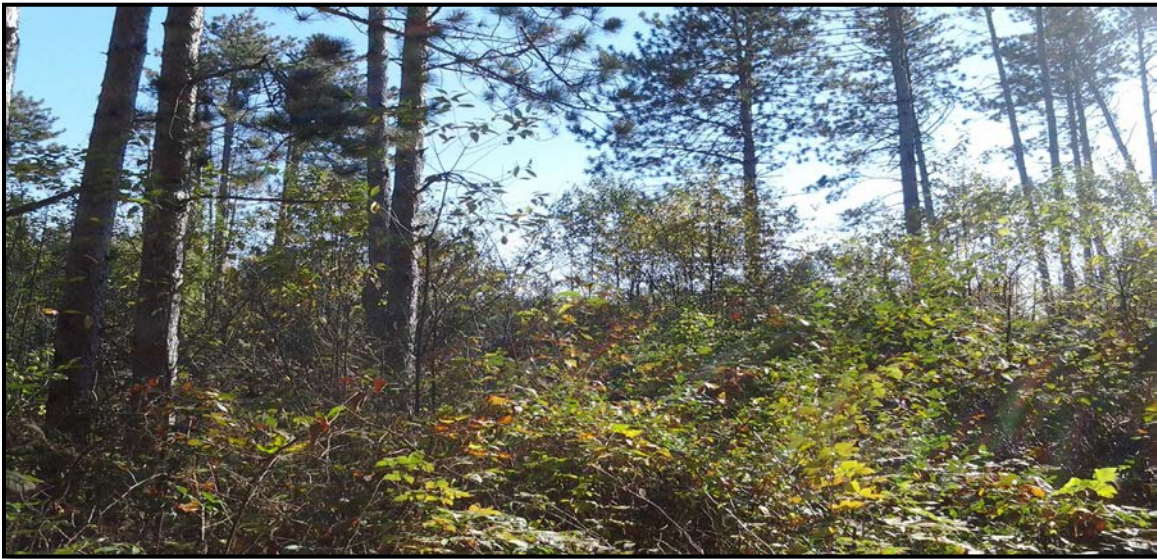


Minden City State Game Area Master Plan



Lead Author: Don Bonnette, Wildlife Biologist – Cass City (02/03/2014)



Michigan Department of Natural Resources

[Michigan DNR Website](#)

Wildlife Division

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Strategic Plan

When setting the desired future conditions, it is necessary to consider the purpose for which the property was acquired by the state, current land cover conditions, and future social and economic forces that could influence management strategies. The intended purpose for the Minden City SGA was and still is the maintenance of upland and lowland habitats for optimum numbers of white-tailed deer, cotton-tailed rabbits, ruffed grouse, woodcock and wild turkeys. In addition, Minden City SGA offers some opportunity for managing special wildlife species such as red-shoulder hawk, northern goshawk, snowshoe hare and cerulean warbler. Opportunity also exists for managing unique plant communities such as raised bog, poor conifer swamp and muskeg. However, in some cases enhancing and conserving these special species and plant communities may be in conflict with management for others that provide hunting and trapping opportunity. As this plan is fully implemented these conflicts will be addressed and a mutually beneficial outcome will be sought to move forward. The purpose of this plan is to simply detail a more strategic approach.

The Minden City SGA Master Plan was developed in conjunction with and is consistent with goals and objectives for SGA's and Wildlife Areas identified in the Southeast Michigan Regional Wildlife Area Management Plan. It also supports goals and objectives in the Michigan Wildlife Action plan.

The Minden City State Game Area is located in the north central portion of Sanilac County in the "thumb" of Michigan (see Appendix 1). It is surrounded by numerous small agricultural communities such as Argyle, Tyre, Minden City, Palms, and Deckerville. The area is approximately 85 miles north of the Detroit Metropolitan area and 53 miles east of the Bay City – Saginaw area. The east boundary of the game area is within 12 miles of Lake Huron. The Minden City SGA lies within the Sandusky Lake Plain, a portion of the much larger Lake Huron Lake Plain and exhibits the typically flat to slightly rolling topography characteristic of these land forms. Most of the soils on the game area are poorly drained organic soils dominated by lowland deciduous forest and lowland shrub. Forested and non-forested wetland cover types alone account for two-thirds of the total acreage of the game area (Appendix 2). Upland soils are primarily well drained sands dominated by early successional hardwood forest with a significant aspen component. Appendix 2 provides a detailed description of forest and non-forest cover types derived from Michigan Forest Inventory (MiFI) data. Pre-settlement vegetation in the vicinity of the Minden City SGA was once dominated by northern hardwood, white pine and lowland conifer forest and large swamps; today the forests that remain outside the SGA and in Sanilac County as a whole are relatively small woodlots isolated from one another by large scale industrial agriculture.

The most unique and notable plant community on the game area consists of a complex of bog, poor conifer swamp, and muskeg that together form the Minden Bog. In 1834, the Minden Bog was about 15,000 acres in size, since then

greater than half of the bog has been drained and converted to agriculture. Today, about 2,700 acres of remnant bog remains on the Minden City SGA and another 4,000-5,000 acres is privately owned.

The Minden City State Game Area was formally dedicated as a game area project on April 18, 1941. Presently 8,935 acres are under State ownership (Appendix 1), of which 4,265 acres were purchased with Pittman-Robertson funds, 2,000 acres were acquired through tax reversion, 1,371 acres were purchased with Michigan Land Trust Funds and 1,299 acres was acquired through legal action.

What follows is the strategic direction for Minden City 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.

Desired Future Conditions

Goal I Maintain forested and non-forested habitats for optimum numbers of white-tailed deer, snow shoe hare, ring-necked pheasants, cotton-tailed rabbits, ruffed grouse, woodcock and wild turkeys to provide quality hunting experiences.

Rationale: 1) This area was dedicated to provide hunting recreation for Michigan citizens; 2) each of the species listed above are listed as Featured Species; 3) one of the DNR's priorities is to reverse the trending loss of hunters and trappers, this goal will help ensure hunting opportunity remains in Sanilac County; 4) one of the objectives in the Wildlife Division's GPS is related to small game hunting opportunity; 5) there are good populations of all eight species on the SGA; 6) this goal address the following strategies in the GPS: 1.1.5, 1.1.7, 2.1.1-4, 4.3.3, 4.3.4; 7).

Assessment: 1) direct observation by WLD staff and conversations with hunters and users on the SGA will be used to assess success of this goal; 2) annual review of work plan compared to activities completed as described below.

Objective A: Maintain and update forest and non-forested inventory, create habitat treatments and track habitat treatments utilizing the MiFI process.

Action 1. Assign areas of interest, create and track habitat treatments for the next 10 years.

Action 2. Submit application for Section 106 review to the State Historic Preservation Officer (SHPO) to obtain clearance on the entire SGA for ground disturbing habitat management activities such as timber harvest.

Objective B: Maintain a minimum of 25 acres annually as forest openings in appropriate locations to provide feeding, hiding, nesting, singing/display areas and loafing cover for rabbits, deer, turkeys and woodcock.

Action 1. Using current forest inventory, identify appropriate sites to maintain as openings.

Action 2. Develop a work plan to treat openings at least once every three years.

Action 3. Create brush piles along edges in conjunction with brush clearing operations and nearby timber harvests.

Objective C: Continue to maintain or expand aspen cover types by harvesting a minimum of 50 acres annually over the next 10 years through commercial timber sales. Secondly, increase aspen age class diversity where necessary to provide multiple habitat requirements for grouse, woodcock, deer, rabbits and turkeys.

Action 1. Use current forest inventory to identify aspen stands and other forest cover types where aspen comprises a minimum of 20% canopy cover for commercial harvest.

Action 2. Establish rotation age of 50 years for aspen cover types to ensure even age class distribution across the landscape. Ideally, four aspen age classes of 0-10 years, 11-20 years, 21-40 and 41+ would be within ¼ mile of each other across the area.

Action 3. Where oak is present in aspen types, develop harvest prescriptions designed to ensure its long term persistence.

Action 4. Continue to use harvest specifications that require the retention of coarse woody debris in general. Those specifications with particular emphasis on snags, drumming logs and brush piles must be utilized where appropriate.

Objective D: Initiate forest treatments on lowland hardwood and mixed upland hardwood types on a minimum of 50 acres annually.

Action 1. Use current forest inventory to identify lowland and upland hardwood cover types suitable for harvest.

Action 2. Use appropriate silvicultural prescriptions and harvest specifications on lowland types to ensure their long-term persistence on the landscape.

Action 3. Use current forest inventory to identify mixed upland hardwood sites with a minimum of 20% aspen canopy cover (or 30 sq. ft. BA) for possible conversion to aspen types.

Action 4. Continue to use harvest specifications that require the retention of coarse woody debris in general. Those specifications with particular emphasis on snags, drumming logs and legacy tree retention will be utilized where appropriate.

Objective E: Initiate treatments designed to improve pheasant habitat on the Mullet Muck Farm portion of the game area on a minimum of 80 acres annually.

Action 1. Secure permission through USDA – Natural Resources Conservation Service to complete treatments necessary to improve grassland habitat at this location.

Action 2. Work with MDNR-FRD to design a prescribed fire rotation at this location that will treat a third of the area (approximately 200 acres) once every 3-4 years.

Action 3. Monitor the invasion of woody vegetation and exotics such as phragmites and apply appropriate treatments such as spot spraying and mowing to check their spread.

Action 4. Work with USDA-NRCS to improve grassland habitat by scarification and inter-seeding and/or direct planting of warm and cool season grass mixtures.

Objective F: Maintain the biological integrity of the portions of the Minden Bog present on the Minden City SGA.

Action 1. Cooperate with MDNR-FRD to formulate a plan to manage wildfire and potentially use prescribed fire to prevent the conversion of sphagnum bog to shrub and/or forested peatlands.

Action 2. Monitor the Minden Bog annually to prevent or check the spread of invasive plants such as common buckthorn and phragmites. Apply appropriate treatments as necessary.

Action 3. Cooperate with adjoining private land owners whose lands include portions of the Minden Bog. Provide assistance with fire management in conjunction with MDNR-FRD and with managing exotics.

Goal II Maintain boundary integrity and infrastructure in a manner that is consistent with Goal I and associated objectives.

Rationale: 1) the area provides recreational opportunities related to wildlife; 2) the DNR Wildlife Division supports consumptive and non-consumptive wildlife related recreational activities that promote our state's wildlife heritage; 3) sufficient parking lots, work roads, gates and signs are required for users to take advantage of recreational opportunities; this goal addresses the following strategies in the GPS: 3.2.3, 4.3.4, 4.5.2, 6.1.2, 9.3.1.

Assessment: Discussions with users and observations of use.

Objective A: Maintain 18 parking areas for appropriate numbers of users.

Action 1. Perform monthly inspection of parking areas

Action 2. Maintain access to parking areas with annual grading and trash removal as needed.

Objective B: Maintain boundary signage and maps that identify SGA boundaries and rules.

Action 1. Perform monthly inspection of signage.

Action 2. Ensure SGA maps are updated and available.

Action 3. Resolve trespass issues through the trespass resolution process.

Objective C: Maintain 5 gates and other vehicle barriers to prevent unauthorized motorized vehicle access.

Action 1. Perform monthly inspection of gates and vehicle barriers.

Action 2. Identify and close sites of unauthorized access.

Objective D: Maintain 4 miles of work roads and trails to provide access to the interior of the area for habitat management activity and wildfire management.

Action 1. Perform semi-annual inspection of all work roads and trails.

Action 2. Based upon inspections, address maintenance needs through grading, mowing and brush removal.

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:

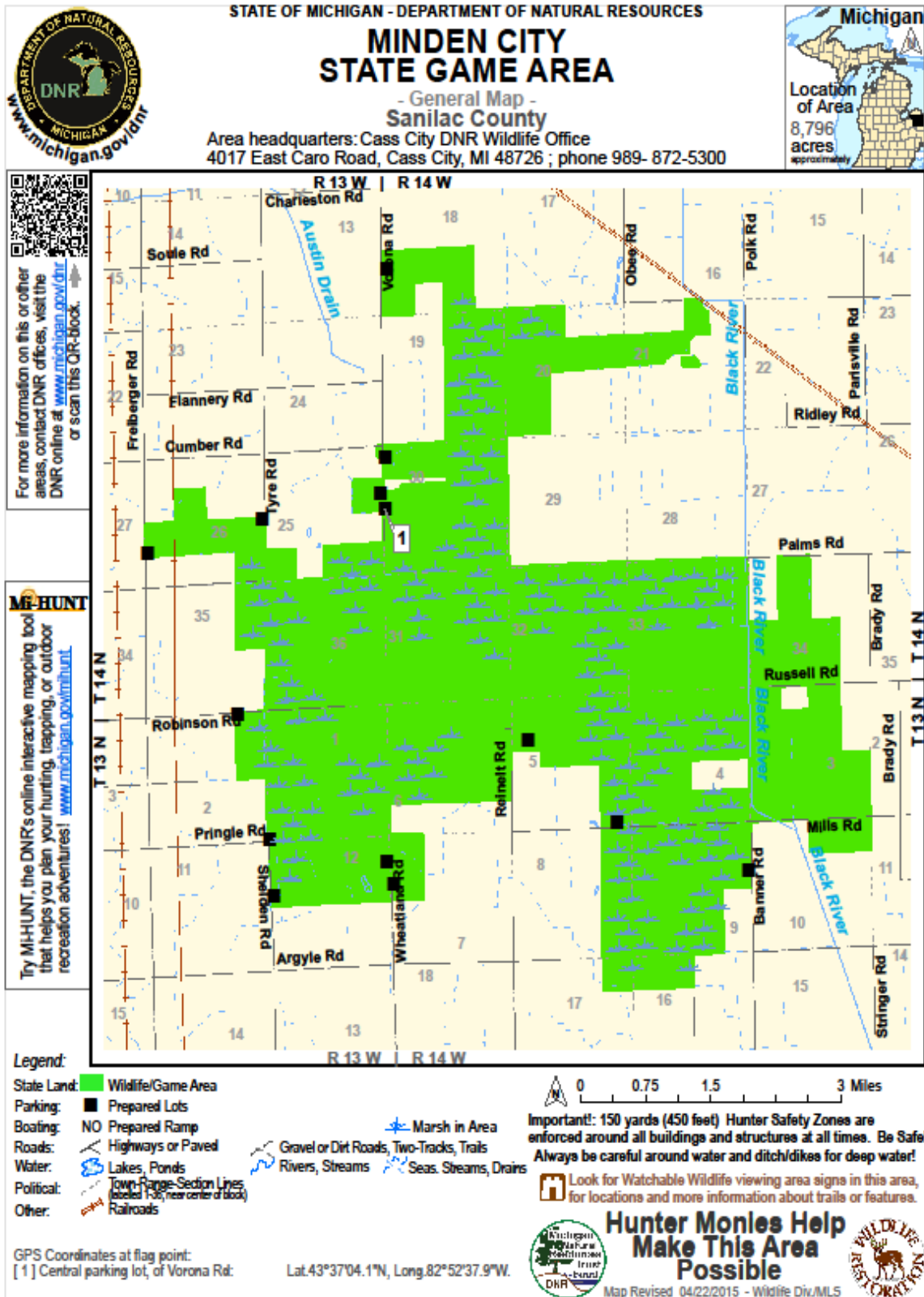
1. The uses must not interfere or conflict with the wildlife conservation purposes of the area described above.
2. The DNR has no obligations to determine if requested uses would conflict or interfere; the burden of determining must remain with those requesting the uses.
3. The requested uses cannot 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.

There are currently no commercial uses on the Minden City SGA other than commercial timber harvest. Commercial timber harvests are utilized to achieve forest habitat management objectives. The DNR will continue to monitor existing commercial and recreational uses for interference with the intended purposes of the area as described in this plan.

Acquisition and Disposal of Land

Acquisition priorities will focus on those parcels that provide the best wildlife habitat management potential, consolidate state ownership within a section, reduce boundary posting and eliminate boundary trespass and encroachment issues. Each parcel that becomes available and is considered for acquisition will be evaluated using these criteria.

Appendix 1: Minden City SGA Map



Appendix 2

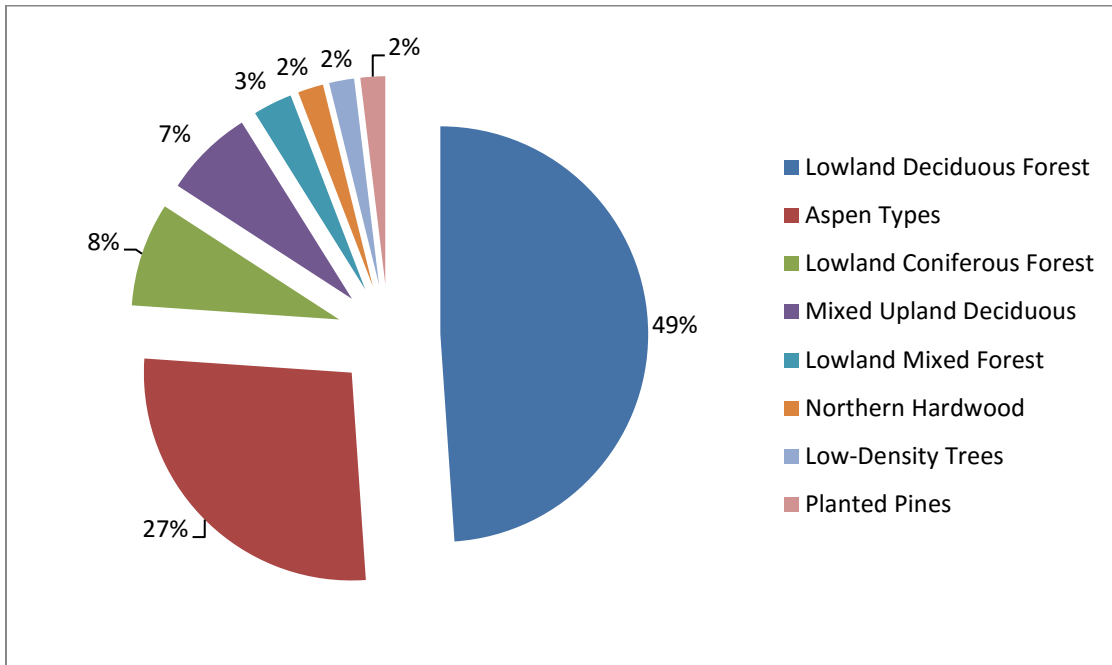


Figure 1: Minden City SGA forested cover type analysis based on Michigan Forest Inventory data. Total forested acreage = 4,873 acres.

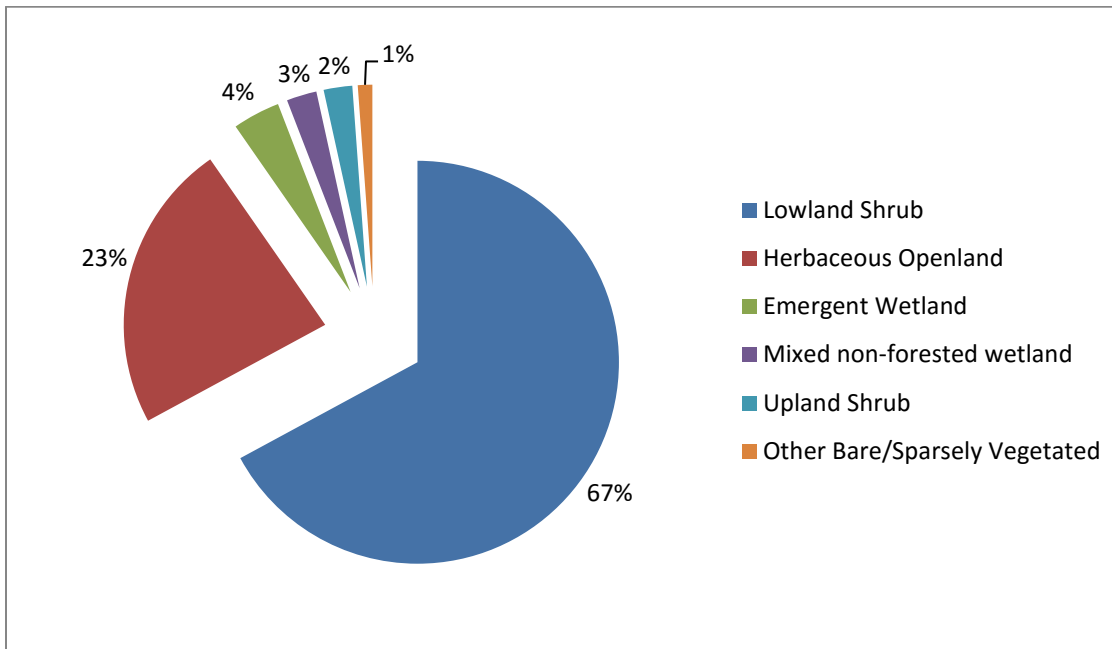


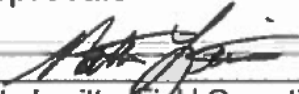
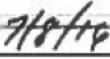



Figure 2: Minden City SGA non-forested cover type analysis based on Michigan Forest Inventory data. Total non-forested acreage = 4,091 acres.

Public Input

This plan was available for public review and comment on the Michigan DNR website between March 14, 2016 and April 25, 2016. During this period 2 comments were received and considered before finalizing this plan. The comments can be summarized into the following suggestions:

1. Protect bog from development
2. Various management suggestions at specific locations for aspen, N. hardwoods, bog, grassland complex as it relates to new pheasant co-op in area

Approvals

	
Nate Levitte, Field Operations Manager	Date
	
Tim Payne,  Regional Supervisor	Date