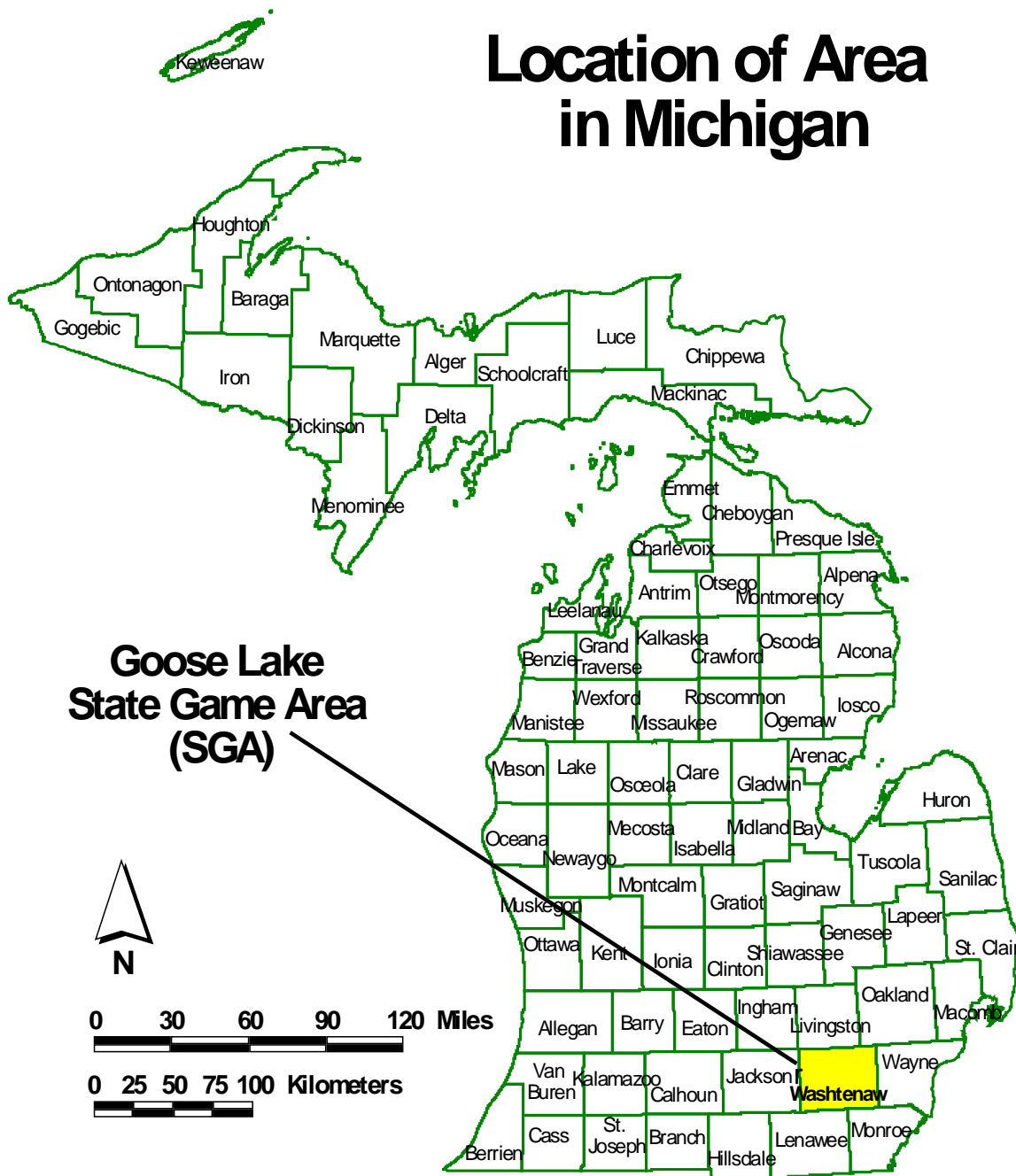


Figure 1: Location of project area within state of Michigan.

Goose Lake SGA is located on the east side of the Jackson-Washtenaw County line (see Figure 1) in a fairly rural area, centered directly between two major population centers in southern Michigan. The area is approximately 12 miles east of Jackson, Michigan; and, approximately 17 miles west of Ann Arbor, Michigan (see Figure 2). The area is only three miles south of I-96 and is very accessible from major roadways. Goose Lake SGA is also located within ten miles of five other state owned properties (Waterloo State Recreation Area, Pinckney State Recreation Area, Grass Lake State Game Area, Chelsea State Game Area, and Sharonville State Game Area), totaling approximately 36,425 acres. The Chrysler Group LLC Proving Grounds are approximately three miles east of the SGA. The immediate area surrounding Goose Lake State Game Area is rural, with agricultural fields, pastures, and fallow fields constituting the majority of private land use. However, housing densities are increasing. A transition towards an ex-urban environment is becoming evident as the area between population centers becomes more popular for residential use and farm lands dissolve into smaller parcels.

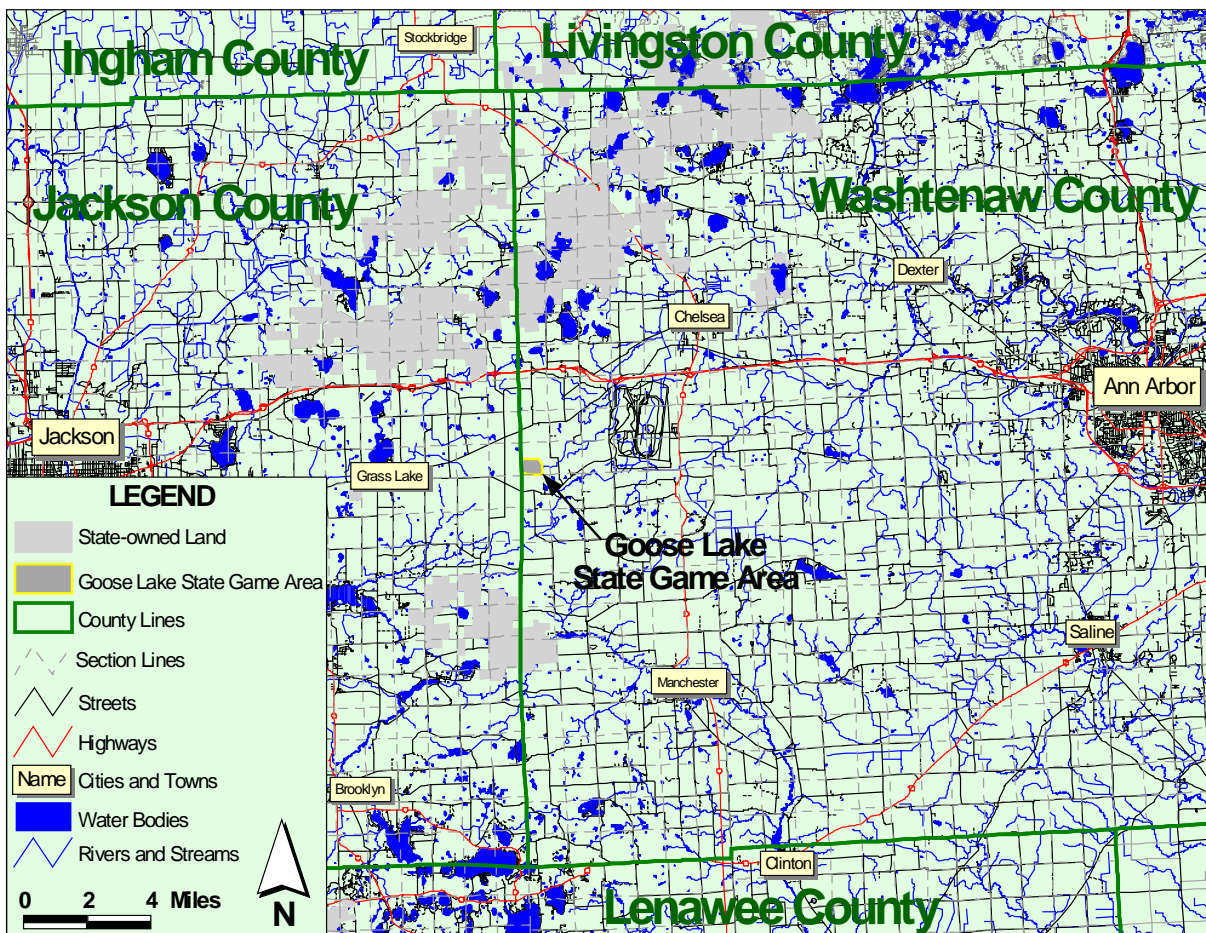


Figure 2: Location of project area within region, showing the major features nearby.

Goose Lake SGA is bounded by Rank Road on the west, Hayes Road to the east, W Old US-12 to the north, and Grass Lake Road to the south. Access to Goose Lake SGA is located off of Rank Road, only one mile south of Michigan Avenue/Old US-12; which runs directly between Jackson and Ann Arbor (see Figure 3). Visitors can quickly access the area from the Kalmbach Road exit, off of I-94, by driving four miles south to the two SGA parking lots on Rank Road. The complete shoreline of Goose Lake (approximately 37 acres) is within the SGA boundary.

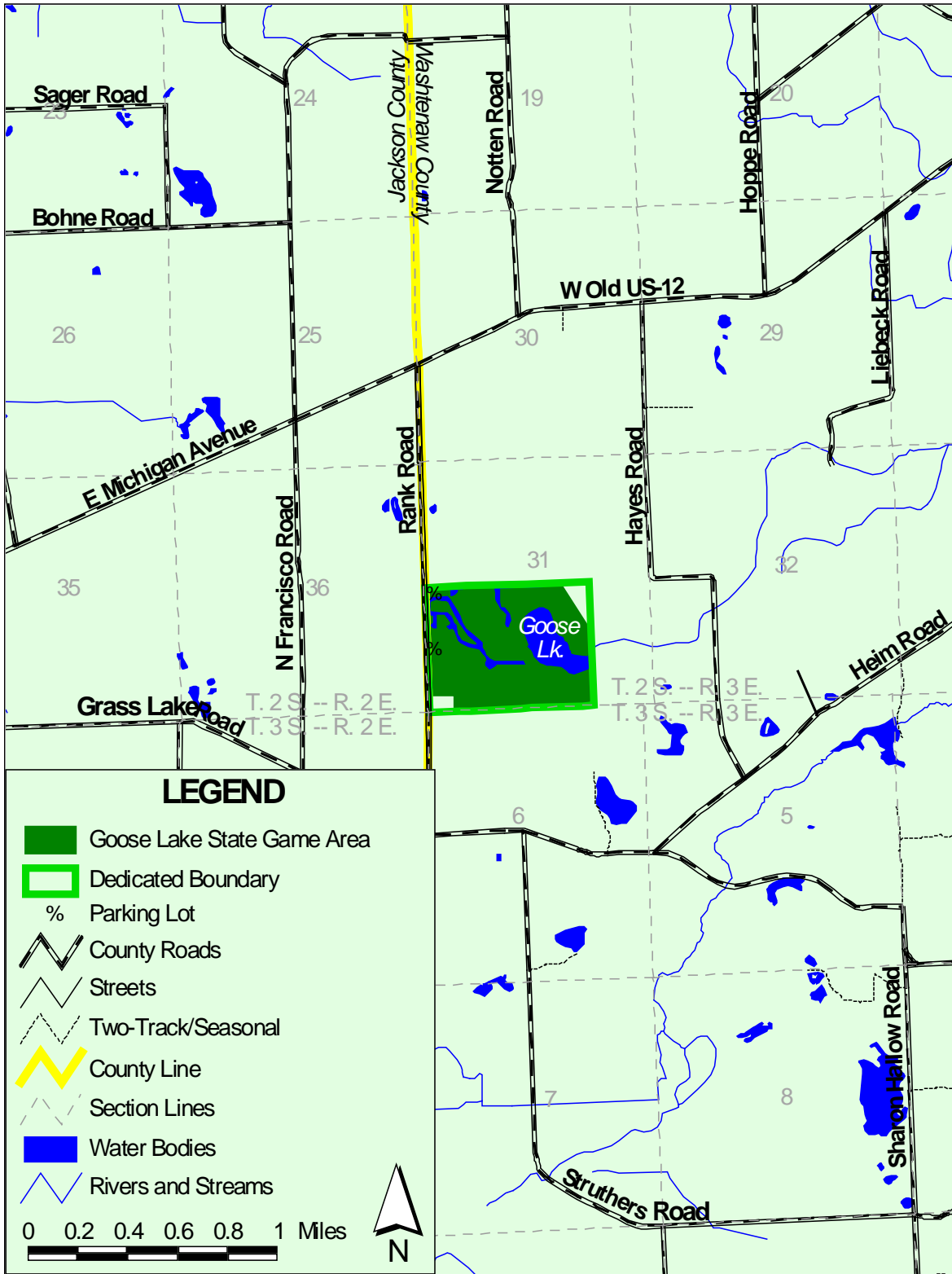


Figure 3: Local view of the project area with project boundary and detailed features.

The dedicated boundary of the Goose Lake SGA (see Figure 3) was approved by the Michigan Natural Resources Commission on September 16, 1985. The current dedicated boundary includes approximately 13 acres of land in private ownership, which may be suitable additions to the area in the future. Additional land within the dedicated boundary will only be acquired on the basis of a “willing selling - willing buyer”. The dedicated boundary is designed to establish simple, recognizable boundaries and provide the largest possible contiguous blocks of State ownership. The dedicated boundary usually includes those parcels considered to be of high natural resources value but may exclude parcels of relatively low value such as previously developed lands.

Establishment of Area

The funding source for this game area was the Pittman-Robertson Fund, according to the state’s Land Ownership Tracking System (LOTS) database. The purpose of establishing this area was to “...preserve a valuable wetland, expand public recreational opportunities and provide additional habitat for waterfowl, white-tailed deer [*Odocoileus virginianus*] and southern Michigan small game species”. The area was formally dedicated by the NRC in 1985 as described in September 16, 1985, Natural Resources Commission Memo.

In early spring of 1985, Ralph Anderson, former District Wildlife Biologist of the former Wildlife Division District 13, was contacted by a real estate agent regarding a 202-acre property for sale in Washtenaw County. At the time, the DNR Wildlife Division was interested in potential wetland acquisitions. Upon a site visit, Anderson was “...impressed with the wetlands on this tract and other wetlands on adjacent tracts.” Through personal observation and discussion with others in the area, Anderson concluded the lake and wetlands on the property provided valuable wildlife habitat and hunting opportunity. The acquisition proposal recommended the area be operated as a mini-game area with an emphasis on waterfowl hunting and production, with a project title of “Little Goose Lake Waterfowl Production Area – OR – Little Goose Lake Mini-Game Area”. The property was purchased from Deborah, Judy, Theresa, and Douglas Mullen by the State of Michigan in December 1985.

The area was originally dedicated as Goose Lake Mini-Game Area. The purchase was made under the “Statewide Wetlands Acquisition program,” “designed for acquiring specifically identified wetland parcels suitable as waterfowl production areas...” For this reason, the Goose Lake Mini-Game area has also referred to as the “Washtenaw County Mini State Game Area Waterfowl Management Area;” in fact, this is the name displayed on a large, routed, sign posted on the area. The area has also been called “Little Goose Mini-Game Area,” “Washtenaw Waterfowl Production Area,” and “Washtenaw Mini-Game Area” by DNR staff. The official name of the area is now Goose Lake State Game Area; this change was made in 2003 when the term “mini-game area” was being eliminated. See Appendix A for current state game area map.

Environmental Conditions and Biotic Inventory

Goose Lake SGA is located within Section VI.1 (Southern Lower Michigan, Subsection Washtenaw) on the east edge of Sub-Subsection VI.1.3 (Jackson Interlobate) of Albert’s (1995) Regional Landscape Ecosystem Classification.

Soils on Goose Lake SGA are largely comprised of Boyer loamy sand and Fox sandy loam in uplands, with wetlands mainly comprised of Houghton and Adrian mucks (Engle 1977) (see Figure 1). The area is flat to hilly.

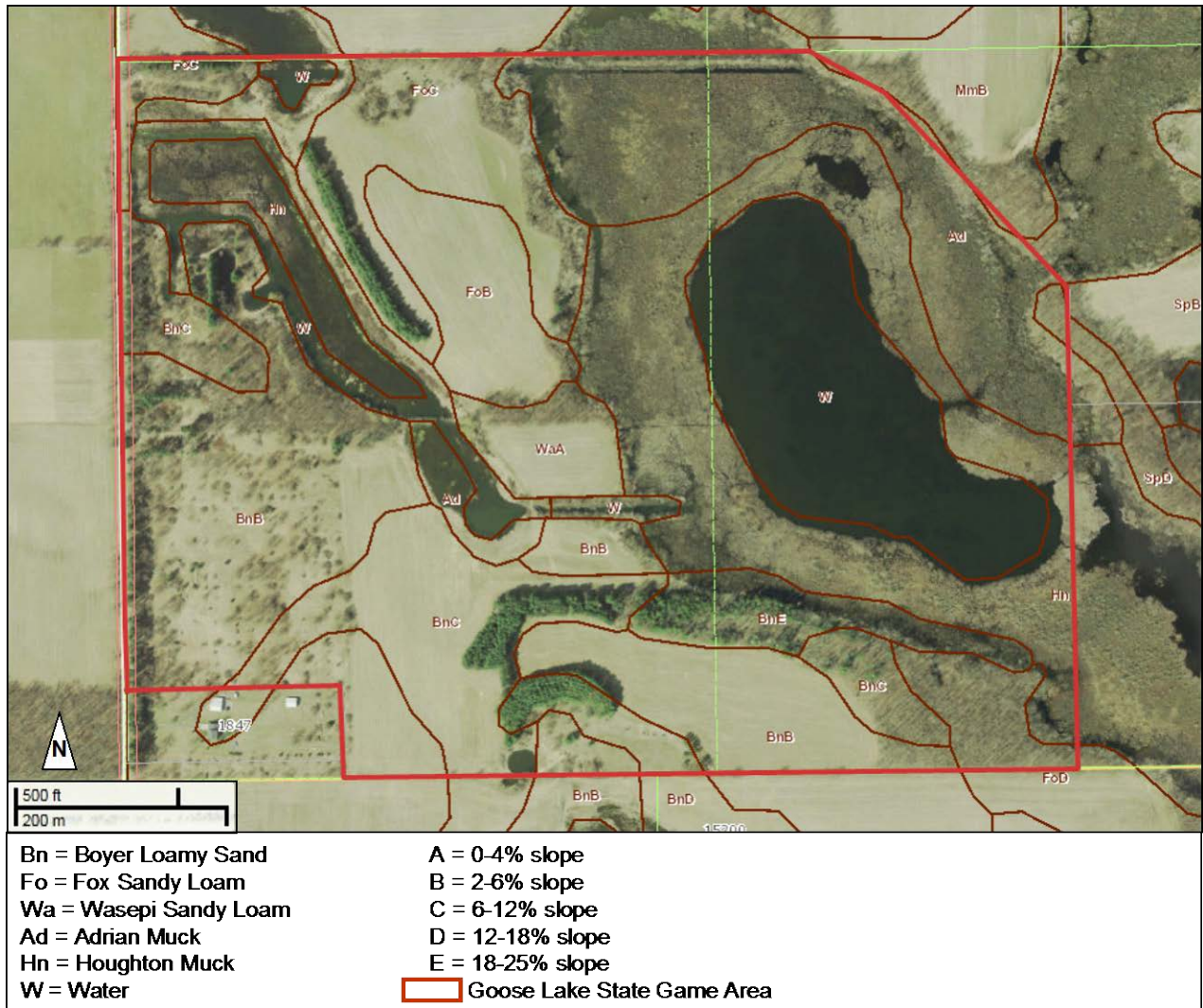


Figure 4. Soil types on project area, overlaid on 2010 aerial imagery.

The description of *circa* 1800 land cover vegetation is useful as a benchmark for understanding the potential conditions that might be managed for on an area; however, restoring pre-European settlement conditions may not necessarily be a management goal for the area. According to *circa* 1800 land cover data, Goose Lake SGA was predominantly black oak (*Quercus velutina*) barren, mixed oak (*Quercus* spp.) savanna, wet prairie, and open water (lake) pre-European settlement (see Figure 5).

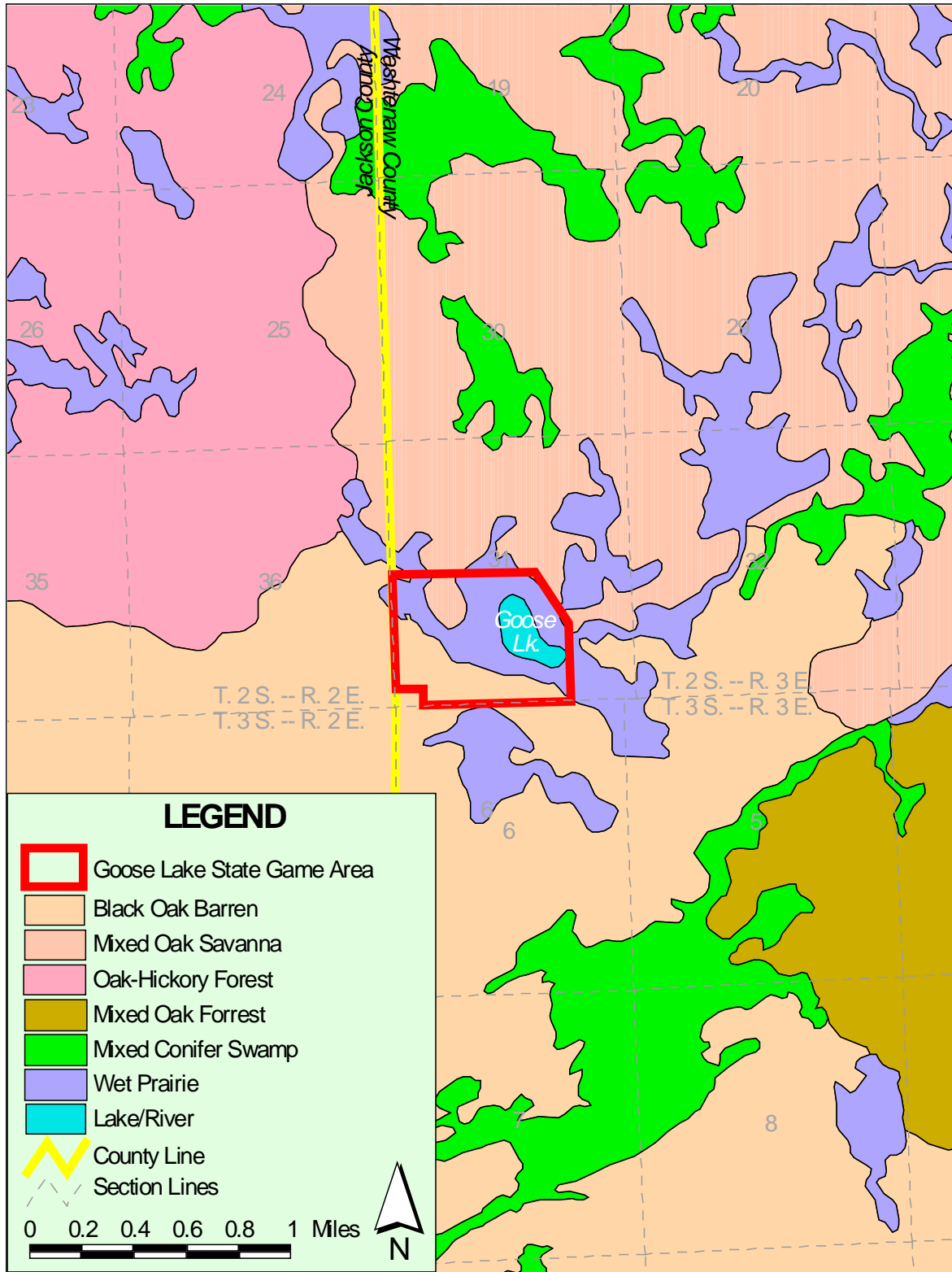


Figure 5: Local view of the project area shown with historical vegetation (circa 1800).

Goose Lake SGA had been farmed for many years, prior to purchase by the State of Michigan (see Appendix B for historical aerial photos). The game area is currently in seven cover types (see Figure 6). According to *circa* 1800 data, approximately 46 percent of the area was in wet prairie; which now translates into approximately 40 percent of the area in emergent wetland or lowland shrub (see Table 1). The proportion of wetland on the game area has not, according to available data, declined significantly; however, the type of wetland is likely very different in species composition and vegetation structure due to changes in hydrology, disturbance, and adjacent land use. Black oak barrens and savanna vegetation communities are no longer present on the game area, due to land use and management practices that have been in place for over a century. However, some characteristics of black oak barrens are visible in the southwest portion of the game area in a stand of upland shrub/low-density trees. The current vegetation structure and composition provide suitable habitat to a variety of common game species within the surrounding landscape. However, Goose Lake SGA is not known to currently support any rare wildlife species or rare vegetation communities. Intense agricultural land use renders the area less suitable for environmentally sensitive species.



Figure 6: Local view of the project area shown with current land-use / land-cover as determined and digitized by local staff (2011), overlaid on 1998 aerial photo.

Table 1: Comparison of vegetation composition between historical and current area condition.

Historical Land Cover (circa 1800)	Acres	Percent Area
Mixed Oak Savanna	19	9%
Wet Prairie	93	46%
Black Oak Barren	68	33%
Lake/River	23	11%

Current Land Cover (2011)	Acres	Percent Area
Red Pine (and other pines)	6	3%
Mixed Upland Deciduous	28	14%
Upland Shrub/Low Density Trees	23	11%
Sharecrop Rotation	47	23%
Lowland Shrub	12	6%
Emergent Wetland	65	32%
Open Water	23	11%

Since the property has been in state ownership, sharecropping has occurred in the open fields (see Figure 6). Several different crop rotations have been in place (e.g. corn and soybeans, wheat, clover, and hay). To this day, sharecropping occurs in these fields. However, in 2014, 15 acres were planted to native warm season grasses with plans to interseed native forbs.

Much of the southwest portion of the game area was in fruit-tree orchard for many years (established prior to 1940). A historical note from a conversation between Jeff Greene, former wildlife biologist for the area, and a local man, Darrell Ness, suggests that the apple orchard was quite young in 1936; and that this orchard was the last recorded site for prairie chicken (*Tympanuchus pallidicinctus*)-caused agricultural damage in Washtenaw County. Since state-ownership, apples were planted in 1996 in a small section of the old orchard. Pears were planted in 1997; however, 80 percent mortality of the trees was observed in 1998. In 1988, a timber sale was conducted on the game area; 12,400 board feet of red pine (*Pinus resinosa*), Austrian pine (*Pinus nigra*), Norway spruce (*Picea abies*), white pine (*Pinus strobus*), and larch (*Larix laricina*) were harvested. No timber management has been conducted since that time.

The shoreline of Goose Lake has not changed over the years, according to all available data. In an effort to measure lake depth, Division staff probed Goose Lake in February 1988. At the time, there was an interest in improving boat access to the lake. After much consideration by Wildlife Division staff, Fish Division staff, and representatives from Mid-Michigan Chapter of Michigan Duck Hunters Association, the proposed boat access project was deemed unfeasible and not cost-effective and was dropped. However, probing results showed that the lake was deeper than ten feet at a point 250 feet from shore (see Figure 7).

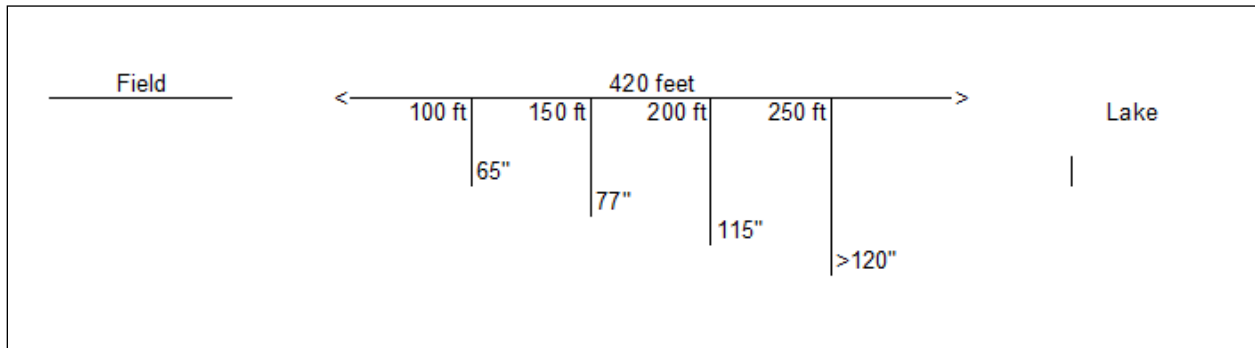


Figure 7: Replication of a figure demonstrating probing results for water depth of Goose Lake (1988).

Cultural History

Cultural resources are part of Michigan’s natural resources that the Wildlife Division is committed to conserving. When there are cultural sites present on DNR lands, we consult the State Historical Preservation Officer (SHPO) to determine the best way to manage wildlife resources while protecting the integrity of the cultural site. A non-undertaking agreement between the DNR, SHPO, and the U.S. Fish & Wildlife Service may be developed to guide management actions in and around cultural sites. The National Historic Preservation Act requires this consultation whenever activities could affect sites that are listed on or potentially eligible for listing on the National Register of Historic Places and either federal funds are used for those activities or the activities occur on lands acquired with federal funds.

Since no sites of historic significance are presently known to occur on Goose Lake SGA, SHPO consultation may not occur. Should any potentially significant resources be identified by future surveys or during the course of management activities, however, SHPO will be consulted and management modified as necessary.

Public Use

Goose Lake SGA is primarily used by waterfowl and deer hunters and does receive some use by turkey hunters, as well. Small game is not as frequently hunted on the area; however, it has not been the focus of habitat management efforts on the SGA. Ice fishing occurs on Goose Lake regularly; however, anglers are rarely observed during summer months. Raccoon and water trapping opportunity exists on the game area; however, DNR staff has not observed trappers using the area. The game area is not particularly well known to be a popular attraction for non-consumptive recreation; there has been evidence of illegal off-road-vehicle use on the area.

Commercial Uses of the Area

Sharecropping has occurred on Goose Lake SGA since its purchase by the state in 1985. The main goal of sharecropping fields on the area was to establish and maintain dense nesting cover for waterfowl and upland game birds. Originally, fields were in cool season grasses and hayed. Over the years, sharecrop agreements have changed to also produce row crops from time to time. This was done to provide wildlife food, winter cover in some shares, and to keep these fields open through maintaining sharecropping agreements. These fields may have provided dry field hunting opportunities for duck and goose hunters, but there is no information available to indicate that these fields have been used in such a way.

One timber sale was conducted in 1988. 12,400 board feet of conifers were harvested with a main objective of reducing predation from avian predators. The state was paid in 2000 board feet of sawn boards, which were picked up in spring of 1990.

Facilities and Infrastructure

The infrastructure present on this area is an important component that provides public access and allows for management activities. All facilities will be maintained in safe and operable conditions throughout their useful life. Periodically, major repairs and/or renovations may be made to some that may extend their useful life.

There is relatively minimal infrastructure at Goose Lake SGA. There are two parking lots, one access gate, and a 0.5-mile two-track trail. The trail is essential for access to conduct sharecropping and management activities.

Table 2. Approximate quantity of facilities and infrastructure in project area.

Facility/Structure	Quantity
Parking Lots	2
Access Control Gates	1
Trails	1 (0.5 mile)

Landscape-Level Planning

As stated earlier, Goose Lake SGA is located between and among five other state-owned properties (Waterloo State Recreation Area, Pinckney State Recreation Area, Grass Lake State Game Area, Chelsea State Game Area, and Sharonville State Game Area), totaling approximately 36,425 acres of land in state ownership that are managed with similar goals for wildlife conservation and hunting opportunity. In addition, there are a number of preserves in the region that provide and collaboratively conserve valuable habitat for many wildlife species (i.e. Washtenaw County’s Koenn Preserve, Clark and Avis Spike Preserve, Squires Preserve, Sharon Hills Preserve, The Nature Conservancy’s Nan Weston Preserve at Sharon Hallow, and a number of conservation easement lands).

Goose Lake SGA is located within the primary pheasant (*Phasianus colchicus*) restoration area (which includes Jackson and Washtenaw Counties) as identified through the Michigan Pheasant Restoration Initiative, a conservation initiative with many groups working together to focus on the restoration of pheasants in Michigan. There are currently other game areas within the region that are better suited to focus pheasant habitat establishment and management efforts. However, there are also opportunities to enhance pheasant habitat on Goose Lake SGA as part of this initiative, especially if neighbors employ land management practices that are more beneficial for grassland birds. However, the primary goal of any warm season grass restoration in the game area should be for the purpose of supporting breeding waterfowl.

Accessibility

At this time, there are no portions of or programs for the Goose Lake SGA that are accessible to the disabled according to American Disabilities Act (ADA) standards. However, the trail and much of the topography is accessible to mobility challenged individuals with access to adaptive equipment like tracked wheelchairs. There is potential to provide recreational access to individuals through land use permits that allow ORV access or through the Michigan Operation Freedom Outdoors (MiOFO) programs, which is centered in nearby Sharonville.

WILDLIFE SPECIES

In keeping with the intended purpose of the Goose Lake SGA, the main focus of management will be waterfowl production and providing habitat and hunting opportunities for white-tailed deer and small game species.

Table 3. A list of wildlife species for which projects will support during this planning period, reflecting opportunities for habitat or recreational management.

Common Name	Featured Species	Climate Change Vulnerability¹	Remarks
Mallard	Yes	<i>Presumed Stable</i>	<i>Maintain hydrology, prairie planting, maintain nesting structures</i>
Wood Duck	Yes	<i>Presumed Stable</i>	<i>Maintain hydrology, maintain snags & oaks, maintain nesting structures</i>
White-tailed Deer	Yes	<i>Presumed Stable</i>	<i>Soft & hard mast trees, openings, food plots</i>
Eastern Cottontail	Yes	<i>Presumed Stable</i>	<i>Brush piles, food plots</i>
Wild Turkey	Yes	<i>Increase Likely</i>	<i>Prairie planting, soft & hard mast trees, food plots</i>
Ring-necked Pheasant	Yes	<i>Presumed Stable</i>	<i>Prairie planting</i>

¹ Hoving et al. 2013

MANAGEMENT DIRECTION

No previous 10-year management plan exists for the Goose Lake SGA. However, Retired wildlife biologist, Jeff Greene, did develop a one-page, un-approved, management plan in 1986, with an accompanying habitat development plan for the 1986-1991 period.

Greene’s original management plan focused on managing the area as a waterfowl production area and emphasized providing dense nesting cover for waterfowl and upland game birds. This goal is in line with the original intent for purchase of the area.

The intended purpose for the Goose Lake SGA is clear: “...preserve a valuable wetland, expand public recreational opportunities and provide additional habitat for waterfowl, deer and southern Michigan small game species.” Building on this stated purpose for the land, it is our vision that the Goose Lake SGA will continue to support a functioning emergent wetland system, supply wildlife-related recreation opportunity, and provide suitable habitat conditions for waterfowl, deer, and small game species. The area was purchased with the intention of producing waterfowl; therefore, management should specifically focus on providing suitable nesting cover for waterfowl. In 50 years, the wetland hydrology should remain intact and the wetland should support relatively diverse vegetation species. The upland vegetation should provide suitable

cover (nesting, brood rearing, and escape) and food for a diversity of wildlife species (the focal game species and associated non-game species).

What follows is the strategic direction for Goose Lake 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. 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 planning. An action is a quantifiable input to be completed within a defined timeframe that contributes towards accomplishing the objective.

It is expected to take approximately ten years to complete all the objectives.

Goals, Objectives, and Management Actions

Goal I is to produce waterfowl species.

Rationale: 1) the main purpose for state ownership of the area is to produce waterfowl and provide waterfowl habitat and related recreation; 2) providing nesting habitat for waterfowl (i.e. mallards, wood ducks, and Canada geese) will also benefit pheasant, wild turkey (*Meleagris gallopavo*), other game and nongame species.

Metrics: annual waterfowl surveys in mid-June.

Objective A is to provide nest and brood cover suitable for mallards (*Anas platyrhynchos*) in wetland vegetation types through 2026.

Action 1. maintain herbaceous wetland vegetation by maintaining current hydrology (no human alterations to change hydrology) and treating to eradicate any new, currently un-established, invasive vegetation species that threaten current herbaceous wetland vegetation (i.e. *Phragmites* spp. and *Rhamnus frangula*) as needed.

Action 2. inventory, refurbish, and maintain current mallard nest structures by 2020; and, work to involve willing and committed volunteers to assist in nest structure installations and maintenance throughout master plan period.

Objective B is to provide nest and brood cover suitable for mallards (*Anas platyrhynchos*) in upland vegetation types by 2020.

Action 1. establish a plan by 2018 to convert 20-40 acres of currently sharecropped land to diverse native grassland vegetation by 2026.

Action 2. seek opportunities to involve willing and committed volunteers to assist in establishment of native grassland vegetation and maintenance of this vegetation throughout master plan period.

Objective C is to provide nest and brood cover suitable for wood ducks (*Aix sponsa*) through 2026.

Action 1. retain non-invasive emergent woody vegetation species in lowland shrub vegetation type; and, retain snags and cavity trees within mixed upland deciduous vegetation type and all wetland vegetation types throughout the master plan period.

Action 2. treat to eradicate any new, currently un-established, invasive vegetation species that threatens current wetland vegetation (i.e. *Rhamnus frangula*) within master plan period.

Action 3. inventory, refurbish, and maintain current wood duck nest structures by 2020; and, work to involve willing and committed volunteers to assist in nest structure installations and maintenance throughout master plan period.

Goal II is to maintain wetland system function throughout master plan period.

Rationale: 1) wetland preservation is a specified purpose for state ownership of the area; 2) wetland system function is essential to supporting diverse wetland vegetation, which supports diverse invertebrate populations (essential food for waterfowl and other species of interest) and provides valuable nesting and escape cover for several wildlife species (including waterfowl); 3) the value of wetlands within the landscape cannot be overstated, as they work to improve water quality, reduce impacts of flooding events, and provide essential food, water, cover, and thermal conditions for species from invertebrates and amphibians to ducks and deer.

Metrics: biennial evaluation of wetland vegetation species diversity and presence/absence of invasive vegetation species.

Objective A is to maintain wetland hydrology through 2026.

Action 1. do not impair hydrology of wetlands (e.g. drain/tile, or dam), allow natural fluctuation of water levels to occur throughout master plan period.

Action 2. treat any new, currently un-established, invasive vegetation species that threaten to alter the hydrology of the system by 2020.

Objective B maintain diverse wetland vegetation by 2020.

Action 1. use current invasive species strategy (Higman and Campbell 2009) to address any new invading vegetation that threatens vegetation structural and compositional diversity and hydrology by 2020.

Goal III is to provide hunting and trapping opportunity.

Rationale: 1) providing waterfowl, deer, and small game hunting opportunity to the public is a specified purpose for state-ownership of the area; 2) public hunting and trapping land is limited in southern Michigan and it is important to provide wildlife resources where the public has access to enjoy them.

Metrics: use volunteers when possible to count vehicles in parking lots on opening day for duck and regular Canada goose season, opening day for regular firearm deer season, and one week after the last day deer season (users will likely be hunting small game or trapping).

Objective A is to provide wildlife food on the area annually throughout management plan period.

Action 1. continue to sharecrop fields until converted to native grasses by 2026.

Action 2. once sharecropping has ceased on the area, openings not planted to native grasses and nesting cover will be planted to food plots (approximately 7-27 acres). Seek opportunities to involve willing and committed volunteers to provide resources and/or plant food plots.

Action 3. acorns are a valuable natural food for wood ducks, deer, wild turkey, squirrels (*Sciurus* spp.), and other wildlife species; oaks will be allowed to persist throughout the master plan period; vegetation that threatens the growth and regeneration of oaks in the low density tree and mixed upland deciduous vegetation types (near the south parking lot on the east side of the area) will be cut/harvested (i.e. autumn olive).

Action 4. fruit trees in the old orchard will be pruned to produce more soft mast for wildlife food; continue to improve as needed throughout the master plan period.

Objective B is to provide improved winter and escape cover on the area for small game (i.e. pheasants and cottontail rabbits) by 2026.

Action 1. convert 20-40 acres of currently sharecropped land to diverse native grassland vegetation by 2026 (see Goal I, Objective B, Action 1).

Action 2. Create eight brush piles to provide harsh weather cover for cottontail rabbits by 2026.

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.

Currently, the area is being sharecropped by a local farmer. The sharecrop program is of financial benefit to the farmer, but it is used to reach desired future conditions for the area and provide wildlife food and hunting opportunity, as well. Removing sharecrop rotations from this property will not have a major economic impact on the community or the sharecropper. In many cases, the sharecropper may pick up additional sharecrop acres elsewhere to offset the cost of losing a field.

Acquisition and Disposal of Land

The current acquisition boundary for Goose Lake SGA only includes 13 acres of land not in state ownership. These 13 acres are inconsequential to the value of the game area. Under Department direction to reduce acquisition boundaries, the Goose Lake SGA dedicated boundary was reduced to reflect the current game area boundary through field review in November 2011. Any change in the current dedicated boundary for the SGA is still pending. I would not recommend any disposal of land at the game area.

Plan Review

On February 13, 2012, a public meeting was held in Grass Lake, Michigan, to gather input on the draft management plan for the Goose Lake State Game Area (See Appendix C for summary of comments). There were several comments regarding the reduction of the sharecropping at the game area and establishing native warm season grasses. Some comments suggested prairie establishment would not be beneficial enough to pheasants, and retaining sharecropping might be more beneficial to deer and turkey hunters. Some felt that it would not be worth establishing native warm season grasses if the DNR will not be able to maintain the vegetation through management.

These are thoughtful comments and good points. However, the intended purpose of the area is to produce waterfowl, and suitable nesting cover has never been established at the game area for that purpose. A diverse native warm season grass complex will provide that necessary cover and structure for nesting mallards and other waterfowl species. In addition, it will provide beneficial cover for pheasants, white-tailed deer, and wild turkey.

The public meeting generated a lot of interest, public engagement and involvement of volunteers will be incorporated in management whenever feasible.

This plan was available for public review and comment on the DNR website between June 13, 2016 and July 11, 2016. During this period, six comments were received and considered before finalizing this plan. The comments can be summarized into the following suggestions:

1. Representatives from Legacy Land Conservancy and Washtenaw County Parks wanted to make sure that we were aware of conservation easements neighboring the state game area. They felt that conservation practices on these properties combined with management of the game area would have positive impacts on local wildlife populations and their habitats. Allison Krueger provided maps of these areas and wrote:
“...Washtenaw County owns 80 acres which will be managed as the Herman Koenn Preserve. The Koenn Preserve will be open to the public this fall and will include a parking area off Hayes road and include hiking trails. Per our conversation last winter, the trails likely cross the far eastern portion of the state land, so there is some recreation access to Goose Island. Additionally, we own a conservation easement across an additional 110 acres to the north, but also adjacent to the Goose Lake State Game Area. Given Washtenaw County is still working to acquire land with the NAPP Millage, additional land surrounding the Koenn Preserve could be acquired and managed in the future.”
2. A biologist for the Ruffed Grouse Society/American Woodcock Society felt that there is habitat value on the area for American Woodcock. He felt that there were some projects that could be done to improve habitat for woodcock; however, he recognized that

woodcock may not be a priority management species for the area. He provided suggestions for some habitat projects that he felt would benefit woodcock and would be compatible with our current management goals.

3. A neighbor inquired about trash pick-up in parking lots and along back boundaries.
4. A person complimented the plan and is excited to hunt the area.

The first group of comments was addressed in the Landscape-Level Planning section of this document. Although it is agreed that the American Woodcock may benefit from habitat and management done on the Goose Lake SGA, we will not assign it as a featured species for the area at this time as it is not a priority for the area. We do believe that the habitat management planned for the SGA will not negatively impact, and will likely benefit, woodcock. The neighbor received a response regarding trash and signage; however, it is not necessary to address these issues in this strategic-level plan.

Operational Planning

Implementation of the goals, objectives and actions in this plan will be accomplished predominantly through the Work Plans, Work Item Proposals (WIPs), and Operational Budgets. All three of these processes are implemented on an annual basis.

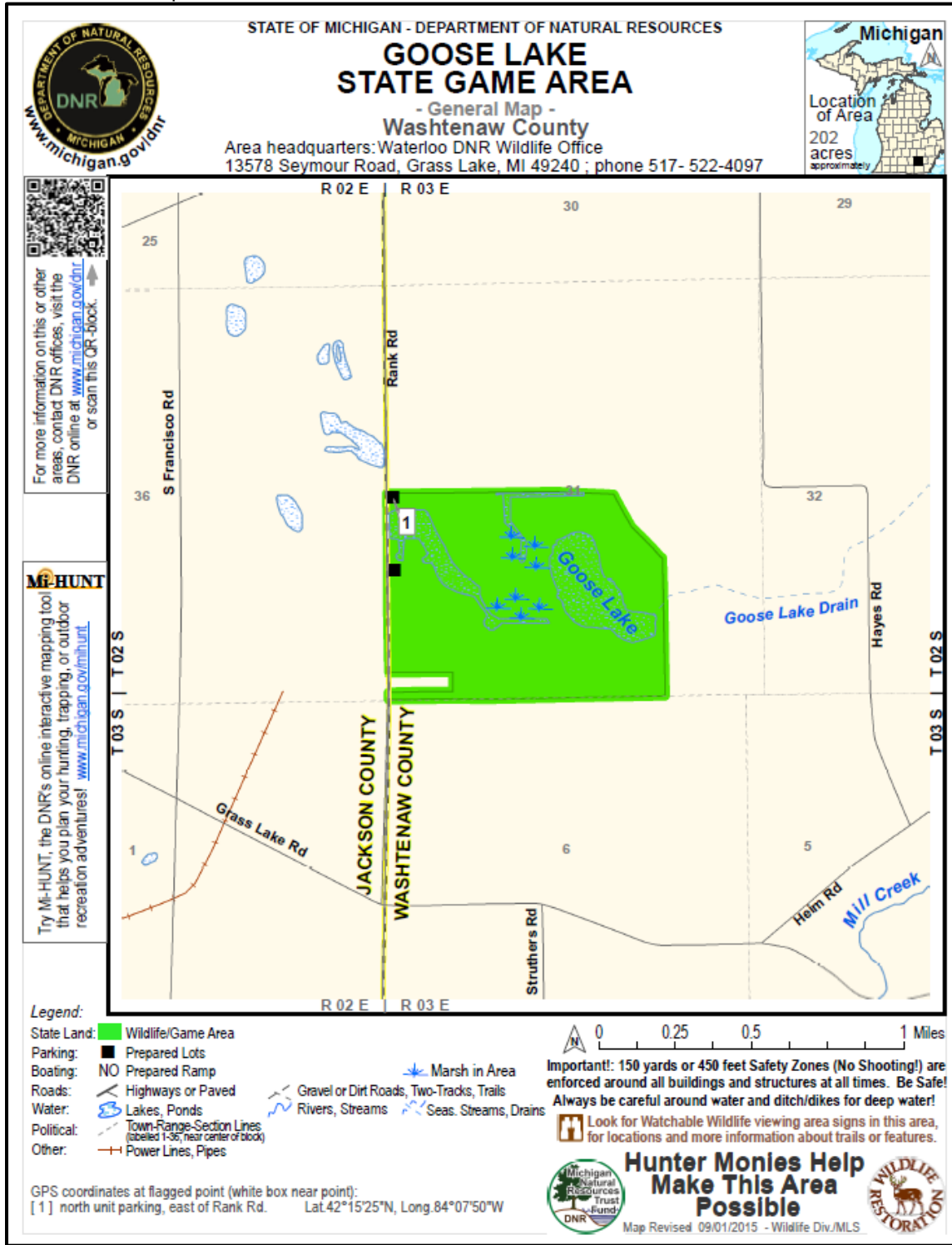
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APPENDICES

Appendix A

State Game Area Map for Goose Lake State Game Area



Appendix B

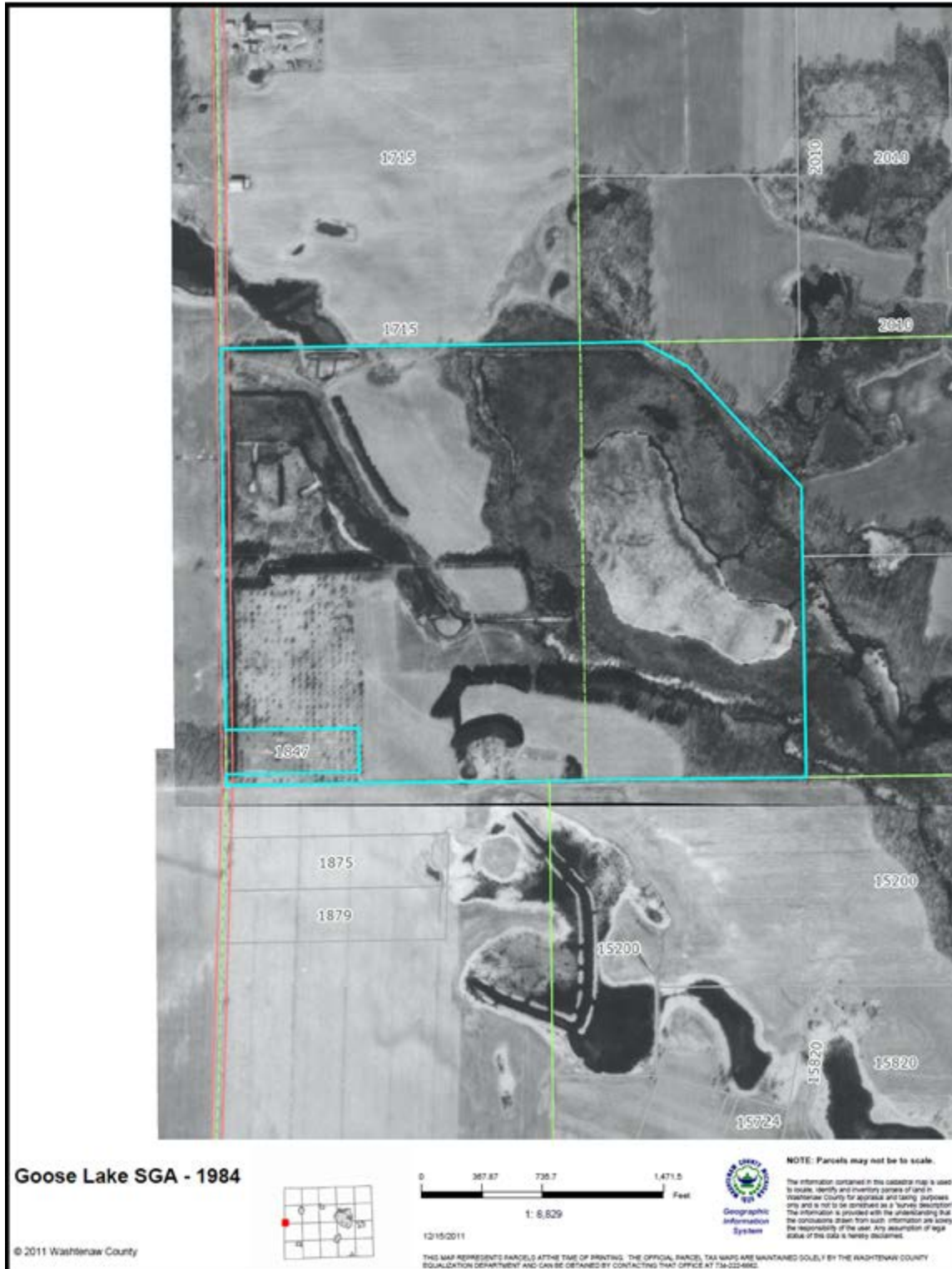
Historical Aerial Photos of Goose Lake SGA

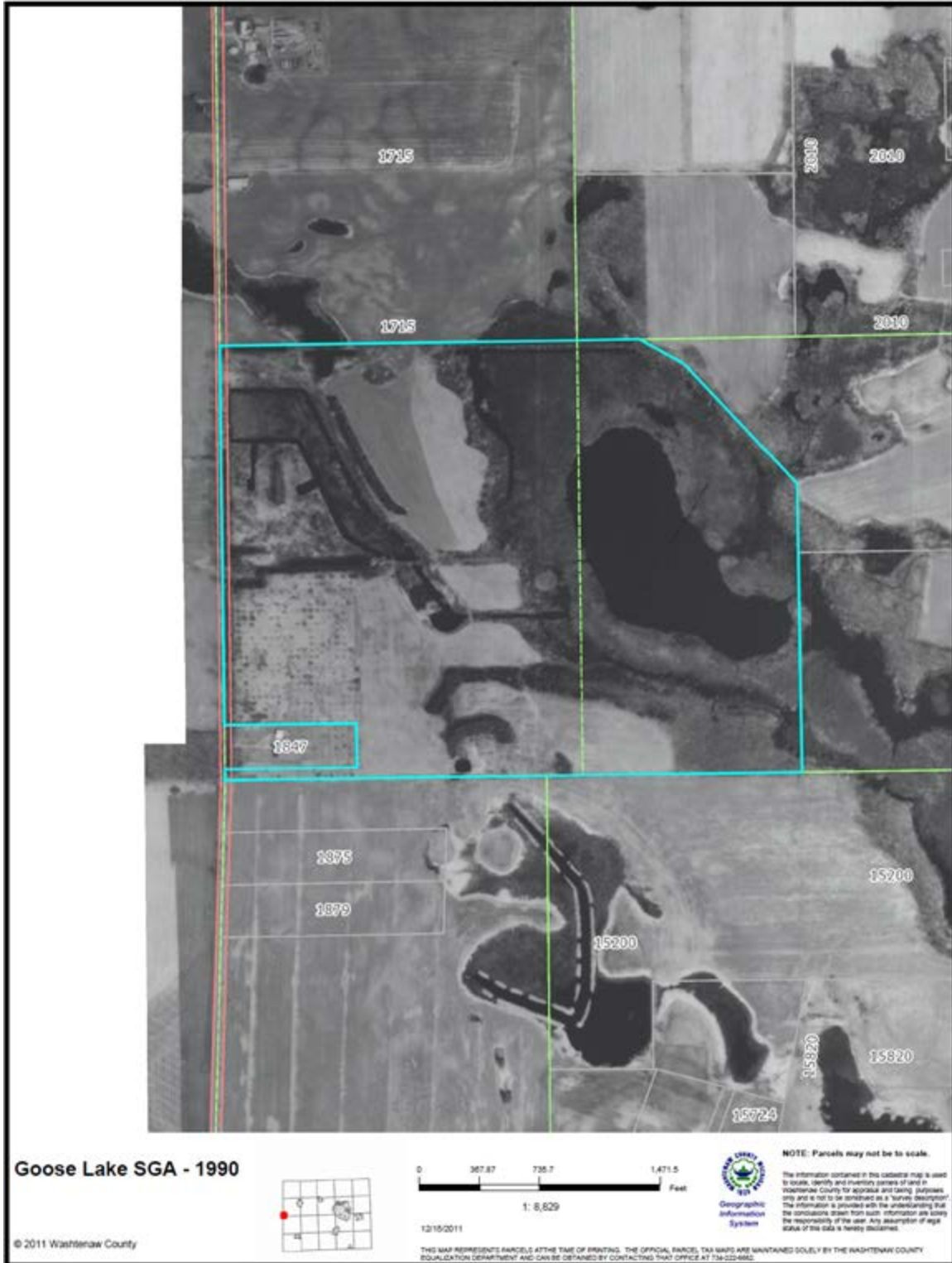






















Appendix C

Public Comments on the Draft Goose Lake SGA Master Plan

Goose Lake Master Plan

Public Meeting

2-13-12

Comments:

General/Misc.

- 1) Maintain winter food – some food plot, crops for native grass area
- 2) Difference between historical vs. current wetland?
- 3) Hunter usage data?
- 4) Trespass issues across the street
- 5) Appreciate aesthetic/uniqueness of pines (western pines – might be neat learning opportunity)
- 6) Not good for goose hunting – great for nesting area
- 7) What about fish stocking? Surveys? Info?

Grassland/Sharecropping

- 8) Are sharecropped areas big enough to be good for prairie restoration? Tall trees surrounding, best bang for the buck? Leave crops for deer and turkey, other areas better for pheasant?
- 9) Food plots may increase hunter use/conflict – crops would be better
- 10) Corn/sorghum plots equating to 25% sharecrop leftover is good
- 11) 5 acre switchgrass holds deer – prairie good for pheasant/ducks, etc. because of insects, good for deer too
- 12) Falcata – type of alfalfa for sharecropping – can leave until nesting season over (hay can't wait until July). Prof at MSU working on it. Duck nests get moved ¼ mile from water, improve nesting habitat cover
- 13) PF has a no-till drill for native grasses, seeds. Burning is best for grassland maintenance, can include a buffer
- 14) Conservation Districts have no-till drill
- 15) Concern over maintenance of grasslands – if not kept up with, doesn't provide good habitat for wildlife or hunting opportunities
- 16) Good to see active management – a plan is good for that: Evaluate grasslands by 5 yrs and if not working, go back to sharecropping
- 17) Native grasses vs. pasture land – needs maintenance routinely to keep wildlife value
- 18) [Long written comment – summarized here] Concerns converting area currently used for share cropping into a grassland area with focus on pheasant restoration include the ability to maintain it long-term, it's too small to be successful for pheasant restoration, not much benefit to pheasant hunter. There is a federal waterfowl production area nearby that provides grassland habitat for waterfowl. There are better locations in area to focus pheasant restoration on. Prefer to see Goose Lake have sharecropping with corn and soy, and focus on deer and turkey. Would like to see sharecropping replace leasing land to farmers throughout Waterloo/Sharonville area. Maybe way to do sharecropping on Goose

Lake along with grassland buffer strips in the open space as compromise. Haven't seen corn/sorghum do well. If all sharecropping is converted to grasslands, worried deer hunting opportunities will decrease. Maybe better to keep sharecropping at Goose Lake, and use limited resources to develop grasslands on larger tracts in other areas.

- 19) [Written comment] Washtenaw Pheasants Forever would be interested in partnering in establishing native prairie grasses. We might be able to provide food plot seed. Could be a good core areas to a Pheasant Initiative Co-op. If you do an email burst – use the blind copy method.
- 20) [Written comment] Look at Falcata as crop for hay

Pheasants

- 21) Pheasant stocking? Booms in coyote population – don't want to see it stocked

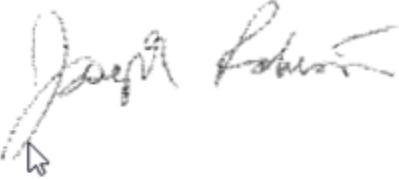

Volunteering

- 22) Clean up old dump? Lots of glass – volunteer opportunity
- 23) Create an email volunteer list

Communication about Goose Lake for future

- 24) Better advertising for public meeting: township websites, Jackson Conservation District, create email list
- 25) [Written comment] Please put us on Waterloo and Goose Lake email list. We own the land along the entire south border of the Goose Lake Wildlife Area. And we use the Waterloo Rec Area for horseback mounting fox hunting in winter.
- 26) [Written comment] Keep me informed on future events
- 27) [Written comment] Please add us to the email list to keep us updated on Goose Lake State Game Area. Thank you, meeting was very informative

Approvals

	<u>2-27-2017</u>
(Name), Field Operations Manager	Date
	<u>2-27-17</u>
(Name), Regional Supervisor	Date