

REGION 3 FEDERAL ASSISTANCE SECTION 7 EVALUATION FORM

PHASE 3 Part A: Completed by Ecological Services Field Office

Grant Proposal/Agreement/Amendment Title and Number:

Michigan F15AF01204, Habitat and Species Management with Technical Guidance (W-153-M-5)

Listed Species: **Karner blue butterfly** – endangered, **Northern long-eared bat** – threatened

I. Programmatic Recovery Biological Opinion:

- **Karner blue butterfly:** Biological Opinion for Issuance of Section 10(a)(1)(B) Incidental Take Permit to the Michigan Department of Natural Resources for the take of Karner Blue Butterfly (*Lycaeides melissa samuelis*) in Michigan. Log number 07-R3-ELFO-03. Issued 3/2/2009.
- **Northern long-eared bat:** Biological Opinion for Wildlife and Sport Fish Restoration Program for funding to the Michigan Department of Natural Resources. Log No. 15-R3-ELFO-10

II. Actions identified on the attached Phase 1 Form were contemplated in the referenced above Biological Opinion.

Yes X No

III. The appropriate conservation measures identified in the referenced above Biological Opinion have been explicitly incorporated into the project design and are described in the attached Phase 1 Form.

Yes X No

IV. The anticipated effects of the proposed action as described on Phase 1 Form are commensurate with the effects anticipated in the referenced above Biological Opinion

Yes X No

V. Anticipated Take. There is sufficient information available about the proposed action to determine the amount and extent of incidental take.

Yes X No

If Yes, complete sections 1 and 2 below:

1. Describe the type & extent of take anticipated to occur as a result of the proposed action.

KBB: Take of KBB is expected from activities related to invasive species control and savanna restoration and management. Disturbance, injury, harassment, and death to adults, pupae and larvae could occur from trampling, fire, mowing, brushing, watering, manual removal or vegetation with hand tools or mechanical equipment and

herbicide application through occupied habitat. These activities may also disrupt resting, feeding, and reproductive behaviors. However, these activities are supported in Michigan's Karner blue butterfly HCP and are expected to provide overall benefits to the species and its habitat.

NLEB: Take of NLEB is expected from activities related to invasive species control and savanna restoration and management. Individual bats are expected to be disturbed, injured, harassed, and/or possibly killed due to prescribed fire and tree removal activities.

2. Reconcile take anticipated with proposed action with the type & extent of take authorized via the referenced above Biological Opinion (describe take authorization provided in the programmatic and confirm that the level anticipated with the proposed action is within those specified limits).

KBB: The type of incidental take anticipated from the proposed actions, namely, harm and death of individual butterflies, is consistent with actions considered in the BO and the conservation measures outlined in the BO. Incidental take will be monitored to ensure that no more than 1/3 of an occupied site is affected during implementation to assure consistency with the BO, and will annually tabulate and report in detail the acreage of take as required.

NLEB: The type of incidental take anticipated from the proposed actions, namely harm and death of individual bats, is consistent with actions considered in the BO and conservation measures outlined in the BO. The Michigan Department of Natural Resources will also adhere to the conservation measures provided in the interim 4(d) rule to minimize take of NLEB. Incidental take will be monitored to ensure that no more than 40,000 acres of NLEB roosting, swarming, staging, and migratory habitat are affected during implementation to assure consistency with the BO, and will annually tabulate and report in detail the acreage of take as required.

**If there is not sufficient information available to complete this section at the grant agreement/proposal stage, then a future project-specific section 7 consultation is required. States will provide project-specific information to the ESFO as project information becomes available. Incidental take anticipated to result from the proposed action will be described during the project-specific consultation and will be documented on a Phase 3B form. The Phase 3B form will also describe the reasonable and prudent measures that must be followed to exempt the incidental take.*

VI. The appropriate RPMs and TCs identified in the reference above Biological Opinions have been explicitly incorporated into the project design and are described on Phase 1 Form.

Yes X No

Proposed & Candidate Species

I. Species: **Eastern massasauga rattlesnake (EMR)**

II. The proposed action as described on the attached Phase 1

Yes No X

form is Likely to result in Jeopardy or destroy or adversely modify critical habitat (provide rationale for conclusion either in space below or on a separate sheet of paper).

EMR (proposed as threatened): Take of the massasauga in location where hibernacula are unknown is probable as a result of mowing, prescribed burning, and manipulation of water levels. These activities will be restricted seasonally where possible, to occur when the rattlesnake is least likely to be active. Grant activities that may adversely impact hibernacula will be avoided in areas with known hibernacula. The Michigan DNR will follow conservation measures identified in the Draft Eastern Massasauga Rattlesnake Candidate Conservation Agreement with Assurances to minimize direct impacts to the species.

Conclusion

This concludes section 7 consultation of the proposed action. X
Formal conference is required for proposed/candidate species. _____
Further section 7 review is required at the project level (Phase 3B form required) _____

Tameka N Dandridge
Reviewing Biologist

10/15/15
Date

15 - R3 - ELFO - A09

REGION 3 WILDLIFE & SPORT FISH RESTORATION PROGRAM SECTION 7 EVALUATION
PHASE 2: COMPLETED BY U.S. FISH AND WILDLIFE SERVICE

NOTE: This determination is a conference, not a consultation, in regards to northern long-eared bat that only considers whether these activities jeopardize the bat. The conference determination was made with guidance from Ecological Services as documented in the centralized subject-matter file. This determination for northern long-eared bat applies only during the period when it is proposed for listing and consultation will be required for any activities that may affect the species or its suitable habitat that are still in progress after the bat is listed.

State/Grant No: F15AF01204, Habitat and Species Mgt. with Technical Guidance, W-153-M-4

Check the box, if the information on the Phase 1 documentation is adequate:

List of Species Description of Proposed Action Description of Effects

I. WSRF Determination: Determination of the effects of the proposed action on endangered, threatened, proposed, and candidate species and their proposed or designated critical habitat. When the determination(s) below is/are different than the State recommended determination(s) on the Phase 1 documentation, an explanation for the difference must be provided in Section II below.

A. Listed Species/Critical Habitat (for each category, list species, attach list or reference Phase 1 documentation)

- a) "No Effect" (see attached Phase I)
- b) "May Affect, but is Not Likely to Adversely Affect" (see attached Phase I)
- c) "May Affect, and is Likely to Adversely Affect" (see attached Phase I)
Northern Long-eared Bat, Karner Blue Butterfly

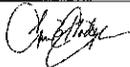
B. Proposed Species/Proposed Critical Habitat (for each category, list species, attach list or reference Phase 1 documentation)

- a) "No Effect" (See attached Phase I)
- b) "May Affect, but is Not Likely to Adversely Affect" (see attached Phase I)
- c) "May Affect, and is Likely to Adversely Affect" (Formal consultation with ES FO is required)

C. Candidate Species (for each category, list species, attach list or reference Phase 1 documentation)

- a) "No Effect" (See attached Phase I)
- b) "May Affect, but is Not Likely to Adversely Affect" (see attached Phase I)
- c) "May Affect, and is Likely to Adversely Affect" (Formal consultation with ES FO is required)
Eastern Massasauga Rattlesnake

WSRF Specialist: FABIAN ROMERO Official Signature of FABIAN ROMERO
U.S. Fish and Wildlife Service, Office of Conservation and Compliance, 1015 North Washington Street, Washington, DC 20540
Tel: 202/718/2500 Fax: 202/718/2500 Date: _____

WSRF Chief:  Date: 2015.08.27
12:13:22 -05'00' Date: _____

James B. Hodgson

II. Explanation of non-concurrence: For each determination that differs from the Phase 1 documentation, provide rationale for the non-concurrence.

REGION 3 WSFR SECTION 7 EVALUATION DOCUMENTATION

PHASE I: COMPLETED BY GRANTEE (See Phase I Instructions for completing this form)

State: Michigan Grantee: DNR-Wildlife Grant Program(s): PR Wildlife Restoration Act

Grant Title and Number (add amendment no.): Habitat and Species Management with Technical Guidance (W-153-M-5)

I Location:

A. List counties where grant activities will occur.

At least some of the activities proposed in this grant will potentially occur in all Michigan counties. Grant supported habitat management may occur on public and private lands throughout Michigan. A significant portion of the grant also includes administrative work that occurs in Wildlife Division's main office in Lansing where species program leaders and public engagement staff are housed.

B. Describe the action area (see instructions).

This grant proposes three project statements encompassing wildlife population management, habitat management, and technical guidance as follows:

Wildlife management for sustainable populations.

Recommendations for regulations formulation and data analysis will take place in office settings throughout the state and occasionally will include participation in meetings in other states.

Wildlife habitat management.

Habitat management and inventory activities will take place on selected public and private lands throughout Michigan (Figure 1).

Technical guidance, public engagement, communication, and collaborative partnerships in support of wildlife restoration.

Technical guidance and, public engagement, and agency collaboration will take place in offices and other public settings throughout the state and occasionally will include participation in meetings in other states.

II. Species/Critical Habitat:

A. Species information

1. Using the FWS web site (<http://www.fws.gov/midwest/Endangered/>), list species that are/or may be present in the county(ies):

There are 25 species in Michigan on the Federal List of Threatened and Endangered Species (see attached table). These include 17 animal species and 8 plant species. In addition, the eastern massasauga rattlesnake is a candidate for listing and will be taken into consideration during the proposed maintenance and operations activities.

2. List species, from "1." above, that are not in the action area, and explain why:

All mussels can be excluded from the action area because they are present in rivers, and no grant activities are proposed in rivers.

- B. Using the FWS web site, identify whether federally designated or proposed critical habitat is present within the action area:

The only designated critical habitat in Michigan is for piping plover and Hine's emerald dragonfly. Proposed Poweshiek skipperling critical habitat is also in Michigan. No management or monitoring activities supported by this grant will occur in piping plover critical habitat, Hine's emerald dragonfly critical habitat, or Poweshiek skipperling critical habitat.

*Note: If II.A and II.B above have no species or critical habitat, skip sections III and IV and go to V.

III. Description of Proposed Action: In the space provided or on an attached sheet, describe the action(s) in sufficient detail so that the potential effects of the action can be identified and fully evaluated.

The project statements are given below along with a description of the proposed actions for each:

1 Wildlife management for sustainable populations

This project statement describes all aspects of making management decisions for wildlife species, both game and nongame. This includes development, implementation, and evaluation of species management plans, staff meetings/discussions, workgroup participation, development of regulations recommendations, and talks to groups or individuals for this purpose. Data analysis, evaluation, report preparation, and development of alternative management approaches will occur under this project statement as well.

2 Wildlife habitat management

This project statement supports habitat management activities on Department owned lands and private lands statewide. Public lands where activities may occur include State Game Areas, State Recreation Areas, State Parks, and State Forests, as well as some federal lands including national forests and military installations (Figure 1). This project statement contains five objectives relating to habitat management on public and private land. Habitat management objectives are focused on wetlands, forests, and openings (i.e., grasslands, food plots, and savannas).

The following objectives are included under this project statement:

Objective 1: ~~Openings and savanna management~~

Techniques expected to be used to achieve upland habitat objectives include mechanical and chemical vegetation control on public and private land, primarily to remove invasive woody vegetation and to reduce competition with desired plant species. Examples of mechanical control methods that will be used include mowing, hydro-axing, and bulldozing. Planting, plowing, and disking will also be used to maintain wildlife food and cover plots. Prescribed fire will also be used to achieve habitat objectives.

Objective 2: ~~Forest management~~

Regeneration efforts include site preparation activities such as roller chopping, soil disking, and trenching, along with direct planting to achieve desired successional stages and vegetative composition. Prescribed fire is another tool that may be used to complete this objective. Preparation of timber harvests is not funded with this grant.

Objective 3: ~~Wetlands management~~

Wetlands will be managed through techniques similar to those used in grasslands, particularly chemical control, mechanical control, and prescribed burning to reduce invasive vegetation and regenerate desired plant species. Water level manipulation will be accomplished with water control structures.

Objective 4. Habitat inventory and evaluation

Habitat inventory involves digitizing forested and nonforested stand boundaries from remotely sensed imagery, collecting vegetation data in the field, and entering the data into the inventory database.

Objective 5. Habitat grants to partners

DNR will provide funds to conservation partners to conduct habitat management activities in grasslands, forests, and wetlands throughout the state. Management practices will be those described in the individual objectives for the openings, forest, and wetland management objectives identified above and will take place on public and private lands.

3 Technical guidance, public engagement, communication, and collaborative partnerships in support of wildlife restoration.

The technical guidance project statement covers all interactions between Wildlife Division staff and individuals and organizations for the purposes of delivering and exchanging information about wildlife management. Activities included in this statement are providing information on managing wildlife conflicts, providing information on achieving wildlife management objectives on private land, and cooperation and collaboration with organizations outside of Wildlife Division for the purposes of guiding activities to meet Wildlife Division's goals and objectives for wildlife and habitat.

IV. Description of Effects: In the space provided or on an attached sheet, describe the effects, including beneficial, of the project actions on the identified species, species habitats, and federal critical habitat (see II above).

All population management and technical guidance work will have no effect on listed species or critical habitat. Habitat management activities may affect listed species when applied in occupied habitat. Most of these potential effects will be avoided by the timing of the management activities.

1 Wildlife management for sustainable populations

The data analyses, development of management and regulation recommendations, and information dissemination activities supported by this project statement do not have the ability to affect any federally listed species or candidate species for federal listing. All supported activities will occur in existing offices and have no ability to affect listed species or their habitats.

2 Wildlife habitat management

Likely to Adversely Affect:

Eastern massasauga rattlesnake

The eastern massasauga rattlesnake is known to occur on game areas on which grant activities may occur. Mowing conducted during habitat management has the potential to affect the eastern massasauga. It is anticipated that by following the draft conservation strategies identified in Michigan's eastern massasauga rattlesnake CCAA (Appendix A), direct impacts to individual rattlesnakes will be minimized and that the effects of take will not rise to the level of jeopardizing the species.

Massasauga rattlesnake management guidelines indicate that fluctuating water levels may represent a threat to survival during frozen winter conditions, when dehydration can result if water levels are reduced while the snake is hibernating. Grant activities that may adversely impact hibernacula will be avoided in areas with known hibernacula. However, not all hibernacula locations are known; therefore, some adverse impacts could occur.

Karner blue butterfly

Several State Game Areas are known to be occupied by Karner blue butterflies, and certain management activities have the potential to result in incidental take of individuals. For example, Karner blue larvae may be present on lupine during prescribed burns. However, these activities would only be carried out with the specific intent of improving or maintaining Karner blue butterfly habitat that would degrade if left unmanaged. By implementing our HCP guidelines (http://www.fws.gov/midwest/Endangered/permits/hcp/kbb_mi/pdf/MichiganKBBHCPFinal.pdf) in managing for Karner blue butterflies, we believe that take will be minimized and that the long term benefit of improving Karner blue butterfly habitat will contribute to the recovery of this species.

Northern long-eared bat

Northern long-eared bats are likely to occur on State Game Areas and on private lands where Michigan DNR funds habitat management. ~~Prescribed burns that occur in forested habitats or in savannas/openings that contain scattered trees may affect northern long-eared bats.~~ Generally, fires generated through prescribed burning in forests are limited to the ground and understory, and flame consumption of mature trees is rare. Additionally, some tree removal may occur during openings and savanna management on public and private lands to set back succession. This type of management typically occurs in areas that have previously been maintained as openings or savannas, or in early successional forest stands that have previously been clearcut. It is anticipated that even if individual bats are affected by these activities, the effects on individuals will not result in jeopardy to the population.

The following conservation measures will be implemented in all habitat management activities:

- i. Tree removal and prescribed burns will not occur within 0.25 mile from a known, occupied hibernacula;
- ii. Cutting or destroying known roost trees will not occur during the pup season (June 1 – July 31);
- iii. Clearcuts will not occur within 0.25 (0.4 km) mile of known, occupied roost trees during the pup season (June 1 – July 31).

Known NLEB hibernacula and roost trees have been identified in Michigan and we will consult the most up to date map, which is located online at:
<http://www.fws.gov/midwest/EastLansing/te/nleb/pdf/MichiganNLEBRoostTreeHibernaculaFactSheetUpdated15May2015.pdf>.

May Affect, but Not Likely to Adversely Affect:

Indiana bat

Indiana bats may use project sites for foraging, and it is possible that a roost tree could occur in forests where management is proposed. Forest management activities such as prescribed burning and timber management have the potential to affect Indiana bat. In areas of potentially occupied habitat, habitat management activities will only occur between October 1 and March 31 when the bats are not present on the landscape. This will ensure that direct take of Indiana bats is avoided, and any effects to returning bats after April 1 would be negligible. If habitat management activities need to be conducted outside this window, we will reinitiate Section 7 consultation with the USFWS Ecological Services East Lansing Office.

Eastern prairie fringed orchid

Extensive inventories were conducted for eastern prairie fringed orchid in Michigan in 1990, and an excellent data set has been developed on known populations and their status. The species is most strongly associated with lakeplain prairies. Because lakeplain prairie is a rare community, habitat management goals for lakeplain prairie would be aimed at maintaining and improving the quality of the community, rather than managing the habitat for recreational purposes. In most cases, habitat management in lakeplain prairie will be conducted with non Pittman-Robertson funds. Personnel conducting habitat management activities under this grant are aware of documented locations of eastern prairie fringed orchid populations and will be able to avoid impacting the species by restricting management activities to hand clearing and use of herbicides to only spot treatments that avoid effects to individuals, and by timing prescribed burns to occur before or after plant growth. If a burn cannot be timed to avoid the growth period of eastern prairie fringed orchid or if other methods are to be used that

cannot avoid affecting individuals, a site specific consultation with USFWS Ecological Services East Lansing office will occur before work is initiated.

Copperbelly water snake

Copperbelly water snakes occur in lowland swamps, often in a forested floodplain matrix or adjacent to an upland forested corridor. This species has been surveyed extensively in recent years (http://web4.msue.msu.edu/mnfi/abstracts/zoology/Nerodia_erythrogaster_neglecta.pdf), and was confirmed at four sites in the state. No management activities would be undertaken with funds from this grant on sites where copperbelly water snakes have been documented recently or historically. Because the status of this species has been documented through recent surveys, it is extremely unlikely that undocumented populations are present at any sites where habitat management activities will occur, and potential effects are discountable.

No Effect:

Canada lynx and gray wolf

Although the majority of habitat management conducted under this grant will occur on Wildlife Division administered lands in the southern third of the state, project sites in Michigan's Upper Peninsula could potentially fall within the home range of a Canada lynx or gray wolf. Given the large home range sizes of these species in relation to the size and scale of management planned under this grant, the effects of grant activities on Canada lynx and their habitat are expected to be discountable.

Kirtland's warbler

Kirtland's warblers require a very specific forest age structure and growth pattern in the jack pine forests that they use in their breeding range. Work in jack pine barrens and jack pine forests will be targeted at sites that have good potential to become suitable for Kirtland's warblers through management, but that are currently in a forest successional stage that is not suitable for Kirtland's warblers. Sites occupied by Kirtland's warblers are only visited for population surveys which are not included in this grant. Therefore, no management or monitoring activities will take place on sites where Kirtland's warblers are present at any time of year and no effects on individual warblers are anticipated.

Rufa red knot

For the counties in which rufa red knot may occur, no actions that occur along coastal areas during the red knot migratory window of May 1-September 30 will take place under this grant.

Mitchell's satyr and Poweshiek skipperling

Mitchell's satyr butterfly and Poweshiek skipperling have been surveyed extensively on state land. Mitchell's satyr only occurs in remote locations at two public land sites (Barry State Game Area and Yankee Springs Recreation Area), and no habitat management in occupied habitat will occur under this grant. Similarly, it is not expected that funds from this grant will be used for habitat management in areas occupied by Poweshiek skipperling.

Hine's emerald dragonfly and Hungerford's crawling water beetle

Hine's emerald dragonfly sites are classified as calcareous wetlands or northern fens with an underlining layer of shallow dolomite. Habitat for Hungerford's crawling water beetles is specific types of moderate to fast flowing streams. The management activities proposed in this grant will not take place in or modify habitat for the types of wetlands where these species occur.

Piping plover, dwarf lake iris, Houghton's goldenrod, pitcher's thistle

No effects are expected for piping plovers, dwarf lake iris, Houghton's goldenrod, or Pitcher's thistle because these species only occur in dune and lakeshore habitats and management activities covered in this grant do not take place in these habitats.

Lakeside daisy

The only known population of lakeside daisy in Michigan occurs in a geologically unique roadside habitat where no grant activities will occur.

Signatures:

Prepared by:

Name/Title: Christine Hanaburgh/Wildlife Division Federal Aid Coordinator

Signature:  Date: August 11, 2015

Telephone No. (517) 284-6187 email: HanaburghC@michigan.gov

Reviewed by:

Name/Title: Dan Kennedy/Endangered Species Program Coordinator

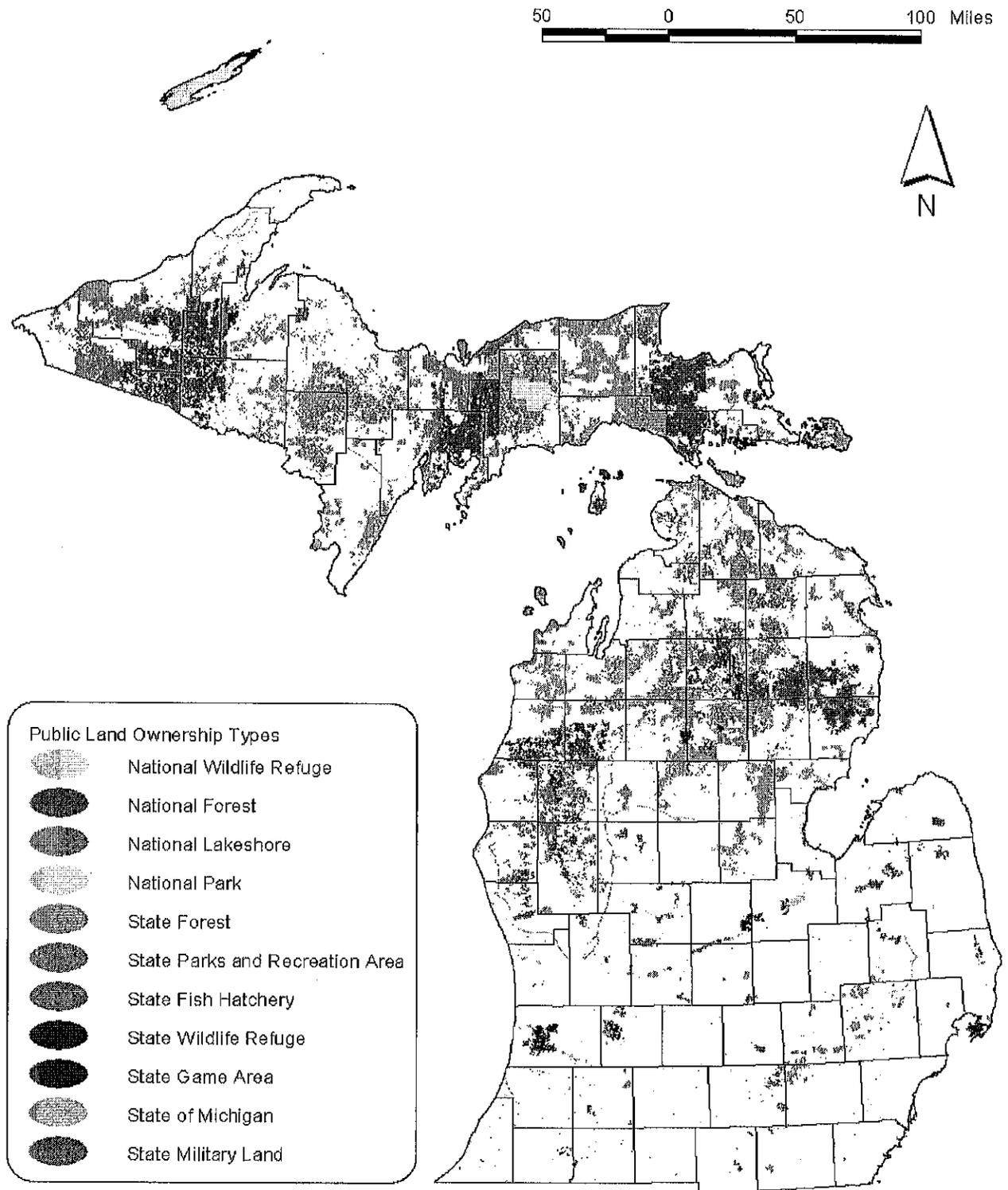
Signature:  Date: August 11, 2015

Telephone No. (517) 284-6194 email: KennedyD@michigan.gov

**FEDERALLY LISTED THREATENED, ENDANGERED AND CANDIDATE SPECIES
IN MICHIGAN**

Scientific Name	Common Name	Federal Status
Animals – Mammals		
<i>Lynx Canadensis</i>	Canada lynx	Threatened
<i>Canis lupus</i>	Gray wolf	Endangered
<i>Myotis sodalis</i>	Indiana bat	Endangered
<i>Myotis septentrionalis</i>	Northern long-eared bat	Threatened
Animals – Birds		
<i>Dendroica kirtlandii</i>	Kirtland's warbler	Endangered
<i>Charadrius melodus</i>	Piping plover	Endangered
<i>Calidris canutus rufa</i>	Rufa red knot	Threatened
Animals – Reptiles		
<i>Nerodia erythrogaster neglecta</i>	Copperbelly water snake	Threatened
<i>Sistrurus catenatus catenatus</i>	Eastern massasauga rattlesnake	Candidate
Animals – Insects		
<i>Somatochlora hineana</i>	Hine's emerald dragonfly	Endangered
<i>Brychius hungerfordi</i>	Hungerford's crawling water beetle	Endangered
<i>Lycaeides melissa samuelis</i>	Karner blue butterfly	Endangered
<i>Neonympha mitchellii mitchellii</i>	Mitchell's satyr	Endangered
<i>Oarisma poweshiek</i>	Poweshiek skipperling	Endangered
Animals – Mussels		
<i>Pleurobema clava</i>	Clubshell	Endangered
<i>Epioblasma torulosa rangiana</i>	Northern riffleshell	Endangered
<i>Villosa fabalis</i>	Rayed bean	Endangered
<i>Epioblasma triquetra</i>	Snuffbox	Endangered
Plants		
<i>Asplenium scolopendrium americanum</i>	American hart's tongue fern	Threatened
<i>Iris lacustris</i>	Dwarf lake iris	Threatened
<i>Platanthera leucophaea</i>	Eastern prairie fringed orchid	Threatened
<i>Solidago houghtonii</i>	Houghton's goldenrod	Threatened
<i>Hymenoxys herbacea</i>	Lakeside daisy	Threatened
<i>Mimulus glabratus michiganensis</i>	Michigan monkey-flower	Endangered
<i>Cirsium pitcheri</i>	Pitcher's thistle	Threatened
<i>Isotria medeoloides</i>	Small whorled pogonia	Threatened

Figure 1: Distribution of public lands by land ownership type in Michigan.



APPENDIX A

Eastern Massasauga Rattlesnake Candidate Conservation Agreement with Assurances Draft Conservation Measures

Conservation Measures

Management Strategies for Managed Lands

These habitat management guidelines were developed to provide land managers with a framework to protect EMR populations while creating and/or restoring suitable habitat needed to sustain EMR populations on enrolled lands. These guidelines reflect current knowledge of researchers and resource managers in Michigan. However, we also recognize that our understanding of the factors, including management actions, influencing EMR population dynamics are limited. There is varying degrees of support for the efficacy for the conservation measures currently available for EMR (e.g., informed judgment of experienced land managers, well-documented research across multiple types of sites, etc.). Therefore, as resources allow, an adaptive management approach that targets key assumptions and uncertainties related to management actions is critical to meeting the CCAA standard over the life of this agreement (Section 10). These guidelines will be followed on enrolled lands identified as 'Managed Land'.

When deviations from these guidelines are necessary, a written request to the Service must be submitted as described in "Modifications of the CCAA" on page 25 of the CCAA. If a Participating Landowner is requesting the modification, the DNR must be notified as well. In cases where a quick review is necessary (i.e., short burn windows in the spring, urgent situations), approval must be obtained from the Service. In emergency human health and safety situations (to be decided by the land manager) when pre-approval to deviate from these guidelines is impractical, descriptions of the actions taken will be carefully documented and provided to the DNR and the Service after the fact. Development activities, such as new buildings, parking lots or transportation infrastructure, in enrolled lands designated as managed habitat will require modifications to the CCAA. Development activities in Unmanaged Land will not require modifications; however, they will be subject to Section 7 reviews if a federal nexus exists.

Wetland Protection

The primary threat to the EMR is habitat loss, in particular the effects of past, widespread wetland loss. While the DNR lands may have been intended for recreation, forestry, game species, or other purposes they have nonetheless played an important role in conserving EMR by providing places where wetlands have been conserved. The effectiveness of DNR lands as part of conservation landscape for the EMR is demonstrated by the number of remaining EMR populations they support. Conserving wetlands is one of the most significant EMR conservation measures provided by the DNR lands.

Prescribed Fire

Fire is a natural process that occurs in many natural communities, including fens and

other vegetation types occupied by EMR (Spieles et al. 1999). Fire in fens serves to keep the vegetation open, reduce shrub and tree cover, reduce surface cover and encourage germination and reproduction of many plant species.

Prescribed fire will be allowed in managed habitat even though it has the potential to kill individual snakes. At some managed sites, prescribed fire may be the preferred or only effective management treatment for invasive species or discouraging woody growth for the purpose of maintaining important habitat. The following guidelines will allow managers to enhance or increase suitability of EMR habitat while minimizing the potential loss of individual snakes. Heat from prescribed fire does not reach far into the soil. Therefore, burning during the inactive season is not expected to harm hibernating EMR. Smith et al. (2001) observed that snakes exposed to low intensity fire were more likely to survive than those exposed to high intensity fires. Mortality from prescribed fire is possible, even when steps are taken to reduce that mortality (Durbian 2006, Cross 2009), but the impacts of fires likely vary with other threats, snake population size, fire intensity, and fire frequency. Snakes and other reptiles may move from the burn unit, but in order to provide them more time and potential refuges these guidelines include recommendations to decrease rate of spread and intensity. Rattlesnakes have been known to seek subterranean refuges and may survive less intense fires (Smith et al. 2001).

Prescribed fire promotes dynamic changes in the landscape that set back succession, improve EMR habitat, and may be beneficial to EMR populations in the long run. The impacts from prescribed fire on EMR populations are uncertain and, therefore, will be evaluated for its positive and negative effects to EMR populations and habitat (see Section 10). The following precautions will be observed when using prescribed fire to increase habitat suitability for rattlesnakes.

1. Burning in managed EMR habitat when snakes are inactive or not emergent is unrestricted except when current conditions could possibly result in snake emergence. If available, use a Snake Emergence Prediction Model (SEPM). If the model predicts that snakes may be emergent, burning will be conducted according to the protocols described below. If the model predicts snakes are not active, then burning is unrestricted.
2. Land managers will leave unburned areas adjacent to prescribed burns to serve as snake refugia whenever possible.
3. Prescribed burn plans will use 'back burning' as the primary ignition strategy. This approach will minimize entrapping snakes between flame fronts. However, the burn manager may make the judgment, during a burn treatment, that encirclement ignition or strip firing is necessary to protect human safety or property.
4. A scientific fire behavior model, such as the United States burn model, the Canadian burn model or equivalent will be used to formulate a burn prescription for a maximum rate of spread no faster than 16 chains per hour (17.6 feet per minute) with an average targeted rate of 10 chains per hour or less (11 feet per minute), except in known hibernacula areas. A slower rate of spread may allow snakes within the burn unit adequate time to find refugia.

5. Where hibernacula are known to be dense (greater than 5 hibernacula per acre), no burning is allowed from March 15 to May 15, unless the Snake Emergence Prediction model predict snakes to be inactive and not yet emerged. Where hibernacula are known to be diffuse (less than 5 hibernacula per acre) across the landscape, burns between March 15 and May 15 can move at no faster than 8 chains per hour (8.8 feet per minute).
6. Fire breaks will be established following existing fuel breaks (roads, rivers, trails...) to the greatest extent possible. Cultivation (disking or roto-tilling) of burn breaks will be minimized to the extent that human health and safety are not jeopardized. Cultivation and mowing fire breaks will be established during the inactive season to the extent possible (See 7.1.2 & 7.1.3).

Mowing and Hydro-axing

In Michigan, mowing has been used to set back succession, control invasive species or establish fire breaks. Mowing is also used to maintain dikes, trails, and other areas designated for human use. While mechanical treatments are an important wildlife management tool, they have been identified to cause direct snake mortality. Mechanical treatments are intensive management techniques that may threaten the long-term survival of localized EMR populations.

The following precautions will be observed when mechanical treatments are used in managed habitat to increase habitat suitability for rattlesnakes and minimize mortalities:

1. Set mower deck heights to maintain turf grass at <15 cm (6 inches) at all times.
2. In areas with known hibernacula, mowing and hydro-axing are not allowed at any time of year.
3. Management will follow the most recent rutting guidelines for the DNR.
4. Mowing or hydro-axing of grasses over 6 inches will occur only during the inactive season, except to control non-native vegetation in degraded habitats.

After snakes have emerged, mowing and hydro-axing will only be allowed when land managers are trying to improve EMR habitat in highly degraded sites (>90% canopy closure or >75% nonnative invasive species). For example, a land manager may want to control invasive species or convert agricultural fields to native grasslands.

Cultivation

In Michigan, cultivation has been used to establish new habitat plantings, set back succession, and establish fire breaks. Cultivation is strongly discouraged in managed habitat regardless of snake activity.

However, the following cultivation practices will be considered acceptable in managed habitat:

1. Areas that are to be treated with mechanical soil disturbance will be mowed during the inactive season to less than 15 cm (6 in) in height so that they are unattractive to snakes the following spring.
2. Areas may be continuously maintained as row-cropped agriculture.
3. Narrow strips of land may be cultivated for the establishment of fire breaks, as outlined in the prescribed fire guidelines.

4. Cultivation may be used when necessary to protect human or natural resource health and safety (e.g., wildfire suppression).

Water Level Manipulation

Maintaining the natural hydrology is critical for maintaining viable populations of amphibians and reptiles. In some wetland complexes, the natural fluctuations in water levels help maintain open landscapes. The groundwater or saturated soils protect hibernating snakes from freezing during winter. Draining removes the heat sink capabilities of the water and weakens the thermal link to warmer areas farther underground. Therefore, alterations to wetland hydrology may have negative impacts on amphibian and reptile populations. EMR, like other wetland snakes, have been shown to tolerate submersion for short periods (about 2 weeks) of time when water temperatures are near freezing. They then rely on cutaneous gas exchange. Individuals will be able to respond to flooding during the active season by moving. Flooding will not kill the snakes during the active season, but may force them out of suitable habitat. Extended flooding may destroy elements of the habitat. Beavers promote dynamic changes in the landscape, and may be beneficial to the snake population in the long run. Beaver activity should be evaluated for its positive and negative effects on EMR habitat and also on human interests.

The following precautions will be observed when manipulating water levels in managed habitat:

1. Water levels in managed habitat will not be drawn down during the inactive season, except for human health and safety reasons.
2. Water levels may not be raised for more than two continuous weeks during a single inactive season, except for health and safety concerns.
3. Permanent flooding or drainage that results in loss of EMR habitat is prohibited.
4. Water levels may be raised during the active season.
5. This agreement does not obligate the DNR to manage beaver to maintain water levels.
6. Temporary flooding to mimic the restorative effects of beaver activity for one to five years will need written pre-approval from the Service.

Forest Management

Most forestry activities that are conducted in accordance with sustainable forest management principles are not expected to negatively impact EMR populations. In most cases forest management practices will benefit EMR, especially when the following guidelines are observed on Managed Lands.

1. Conduct timber harvesting operations when substrate is firm and dry in mid to late summer or when the ground is adequately frozen so that rutting and compaction is minimized.
2. Reforest stands through natural regeneration or tree planting (including appropriate site preparation, such as trenching and scarification). Planting densities should be at levels that assure a similar cover type pattern, or retain or mimic more open forest communities (e.g., pine barren or savanna). Savanna and pine barren restorations are encouraged.
3. Consider increasing fine and coarse woody debris retention, creating brush piles and favoring other habitat elements. Slash burning will occur only during the inactive

season.

Chemical Control

Chemicals have been used by many natural resource professionals to achieve specific habitat management goals and objectives. Currently, many land managers use herbicides because of their effectiveness, ease of use and because herbicides can be relatively inexpensive. Although herbicide use may be an effective habitat management tool, a paucity of research exists on the effects of chemicals on reptiles and, specifically, to EMR. Therefore, it is strongly recommended that land managers consider specific biological factors and utilize a cautious approach when choosing an herbicide, application method, application rate, time of application, and time between applications.

Due to the unknown impacts of herbicides to EMR, broadcast applications in Managed Land is prohibited except when land managers are re-establishing suitable habitat at highly degraded sites (e.g., converting row crops to native grasslands or to control monocultures of invasive species). Land managers may use other herbicide treatments such as spot spraying or wicking to control invasive plant species in Managed Land.

Collection, Release, Relocation and Persecution

Collection of EMR for personal pets and commercial trade is an ongoing problem. Poachers have posed as researchers or collaborators of researchers to obtain information on where to find EMR. Pet EMR held in captivity will not be released into the wild because the potential for introducing diseases into an area is significant. Mixing stocks could also have undesirable genetic effects.

The following guidelines will be observed to minimize the potential negative impacts from the collection, release, relocation and persecution of rattlesnakes:

1. Details on specific locations of snakes or hibernacula will be treated with the same sensitivity as location of state or federally listed species. Collection or killing at hibernacula could devastate a population.
2. EMR legally maintained in captivity will not be released back into the wild. Those snakes that have been held temporarily for research purposes may be released where they were captured if they are in good health and have been held in isolation from other reptiles.
3. EMR will only be moved to protect the snake or people. EMR that must be moved should be moved less than 500 m and into the same wetland system but not across barriers (e.g., roads). If a snake is moved across property lines, permission will be obtained from the landowner. EMR lacking knowledge of their surroundings have elevated levels of mortality.
4. Staff will be routinely educated about EMR because they are in an excellent position to provide public education.
5. Priority will be given to placing snakes that cannot be released or are confiscated into the EMR Species Survival Plan population maintained by the Association of Zoos and Aquariums where they may have both an education benefit and contribute to the captive population and possible future assurance breeding.

Trails and Pathways

DNR owned and managed trails and pathways currently exist within Managed Land and

Unmanaged Land. Trails and pathways are an important component of managing DNR owned land. For human safety, use and enjoyment of trails and pathways, it is necessary to perform maintenance on the trails, including grading, tree-trimming and other activities.

The following precautions will be observed when performing trail and pathway maintenance:

1. Set mower deck heights to maintain turf grass at <15 cm (6 inches) at all times.
2. In areas with known hibernacula, mowing and hydro-axing are not allowed at any time of year.
3. Management will follow the most recent rutting guidelines for the DNR.
4. Mowing or hydro-axing of grasses over 6 inches will occur only during the inactive season, except to control non-native vegetation in degraded habitats.
5. Development of new trails/pathways or substantive changes to existing trails/pathways within Managed Land must include consultation with the DNR Endangered Species Coordinator prior to initiation of construction and construction will be complete during the inactive season.

Management Strategies for Unmanaged Lands

On Unmanaged Lands other goals and mandates require that the management strategies outlined in Section 7.1 will not apply. The DNR will use the following guidelines on Unmanaged Land:

1. Possession of EMR will continue to be prohibited. This will be accomplished by maintaining the Director's Order (No. DFI-166.98, Regulations on the Take of Reptiles and Amphibians; Act 165 of the Public Acts of 1929, as amended, Sec. 302.1c(1) and 302.1c(2) of the Michigan Compiled Laws) which prohibits take of "special concern" reptiles and amphibians without a permit from the DNR.
2. Upon documentation of more than one individual, evidence of reproduction, and availability of suitable habitat on enrolled lands previously designated as Unmanaged Land, signatories may re-classify enrolled areas as Managed Land, but are not required to do so. Consideration will be given to whether the EMRs found are associated with a known and viable population nearby.
3. Management of Unmanaged Land where EMR are unwelcome will focus on management techniques that discourage EMR use. For example, grassy areas around buildings or campsites will be frequently mowed because tall vegetation could attract EMR.
4. To the extent possible do not restrict dispersal on between Managed Lands that are separated by less than 1 km on the Unmanaged Land. Activities that may limit dispersal may include paved roads or motorized vehicle trails. These activities will be reviewed by the MDNR Wildlife Division and USFWS prior to implementation to ensure they are consistent with the CCAA standard.

Management Strategies for Oil, Gas and Mineral Development

Should the EMR be listed as threatened or endangered under the ESA, authorization for incidental take under the Section 10(a)(1)(A) Enhancement of Survival Permit will be applicable when it is determined that the measures proposed for the lease collectively meet

the CCAA standards. Oil, gas and mineral development activities within EMR managed areas may be authorized as a form of incidental take if the DNR determines that the activities proposed for that lease will result in a clear conservation benefit for the EMR.

The goal for an oil, gas, or mineral Certificate of Inclusion is for leaseholders to avoid and minimize negative impacts to EMR and to voluntarily contribute funding or in-kind actions to benefit the EMR. The intent is to provide options that would insure measurable benefits to EMR conservation consistent with the purposes of the CCAA standard (i.e., preclusion or removal of the need to list). This will include compensating for any of the potential biological impacts associated with habitat loss or fragmentation for EMR as well as costs for EMR management in a more complex landscape (e.g., reduced ability to use prescribed fire or increased law enforcement costs).

Conservation measures will be site specific, but fall into general categories of habitat enhancement or avoidance of negative habitat impacts, implementing conservation measures, and addressing critical research needs. These activities will be assessed through leasing or the land use permitting processes and will consider well density, well location, access road surface, length and width, voluntary contributions to EMR conservation, and ongoing and future reclamation activities. It is the responsibility of the oil, gas, and mineral developer to contact the DNR and develop a plan for DNR review, and to sign a Certificate of Inclusion for incidental take coverage authorized under the CCAA when the proposed plan is determined to meet the CCAA standard. Without a signed Certificate of Inclusion the CCAA does not cover oil, gas, and mineral development activities on 'managed' lands.

Education and Outreach

Education and outreach efforts are needed to raise awareness and understanding about the species for all stakeholders, reduce persecution or indiscriminate killing and promote conservation of species. A general approach is to conduct research to identify appropriate content and delivery of education and outreach efforts, learn from other efforts, model after successful efforts such as the Ontario program, identify and recruit partners and target audiences, develop and distribute materials/provide resources, evaluate effectiveness of efforts, develop a volunteer network and ultimately, develop and maintain local, long-term presence/outreach effort in communities around the state within the species' range.

~~FILE~~
HABITAT AND SPECIES MANAGEMENT WITH TECHNICAL GUIDANCE
GRANT PROPOSAL TITLE (W-153-M-5)

PITTMAN-ROBERTSON WILDLIFE RESTORATION ACT GRANT

FOR THE PERIOD: OCTOBER 1, 2015 – SEPTEMBER 30, 2016

MICHIGAN DEPARTMENT OF NATURAL RESOURCES



SUBMITTED: AUGUST 11, 2015

*no timber sales
no commercial timber sales*

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GRANT SUMMARY:

This grant includes implementation activities corresponding to the population management, habitat management, and technical guidance chapters in the US FWS Manual. This grant includes three project statements, one for each manual chapter grouping of activities. No new activities are proposed in this grant and all objectives and activities were previously approved in the FY 2014 version of the proposal for this grant.

PROJECT STATEMENT: Wildlife management for sustainable populations.

1. NEED:

Michigan is rich in wildlife, and wildlife is the foundation of numerous forms of recreation including hunting, fishing, bird watching, hiking, and wildlife viewing. In total there are at least 66 species of mammals, 233 species of birds, and 52 species of reptiles and amphibians that inhabit Michigan. Of these, 25 species of mammals and in addition to ducks and geese, 15 species of birds are hunted or trapped.

The Pittman-Robertson (P-R) Wildlife Restoration Act has as an eligible purpose that states, "the restoration, conservation, management, and enhancement of wild birds and wild mammals, and the provision for public use of and benefits from these resources." The Wildlife Division provides opportunities for recreational hunting and trapping as part of population management whenever possible.

The Wildlife Division has the mission and legal mandates to manage Michigan's wildlife resources held in the public trust. Under Michigan law, the manner, method, and level of take of species legislatively defined as game species is set by an appointed Natural Resources Commission (NRC). The NRC is legally required to use the best available science when setting game species regulations. The Wildlife Division is charged with developing the necessary science and making recommendations based on that science to the NRC on an annual basis. The science is developed through support from our research, surveys, and inventories grant. This grant supported project is needed for the Wildlife Division to interpret the science and provide a range of alternatives to the NRC on hunting and/or trapping seasons and harvest quotas.

The Wildlife Division annually collects data on wildlife abundance, distribution, harvest, and public satisfaction using a variety of formal and informal methods. The results of analysis of the data collected are provided to the decision makers and the public to ensure that management decisions are based on the best science available. Part of that process is to clarify the regulations to make them more easily understood and to remove obstacles to hunter/trapper participation and license purchasing. Additionally, there is an ongoing need to identify emerging issues, provide recommendations regarding those issues, and modify population management efforts based on the recommendations.

2. PURPOSE AND OBJECTIVES:

The goal of this project is to manage Michigan's public trust wildlife resources in a manner that provides for sustainable populations through a set regulations process, while increasing public awareness and trust. This goal is addressed by the following objective:

Objective 1. Wildlife management data interpretation and regulations recommendations

To provide annually the summation of data analyses from research, surveys, and monitoring studies.

3. RESULTS OR BENEFITS EXPECTED:

The Wildlife Division endeavors to manage all wild mammal and bird populations at sustainable levels while addressing animal disease, human safety, habitat capacity, and depredation concerns. The information collected and the resultant management recommendations are used by field managers while managing Division lands and providing technical guidance to other landowners.

The evaluation of annual wildlife population census data, survey data, biological data, etc., will enable the Wildlife Division to make annual recommendations for establishment and modifications of wildlife regulations, such as seasons, bag limits, and regulations for hunting seasons. These data analyses and recommendations are then made available to the public, relevant policy makers within MDNR, and the NRC for the purposes of providing the best available science for use in population management.

Accomplishment of objectives in this project statement will lead to successful management of game species populations at levels compatible with societal goals and the sustainability of habitats. Although we are confronting potential declines in hunting and trapping participation, in 2011 MDNR provided hunting opportunities for: 60,000 waterfowl hunters, 700,000 deer hunters, 200 elk hunters, 260,000 small game hunters, 130,000 turkey hunters, and 10,000 bear hunters. Through well informed and science based management recommendations, we hope to provide high quality wildlife recreational opportunities for our stakeholders. Michigan wildlife resources will annually continue to support 100 million days of wildlife-related recreation, which includes hunting, trapping, and non-consumptive activities. This wildlife recreation results in more than \$1.2 billion in economic activity in Michigan annually.

4. APPROACH:

Approach 1. Wildlife management data interpretation and regulations recommendations

Species management is accomplished through 1) data interpretation and evaluation, 2) development of management and regulations recommendations, and 3) dissemination of information to wildlife managers, the public, other agencies, and decision makers.

The regulations process is a year-long, sometimes multi-year, approach to developing recommendations. We are moving towards more multi-year rather than annual regulations processes, where appropriate, to be more efficient in our work and to create simpler regulations for the public. Our regulations process generally has five main steps:

1. Input from stakeholders, other MDNR Divisions, and Wildlife Division staff to identify issues and potential changes to regulations. This input often includes meetings with stakeholders and staff as well as email communications.
2. Prioritize issues for the upcoming year based on input from Division and Department leadership, and the NRC. The NRC is Michigan's wildlife regulations setting authority.
3. Analyze and research priority issues for biological and social considerations. We examine available data, conduct new analyses, and develop new research projects if needed to sufficiently answer questions on priority issues. We work with stakeholders and the NRC to ensure their questions are also addressed.
4. Develop recommendations based on analyses, research, and social considerations. These recommendations are developed with staff and are often discussed with stakeholders to ensure they address their needs as well as the biology of the species.
5. Develop memos and submit recommendations to the NRC.

This project supports meetings and other interactions among our staff to identify issues and potential changes to regulations based on species needs and public input, which is part of the third project statement in this proposal (*Technical guidance, public engagement, communication, and collaborative partnerships in support of wildlife restoration*). This objective also includes prioritizing issues to be addressed through the regulations setting process for the upcoming year.

Research to answer particular questions on prioritized issues is supported by a separate P-R research grant, which is designed to provide resource managers with the data to develop species management recommendations and alternatives. Data collected during formal surveys are collated, analyzed, and evaluated by biometricians and species specialists.

This project statement supports the interpretation of research results in light of possible management options, data analysis and modeling efforts needed to develop management recommendations, summation of data evaluations, and other aspects of developing management recommendations. Data used in this process include wildlife population inventories, surveys of wildlife health and disease, wildlife harvest, opinion studies, impacts of wildlife on habitat, and public attitudes toward natural resources and their management. Interpretation and evaluation of research data is done by research and species specialists, but can also be done in coordination with field biologists and technicians. Field managers use this information along with their intimate knowledge of the local and regional areas they manage to ensure public opinion, habitat conditions, and population trends are considered when developing specific management recommendations and alternatives. These data may be further reviewed collectively at meetings, which are often scheduled throughout the year to bring together professional staff to discuss and refine data analysis, evaluation, and recommendations. These evaluations and recommendations are disseminated electronically and in hard copy to Division staff, Department decision makers, the NRC, and the public.

After data are interpreted, evaluated, and summarized, a regulation setting process is used to develop recommendations to the NRC, which under Proposal G is the decision-making body for establishing wildlife regulations. Habitat biologists work closely with local constituent groups,

other MDNR divisions, and across management units to develop annual recommendations for species management regulations. Regulations include boundary development (deer management units, bear management units, turkey management units), license quotas (antlerless deer, bear, turkey), season date recommendations, and recommendations related to method of take (e.g., snaring, baiting).

Recognized experts from other agencies, both state and federal, as well as from other countries, are frequently used to assist in formulation of recommendations. These outside agencies can include the Michigan and U.S. Departments of Agriculture, Michigan and U.S. Health Departments, the Center for Disease Control, the U.S. Fish and Wildlife Service, and universities. Program specialists and field staff also work cooperatively with other agencies to formulate management recommendations for migratory birds and species of special interest such as the bald eagle and gray wolf. Some of this cooperative work has resulted in development of improved modeling and data analysis, as in the case of the Canada goose. Work also includes attendance and presentations at professional seminars and flyway meetings, as well as training associated with accomplishing the tasks described for this objective.

This grant will also be used for responding to emerging issues regarding wildlife population management. One of the results of the Wildlife Division's strategic plan and resulting realignment process was the creation of a Planning and Adaptation section. One of the charges of this new section is to help managers and field staff respond to new issues regarding wildlife population management as they emerge. This may include providing recommendations for addressing priorities and modifying population management efforts based on those recommendations.

5. USEFUL LIFE:

Not applicable.

6. GEOGRAPHIC LOCATION:

The activities supported by this grant occur at Wildlife Division offices statewide. Field staff work at MDNR Operations Service Centers and out of local offices at State Game Areas throughout each management region. Most research staff is housed at the Rose Lake State Wildlife Research Area facility northeast of Lansing. Executive and administrative personnel along with program specialists are housed in Constitution Hall, part of the state office complex, in Lansing.

7. PRINCIPAL INVESTIGATORS:

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8. PROGRAM INCOME:

Not applicable.

9. BUDGET NARRATIVE:

The estimates for total cost by objectives provided below may include salaries and wages, contractual services, and expenses. Specific work activities to be completed and planned expenditures by direct cost category are detailed in Appendix A.

Objectives	FY 2016 estimated costs
1. Wildlife management regulations recommendations	\$1,775,847
Totals	\$1,775,847

10. MULTIPURPOSE PROJECTS:

Not applicable.

11. RELATIONSHIP WITH OTHER GRANTS:

The activities proposed in this project statement were contained in FBMS grant # F14AF01221, Habitat and Species Management with Technical Guidance (W-153-M-4), in FY 2015.

The research, formal surveys, and data analysis conducted under Wildlife Division's current and previous P-R research grants (Michigan's Statewide Wildlife Research, Surveys, and Monitoring Program, formerly W-155-R) support much of the species management that will occur through this grant. Data analyzed and evaluated includes wildlife population inventories, surveys of wildlife health and disease, wildlife harvest, opinion studies, impacts of wildlife on habitat, and public attitudes toward natural resources and their management. Similarly, many of the activities proposed in this grant are the direct result of the species management planning that is supported by our Planning and Administration grant, W-149-P.

12. TIMELINE:

As described in the Approach section above, the regulations-setting process is a process that is continually ongoing throughout the entire year. Recommendations for particular species are

made at different times of the year and there are benchmarks that are met for each recommendation.

13. GENERAL

Requested conditions:

1. MDNR requests that expenditures for this grant not be subject to the prior written approval requirements of 43 CFR 12.70(c)(1)(ii), the "10 percent rule."

Regulatory compliance:

National Environmental Policy Act (NEPA)

The data analyses, development of management and regulation recommendations, and dissemination activities supported by this project statement will not significantly affect the quality of the human environment. All supported activities will occur in existing offices and have no ability to alter any characteristics of the human environment. These activities are completely covered by categorical exclusions A(3), B(1), and B(8) in 516 DM 8.5, and by categorical exclusions (c) and (j) under 43 CFR 46.210, namely:

Bureau of Fish and Wildlife 516 DM 8.5

A(3) The issuance and modification of procedures, including manuals, orders, guidelines, and field instructions, when the impacts are limited to administrative effects.

B(1) Research, inventory, and information collection activities directly related to the conservation of fish and wildlife resources which involve negligible animal mortality or habitat destruction, no introduction of contaminants, or no introduction of organisms not indigenous to the affected ecosystem.

B(8) Consultation and technical assistance activities directly related to the conservation of fish and wildlife resources.

43 CFR 46.210

(c) Routine financial transactions including such things as salaries and expenses, procurement contracts (in accordance with applicable procedures and Executive Orders for sustainable or green procurement), guarantees, financial assistance, income transfers, audits, fees, bonds, and royalties.

(j) Activities which are educational, informational, advisory, or consultative to other agencies, public and private entities, visitors, individuals, or the general public.

Section 7, Endangered Species Act (ESA)

The data analyses, development of management and regulation recommendations, and dissemination activities included in this project statement do not have the ability to affect any

federally listed species or candidate species for federal listing. All supported activities will occur in existing offices and have no ability to affect listed species or their habitats.

National Historic Preservation Act (NHPA)

The data analyses, development of management and regulation recommendations, and dissemination activities conducted under this project will not have any effects on sites that are listed on or potentially eligible for listing on the National Register of Historic Places. All supported activities will occur in existing offices and will not alter any buildings or disturb any culturally significant sites. Consequently, no consultation with the State and Tribal Historic Preservation Officers as part of a Section 106 process is necessary nor will be completed.

Other Federal Compliance Issues

The activities necessary to accomplish the objectives supported by this project statement do not involve any other federal compliance issue. When conducting these activities, MDNR will comply with all applicable Federal laws, regulations, and policies including but not limited to Coastal Zone Management Act of 1972, Executive Order 11988 Floodplain Management, 11990 Protection of Wetlands, 13112 Invasive Species, Animal Welfare Act of 1985, and Coastal Barriers Resources Act of 1982.

PROJECT STATEMENT: Wildlife habitat management.

SUMMARY:

The goals of this project are to restore, improve, or provide habitat for wildlife across over 4 million acres of State owned land and on private lands throughout the state. Ultimately, this habitat work is to provide for sustainable populations of specific mammal and bird species. This project statement covers wildlife habitat management implementation, inventory, and monitoring activities undertaken by Wildlife Division personnel and partner organizations.

The Michigan DNR manages the State Forest System, 99 State Parks and Recreation Areas, and 161 State Game and Wildlife Management Areas, together comprising over 4 million acres of land open to various forms of public recreation. Specific management activities detailed in this project statement include maintenance, enhancement, and restoration of grassland, savanna, forest, and wetland habitats on public lands and on selected private lands throughout the state. As part of adaptive management, activities such as the monitoring and evaluation of habitat management needs, which allow management results to be tracked, are supported by this proposal.

1. NEED:

As human populations increase and development of private land intensifies, the demand for wildlife resources and other habitat related attributes on state lands is also increasing. MDNR habitat work on public land is of high priority because Michigan has more public land than any state east of the Mississippi, and ranks third in the country in the number of licensed hunters. Nonetheless, with 79% of the state in private ownership, natural resource management must extend to private lands for statewide goals to be achieved. In Michigan, 83% of resident hunters hunt on private lands. Habitat management on public and private lands is essential to ensure sustainable populations of these species and to meet the demands for the social and economic benefits that they provide.

MDNR's Wildlife Division is solely responsible for the administration and management of more than 400,000 acres of lands contained in State Game Areas (SGAs), State Fish and Wildlife Areas (SFWAs), State Wildlife Management Areas (SWMAs), and State Wildlife Research Areas (SWRAs). All of these area types are project areas contained in a Wildlife Restoration grant commonly known as *W-145-L Statewide Land Acquisition*. The intended purposes for each area are stipulated in W-145-L and consist of some aspect of providing, protecting, managing, and enhancing wildlife habitat while providing for the management of wildlife populations and supporting the associated recreation of hunting and trapping. The Code of Federal Regulations (CFR) promulgated to implement the Pittman-Robertson Wildlife Restoration Act, requires states to maintain federal project areas for their grant authorized purposes (50 CFR 80.134). Historically, much of the property purchased by MDNR was acquired to restore game species to the landscape and to develop a productive basis for public use and access to wildlife resources, and this grant is needed to continue habitat management on these lands.

In addition to Wildlife Division Project Areas, MDNR owns almost 4 million acres contained within the State Forest System administered by the Forest Resources Division (FRD). Under a

co-management agreement, Wildlife Division jointly plans and manages these acres with FRD. Wildlife Division is responsible for managing to provide local wildlife habitat diversity, species abundance, and distribution to help satisfy human demand for wildlife related recreation while protecting and conserving unique ecological communities and cultural resources. There are also lands within the State Forest System where wildlife has been designated as the key value for management (e.g., Munuscong, Au Train Basin, Baraga Plains, Pigeon River Country, and Sturgeon River Sloughs). Wildlife Division needs to conduct habitat management on these lands to achieve wildlife restoration goals as these areas have intended purposes similar to the Wildlife Division Project Areas described above.

Similarly, in addition to Wildlife Division Project Areas, MDNR owns more than 340,000 acres contained within the State Parks and Recreation Areas administered by the Parks and Recreation Division. Under a co-management agreement, the Wildlife Division jointly plans and manages portions of these lands and conducts habitat management where management priorities are consistent with wildlife restoration efforts eligible for P-R funding.

White-tailed deer is the most popular game species in the state, and 87% of the annual harvest occurs on private land. Deer, turkey, pheasant, waterfowl, and rabbit hunting are dependent on private lands, while bear and grouse hunting are conducted more often on public lands. With participation in small game hunting declining in Michigan, encouraging habitat management for rabbits, pheasants, or grouse on private lands may increase interest from both new and experienced hunters. Beyond hunting activities, many wildlife species, such as songbirds, raptors, furbearers, and deer provide additional appreciative recreational value. Maintenance of these productive wildlife populations is dependent on the availability of high quality habitat on public and private land across the state.

2. PURPOSE AND OBJECTIVES:

The goal of this project is to support habitat management to provide sustainable habitats for sustainable wildlife populations throughout Michigan. This goal is addressed by the following objectives:

Objective 1. Openings and savanna management

To maintain, establish, and restore openings and savanna on public and private lands in Michigan.

Objective 2. Forest management

To prescribe and carry out specific forest management activities on public and private lands in Michigan.

Objective 3. Wetlands management

To maintain, establish, and restore wetlands on public and private lands in Michigan.

Objective 4. Habitat inventory and evaluation

To inventory and evaluate lands proposed for treatment that are managed by the Wildlife Division to meet eligible wildlife management objectives and to monitor management activities and habitat conditions as necessary.

Objective 5. Wildlife Habitat Grant Program

To accomplish Wildlife Division habitat management objectives on public and private lands through financial grants to conservation partners.

3. RESULTS OR BENEFITS EXPECTED:

Habitat management on public lands will achieve a diversity of forest, wetland, grassland, and savanna habitat conditions throughout the 4 million acres of MDNR lands open to public hunting and recreation. These diverse habitats will help ensure wildlife populations meet the demands for recreational harvest and other opportunities for public enjoyment of Michigan wildlife. Monitoring of wildlife habitat conditions will enable managers to evaluate current management success and to refine and adjust management goals and objectives to meet changing demands and changing environmental conditions. An additional result of systematic habitat monitoring is that it will provide educational feedback to managers that can result in more informed management decisions and increased success in achieving habitat goals and objectives over time.

Private lands also offer some of the best prospects for large-scale savanna and prairie restorations because of the opportunity to convert large agricultural complexes to grassland systems. Successful restorations are expected to benefit grassland nesting bird species such as ring-necked pheasant, Henslow's sparrow, grasshopper sparrow, and bobwhite quail, as well as other wildlife such as raptors and foxes. Projects of this magnitude require more expertise, equipment, and finances than most landowners possess. Working with private landowners on wildlife habitat management will help ensure that wildlife populations are maintained at socially and ecologically sustainable levels on a statewide basis, and will result in enhanced wildlife habitat on land that is not under direct control of the MDNR but still provides public benefits.

4. APPROACH:

MDNR wildlife management professionals have been implementing management activities on state owned and private lands for over 70 years, using the most current accepted management practices.

Habitat management activities on public lands are directed by a hierarchical planning system. Master plans are used to guide management on State Game and Wildlife Management Areas and State Recreation Areas. Additionally, as a stipulation of Forest Certification, MDNR was directed to develop a State Forest Management plan, which was completed in April 2008. This plan identifies long-term objectives and methods for using ecosystem management to achieve sustainability on State Forest lands. Subsequently, three Regional State Forest Management Plans were developed in derivation from the State Forest Management Plan. Wildlife Division staff have had extensive input in all stages of planning, and have direct participation in forest management through the compartment review process. Wildlife Division's participation in planning and activities is supported by a separate grant, Wildlife Division Planning and

Administrative Support, while this grant seeks support to implement and follow up on habitat management prescriptions that result from these planning processes.

Habitat work conducted on private lands results from landowners and MDNR biologists agreeing to implement projects to benefit specific mammal and bird species. In these cases, both the landowner and MDNR sign a Landowner Agreement. This Agreement is an approved legal contract between the State of Michigan and the landowner. The Agreement references a project description that contains specific contractual items that dictate the roles and responsibilities for all parties involved. For example, if the agreement supports the use of pesticides, it requires that pesticides must be applied by a certified applicator following all labeling instructions. Once the project description is completed and the Landowner Agreement has been signed, the project will be implemented. To ensure fiscal and contractual accountability, each project will be reviewed and certified by a MDNR biologist before the release of funds to either a landowner or contractor. The MDNR biologist ensures the project adheres to the terms of the Landowner Agreement; for example, tree plantings will be inspected for proper planting and spacing.

Habitat management activities generally fall into the categories of setting back succession, advancing succession, or improving the ecological integrity of existing habitat.

Approach 1. Openings and savanna management

Openings are habitats that are dominated by grasses or forbs, with trees as a minor or nonexistent component. Savannas are a relatively open habitat that has a more significant tree component than openings. Savannas may contain up to 60% overstory trees, and they may or may not have a shrub layer. Most management of openings and savannas is aimed at setting back succession, minimizing encroachment of woody vegetation, controlling growth of undesired plants, and planting grasses and forbs to achieve desired plant species composition.

Management to achieve openings and savanna management objectives consists of the following:

Savanna maintenance – Practices intended to enhance or manage savannas, generally defined as natural communities consisting of 5%-60% overstory tree cover. Activities include mechanical vegetation control (mowing, bulldozing, etc.), chemical treatment for invasives, tree removal, etc.

Food plot establishment and maintenance – Activities to establish and/or maintain wildlife food plots or cover. This includes planting, harvesting, disking, spraying, and development and implementation of contracts for sharecrop planting. Food plot establishment occurs primarily on the southern Michigan Game Areas, but also takes place in State Forests, and may be conducted or funded by Wildlife Division on certain private lands as Wildlife Division's private lands program is expanded. Sharecropping may generate program income in cases where the Division's crop share for wildlife food remains standing through the winter and is then harvested and sold in order to plant the new season's crops. This is especially true with corn due to recent high prices for corn in the Midwest.

Grassland/openings maintenance – Work done to maintain a grass dominated habitat in an open condition or to achieve specific characteristics in an established opening. Activities may include,

but are not necessarily limited to, mechanical vegetation control, chemical treatment for invasives, and planting.

Grassland/openings development – Establishment or restoration of permanent openings to meet wildlife habitat management objectives. Typical activities used to create openings include brush clearing, disking, planting, and spraying.

Prescribed Burning – Used as a tool for openings and savannah management to set back succession, control invasive species, stimulate the growth of native grasses, etc. Prescribed burning activities include preparation and review of burn plans and execution of the prescribed burn on the ground by MDNR personnel.

Approach 2. Forest management

On State Game and Wildlife Management Areas, forest management activities are conducted to meet specific forest health and wildlife management objectives. Forest management may involve prescribed burning, planting, or initiating harvest within specific parameters intended to achieve defined habitat objectives. Management recommendations are usually aimed at benefiting multiple species and are always in consideration of long term goals for forest health and wildlife productivity. On State Forests where Wildlife Division personnel have co-management authority, the Compartment Review process is the primary vehicle for wildlife staff to participate in forest management, and those activities are included in our Planning and Administration grant. Timber sale preparations are not charged to this grant.

Approach 3. Wetlands management

Wildlife Division has a strong wetlands/waterfowl management program, and many State Game and State Wildlife Areas contain complex wetlands systems, often supported by a system of dikes, ditches, dams, pumps, and water control structures. Wildlife Division also manages numerous wildlife floodings that are located within State Forests but were purchased with Pittman-Robertson Wildlife Restoration Act funds. Wetlands management covered by this grant falls into two categories:

Wetlands maintenance – Activities to achieve or maintain desired future conditions of existing wetlands. This includes planting, chemical and mechanical vegetation control, and water level manipulation.

Wetlands development – Wetlands development occurs through conversion of upland habitat to a wetland state or restoration of sites that were previously wetlands but had altered hydrology. Activities include removal of drain tiles, installation of water control structures, soil removal, and revegetation.

The application process for all necessary permits from Michigan Department of Environmental Quality, US Environmental Protection Agency, etc., for wetland related activities is also included as an activity necessary to meet wetland habitat objectives.

Approach 4. Habitat inventory and evaluation

The formal system for habitat inventory on MDNR owned lands is IFMAP, which stands for Integrated Forest Monitoring, Assessment, and Prescription system. IFMAP involves digitizing forested and nonforested stand boundaries from remotely sensed imagery, collecting vegetation data in the field, and entering the data into the IFMAP database. Habitat inventory might also occur less formally or to answer a specific question; for example, productivity of food plots might be visually assessed on an annual basis to determine if they should be converted to another cover type.

Habitat evaluation is conducted to determine the effects of management and to assess how effective management activities have been in meeting stated objectives. Habitat evaluation is routinely conducted after timber harvesting on state land and periodically during the course of grassland and wetland management; for example, to determine if additional weed control is necessary or if water level manipulation schedules should be altered.

Approach 5. Wildlife Habitat Grant Program

Fiscal year 2016 will be the third year in which MDNR's budget bill contains a line item for habitat grants to partners, funded with State hunting and fishing license fees. This is a developing program that was jointly implemented in FY 2014 by Wildlife Division and Grants Management Division of the DNR. The Wildlife Habitat Grant Program (WHGP) is a competitive grant program that seeks to improve habitat for game species while providing the greatest benefit to Michigan's wildlife stakeholders. This grant program is one of the ways the MDNR is creating collaborative relationships with other government agencies, NGOs, and the public while improving wildlife habitat. A WHGP Handbook was developed to inform eligible applicants of the grant program's purpose and requirements for application submission. Eligible grant applicants include any local, state, or federal government or tribal units, profit or non-profit groups, or individuals in Michigan.

Project proposals are scored based on the purpose and merit of the project, compatibility with established Wildlife Division regional wildlife management priorities, project management, likelihood of success, and public access and hunting opportunities. Current priorities are focused on increasing food resources and vegetative cover for wildlife, and restoring wetland habitat for waterfowl and other wetland species. Wildlife Division hired a coordinator for the WHGP in June 2014, and this person has responsibility for ensuring program compliance by grantees and monitoring project completion. FY 2016 wildlife habitat grant partners will be announced in October, 2015.

Although State license revenue is being used to fund the program, Wildlife Division will potentially use WHGP funds and administration expenses as match for this Wildlife Restoration grant, and therefore all WHGP projects must be P-R eligible. More information on this program, including the grant handbook and application form, is available online at: http://www.michigan.gov/dnr/0,4570,7-153-58225_67395-324696--,00.html.

5. USEFUL LIFE:

Not applicable.

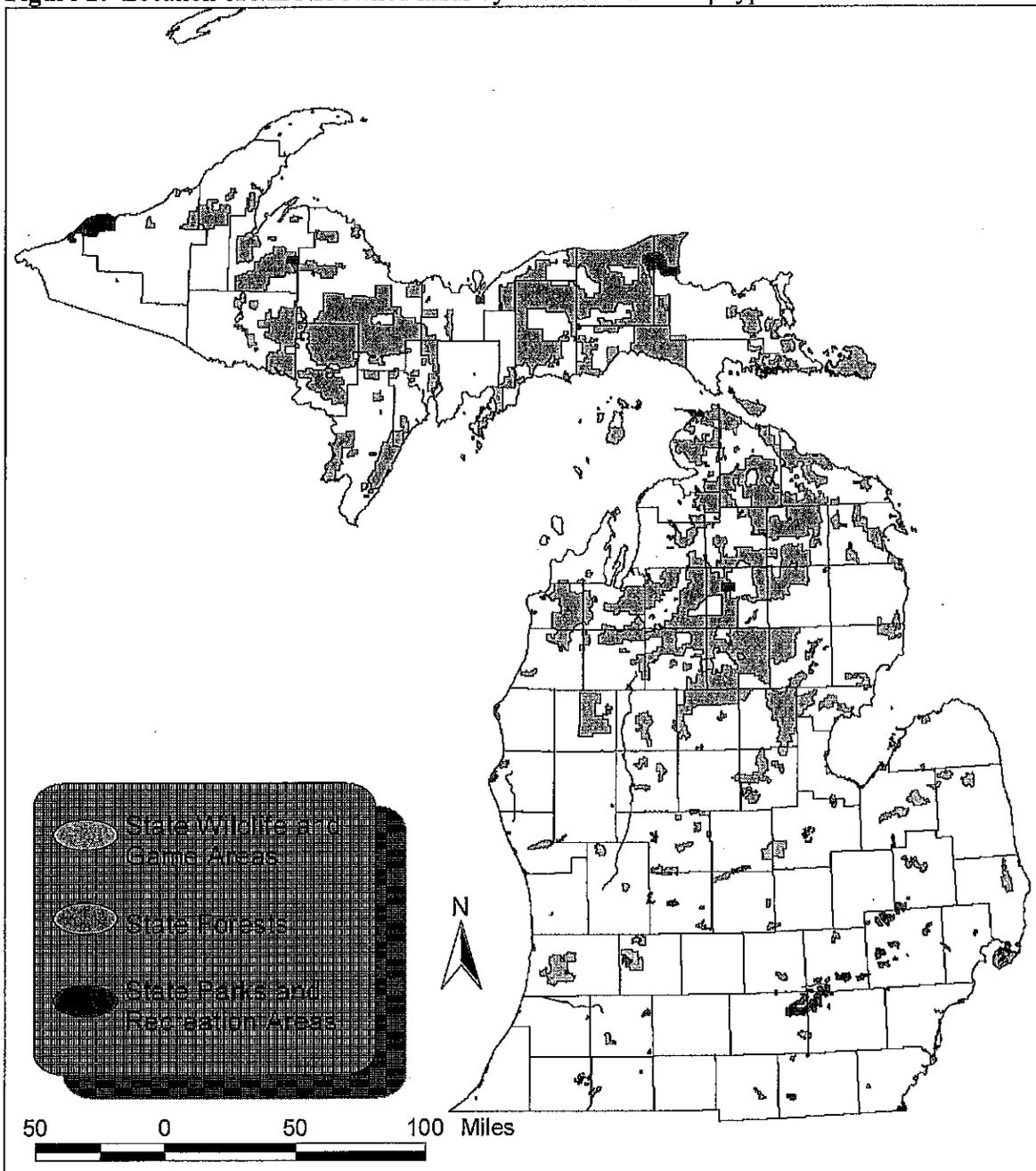
6: GEOGRAPHIC LOCATION:

The activities supported by this grant will occur on public and private lands statewide. The State Forest system occurs predominately in the northern Lower Peninsula and throughout the Upper Peninsula; State Game and Wildlife Management Areas are located in the southern Lower Peninsula, and State Parks and Recreation Areas are located throughout Michigan (Figure 2). The executive and administrative personnel along with program specialists are housed in Constitution Hall, part of the state office complex, in Lansing.

7. PRINCIPAL INVESTIGATORS:

Federal Aid Coordinator	Eric Sink Department Federal Aid Coordinator Finance and Operations Division (989) 732-3541 Ext. 5915
Grant Coordinator	Clay Buchanan Assistant Wildlife Division Federal Aid Coordinator Wildlife Division (517) 284-6214
Project Leader on Public Lands	Earl Flegler Public Lands Specialist Wildlife Division (517) 641-4903 ext. 246
Project Leader on Private Lands	Jennifer Olson Acting Private Lands Specialist Wildlife Division (517) 284-6217

Figure 2: Location of MDNR owned lands by Division ownership type.



8. PROGRAM INCOME:

Program income may be generated through the sale of the State's share of corn produced under sharecropping contracts. Approximately \$100,000 of program income is expected in FY 2016, and we request the deductive method of applying these funds.

9. BUDGET NARRATIVE:

The estimates for total cost by objectives provided below may include salaries and wages, contractual services, supplies, and materials. Specific work activities to be completed and planned expenditures by direct cost category are detailed in Appendix A.

Objectives	FY 2016 estimated costs
1. Openings and savanna management	\$2,441,487
<i>Program income from sharecropping</i>	<i>\$100,000</i>
2. Forest management	\$465,130
3. Wetlands management	\$1,582,697
4. Habitat inventory and evaluation	\$45,837
5. Wildlife Habitat Grant Program	\$1,000,000
Totals	\$5,635,151

10. MULTIPURPOSE PROJECTS:

Not applicable.

11. RELATIONSHIP WITH OTHER GRANTS:

The activities proposed in this project statement were contained in FBMS grant # F14AF01221, Habitat and Species Management with Technical Guidance (W-153-M-4), in FY 2015.

The majority of the habitat work proposed in this grant takes place on State Wildlife Areas maintained under the grant formerly identified as W-148-M, Comprehensive Operations and Maintenance of Wildlife Management Areas. Additionally, the process of planning habitat management activities on public and private lands is covered under a separate P-R Planning and Administration grant.

12. TIMELINE:

Habitat management implementation occurs year round depending on the goals and objectives of the specific area and the habitat type being managed.

13. GENERAL:

Requested Conditions:

1. MDNR requests that expenditures for this grant not be subject to the prior written approval requirements of 43 CFR 12.70(c)(1)(ii), the "10 percent rule."

Regulatory Compliance:

National Environmental Policy Act (NEPA)

The habitat management and monitoring activities supported by this project statement will not have a significant impact on the quality of the human environment. The amount of lands being managed in any given year is far less than one percent of the entire acreage of Michigan. All of the public lands being managed are contained in project areas that were acquired and are managed specifically for the purposes of providing, maintaining, and managing these types of habitats. These areas in most cases have been maintained for these purposes for decades. In the case of private lands, the landowners must be willing participants who fully agree and desire to have portions of their lands managed for wildlife restoration purposes. In most cases these lands already contain habitat that is suitable for efficient management under this project statement. Consequently, this work involves improving or restoring habitats that were already present, not large-scale conversion of land use practices that could significantly impact the quality of the human environment.

Additionally, these activities are completely covered by categorical exclusions B(2), B(3), B(4), E(1), and E(2) in 516 DM 8.5, and by categorical exclusion (e) in 43 CFR 46.210 as follows:

Bureau of Fish and Wildlife 516 DM 8.5

B(2) The operation, maintenance, and management of existing facilities and routine recurring management activities and improvements, including renovations and replacements which result in no or only minor changes in the use, and have no or negligible environmental effects on-site or in the vicinity of the site.

B(3) The construction of new, or the addition of, small structures or improvements, including structures and improvements for the restoration of wetland, riparian, in-stream, or native habitats, which result in no or only minor changes in the use of the affected local area. The following are examples of activities that may be included:

- i. The installation of fences.
- ii. The construction of small water control structures.
- iii. The planting of seeds or seedlings and other minor revegetation actions.
- iv. The construction of small berms or dikes.
- v. The development of limited access for routine maintenance and management purposes.

B(4) The use of prescribed burning for habitat improvement purposes, when conducted in accordance with local and State ordinances and laws.

E(1) State, local, or private financial assistance (grants and/or cooperative agreements), including State planning grants and private land restorations, where the environmental effects are minor or negligible.

E(2) Grants for categorically excluded actions in paragraphs A, B, and C, above; and categorically excluded actions in Appendix 1 of 516 DM 2.

43 CFR 46.210

(e) Nondestructive data collection, inventory (including field, aerial and satellite surveying and mapping), study, research and monitoring activities.

Section 7, Endangered Species Act (ESA)

The habitat management and monitoring activities supported by this project statement may affect some federally listed endangered, threatened, proposed, or candidate species. Because of the statewide coverage of this project statement across multiple land ownerships and habitat types, virtually the entire state constitutes the action area. For most species, however, the size and timing of any particular habitat management project will be such as to avoid any potential adverse effects. However, activities supported by this grant may affect individuals of the federally endangered Indiana bat (*Myotis sodalis*), federally threatened northern long-eared bat (*Myotis septentrionalis*), the federal candidate eastern massasauga rattlesnake (*Sistrurus catenatus*), and federally endangered Karner blue butterfly (*Lycaeides melissa samuelis*). Although the potential to affect individuals of these species exists, the following guidelines are used whenever activities supported by this grant are conducted to ensure that these activities are not likely to adversely affect individuals, or if individuals are affected, that the population is not jeopardized.

Eastern massasauga rattlesnake

The eastern massasauga rattlesnake is known to inhabit game areas where operations and maintenance activities will occur. Mowing and burning conducted as part of operations and maintenance activities have the potential to affect individual snakes. Michigan DNR will institute the following precautions to avoid impact to the eastern massasauga at those locations that have known occurrences:

a. General

The Wildlife Division has engaged in cooperative projects with the United States Fish and Wildlife Service concerning massasauga rattlesnake management and research in Michigan. The outcome of these projects was the development of a draft Candidate Conservation Agreement with the US FWS to ensure maintenance of massasauga populations in Michigan. Even though the agreement has not yet been finalized, activities supported by this grant will be conducted according to the requirements, restrictions, and guidelines set forth in the agreement. In particular, for the activities that may occur with support from this grant, the guidance listed below will apply.

b. Mowing Guidelines

Personnel conducting mowing will be instructed to be vigilant to avoid any possible impact to the rattlesnake. Mowers will be set to the highest level possible that will maintain the area in a satisfactory condition. Mowing will be restricted seasonally where possible to occur when the rattlesnake is least likely to be active.

c. Burning Guidelines

Area managers will be directed to refrain from burning areas of known rattlesnake occurrences when soil temperatures are above 64°F (20°C) at a depth of 10cm.

d. Hibernacula alteration

Habitat management activities that may adversely affect hibernacula will be avoided in areas that are known hibernacula.

Indiana bat

The Indiana bat is known to occur on Lost Nation, Oak Grove, Three Rivers, and Sharonville State Game Areas on which habitat management activities will occur. Indiana bats may use project sites for foraging, and it is possible that a roost tree could occur in forests where management is proposed. Forest management activities such as prescribed burning have the potential to affect Indiana bat. In areas of potentially occupied habitat, activities will be timed seasonally to occur only when bats are hibernating and potential roost trees are unoccupied (September 15 – April 15). Generally, fires generated through prescribed burning in forests are limited to the ground and understory, and flame consumption of mature trees is rare. However, if a prescribed burn is planned that would include floodplain forest within the Indiana bat's summer range, a site specific consultation with USFWS Ecological Services East Lansing Office will occur before work is initiated.

Northern long-eared bat

Northern long-eared bats are likely to occur on State Game Areas and on private lands where Michigan DNR funds habitat management. Prescribed burns that occur in forested habitats or in savannas/openings that contain scattered trees may affect northern long-eared bats. Generally, fires generated through prescribed burning in forests are limited to the ground and understory, and flame consumption of mature trees is rare. Additionally, some tree removal may occur during openings and savanna management on public and private lands to set back succession. This type of management typically occurs in areas that have previously been maintained as openings or savannas, or in early successional forest stands that have previously been clearcut. It is anticipated that even if individual bats are affected by these activities, the effects on individuals will not result in jeopardy to the population.

Karner blue butterfly and Mitchell's satyr butterfly

Work in habitat occupied by Karner blue and Mitchell's satyr butterflies may adversely affect individuals. Management of occupied Karner blue sites will be done in accordance with Michigan's Habitat Conservation Plan. Management within occupied satyr habitat is done in accordance with the consultation and biological opinions developed for this species as part of

Michigan's Landowner Incentive Program, however, we do not anticipate using funds from this grant to conduct management in occupied satyr habitat. All of these documents are on file and available from MDNR, US Fish and Wildlife Service (USFWS) Ecological Services East Lansing Office, and USFWS Region 3 Federal Assistance.

Other listed species

No habitat management or monitoring activities will occur along barrier beaches or associated mudflats and dunes; consequently there will be no effect on piping plovers, rufa red knot, or designated critical habitat for piping plovers. Likewise, as the designated critical habitat units for the Hine's emerald dragonfly are so small, these areas will be avoided and no management activities will be allowed in these units. No grant activities will be conducted in Poweshiek skipperling proposed critical habitat.

No habitat work will occur in sites occupied by Kirtland's warblers. No habitat work will be allowed in any areas with known occurrences of any listed plant species until appropriate consultation with the USFWS Ecological Services can be conducted. The only exceptions will be for management activities that occur in the dormant season that have no potential to harm listed plants.

National Historic Preservation Act (NHPA)

The habitat management activities supported by this project statement may have the ability to affect sites that are listed or potentially eligible for listing on the National Register of Historic Places. Site specific Section 106 consultations are initiated with the State Historic Preservation Officer for all supported activities under the following conditions:

1. There are structures present that are older than 50 years and the activities have the potential to physically alter the structures. This is of particular concern before conducting prescribed fires that could affect structures.
2. When activities will result in any soil disturbance for areas with no recent agricultural history. This would include activities such as mechanical vegetation removal, plowed fire breaks, and excavation activities associated with wetland restorations.
3. When the activities will disturb soil below the average plow depth in areas that have been actively farmed within the last 50 years. This could include mechanical vegetation removal, certain soil preparations as part of restoring openings, and fire breaks plowed into mineral soils as part of prescribed burns.

Depending on the results of the Section 106 consultation, no management activities will occur before a non-undertaking agreement is completed when necessary. Activities not meeting the conditions listed above will not have the potential to affect any sites that are listed on or potentially eligible for listing on the National Register of Historic Places. Consequently, no consultation with the State and Tribal Historic Preservation Officers as part of a Section 106 process will be necessary for activities other than those described above.

Other Federal Compliance Issues

The activities necessary to accomplish the objectives supported by this project statement do not involve any other federal compliance issues. When conducting these activities, MDNR will comply with all applicable Federal laws, regulations, and policies including but not limited to Coastal Zone Management Act of 1972, Executive Order 11988 Floodplain Management, 1990 Protection of Wetlands, 13112 Invasive Species, Animal Welfare Act of 1985, and Coastal Barriers Resources Act of 1982.

PROJECT STATEMENT: Technical guidance, public engagement, communication, and collaborative partnerships in support of wildlife restoration.

SUMMARY:

This project focuses on outreach and technical guidance. In Wildlife Division's Strategic Plan, these topics are covered under Goals 1: Managing Populations; 2: Managing Habitat; 3: Land Use; 5: Communication and Public Engagement; and 6: Collaborations and Partnerships. A common theme among these goals is not only avoiding negative impacts to mammals and birds, but leveraging positive outcomes for wildlife through effective communication, technical guidance, public engagements, and fruitful partnerships. This grant would provide support for technical guidance to ensure the public and other agencies have the best resources available to minimize or avoid wildlife conflicts, understand the importance and role of wildlife management, and incorporate MDNR goals and objectives for mammals and birds into management of private or other non-MDNR controlled lands and programs.

1. NEED:

The increasing human-wildlife interface is associated with increased public demand for information on wildlife management, ways to reduce conflict with wildlife, ways to plan land uses with wildlife in mind, and ways to improve wildlife habitat. Effective communication may have an effect on the conservation of certain wildlife species and their habitats. Consequently, we need to respond to requests for assistance or further information from landowners, municipalities, non-profit organizations, industry, policy makers, and other agencies on management of or ways to avoid adversely affecting wildlife and their habitats.

Private lands also contain some of the most ecologically sensitive habitats, such as prairies, savannas, and unique wetlands like prairie fens and Great Lakes coastal marshes which require careful management and protection. More than three-quarters of the 13,150 occurrences of state and federally listed species in Michigan are located on private land and 40% are found entirely on private land. Therefore, there is a significant need for private landowners to receive technical guidance and management expertise to perpetuate the wildlife values that their lands provide.

Wildlife Division staff are frequently called upon to provide information on species and habitat management, information on distribution and abundance of many species, and techniques for reducing conflict with wildlife to a broad array of stakeholders. Wildlife Division staff need to be responsive to public requests for assistance to enhance public support and understanding for wildlife conservation programs. During our strategic planning process, we found that the Division often shares information that is too technical for the public to understand. As demand for assistance grows and available staff to address these needs decreases, the Wildlife Division needs to constantly improve the efficiency of existing delivery mechanisms or develop new mechanisms, as well as ensure our information is written in language that the public can easily understand.

The Wildlife Division has a diverse set of stakeholders interested in Michigan's wildlife resources. We have increased our public engagement efforts, especially during our planning processes, which requires that we effectively communicate with each of these diverse groups;

however this can be difficult and time consuming. Most Wildlife Division staff are presented with opportunities to communicate with stakeholders, some on a daily basis. Despite the regular availability of this opportunity for engagement, based on comments received during our strategic planning process, communication has been identified as a weak area for the Division. Continuing to not effectively communicate with our public could lead to mistrust of the Division's management strategies and decisions, and limit our ability to manage wildlife and their habitats. It is crucial to continue to foster positive relationships with our stakeholders and partners.

2. PURPOSE AND OBJECTIVES:

Ultimately, the goal of all technical guidance and outreach provided by the Wildlife Division is to improve our support for and efficiency in managing our public trust resource responsibilities. This goal for mammals and birds is addressed by the following objectives:

Objective 1. Technical guidance for land use and wildlife management

To provide technical guidance as needed to address concerns and requests from a variety of stakeholders on topics such as wildlife distribution, wildlife abundance, human-wildlife conflicts, habitat management, and land use as it relates to wildlife.

Objective 2. Communication and public engagement regarding wildlife issues

To enhance communications and engagement with the public regarding wildlife issues, including developing and implementing a public communications strategy, developing and distributing user-friendly information about wildlife management to the public, and revising and implementing methods to more effectively engage the public in planning and management efforts.

Objective 3. Establish and maintain collaborative partnerships in support of wildlife management

To develop and enhance partner and stakeholder coalitions to engage in mammal and bird management programs and planning efforts, and to coordinate volunteer programs with partners where appropriate.

3. RESULTS OR BENEFITS EXPECTED:

Technical guidance and coordination between MDNR, other organizations, the legislature, other public agencies, municipalities, and the public is essential to encourage management activities that will enhance populations through increased knowledge about wildlife and wildlife habitat needs. Collaboration among organizations will also leverage their resources and land base to accomplish Wildlife Division goals for wildlife conservation and restoration across an array of public and private lands. Close working relationships and collaboration with resource management partners promotes a positive image of Wildlife Division as an authority and an active steward of natural resources.

Technical guidance is an integral component of MDNR's approach to addressing mammal and bird species goals and objectives on lands we do not own or control for purposes of management. This interaction allows our biologists the opportunity to provide landowners with information on the best available management practices to facilitate success for habitat projects. Continuing to provide technical guidance on management of mammalian and avian species will cement the Wildlife Division's role as the public authority on wildlife management. Providing technical guidance to minimize and mitigate wildlife-human conflicts will also have a direct effect on public safety, for example, by minimizing car/deer accidents. Additionally, this guidance will help reduce wildlife effects on domestic and agricultural animals while reducing silvicultural, horticultural, and ornamental crop damage. The indirect benefit of being responsive to requests for technical guidance is continued support for Wildlife Division management programs for wildlife.

By fostering our relationships and better communicating with stakeholders and partners, we can have more opportunities to effectively manage and conserve wildlife populations for the people of Michigan. A better educated public can positively affect wildlife management by more fully understanding wildlife issues, better understanding management options, and providing more informed recommendations when participating in the Division's planning processes or as part of the public discussion at NRC meetings. These relationships will also allow the Wildlife Division to tap into energy and resources from other agencies, organizations, and people. By using volunteers for Wildlife Division activities, we will create advocates for these activities and for the conservation of Michigan's wildlife resources in general.

Finally, our citizens have a variety of values and attitudes related to how Michigan wildlife should be managed; therefore the management of people is a major component of wildlife management. By making our communications and engagement processes more effective, the Division can better foster a trusting relationship with stakeholders, resulting in less controversy and enabling the fulfillment of common goals for wildlife management and conservation.

4. APPROACH:

Although the Wildlife Division routinely provides technical guidance and maintains partnerships for the wide array of species that comprise Michigan's biodiversity, this project only supports guidance for which mammal and bird species are of primary concern.

Approach 1. Technical guidance for land use and wildlife management

This project statement supports activities necessary to provide responses to the public, municipalities, and legislators interested in receiving information on wildlife and habitat conservation and management. It will include the purchase and development of reference materials, products (reports, assessments, surveys, maps, etc.), publications, and mailings. No activities necessary to trap, translocate, kill or permit to trap, translocate, or kill wildlife causing conflicts are included in this project statement.

Wildlife Division staff respond to a variety of wildlife related requests for information from the public, private landowners, organizations, and other agencies. These requests include guidance on resolving human-wildlife conflicts, assistance in land use planning, information on wildlife

and habitat management methods and techniques, and assistance in managing wildlife on private lands. The Division maintains and develops information regarding the management of mammals and birds and their habitats. One example of these resources that has been developed is the comprehensive landowner's guide to wildlife management (Sargent and Carter 1999), which is available electronically through the internet (http://www.michigan.gov/dnr/0,1607,7-153-10370_12148---,00.html). This work may also include developing or participating in workshops or presentations.

The Wildlife Division maintains a webpage specifically for information on potential human-wildlife conflicts (for example see *Problem Wildlife* at http://www.michigan.gov/dnr/0,1607,7-153-10370_12145_25065---,00.html). In some cases, if the conflict is especially widespread or difficult to address, the Division may form working groups to develop policies and procedures along with specific materials to be used when providing technical guidance. These policies and procedures are communicated to staff and the public in order to increase efficiency in dealing with the issue. One example is the Nuisance Wildlife Workgroup and Canada Goose Program FAQs (see *Nuisance Geese* at http://www.michigan.gov/dnr/0,1607,7-153-10370_12145_25065-59467---,00.html). Other policies and procedures are reviewed periodically and will continue to be updated. Those updates will be communicated in a similar fashion.

Wildlife Division uses one-on-one interactions between biologists and private landowners and municipalities to inform or advise the landowner on wildlife management needs or concerns. Our biologists can advise private landowners on how to reach their wildlife and habitat goals, increase their understanding of wildlife needs, or provide guidance in how to participate in federal or state cost share programs such as the Conservation Reserve Enhancement Program, Environmental Quality Incentives Program, Partners for Fish and Wildlife Program, etc. Our staff may develop management plans for private landowners that include desired goals for the land and wildlife; financial investments past, present, and future; habitat types present; presence of threatened and endangered species; and specific management recommendations. All of these activities help fulfill Wildlife Division's goals for wildlife management across the state.

In no way does any information or publications covered under this project statement intend to support any of the following: 1) public relations for the purpose of promoting organizations or agencies; 2) activities for the primary purpose of producing revenue; 3) providing services or property of material value to individuals or groups for commercial purposes; 4) establishment, publication, and dissemination of regulations issued by a State pertaining to the protection and utilization of fish and wildlife resources; 5) activities designed to influence legislation.

Approach 2. Communication and public engagement regarding wildlife issues

The Wildlife Division has been developing an ongoing public communications strategy that will provide staff with communications training and tools. Information materials that are user-friendly will be developed to better educate the public about issues that affect wildlife in Michigan and the management that we conduct for wildlife. These materials may also include information about how the public can get involved with wildlife management and how they can help inform management decisions. Wildlife Division staff will continue to evaluate and revise public engagement methods to more effectively involve the public in our planning for wildlife conservation and management. We are increasingly using social networking to communicate

with stakeholders (e.g., Facebook, Twitter, YouTube), and have received especially positive feedback on our online communication videos.

Approach 3. Establish and maintain collaborative partnerships in support of wildlife management

Numerous external agencies and organizations maintain partnerships with the Wildlife Division and receive technical guidance and interaction from Wildlife Division staff for wildlife habitat management purposes that benefit mammals and birds. Some partnerships are with other agencies, such as when wildlife biologists review and provide input on permit applications for regulated wetlands activities through the Michigan Department of Environmental Quality and on transportation projects through Michigan Department of Transportation. Staff specialists also participate in initiatives with federal agencies such as the U.S. Department of Agriculture to develop legislation such as the Farm Bill that will be beneficial to Michigan wildlife.

Other examples of partnerships include participation in watershed planning meetings, development of NAWCA grant proposals, collaboration with local conservation districts and municipalities, cooperation with recreational interest groups, and assistance with U.S. Forest Service management and planning on National Forests in Michigan. Wildlife Division also collaborates with tribal governments on harvest management recommendations related to each party's management objectives for game species. Increasingly, the Wildlife Division is joining in partnerships with conservation groups to further our goals for management of wildlife populations and habitat. An example of this activity is the Pheasant Restoration Initiative. More information on this multi-partner initiative can be found online here:

http://www.michigan.gov/dnr/0,4570,7-153-10363_10958_10965-244775--,00.html.

5. USEFUL LIFE:

Not applicable.

6. GEOGRAPHIC LOCATION:

The activities supported by this grant will occur on public and private lands statewide. Much of the work described in this project statement involves information exchange and delivery originating from program specialists, administrative personnel, and communications staff located in Constitution Hall, part of the state office complex, in Lansing.

7. PRINCIPAL INVESTIGATORS:

Federal Aid Coordinator

Eric Sink
Federal Aid Coordinator
Finance and Operations Division
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Grant Coordinator

Christine Hanaburgh
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(517) 284-6187

Project Leaders

Jennifer Olson
Acting Private Lands Specialist
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Kelly Siciliano Carter
Public Outreach and Engagement Unit Leader
Wildlife Division
(517) 243-5632

8. PROGRAM INCOME:

No program income associated with objectives under this project statement is expected.

9. BUDGET NARRATIVE:

The estimates for total cost by objective provided below may include salaries and wages, contractual services, and expenses. Specific work activities to be completed and planned expenditures by direct cost category are detailed in Appendix A.

Objectives	FY 2016 estimated costs
1. Technical guidance for land use and wildlife management	\$213,482
2. Communication and public engagement regarding wildlife issues	\$1,752,337
3. Establish and maintain collaborative partnerships in support of wildlife management	\$489,383
Totals	\$2,455,202

10. MULTIPURPOSE PROJECTS:

Not applicable.

11. RELATIONSHIP WITH OTHER GRANTS:

The activities proposed in this project statement were contained in FBMS grant # F14AF01221, Habitat and Species Management with Technical Guidance (W-153-M-4), in FY 2015.

12. TIMELINE:

Technical guidance and collaborations occur year-round. However, there are times of year when requests for information and technical guidance increase, particularly spring when wildlife become more active and visible and fall when several hunting seasons coincide.

13. GENERAL:

Requested conditions:

1. MDNR requests that expenditures for this grant not be subject to the prior written approval requirements of 43 CFR 12.70(c)(1)(ii), the “10 percent rule.”

Regulatory compliance:

National Environmental Policy Act (NEPA)

The technical guidance activities supported by this project statement will not significantly affect the quality of the human environment. All activities are completely covered by categorical exclusions (c, e, f, i, and j) in 43 CFR 46.210 as follows:

43 CFR 46.210

(c) Routine financial transactions including such things as salaries and expenses, procurement contracts (in accordance with applicable procedures and Executive Orders for sustainable or green procurement), guarantees, financial assistance, income transfers, audits, fees, bonds, and royalties.

(e) Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.

(f) Routine and continuing government business, including such things as supervision, administration, operations, maintenance, renovations, and replacement activities having limited context and intensity (e.g., limited size and magnitude or short-term effects).

(i) Policies, directives, regulations, and guidelines that are of an administrative, financial, legal, technical, or procedural nature and whose environmental effects are too broad, speculative, or conjectural to lend themselves to meaningful analysis and will later be subject to the NEPA process, either collectively or case- by-case.

(j) Activities which are educational, informational, advisory, or consultative to other agencies, public and private entities, visitors, individuals, or the general public.

Section 7, Endangered Species Act (ESA)

The technical guidance activities supported by this project statement do not have the ability to affect any federally listed or candidate species. When assisting landowners by providing management recommendations and developing management plans, information about protection of federally listed or candidate species that may occur on or near their property will be provided. The landowners will be advised about avoiding any activities that could potentially affect listed or candidate species if they are known or suspected from the landowner’s property or area.

National Historic Preservation Act (NHPA)

The technical guidance activities supported under this project statement do not have the potential to affect any sites that are listed on or potentially eligible for listing on the National Register of Historic Places. Consequently, no consultation with the State and Tribal Historic Preservation Officers as part of a Section 106 process is necessary nor will be completed.

Other Federal Compliance Issues

The activities necessary to accomplish the objectives supported by this project statement do not involve any other federal compliance issue. When conducting these activities, MDNR will comply with all applicable Federal laws, regulations and policies including but not limited to Coastal Zone Management Act of 1972, Executive Order 11988 Floodplain Management, 11990 Protection of Wetlands, 13112 Invasive Species, Animal Welfare Act of 1985 and Coastal Barriers Resources Act of 1982.