

MDOT Local Agency Program Threatened and Endangered Species

NEPA REVIEW

Table of Contents

Work Types.....	2
Effects Determination.....	3
Local Agency T&E Flowcharts	
Federally Listed Species	4-5
State Listed Species	6
Exempt Work Types.....	7-11
Common Road Affected Species	12-13
Frequently Asked Questions	14-15
T&E Specific Special Provisions	16
Resource Links for T&E NEPA Review.....	17

THREATENED AND ENDANGERED SPECIES (T&E)

Work Types: Some work types are exempt from detailed T&E review when they have no risk of impacting environmental resources. These work types are outlined in this document. In general, exempt work types are projects limited to work from gravel shoulder to gravel shoulder (this differs from the Section 106 exempt work types).

If the project is exempt from detailed T&E species review based on work type, 1) submit only the official federal T&E species list found at the U.S. Fish & Wildlife Services Information for Planning and Consultation (IPaC) website and 2) complete the T&E table in the 5323 form including supporting information why this project will not have an impact to each species (i.e., no tree removals or no work outside existing curb).

All Other Work Types: Obtain a federal and state list of species found in your project area by following the online guidance through an IPaC (federal) review and a state species review through either EGLE - MiEnviro or MNFI. Fill out the T&E table in the 5323 form with all species from the online reviews and how the project will impact them, expected conservation measures and sources of support. Use the process outlined in the flowcharts of this document and refer to the information below when making your effect determinations.

RESOURCE LINKS

- [USFWS IPaC Planning Tool](#)
(federally listed T&E species list)
- [MiEnviro Portal](#) (state listed T&E species list)
- [MI Natural Features Inventory](#)
(MNFI- state listed T&E species list)
- [NEPA & FHWA](#)
- [NEPA Training Webinar](#)

Effects Determination: Your agency must make an effect determination for each of the species and critical habitat listed. If the online reviews list a determination, the T&E table should match that determination with the supporting rationale.

For federally listed species, you must make one of the following three determinations for each species:

1. No Effect (NE)

Appropriate when species or critical habitat will not be exposed to the action and its environmental consequences. Species list and consistency letter generated by the IPaC review process after using the determination key required for documentation.

2. May Affect, Not Likely to Adversely Affect (NLAA)

Appropriate when a species or critical habitat might be exposed to the action, and the effects of that action are entirely beneficial, insignificant, or discountable. Species list and verification/concurrency letter generated by the IPaC review process after using the determination key required for documentation.

3. May Affect

Appropriate conclusion if species or critical habitat are likely to be exposed to the action or its environmental consequences and will respond in a negatively. A May Affect determination requires further section 7 consultation. [USFWS Section 7](#)

For state listed species you must state whether the project will have:

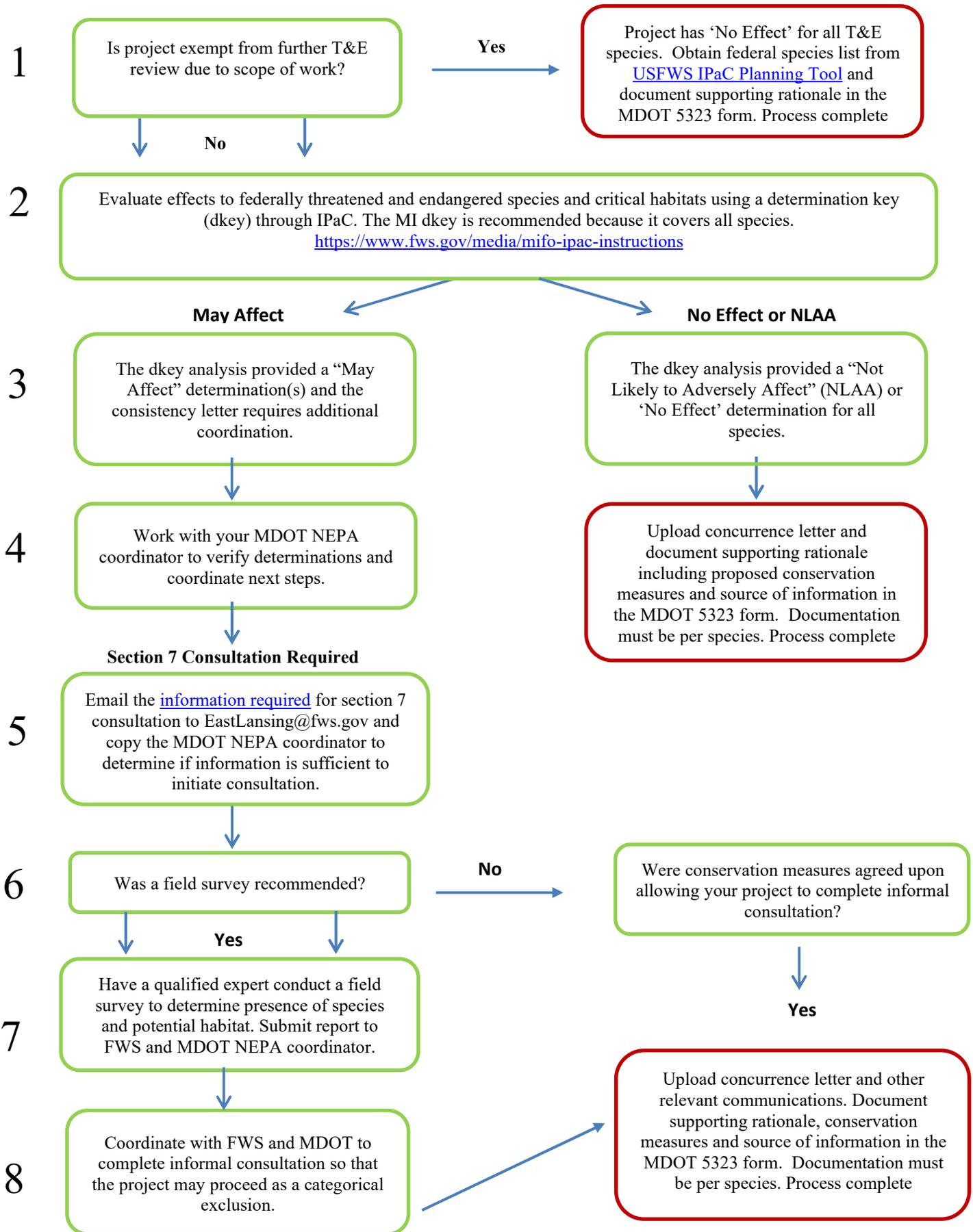
1. Take

Use when you suspect or know the species is present but cannot avoid negative impact, even if unintended. Take is defined as harassed, harmed, pursued, hunted, shot, wounded, killed, trapped, captured, collected, picked, cut, dug up, or destroyed. A Take determination requires further consultation with DNR and permitting based on action.

2. No Take

Use when the species is known to be absent in the project area by survey, the scope of work will not expose the species to any consequences of the action or interaction can be completely avoided through conservation measures.

FEDERAL T&E PROCESS FOR LOCAL AGENCIES THROUGH MDOT



* This process is for **categorical exclusion** and **informal** consultation only.

Name of D Key available in MI	Species covered	Types of projects that the key covers	Types of projects that do not qualify
All Species Michigan Determination Key	All species in MI	Routine, small-scale projects in some areas of Michigan may be able to get concurrence if applicants agree to certain conservation measures for some species	Wind energy development, purposeful take, communication towers over 200 ft. tall, aerial or other broad application of chemicals
FHWA, FRA, FTA Programmatic Consultation for Transportation Projects	Indiana bat and northern long-eared bat (NLEB)	Federal transportation projects with potential effects to listed bats. Note that this key does not cover other Federally listed species that may be affected by project activities. Therefore, additional consultation or coordination may be necessary for other species.	Projects other than federally funded or authorized transportation projects

FORMAL CONSULTATION

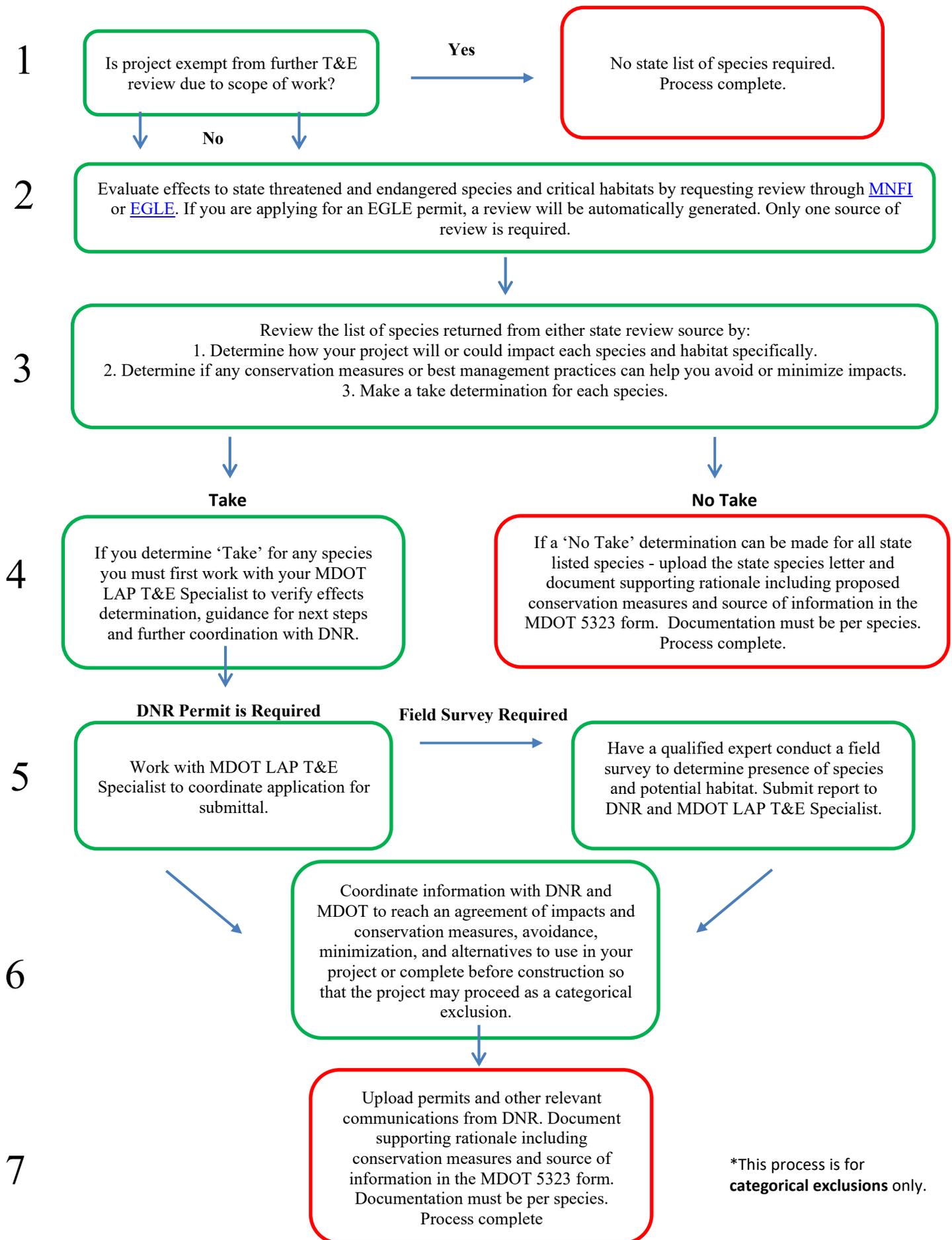
Adverse Effects

Formal consultation with USFWS is an option for local projects. If your project is found to have an adverse effect, the project may continue, but will require more planning and interagency coordination between USFWS, MDOT and FHWA. A project with an adverse effect is not usually a categorical exclusion and typically results in a [Biological Assessment](#) under formal consultation.

A Biological Assessment addresses the effects the proposed action will have on federally listed species and critical habitat. Not to be confused with an [Environmental Assessment](#) through NEPA which is designed to provide an analysis of multiple possible alternative actions on a variety of environmental, cultural, and social resources.

If a project is anticipated to have an adverse effect on a species, first coordinate with the NEPA Coordinator and T&E specialist at MDOT in the LAP section.

STATE T&E PROCESS FOR LOCAL AGENCIES THROUGH MDOT



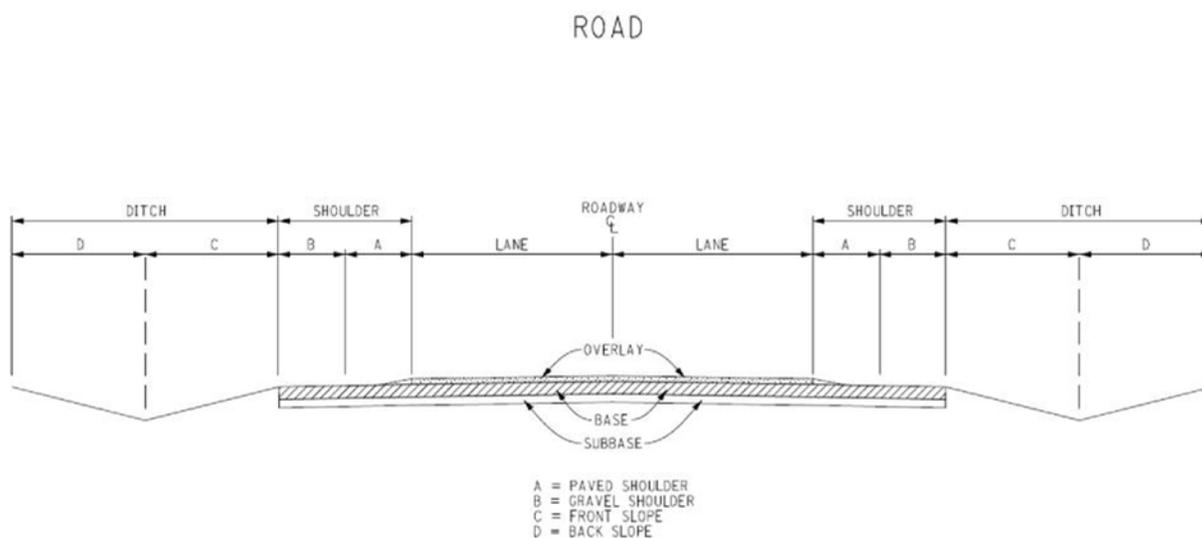
*This process is for **categorical exclusions** only.

Work Types Exempt from Further T&E Review

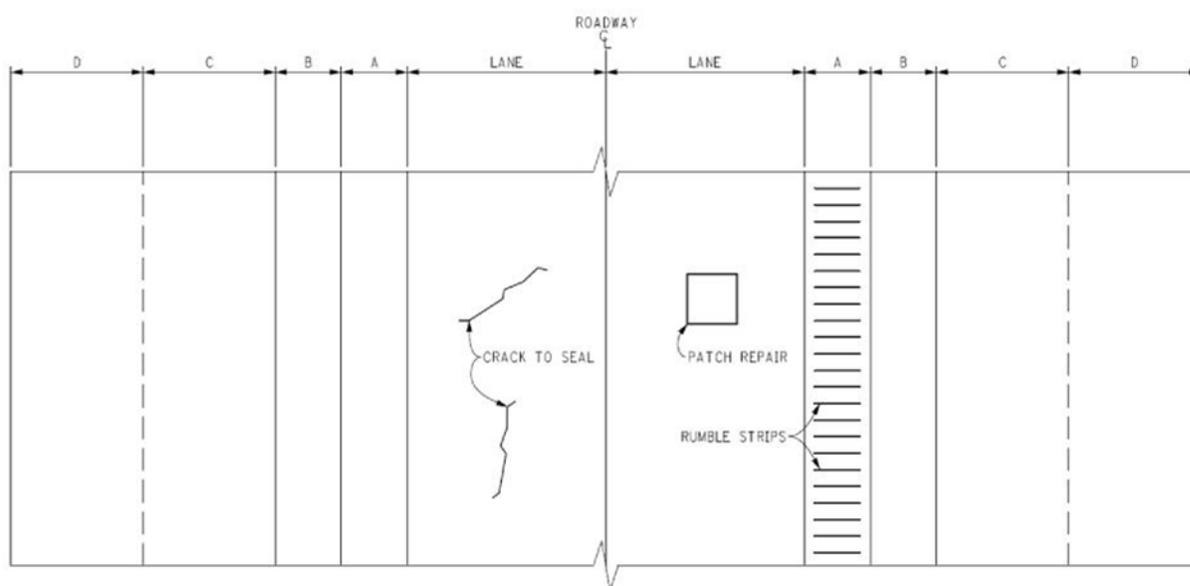
The following work types will have no effect on state or federally listed threatened or endangered species.

These projects are exempt from further review because they occur between existing shoulders or represent in-kind replacement of existing infrastructure with no impacts to the natural environment and therefore there would be no effect to any listed species. In addition, no equipment, vehicles, staging, spoil piles or other project related activities will occur outside the existing road shoulders.

If a project combines work types and not all are listed, then you can NOT exempt the project at this stage and further analysis is required.



ELEVATION VIEW



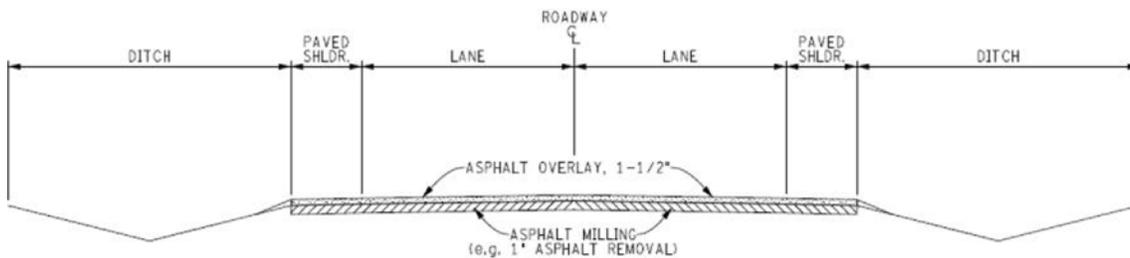
PLAN VIEW

Shoulder Work (does not include any widening)

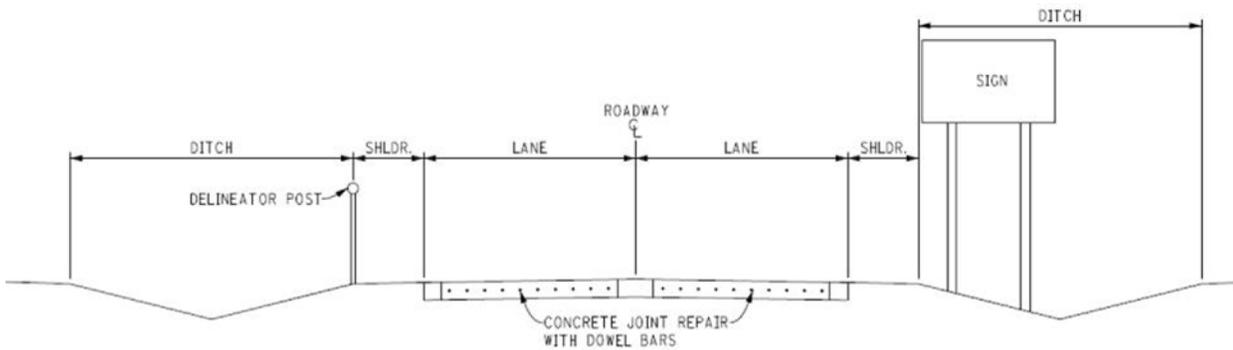
Aggregate base and shoulder material (sand or gravel) placed or regraded
Shoulder trenching - trench excavated (material is not wasted outside the shoulders) and new material placed/compacted in trench

Asphalt/HMA Work (shoulder to shoulder)

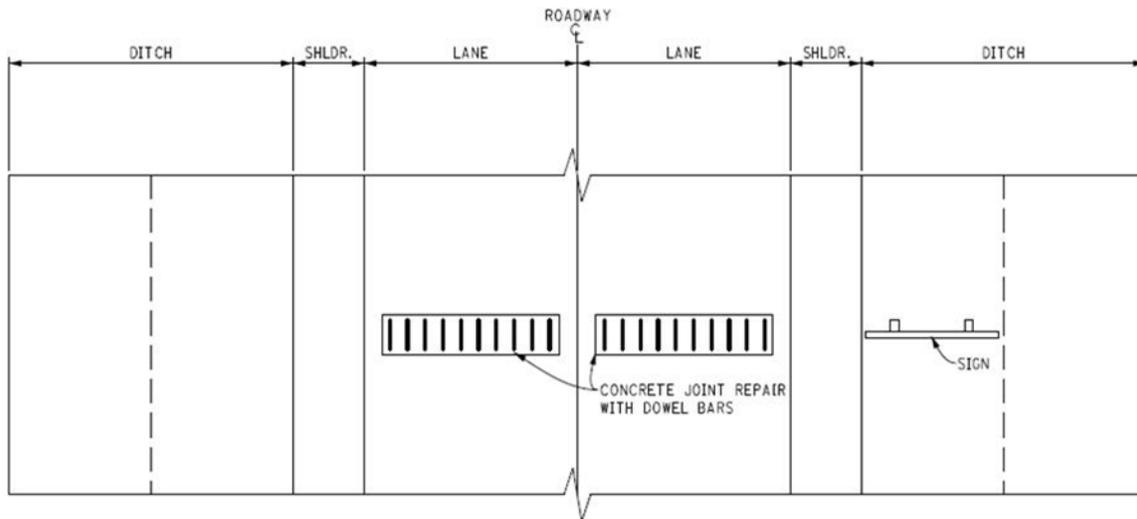
Asphalt shoulders (no widening) – paving shoulders with an asphalt/aggregate mix
Asphalt crack treatment/filling – filling cracks in existing asphalt pavement
Asphalt chipseal with pulverized stone (single or double course) – liquid asphalt base sprayed, aggregate spread on top, rolled and swept – material is not wasted outside of the shoulders
Asphalt resurfacing (slurry, micro or multi course) - paving over top of an existing pavement with asphalt/aggregate mix
Asphalt overlay (single, multi course, unbonded or ultra-thin) paving over top of an existing pavement with asphalt/aggregate mix
Asphalt overlay on composite pavement - paving over top of an existing pavement with asphalt/aggregate mix
Asphalt milling, pulverize, regrade and repave - milling off existing pavement (material is not wasted outside of shoulders), regrading, compacting and paving over top with an asphalt/aggregate mix



* DIAMOND GRINDING OF CONCRETE SIMILAR



CONCRETE ROAD - ELEVATION VIEW

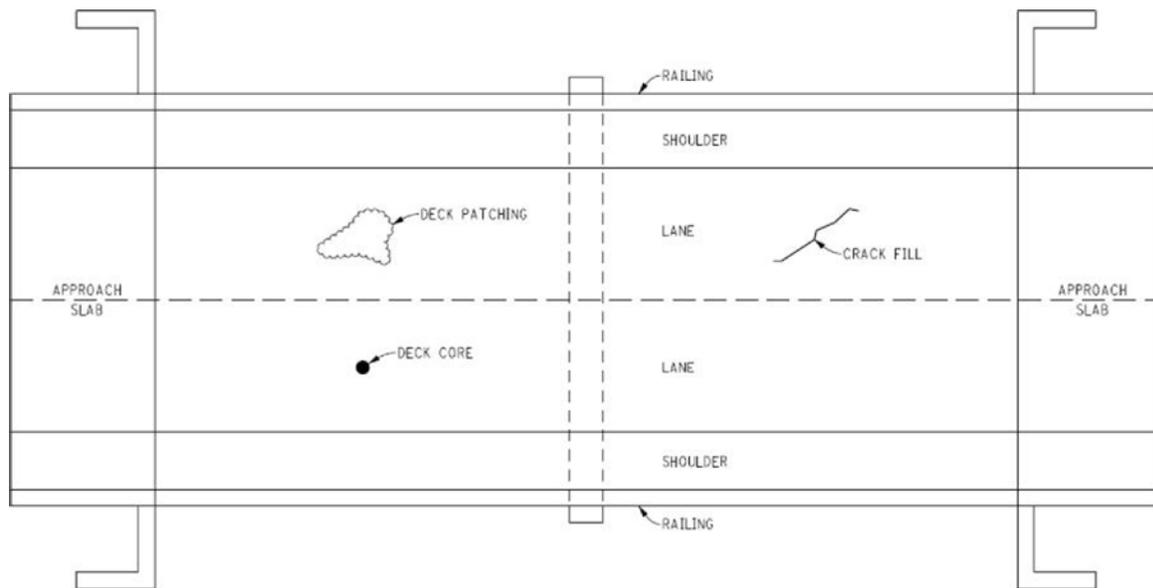


CONCRETE ROAD - PLAN VIEW

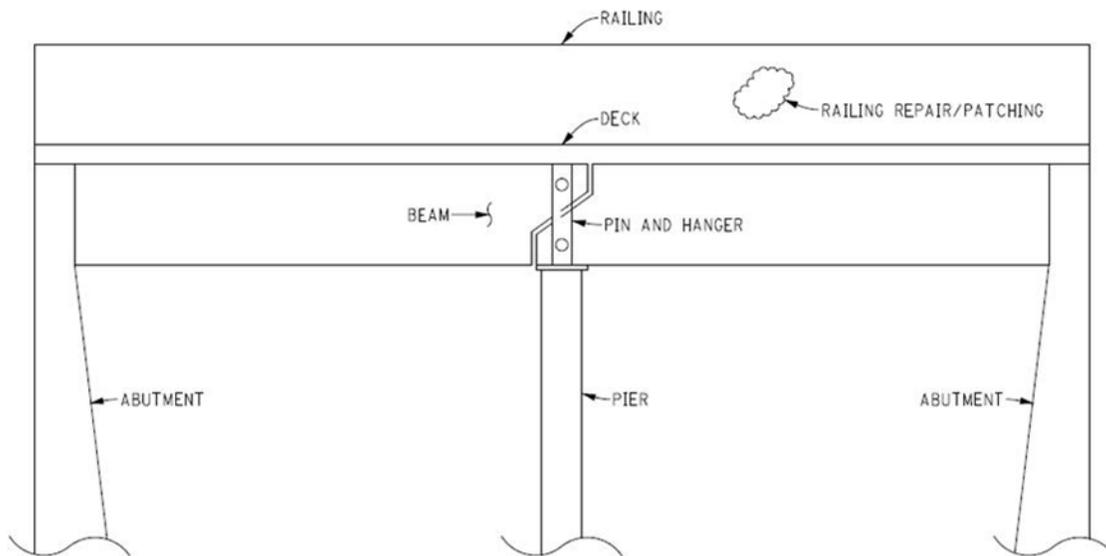
Concrete Work (shoulder to shoulder)

- Concrete shoulders (no widening) – forming and pouring concrete shoulders
- Concrete joint reseal, spall repair, crack seal – saw cutting out bad joints/areas and re-pouring concrete or filling cracks with liquid asphalt mix
- Concrete pavement inlay or overlay - forming and pouring new concrete
- Concrete pavement repair or restoration - saw cutting/removing bad areas and re-pouring concrete
- Concrete pavement rubble-ize, regrade and repave – existing concrete is crushed, may be mixed with new aggregate, regraded and new pavement placed on top
- Diamond grinding on concrete pavement - grinding to restore original profile or increase traction
- Dowel bar retrofit - cuts made into existing concrete across faulted joints, dowel bars are inserted and covered with epoxy
- Concrete patch repair or full depth repair, no widening - saw cutting out bad joints/areas and re-pouring concrete or filling cracks with liquid asphalt mix
- Sidewalk replacement – remove and replace existing sidewalk, in kind
- Sidewalk ramp replacement – remove and replace existing sidewalk ramp, in kind

BRIDGE



PLAN VIEW



ELEVATION VIEW

Bridge Work

Approach work confined to within existing shoulders (pavement work between shoulders)
Deck repairs (i.e. crack fill, overlays, patching, resurfacing, etc...) – maintenance type work to bridge deck only

Deck cores – coring and re-pouring concrete on bridge deck

Railing repairs and some replacement (not extensions)

Miscellaneous Work

Curb and gutter at intersections (replacement, not new)

Pavement markings

Fog seals

High Friction Surface or other surface seals - liquid base applied (may be sprayed), aggregate spread on top, rolled and swept

Rumble strips – ground in (material is not wasted outside the shoulders)

Underdrain clean out

Signing (including delineators) – post holes are augered (possible poured foundation) or directly driven (operations are to be completed from roadway and/or shoulder only)

Signal installation or maintenance - no earth disturbance, mowing, or vegetation removal

Lighting installation or maintenance - no earth disturbance, mowing, or vegetation removal

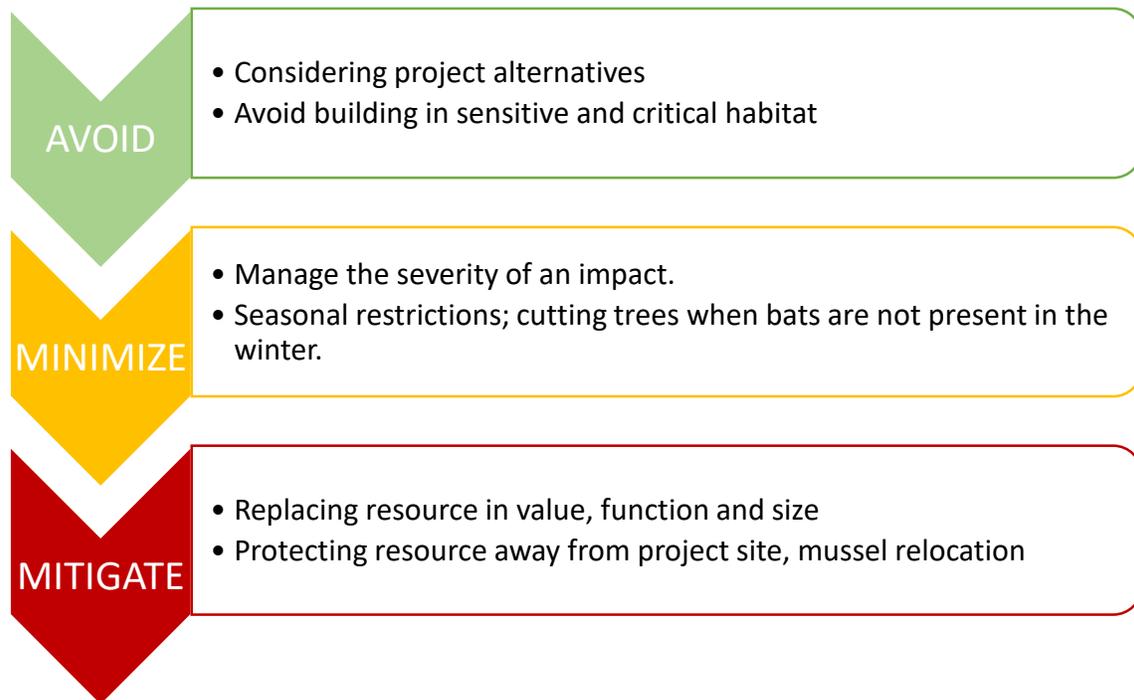
Maintenance of existing dynamic message boards and weather stations - no earth disturbance, mowing, or vegetation removal

T&E Species Commonly Found in Transportation Corridors and Examples of Conservation Measures

In 2023 Michigan identified 407 threatened and endangered plants and animals. Many which can be found along the roadside or under bridges.

PROCESS

When T&E species are found in a projects area of impact there is a process to find the best solution for coexistence (legal compliance) between that resource and the project. The first step in this process is *avoidance*, followed by *minimization* and only when those options are exhausted is *mitigation* considered.



*Mitigation for local agencies is always negotiated and developed with the regulatory agencies and MDOT on an individual project basis. The following are examples only.

Plants

Did you know MDOT has a [Roadside Vegetation Management Manual](#)? The side of the road is great habitat for T&E plant life due to the low level of disturbance and vast connection of vegetative strips. These areas can provide rich plant and wildflower habitat that supports, birds, pollinators, mammals and much more.

AVOID – ‘Environmental Sensitive Areas’ are fenced off indicating a no disturbance zone during project.

MINIMIZE – Completing your project in the fall after a plant has already gone to seed and died back.

MITIGATION – Relocation or planting of individual plant species to undisturbed areas.

Bats

Bats are commonly found in trees, under bridges and even in some large culverts. T&E species of bats in Michigan hibernate in groups during the winter in what is known as a hibernaculum.

AVOID – Do not cut or trim trees that are potential habitat or within 500 feet of a known hibernaculum.

MINIMIZE – Remove trees in the bats inactive season (winter).

MITIGATION – Replace structure or create new structure for seasonal roosting site.

Snakes & Turtles

Roads often split habitat that is suitable to reptiles who prefer to be on the boundaries of water sources like ditches, ponds, and wetlands. The road surface also offers the perfect substrate for thermoregulation and is not always proven to be a barrier to reptile movement.

AVOID – Change design to avoid waterbodies and keep original water flow.

MINIMIZE – Use wildlife friendly erosion control, chemical free fertilizers and exclusion fencing while working.

MITIGATION – Relocate animals or create habitat.

Mussels

Michigan supports globally significant populations for several freshwater mussel species that are federally, or state listed as threatened or endangered. Mussels are an important part of Michigan’s aquatic ecosystems and are negatively impacted by dredging, structures that inhibit water flow, block fish migration or actions that allow native riparian barriers to disappear and accelerate sedimentation and pollutants into waterways.

AVOID – Change design to avoid changes in water flow.

MINIMIZE – Use BMP’s for sedimentation, minimize stream bed and bank disturbance.

MITIGATION – Relocate mussels to suitable habitat and restoration of damaged riparian habitat.

FREQUENTLY ASKED QUESTIONS

Q: When do you need a state T&E species list?

A: You need a state T&E species list if your project is not exempt from further review. A state species list is not required for exempt projects. If you are applying for an EGLE permit, a T&E species review will be done as a part of that process, and you do not need to request a separate letter. An MNFI report is always accepted for state species and in lieu of a list from EGLE when a permit is not required. A federal species list from IPaC is always required even if the project is exempt.

Q: If my project is not located in any critical habitat areas for any of the listed species, can I make a no effect determination?

A: No, if your project has suitable habitat, then a listed species could be present, and you need to address that in your 5323 form. Critical habitat is the specific geographic area a species occupies at the time it was listed under the Endangered Species Act (ESA) and contains the physical or biological features essential to the conservation of that species. Critical habitat may need special management or protection. However, species can and do live outside of the designated critical habitat areas. When you are addressing the T&E species in your project's action area, you should consider if there is suitable habitat, or places a species could live, not just the critical habitat.

Q: What determination key should I use in IPaC?

A: MDOT recommends using the Michigan Determination Key because it evaluates all federally listed species.

Q: What do I do if I get a "May Affect" determination on the determination key?

A: Contact the MDOT NEPA coordinator for further coordination. You will need to take measures to avoid, minimize, or mitigate to eliminate or reduce the project's impact to the species.

Q. When are surveys recommended or required?

A: Surveys are recommended when it is uncertain if the species is present. A May Affect determination could change to a NLAA determination if the AOI is surveyed and no individual species or suitable habitat is found. Surveys are required when a species must be relocated and are commonly stipulations of collectors and take permits from the DNR with reporting requirements.

Q: When should Eastern Massasauga Rattlesnake (EMR) best management practices (BMPs) be implemented?

A: All of Michigan is considered "within known range" for the EMR so every project should use any applicable BMPs and include the MDOT Frequently Used Special Provision **Eastern Massasauga Rattlesnake - [20SP-107F-01](#)**

Q: When should Wildlife Friendly Erosion Control be used?

A: It is required anytime your T&E federal, or state species review has any species of snake or turtle listed. Although best environmental protection practices recommend it to be the only type of erosion control used. [Make the Change to Wildlife Friendly Erosion Control Products!](#)

Q: When should the Tree Cutting Special Provision be included in the final plans?

A: Anytime you are cutting or removing trees. Vegetation best management practices should always be used when altering any type of vegetation or planning landscape.

Q: What is the difference between an IPAC concurrence and letter, a consistency letter, and a verification letter?

A: These are all letters generated after completing an IPaC determination key. A consistency letter shows you have met the consultation requirements under the Endangered Species Act and there was either no effect or there is no federal funding in the project. A verification letter is what you receive if there are NLAA determinations for some or all the species listed in your project area. This letter states that there is a 30-day verification period for your project. During this time, USFWS will review your project description and the answers you provided in your determination key. If you do not hear from USFWS within the 30-day waiting period, the verification letter becomes a concurrence letter. If your letter states that you may affect a listed species, then you will need further consultation.

Q: When is a bat bridge survey required?

A: If the project requires work under a bridge or at bridge joints, or when a bridge will be removed or replaced, a bat survey is required. Bat surveys are good for two years and do not need to be completed by a biologist, just someone who is able to do a thorough inspection of the bridge, following the USFWS guidance. Use the form and guidance found in the links section of this document.

Q: When should the Biological Assessment Template be used?

A: This is a template created by USFWS to help projects prepare for section 7 Formal Consultation and preparation of a Biological Assessment, not to be confused with a NEPA Environmental Assessment (see federal T&E LAP process flowchart). Please contact your MDOT NEPA Coordinator if you are unsure if the template should be used for your project. This template should not be used if you already have a concurrence letter through the Michigan All Species Determination Key with No Effect or NLAA determinations for all species.

Q: What is the Monarch Butterfly CCAA?

A: The U.S. Fish and Wildlife Service has approved a programmatic candidate conservation agreement with assurances (CCAA) for the monarch butterfly that is specific to energy and transportation rights-of-way lands. Partners who enroll in the agreement through a certificate of inclusion will create, enhance, and maintain habitat for monarch butterflies, as well as continue their general operations, vegetation management and maintenance and modernization activities within existing rights-of-way. An enhancement of survival permit authorizes incidental take of monarch butterflies that may result from those activities within rights-of-way on enrolled lands if the monarch butterfly becomes protected under the federal Endangered Species Act (ESA).

[FAQ:CCAA](#)

Special Provisions Used in Local Agency Projects For T&E

1. **Eastern Massasauga Rattlesnake - [20SP-107F-01](#)**
 - USE: In all local agency projects except for projects for the Road Commission for Oakland County (RCOC) where it will be optional.
 - PAY ITEM: None required
 - TYPE: FUSP, confirmed by specs & estimates review
2. **Slope Restoration, Non Freeway – [20TM816\(A385\)](#)**
 - USE: When EMR, wetland habitat or other sensitive species are present.
 - PAY ITEM: Must coordinate with an acceptable wildlife friendly erosion type that is achieved through types A, E, F or G of this SP. Types B, C, D are not acceptable.
 - TYPE: Template – confirmed by LAP
3. **Tree Removal and Vegetation Clearing – [20TM202-A395-02](#)**
 - USE: Whenever there is expected or known tree removals greater than 3” in diameter.
 - PAY ITEM: Tree removal quantity (not required but recommended - tree replacement quantity).
 - TYPE: Template – dates entered by NEPA staff
4. **Migratory Bird Protection – [20SP-107B-01](#)**
 - USE: Use in bridge projects over water where the bottom of the structure is at least 3 feet above the water surface and other bridges where inspection determines it is needed.
 - PAY ITEM: None required; can include pay item for bird deterrent when mandated for specific projects.
 - TYPE: FUSP – confirmed by LAP
5. **Environmental Sensitive Area - [20SP-107G-01](#)**
 - USE: When sensitive natural or cultural resources in a project area must be avoided.
 - PAY ITEM: “Fence, Protective” in accordance with subsection 808.04 of the MDOT Standard Specifications for Construction.
 - TYPE: FUSP – confirmed by LAP

LAP NEPA T&E RESOURCES

Eastern Massasauga Rattlesnake (EMR)

[Project Screening BMPS for EMR](#)

[EMR FAQ](#)

Michigan Protected Bats

[Methods to Assess Bridge/Transportation Structures by USFWS - Video](#)

[Methods to Assess Bridge/Transportation Structures by USFWS -PDF](#)

[Bridge Structure Assessment Form USFWS](#)

[Project Design Guidelines for Federally Listed Bats in Michigan 2023](#)

Freshwater Mussels

[Michigan Freshwater Mussel Webinar for Transportation Projects](#) - Video from FWS & DNR 20

[Michigan Mussel Identification Test](#)

Vegetation

[MDOT Pollinator Habitat Management Program](#)

[MDOT Plant Selection Manual](#)

[MDOT Roadside Vegetation Management Manual](#)