

**Conservation Plan for the Eastern Massasauga
(*Sistrurus catenatus catenatus*) inhabiting areas along FAS 1531
(Cisco-Monticello Road) in Piatt County**

1. Description of the impact likely to result from the proposed taking

A. Legal description of the project area

This project is located at 3rd Principal Meridian, Township 18 North, Range 4 East, Sections 13 and 17 and Township 18 North, Range 5 East, Section 15. The project consists of replacing 2 culverts and 1 bridge on FAS 1531 (Cisco-Monticello Road) at Wolf Run Creek (Structure Number 074-0017), at a stream 3.5 miles East of Cisco (Structure Number 074-0049) and at Wildcat Creek (Structure Number 074-0018) in Piatt County.

B. Biological Data

Eastern Massasauga Biological Data

The eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) is an Illinois endangered species. The eastern massasauga is a small, thick-bodied rattlesnake. Its back is light grey to light brown, with dark dorsal blotches down the center and rows of small spots to either side. These spots join together to form stripes on the head and rings on the tail. Its belly is dark and irregularly marked with lighter spots. Specific features, which identify it as a poisonous snake, are its triangular head, elliptical eyes and rattle segments at the end of the tail. Juvenile massasaugas look similar to adults, with the exception of a green or yellow tip to the tail. The massasauga is also referred to as the swamp rattler.

C. Habitat description of activities that will result in take.

The Eastern Massasauga inhabits old fields, savannas, floodplain forest, marshland and bogs. They are attracted to the prairie to feast on the small rodents found there, particularly the prairie vole. Eastern massasaugas shift their habitat with the seasons. They inhabit low-lying areas from October through May for hibernation. During the rest of the year, they utilize a variety of habitat types for foraging. These habitats are dominated by sedges or grasses and have at least a partially open tree and shrub canopy, which offers excellent areas for basking.

D. Explanation of the anticipated adverse effects on the listed species.

Work activities along this section of roadway could be a potential incidental taking of the eastern massasauga. Earth excavation and fill could result in snakes being buried or crushed. The exact number of snakes inhabiting the existing right of way is unknown; although Illinois Natural History Survey personnel have detected 18 live, individual snakes along the pathway corridor.

2. **Measures the applicant will take to minimize and mitigate that impact**

A. Plans to minimize the area affected by the proposed action, the number of individuals of an endangered or threatened species that will be taken, and the amount of habitat affected.

The amount of excavation and fill within the right of way will be kept to a minimum, but in quantities necessary to meet design standards. The number of individual eastern massasauga snakes that will be taken is undetermined. The amount of habitat affected is estimated to be 1.0 acres, comprised of various amounts at each of the three structures.

B. Plans for management of the area affected by the proposed action that will allow continued use of the area by the species.

The respective right of ways will be reseeded. IDOT personnel will notify INHS of proposed mowing timeframes and the mowing will occur infrequently in an effort to minimize mowing mortality. The grass heights of these areas will not be cut below six inches to further reduce mortality.

C. Description of all measures to be implemented to minimize or mitigate the effects of the proposed action on the endangered or threatened species.

At least one day, but no more than 10 days before construction begins, there will be a walk through inspection of the entire jobsite by personnel trained in snake surveys to determine if any snakes are present. Any snakes found will be relocated by qualified personnel to areas beyond the project boundaries.

Construction activity will be limited to the existing right-of-way. These areas are shown on the plans, and the contractor will be required to stay within these limits. Areas directly affected by construction activities will be delineated with a temporary erosion control system or similar barrier. Project Foreman, Resident Engineer/Technician, equipment operators, truck drivers and all other workers will be given instructions on snake identification and will be required to report any and all sightings of massasaugas. They will be instructed to avoid intentional killing of any snakes and to report any accidental fatalities. All disturbed areas will be reseeded. The cost of seeding is included in the project cost.

D. Plans for monitoring the effects of the measures implemented.

From 2004 to 2007, INHS has conducted studies to determine the distribution and habitat of this snake within the project area. Identification tags have been injected into several of the species found within the roadway corridor. INHS continues to monitor the activity of the species.

E. Projected cost of each measure that will minimize or mitigate the effects of proposed action on endangered or threatened species.

The estimated cost of the project alternative is \$1,003,000 dollars.

F. Adaptive management practices that will be used to deal with changed or unforeseen circumstances that affect the effectiveness of measures instituted to minimize or mitigate the effects of the proposed action on endangered or threatened species.

Due to the nature of the project, IDOT does not anticipate any changed or unforeseen circumstances. The bridge and culvert replacements will be completed and no additional work will be necessary afterward.

G. Verification that funding to support mitigation activities will be available for the life of conservation plan.

The Illinois Department of Transportation has contractual obligation with the Illinois Natural History Survey.

3. Alternative actions that would not result in the take

The only alternative that would not result in the take of the eastern massasauga is the “do nothing” alternative, which means that the bridge and culverts would not be replaced. This alternative is unacceptable because in its current condition, this bridge and culverts endanger the traveling public and does not fulfill the purpose and need of the project.

4. Data and information to assure that the proposed taking will not reduce the likelihood of the survival of the species.

The impact to the species should be minor. A walk through to locate any snakes in the project area will occur shortly before construction activities begin. INHS continues to monitor the activity and movement of the species. Personnel on the project will be instructed in identification of the snake and measures to take if a snake is spotted in the construction area.

5. An implementing agreement, which shall include, but not be limited to:

A. Names of all participants in the execution of the conservation plan, including public bodies, corporations, organizations, and private individuals.

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Janel Veile
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Illinois Department of Transportation

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B. The obligations and responsibilities of each of the identified participants with schedules and deadlines for completion of activities in the conversation plan and a schedule for preparation of progress report to be provided to the Department.

The Illinois Department of Natural Resources is responsible for the review of this Conservation Plan and for subsequent issuance of the Incidental Take Authorization.

The Illinois Natural History Survey continues its duties of surveying for threatened and endangered species.

The Illinois Department of Transportation is responsible for all biological clearance coordination and recommendations related to the project and for addressing those items listed under the Incidental Take Notice.

C. Assurances that each participant in the execution of the conservation plan has the legal authority to carry out their respective obligations and responsibilities under the conservation plan.

This project is authorized by the Illinois Department of Transportation, which receives funding from Illinois General Assembly and the Federal government in carrying out its programs.

D. Assurances of compliance with all other federal, state, and local regulations pertinent to the proposed action and to execution of the conservation plans.

The Illinois Department of Transportation exclusively abides by the National Environmental Policy Act and all associated state and federal environmental laws in carrying out its mission of performing the most environmentally sensitive methods of transportation planning and engineering.

E. Copies of any federal authorizations for taking already issues to the applicant.

Not applicable since the eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) is not federally threatened or endangered.

F. For projects that will result in the taking of endangered or threatened species of plants, copies of expressed written permission of the landowner.

Not applicable since the eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) is considered a reptile under the Illinois Endangered Species Act (ILCS 10/2).