

The Wildlife Crossing

A FWS newsletter to facilitate collaboration between the Michigan Ecological Services Field Office and Michigan's transportation agencies

New Tool for Pollinator Habitat Conservation

Pollinators play an essential role in the support of life on Earth. About 75% of all flowering plants, including agricultural species used for food, fiber, medicine, and fuel, rely on pollinators. However, many species of pollinating insects are facing significant declines due to pesticide use, habitat loss, climate change, and disease. If not reversed, declines can put the economic, agricultural, and environmental systems that humans, fish, and wildlife depend on at risk. However, there are opportunities to help combat these declines using our roadsides! Roadsides can provide habitat for all life stages of a wide variety of pollinators and may act as connective corridors to help pollinators move through landscapes and expand their range. National Academies has recently released [16 regional guides](#) on pollinator habitat conservation along roadways, including one for the [Great Lakes Region](#). The [guide](#) also contains helpful strategies for compliance with the Endangered Species Act (ESA) as it relates to imperiled pollinators. There are several ways transportation agencies can help protect imperiled pollinator species, and conservation activities may help prevent some species from being listed under the ESA. Examples of conservation measures to benefit pollinators include using native seed mixes, maintaining diverse plant communities, and minimizing mowing and pesticide use.

Wildlife Crossings Protect People and Animals

Where animals are attracted to roadways or need to cross for migration, hunting, foraging, or mating, collisions between wildlife and vehicles become a concern. Wildlife-vehicle collisions (WVC) not only affect wildlife, but vehicles are damaged and people can be injured or killed. Wildlife crossing structures and other mitigation measures, such as detection systems or reduced speeds, can help increase roadway safety, provide habitat connectivity, and decrease wildlife mortality. Although they can be costly, properly sited wildlife crossings can pay for themselves, especially in cases where the total economic costs associated with WVC exceed the expense of building a structure. In addition to reduced costs and improved safety, effective wildlife crossing structures can have ecological benefits by reducing mortality and barrier effects. To construct an effective wildlife crossing, it is important to design the crossing to appeal to your target species. Design considerations include path height and width, surface material, brightness, and surrounding habitat, among others. For example, a modified culvert can be used to help small mammals and amphibian species cross a road, while a large underpass may be needed to help species such as deer, elk, black bear, and coyote cross a road. Fencing has also been shown to increase the effectiveness of wildlife crossings and should be designed with the target species in mind. There are many resources to aid in designing effective wildlife crossing structures, including:

- [FHWA Wildlife Crossing Handbook](#)
- [US DOT Library on Wildlife Crossing Structures](#)
- [USFS report on Highway Crossing Structures](#)
- [Ontario BMPs for Mitigating Effects of Roads to Amphibians and Reptiles](#)
- [ARC FAQs on Wildlife Crossing](#)
- [UC Davis Wildlife Crossing Calculator](#)
- [FHWA Wildlife-Vehicle Collision Reduction Study](#)
- [ARC toolkit for Communicating Co-Benefits of Wildlife Crossings](#)

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Improvements to the All-Species Michigan Determination Key

We are always working to improve the Michigan Dkey to increase efficiency, improve the user experience, and reflect the best scientific data available. Currently, IPaC allows users to use older, potentially outdated, versions of the Michigan Dkey if a project was first evaluated under that version. While staff are currently trying to address this bug, we would recommend projects reevaluating existing projects under the Michigan Dkey follow these steps to make sure they are using the most current version of the key. First, login to IPaC and go to your project home page. From there, select “Resume Review”, then “Evaluate Determination Keys” Under the completed Dkey, select “View/Modify”. You should then scroll to the bottom of the screen and select “Delete Evaluation”. From this point, you will be able to select the most recent version of the Michigan Dkey to reevaluate your project. If you have any questions, please email mifo_dkey@fws.gov.

Wildlife Crossings Pilot Program

The Wildlife Crossings Pilot Program is a competitive grant program with the goal of reducing WVC while improving habitat connectivity for terrestrial and aquatic species. The program recently released its first Notice of Funding Opportunity. FHWA anticipates awarding between 15-50 grants with anticipated awards ranging from \$200,000 to \$20 million each this year. While the NOFO is closed for this year, it provides information for planning applications for future awards. Both state and local transportation organizations are eligible to apply. A wide range of projects can seek funding under this program, including: design and pre-construction, construction of an underpass and fencing, adaptation of an existing structure to accommodate connectivity, preservation or restoration of habitat to secure crossing effectiveness, research on reducing WVC, development of mapping tools, tracking wildlife, and outreach activities to educate the public on the hazards of WVC. Examining long-term planning documents can help identify upcoming projects that may benefit from this funding. Awardees are required to match at least 20% of the total project costs, while the Federal share is typically 80% of total project costs. If you are interested in learning more about the program, please review the [NOFO](#) and [program website](#). You can also learn about other funding opportunities for wildlife crossings in this [snapshot guide](#).



Roadkill Observation and Data System (ROaDS)

FWS and NPS have partnered with the Western Transportation Institute to develop a WVC data collection system. This system works with the Survey123 app to collect information on large animal vehicle crashes and carcass data for smaller animals. This tool is meant to improve motorist safety by identifying road segments where counter measures may help reduce WVC, as well as collect data that can help quantify the cost of WVC. Other transportation agencies, such as [Vermont DOT](#), have already begun using the app. The survey is easy to use and can be viewed and analyzed in Arc Maps online. It is designed to be adapted for use by anyone who has access to an ESRI ArcGIS account. Any data collected by an organization remains the property of that organization, although the app offers the option for data sharing through interagency partnerships. If you are interested in using this system to collect WVC data or getting more information, contact Matthew Bell of the Western Transportation Institute at matthew.bell8@montana.edu or 406-994-6126.