

DNR Wildlife Division plan for
“2003 Saginaw Bay Pheasant wildlife management areas”
applies or spans multiple areas which are grouped due to similarity of purpose, etc.

The Officially Dedicated Area Names are:

- **Almer Township State Game Area,**
in Tuscola County, ~160 acres.
- **Brookfield Township No.1 State Game Area,**
in Huron County, ~204 acres.
- **Brookfield Township No.2 State Game Area,**
in Huron County, ~40 acres.
- **Clark Lake State Game Area,**
in Tuscola County, ~80 acres.
- **Columbia Township State Game Area,**
in Sanilac and Tuscola Counties, ~208 acres.
- **Denmark Township State Game Area,**
in Tuscola County, ~95 acres.
- (Elkland Township “north” portion of Gagetown State Game Area, south-side unit,
is included in Gagetown State Game Area plans).
- (Elkland Township “south” portion of Cass City State Game Area, north-side unit,
is included in Cass City State Game Area plans).
- **Elmwood Township State Game Area,**
in Tuscola County, ~271 acres (2 units).
- **Frasier Township No.1 State Game Area,**
in Bay County, ~35 acres.
- **Frasier Township No.2 State Game Area,**
in Bay County, ~35 acres.
- **Flynn Township State Game Area,**
in Sanilac County, ~264 acres.
- (Grant Township portion of Gagetown State Game Area, north-side unit,
is included in Gagetown State Game Area plans).
- **Pinconning Township State Game Area,**
in Bay County, ~35 acres.

See Figure 1 (next page) for visual simple-map of many of these areas.

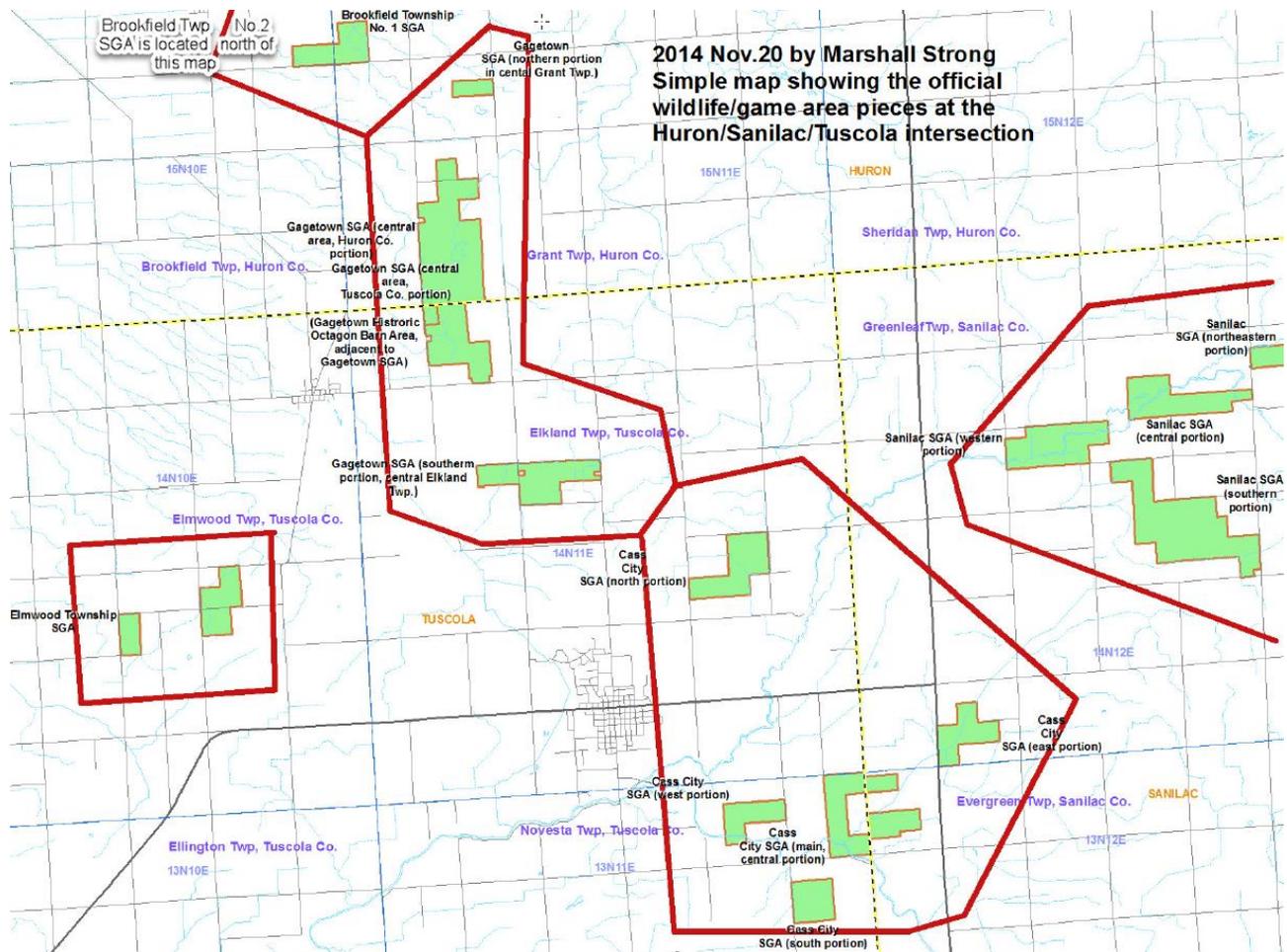


Figure1: This simple map pictured above helps clarify the smaller pheasant wildlife areas around the intersection of Huron, Tuscola and Sanilac counties where a few of the areas are actually subunits of dedicated named areas like Cass City and Gagetown SGAs. Note for the areas listed on the previous page, Clark Lake SGA is not shown as it is to the south. The Bay County areas of Fraser Township Number 1 SGA, Fraser Township Number 2 SGA, and Pinconning Township SGA are not shown because they are located a few counties to the west of this area.

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Saginaw Bay Pheasant Management Areas

STRATEGIC PLAN

I. Introduction

A. Purpose

The primary purpose of this plan is to set the strategic direction for the Saginaw Bay Pheasant Management Areas. This plan will guide the management activities used to achieve the desired future condition of the areas set forth in this plan. In addition, obligations of the funding sources used to acquire and manage these areas require that they be maintained for the purpose of managing wildlife, wildlife habitat, and associated recreation including hunting and trapping. Other related activities and uses of the areas that complement or do not conflict with wildlife management have been considered and incorporated where appropriate. Although public input was encouraged and considered in developing this plan, given the requirements for the area, this is not necessarily a consensus document.

B. History of the Area

Most lands within the pheasant management areas have been purchased with Public Recreational Bond Funds, and are managed using Federal Aid in Wildlife Restoration Act or Pittman-Robertson (P-R) funds. The Act's rules and regulations state that real property acquired or constructed with Federal Aid funds must continue to serve the purpose for which acquired or constructed - the restoration, conservation, management, and enhancement of wild birds and mammals, and providing for public use of and benefits from these resources. Multiple use of these areas is encouraged, provided it does not interfere with this primary purpose of wildlife management and habitat restoration. The United States Fish and Wildlife Service (USFWS) is the agency responsible for the oversight of the Pittman-Robertson Program. Intensive uses, which cause modification of wildlife habitats or divert from the approved primary use, are considered by the USFWS to be a non-compatible use due to negative impacts on wildlife and wildlife habitat restorations.

There are currently 15 Pheasant Management Areas (Fig. 1) totaling 2,308 acres. Although there are no dedicated boundaries planned to expand the areas, they are distributed across the Saginaw Bay Management Unit (SBMU) in the following manner: there are 4 in Bay County, 4 in Huron County, 1 in Sanilac County, and 6 in Tuscola County. In 1971 the Natural Resource Commission (NRC) approved a pheasant land acquisition program. According to the November 10, 1971 Natural Resources Commission meeting minutes, payment was to be made from Public Recreation Bond funds to the extent available, and the balance from an appropriation as funded by the Legislature for Hunting Land Acquisition-Pheasant Habitat. The principal purpose of the program was to acquire reasonably good farmland in areas of the Thumb and certain other areas where pheasants once flourished and,

through habitat manipulation, to restore huntable pheasant populations (Petoskey 1975). During the 1940's, 50's, and early 60's, farming practices on the Thumb's rich soils provided nearly perfect habitat for the ring-necked pheasant which was introduced into Michigan in 1885 (MacMullan 1960). Pheasant numbers during that era were very high. Farmers in the Thumb rarely posted their land against trespass, and welcomed carloads of hunters from downstate metro areas each fall. Pheasant hunting was so popular that many schools were closed for the opening day, and local churches and organizations held fund raising dinners for the visiting pheasant hunters. Prior to the mid 60's small livestock farms dotted the landscape. Hay fields, abundant on these farms, were ideal nesting sites and, in those days, cutting of hay did not usually occur until mid-June, giving most of the pheasant nests time to hatch. Food was abundant as fall plowing of crop stubble was rare. And, winter cover existed in the form of brushy fence rows as well as many wet swales that contained willow and cattails. By the mid 70's, farming practices had changed and pheasant numbers dropped dramatically. Fall plowing, elimination of fence rows, wetland drainage, and the shift from small grains and forage crops to row crops are some of the more damaging changes in agricultural land use (Belyea 1991).

The Michigan Natural Features Inventory (MNFI) pre-settlement map shows the Pheasant Management Areas to have been dominated by hemlock-white pine forest, mixed conifer swamp, beech-sugar maple forest, black ash swamp, and mixed hardwood swamp. Knowledge of pre-settlement vegetation is useful as a benchmark for understanding the potential conditions that can exist in an area, but should not be viewed as a management goal for an area.

C. Environmental Inventory

The Pheasant Management Areas are surrounded by numerous small agricultural communities such as Pinconning in Bay County, Cass City and Gagetown in Tuscola County, Owendale and Elkton in Huron County, and Marlette in Sanilac County. . The areas are approximately 85 miles north of the Detroit Metropolitan area, population 2 million plus; and within an hour drive of the Bay City - Saginaw area, population 108,447. The Pheasant Management Areas are within 10 miles of Nayanquing Point, Gagetown, Deford, Tuscola, and Vassar State Game Areas which total 24,643 acres.

The Pheasant Management Areas in Huron, Sanilac, and Tuscola Counties lie within the Sandusky Lake Plain sub-sub section of the Huron Clay Lake Plain subsection of the Southern Lower Michigan Regional Landscape Ecosystem, and the Bay County areas lie within the Saginaw Bay lake plain (Albert 1995). Both lake plains are flat and slope gradually to Lake Huron. The management areas are level to a 2% slope. Elevation varies from 770 to 830 feet above sea level. The Sandusky lake Plain is cooler than most of the rest of southern lower Michigan (Albert 1995). The growing season is 130-160 days (in Albert 1995). Extreme minimum temperatures range from -24 degrees Fahrenheit to -28 degrees Fahrenheit; killing frosts on the game area have been recorded as late as June 20 and as early as September 13; the average precipitation for the lake plain is 28-34 inches and snowfall is 40-80 inches, but snow seldom accumulates to

a depth of more than 1 foot; lake effect precipitation occurs when winds are from the north and east (Albert, 1995). A longer growing season (150 - 160 days) differentiates the Saginaw Bay Lake Plain from the Sandusky Lake Plain (Albert 1995).

Soils on the management areas in Bay County include Wisner loam, Brevort loamy sand, and Augres sand; all are poorly drained (USDA). In Huron County the soils include Shebeon-Bad Axe sandy loams, Kilmanagh loam, Sanilac silt loam, Shebeon loam, and Rapson loamy sand; all are excellent for agricultural production. In Tuscola County the soils include Guelph-Londo loams, Londo loam, Tappan loam, Corunna sandy loam, Tappan-Avoca complex, and Tappan-Londo loams; these too are excellent for agricultural production. In Sanilac County the management area soils include Parkhill loam, a very productive soil for agricultural purposes, and Houghton muck, a poorly drained soil.

There are no natural lakes in the Sandusky or Saginaw Lake Plains. On the Bay County management areas there are three man-made ponds that were excavated for the construction of overpasses on I-75. There is one small pond on the Becker-Hahn area in Tuscola County that was dug prior to State ownership. Two vernal pools resulted from the excavation of gravel on the Winchester-O'Dell area, also in Tuscola County, prior to State ownership.

Most of the streams in the Sandusky Lake Plain are small, beginning at moraines and forming relatively straight, shallow trenches across the lake plain before entering Saginaw Bay or Lake Huron; the exceptions are the Cass River and the Black River; both flow several miles between parallel moraines before crossing the lake plain (Albert 1995). There are several County drains that run through the Pheasant Management Areas and flow to the Cass and Black Rivers. The County drains that affect the Pheasant Management Units in Bay County flow directly to Saginaw Bay.

Most of the lake plains have been ditched and tilled, and these lands are among the most valued for agriculture in the State (Albert 1995). The four county area, which was once dominated by forest and swamp, now has a landscape composed of 68% agricultural crops, 7% pasture/idle, 12% forest, and 13% industry/housing. The forests that remain on the landscape today are small woodlots, isolated from each other by agricultural crops in summer, and bare, fall tilled fields in winter.

There are no plant communities found on the Pheasant Management Areas that are listed as natural Michigan plant community types by MNFI (Chapman 1986). Plant communities that exist as a result of human disturbance have been cover mapped. Cover maps of the Thumb areas (Jarvis 1993) are available at the Cass City DNR Field Office. Cover maps of the Bay County Pheasant Areas (Schaefer 2003) are available at the Bay City Operations Service Center.

Approximately 778 acres of the Pheasant Management Areas are forested. Aspen is the dominant plant in most of the upland forest. Aspen exists in all stages of growth. Young stands of aspen (less than 10 years) also contain blackberry, black raspberry, white

birch, gray dogwood, autumn olive, and various forbs. Aspen stands 10 years old or older vary from nearly pure stands of aspen to mixtures of aspen, white birch, red maple, green ash, elm, and cottonwood. The understory usually has some apple, autumn olive, junberry, witch hazel, speckled alder, viburnum, gray dogwood, and honeysuckle.

Lowland hardwood stands are common. The pattern of conversion from conifer dominated swamps to shrub and hardwood dominated wetlands is indicated in all counties around Saginaw Bay (Comer 1995). The Saginaw Bay Pheasant Management Areas and vicinity are no exception. The lowland hardwood stands are dominated by cottonwood, red maple, and green ash. Most of these stands have understories of red osier dogwood. Lowland shrub stands are dominated by tag alder, red osier dogwood and various species of willow.

Planted red pines, Austrian pines, Jack pine, white cedar, autumn olive, multiflora rose, and buffalo berry exist as small stands throughout the uplands. Borrow pits, vernal pools, and ditches provide supplemental open water/emergent wetlands.

About 993 acres of grasslands occur on the pheasant management areas. A little over half, 547 acres, of the grasslands consist of blue grass, quack grass, brome grass, timothy, alfalfa, clover, and other non-native cool season species. These grasslands also have a few clumps of black raspberry, scattered stems of autumn olive, and various forbs. There are 332 acres of switchgrass planted in 42 plots that range in size from 2 to 23 acres. Thirty-two acres of wheatgrass have been planted in 6 plots. Native prairie mixes totaling 82 acres have been planted in 5 plots and include big bluestem, little bluestem, Indiangrass, switchgrass, purple coneflower, yellow coneflower, pale purple coneflower, purple prairie clover, lanceleaf coreopsis, partridge pea, black-eyed Susan, lupine, and Columbine (Robertson 2003).

Cropland on the area totals about 574 acres. Crops include sorghum, buckwheat, millet, corn, soybeans, and sunflowers.

Fish populations consist of largemouth bass, bluegill, sunfish, and crappie (Baker 2003).

Terrestrial vertebrate resources on the areas, including scientific names, are listed in Appendix A.

A great variety of birds nest on the pheasant areas, and many others stop during migration. These and other game areas in Southern Michigan are extremely important to migrating passerines.

Game birds of particular interest to hunters are ring-necked pheasants, bob-white quail, ruffed grouse, woodcock, and wild turkeys. Ring-necked pheasants are by far the most abundant of all the gamebirds on these areas due to current land use. Bob-white quail occasionally nest successfully on these areas. Wild turkeys, once extirpated, thrive in large numbers on some of the more forested areas, and have been observed on all of them.

The most common nesting waterfowl on the areas are Canada geese, mallards and wood ducks. Occasional nesters are blue-winged teal, black ducks, and hooded mergansers.

Birds of prey are abundant and the most frequently observed species are the red-tailed hawk, Cooper's hawk, northern harrier, American kestrel, and great-horned owls.

Passerines common in the grasslands include eastern meadowlark, bobolink, red-winged blackbirds, song sparrow, vesper sparrow, and eastern kingbird.

The most important mammal on the pheasant areas is the white-tailed deer because of its impact on local vegetation and popularity as a big game species. Numerous forest forbs cannot survive because of over-browsing by deer. Cottontail rabbits, and fox squirrels are important game species.

Common furbearers include raccoon, red fox, coyotes, mink, muskrat, skunk, opossum and beaver. Meadow voles, deer mice, ground squirrels, red squirrels, flying squirrels and wood chucks are common prey species.

Bat species of the area include the little brown bat, northern bat, red bat, hoary bat, silver haired bat and big brown bat (Kurta 1995).

None of County Elements listed by MNFI (Appendix B), occur on the pheasant management areas.

Non-native invasive exotics on the game area include buckthorn, autumn olive, Japanese bar berry, honeysuckle, Reed's canary grass, and phragmites. Purple loosestrife is not a problem at this time, but could invade at any time.

D. Management Area History

Primary management has been directed at providing suitable year round habitat for pheasants. Other grassland and early succession forest species benefit from this management priority as well. Laws Enforcement division has enforced laws to prevent ORV traffic, as well as fish and game laws. Forest, Mineral, and Fire Management division (FMFM) annually conducts prescribed burns to maintain grasslands. Game management activity highlights include:

- 37,750 trees and shrubs were planted from 1972 through 1992;
- Sharecropping was used to insure that a mixture of permanent cover and cropland is maintained for food, nesting cover, and winter cover for pheasants, 1972 to present;
- Timber sales began in 1993 to regenerate aspen and maintain early stages of forest succession;
- Wild Turkeys from Iowa were released on the Thumb in 1989;
- In 2000, conversion of cool season grasses to native prairie grass/forb stands began.
- In 2002, the use of chemical spot treatment to control invasive exotic plants began.

- In 2002, a grant was received from the Saginaw Bay Watershed Initiative Network (WIN) to remove autumn olive at the Cody-Esty Pheasant Management Area in Bay County, establish a native prairie, and enhance a wetland.

There are no known archeological sites on the Pheasant Management Areas. The Pheasant Management Areas have low potential for archeological sites (Benison 2001).

State Historic Preservation Office (SHPO) procedures have been followed for all documented work that might have an affect on an archeological or historical site that may be eligible for the National Historic Register.

E. Public Use

The areas are posted "Open to Hunting". Licensed hunters and trappers may pursue species in which the season is open with no check-in or permit requirements.

The areas receive heavy hunting pressure for ring-necked pheasants, and moderate pressure for cottontail rabbits, ruffed grouse, woodcock, and wild turkey. White-tailed deer hunting pressure is high during the first few days of the firearm deer season, otherwise the pressure is moderate. Waterfowl hunting pressure is light. Trapping pressure is light due to low fur prices.

The majority of the areas receive no fishing pressure. However, the areas in Bay County that have borrow pits on them do receive light fishing pressure by families for pan fishing. The borrow pits provide shore and small carry-in boat fishing, and are popular ice fishing sites (Baker 2003).

Plenty of opportunity is available for bird watching, berry picking, mushroom hunting, and hiking. The areas are open to cross-country skiing, but are seldom used for this.

The use of off road vehicles (ORVs) and snowmobiles, as well as horseback riding is prohibited.

F. Commercial Use

Timber sales are occasionally used as a management tool. Clear cuts for aspen stands and select cuts for lowland hardwood stands are the two main timber prescriptions used to regenerate forest habitat on the areas. Money collected from PR lands goes to a PR game area maintenance fund. Money from other lands goes to the Fish and Game Fund.

There are 9 sharecroppers who farm 574 acres. Fall tillage and the use of insecticides are prohibited. One-third of the crop is left standing for wildlife.

There are no oil/gas wells, concessions, fences or rights-of-way that limit options for management.

All commercial activities are incidental to management activities that are undertaken to meet stated management goals.

G. Facility/Capital Improvement Inventory

There are 20 parking lots, 6 equipment trail gates, and 35 miles of boundary posted at a rate of 8 signs/mile.

Federal aid requirements mandate that all facilities paid for with PR funds be maintained throughout their useful life (50CFR80.17).

II Management goals and Objectives

A. Overall Management Goal

The Saginaw Bay Pheasant Management Areas possess diverse vegetative communities, capable of accommodating a wide variety of recreational opportunities. Utilizing the principles of ecosystem management (Appendix C), we intend to manage the areas to conserve, enhance, and protect their unique communities, while at the same time maintaining their recreational variety.

B. Legislation and Policies That Affect the Pheasant Management Areas

Federal Laws:

- Endangered Species Act
- Federal Aid in Wildlife Restoration Act (Pittman-Robertson Act)
- Clean Water Act, Section 404

State Laws:

- Public Act 451

NRC Policies:

- 1005 - Public Involvement in Activities of Department
- 1006 - Department Position - Presentation at Hearings and Meetings
- 2109 - Pheasant Management
- 2204 - Reforestation
- 2405 - Lands - Guidelines for Implementing Special Land Use Rules and Regulations for State Game areas in Zone 3
- 2601 - Lands - Disposition of Buildings on State lands Under DNR Jurisdiction
- 2627 - Land Holdings - Department Land holdings
- 5501 - Land Use

Wildlife Division Procedures:

- 2405.5 - Lands- Implementing Special land use Rules and Regulations for State Game Areas in Zone 3

C. Local Agreements

None.

D. Objectives

Wildlife restoration and management objectives are to provide year round pheasant habitats that maintain viable populations of plant and animal species native to the area:

- Maintain or expand grassland acreage and convert non-native grass stands to native prairie grass/forb mixes in an effort to meet the Michigan North American Waterfowl Management Plan's grassland goals (Soulliere 1998). Michigan bird species in greatest decline over the past 20 years are grassland species (MDEQ, 2001). NRC policy 2109 states that "...State game lands in the pheasant range will be improved for pheasants as far as practical and economically feasible".
- Maintain a diversity of aspen and lowland hardwood age classes. Brush habitat becomes important to pheasant survival during periods of deep snow.
- Reduce the deer population to a level that will allow regeneration of native plants.
- Reduce invasive exotic plant species.
- Use sharecropping and food plots to provide food for wildlife. Corn fields are also used for escape cover by pheasants in summer and fall.

Landscape Objectives:

- Assist other government agencies with programs aimed at applications of agriculture and forestry best management practices (BMPs). The Pheasant Management Areas are complimented by private lands enrolled in the United States Department of Agriculture (USDA), Conservation Reserve Enhancement Program (CREP). CREP lands connect pheasant habitat and increase the number of acres on the landscape that are maintained in year round grassland and shrubs.
- Work with Pheasants Forever to improve habitat on public and private lands.
- Apply BMPs to management of the Pheasant Management Areas in an effort to maintain high level of stewardship in order to enhance water quality in the local wetlands, ponds, river systems, Saginaw Bay, and Lake Huron.
- Assist LIP biologist with grassland and wetland management on nearby private lands.

Wildlife Related Recreation Objectives:

- Assist hunting organizations with programs that encourage hunters to harvest antlerless deer.
- Provide access to the areas for hunting, bird watching, photography and other related activities.

Facilities Objectives:

- Conduct annual maintenance as needed to keep facilities safe for public use.

Monitoring Objectives:

- Monitor wildlife populations and habitat to gain information for setting regulations and management activity direction.
- Monitor ORV activities to determine barricade needs.

Regulation Activities Objectives:

- Continue to insure that the use of ORVs, snowmobiles, and horseback riding are prohibited to prevent deterioration of game area landscapes.

III. Management Activities

Federal Aid monies are being used to maintain the Pheasant Management Areas. P-R monies are used to maintain the land or make improvements, even on those lands not purchased with P-R monies. P-R requirements must be met.

A. Land Management

Continue with the existing timber sale program and incorporate the following BMP's:

- No cutting within 100' of a pond, river or stream.
- No cutting within 100' of eastern hemlock or northern white cedar stands, to provide wind protection.
- No cutting of dead snags, apple, american beech, oaks and naturally occurring conifers.
- Do not clear cut lowland hardwoods, instead, use select cuts which remove 40-50% of the canopy to maintain species composition, provide age-class diversity, and prevent conversion of the stand to non-forest types.

Use prescribed fire as the primary tool in grassland maintenance.

Mowing and spot treatment with Garlon 3A brush herbicide should be used to control invasive exotics in grasslands. Spot treatment of invasive exotics should be used as needed in other plant communities.

Limit future shrub plantings to native species only.

Plant native prairie mixes of Indiangrass, big bluestem, little bluestem, switchgrass, Canada wild rye, coriopsis sp., prairie coneflower, wild sena, wild bergamont, and others to replace non-native cool season grass stands.

Do not allow fall tillage or insecticides to be used in any agricultural activities on the pheasant management areas.

Write sharecropping agreements annually.

B. Water Management

Water levels are determined by weather. Forestry and agricultural BMP's will be used to prevent degradation of water quality.

C. Monitoring

Cass City personnel should continue to record pheasant broods observed in the Thumb during the summer months.

Provide guidance to volunteers who conduct pheasant crowing counts to monitor the effects of the CREP program on local pheasant populations.

Watch for invasive exotics.

Watch for rare and endangered species listed by MNFI.

D. Facility Management

Mow parking lots annually.

Repair gates and barriers as needed.

Replace boundary signs as needed.

E. Other Activities

Encourage local groups to sponsor doe contests in an effort to maintain the deer herd at population goal.

Assist USDA with the CREP and other programs to encourage the conversion of cropland to permanent cover on the surrounding landscape.

Work with Saginaw Bay Watershed Initiative Network (WIN) on wildlife habitat grant proposals.

F. Adaptive management considerations

Plans will be reviewed periodically to determine if we are meeting our stated goals and if those goal are still relevant.

IV. Public Input

Public input is an important part of this planning process. Public input will be balanced with other social, biological, and economic considerations. Public input is gained through day to day contacts with local land owners, recreational users, and interest groups. A public meeting was held August 25, 2003, as part of the overall public input process. However, no one had comments about the plan at the meeting.

V. Conclusion

Recognizing the Saginaw Bay Pheasant Management Areas' importance to the surrounding landscape, this plan aims to maintain healthy, sustainable

plant communities for wildlife and provide recreational opportunities for hunting, trapping, fishing, and wildlife viewing. These areas will compliment other local State Game Areas, which combine for a 52,000 acre wildlife habitat base in Bay, Huron, Sanilac, and Tuscola counties.

This plan will apply the mission of the DNR-Wildlife Division to enhance, restore, and conserve the State's wildlife resources, natural plant communities, and ecosystems for the benefit of Michigan's citizens, visitors, and future generations. Monitoring, and evaluation of management will be an annual process to insure that operations are effective, and follow DNR policy.

Helpful comments were received from the public, MNFI, Fisheries Division, and Wildlife Division personnel. Before approval by the Wildlife Division Chief, the plan was reviewed to verify that goals, objectives, and management techniques met Department and Division policy.

VI. References/Literature Cited

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