

**Conservation Plan
for the Illinois-endangered Marsh Rice Rat (*Oryzomys palustris*)
for the FAS 903 & FAU 9588 (Herrin to Johnston City Rd.) highway project
in Williamson County, Illinois**

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

A. Legal Description of the project area

Located in the Herrin and Johnston City Quadrangles, Township 8 South, Range 2 East, Section 17, 18 and 19, 3rd Principal Meridian approximately just east of Herrin, Illinois. The project involves additional right-of-way to provide a roadway relocation for safety concerns through the “s” curve section of the roadway. See Attachment 1, Location Map.

B. Biological Data

According to the 1 October 2002 Memorandum from the Illinois Natural History Survey, the Marsh Rice Rat is semi-aquatic and occupies wetland habitats, including coastal marshes, swamps, freshwater marshes, and wet meadows. In southern Illinois Hofmann et al. trapped this species at sites (including roadside ditches) where standing water and emergent herbaceous vegetation were present. Rice rats also have been caught in bottomland forest and cypress swamps in southern Illinois. Rice rat nests woven from grass, sedges, and leaves are often suspended in vegetation above water, but may also be on the ground under dense cover or in burrows.

C. Description of Incidental Taking

The proposed improvement will consist of the roadway relocation with a new bridge structure. The new roadway will consist of grading and placing sub-base layers and the proposed surface, including shoulders. New roadside ditches will not be cut. Proposed work within the channel includes driving piles for new abutments, placement of riprap for scour protection, and incidental grading along the stream banks within the existing state right-of-way.

D. Anticipated Adverse Effects on the Listed Species

As shown on Attachment 2 (P. 6), seven rice rats were trapped near the tributary to Pond Creek. The primary threat to the Marsh Rice Rat in this area is habitat alteration. Habitat alteration can consist of siltation, stream channelization, debris, debris removal or substrate removal.

2. Measures to Minimize and Mitigate Impacts

A. Plans to minimize the affected area, the amount of individuals of the endangered species that will be taken and the habitat affected

Minimizing roadside slopes and placing guardrail through the area of the structure reduced the affected area.

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

Similar habitat surrounds the area of impact and consists of dense emergent vegetation, including phragmites. This will remain in place to induce natural regeneration upon completion of the project.

C. Description of measures to be implemented to minimize or mitigate the effects of the proposed action to the endangered species, plans for monitoring the effects of the measures implemented, and adaptive management practices that will be used to deal with changed or unforeseen circumstances that affect the effectiveness of the measures instituted.

As shown in Attachment 3, the existing roadway pavement and embankment will be removed to an elevation consistent with that of the existing wetland areas that provide habitat for the rice rat. The graded mitigation area will be seeded with a wetland seed mixture. Due to the presence of emergent vegetation (including phragmites), it is proposed that natural regeneration of the habitat will also occur.

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

The project estimated budget will include line items for implementation of BMP's included in the SWPPP, including seeding of all disturbed areas draining to the stream. Maintenance and repair of SWPPP items, and additional measures implemented during construction will be paid for by

change order or force account. By law, the erosion and sediment control measures will remain in place for the life of the project.

3. Analysis of Project Alternatives

There are three alternatives for this project and the reasoning why these alternatives are not being considered as a viable option.

A. Alternative 1: No build

Within the project limits over the past 15 years there have been 214 total crashes with 77 involving serious or permanent injury and 6 involving fatalities. The serious accidents have consistently occurred at a rate of just over five per year, with the most recent fatality occurring in 2011. The no build alternative did not address these issues and was therefore dismissed.

B. Alternative 2: Resurface existing alignment and provide wider shoulders.

The main deficiencies through the 's' curve include the small radius of the curves and the small tangent segment between them. The short tangent section does not provide sufficient length for policy superelevation transitions between the two curves, thereby causing the unsafe conditions. Also, the railroad crossing in the western-most curve is in a superelevated section of the roadway, causing discontinuity and safety issues. In addition, the intersection of Bandyville Road and Herrin Road is at an angle of intersection of 60 degrees and located in an area of inadequate sight distance. As a result, this intersection has been classified as a high accident location (HAL). By not addressing these roadway deficiencies, the safety of the motorists is not improved. Therefore, this alternative was dismissed.

C. Alternative 3: Relocate the 's' curve section.

By relocating the 's' curve through the center, it was possible to minimize impacts to the rice rat as well as avoiding several identified archaeological sites. In addition, this allowed the District to acquire the new additional right-of-way to compensate for wetland impacts and to provide habitat for the marsh rice rat. Therefore this chosen as the preferred alternative.

4. Data and information regarding survival of the species after the proposed take is complete.

Due to the impressive numbers of rice rats trapped in the area and the abundance of habitat throughout the immediate and surrounding area, the odds of survival of the rice rat is anticipated to be high. In addition, the mitigation of the area of disturbance will include habitat ideally suited for the rice rat and identical to that existing in surrounding areas.

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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B. The obligations and responsibilities of each of the identified participants with schedules and deadlines for completion of activities in the conservation 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 the subsequent issuance of the Incidental Take Authorization.

The Illinois Department of Transportation is responsible for all biological clearance coordination and recommendations related to the project. IDOT is also responsible for securing authorization for the incidental take; securing all permits, Section 404 and Office of Water Resources; inspection of the work and contractor compliance with the contract documents.

The activities in the conservation plan will be implemented concurrently with the contract for the highway work.

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.

IDOT is authorized by the Illinois Highway Code to carry out its duties of providing safe and efficient highways for Illinois citizens.

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

The Illinois Department of Transportation exclusively abides by the National Environment Policy Act and all associated federal and state environmental laws in carrying out their mission of performing the most environmentally sensitive methods of transportation planning and engineering. The Marsh Rice Rat is listed as endangered in Illinois and is covered by the Illinois Endangered Species Act of 1971 only. Therefore, compliance under the federal Endangered Species Act of 1973 is not required. No known local regulations are pertinent to this conservation plan.

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

Not applicable since the Marsh Rice Rat is not federally threatened or endangered.

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

Not applicable for the Marsh Rice Rat.

6. Attachments

1. Location Map
2. All information regarding the Marsh Rice Rat was taken from Illinois Natural History Survey Memorandum dated October 1, 2002 and prepared by:
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3. Proposed Mitigation Plan