

Endangered Species Act Guidance for the Salamander Mussel & Critical Habitat

1. What is the federal status of the salamander mussel and how is it being addressed by WisDOT/FHWA?

On August 22, 2023, the U.S. Fish and Wildlife Service (USFWS) announced a [proposal](#) to list the [salamander mussel](#) (*Simpsonaias ambigua*) as endangered under the Endangered Species Act (ESA). The salamander mussel is currently considered a *proposed species*. USFWS also proposed to designate several waterways in WI as [critical habitat](#) for the species. These areas are considered *proposed critical habitat*.

Section 7 consultation for this species/critical habitat cannot be completed until a final listing rule occurs and is effective (date TBD). This species/critical habitat are not currently included in the IPaC MN-WI Endangered Species Determination Key. Section 7 conferencing can be completed in the interim if adverse impacts to the proposed species/critical habitat are anticipated. The guidance below will aid project teams in determining what steps may be necessary for projects at this time.

2. What is the difference between critical habitat and suitable habitat?

Critical habitat is a legal designation under the ESA that includes specific geographic areas that contain the physical or biological features that are essential to the conservation of the species and may require special management or protection. Not all species have critical habitat designated for them.

Suitable habitat for animals is habitat that contains ecological characteristics that support breeding, feeding, resting, or sheltering. Suitable habitat doesn't necessarily imply high-quality habitat and it may exist in locations without a critical habitat designation. Suitable habitat is not geographically defined under the ESA and requires an assessment determine if it is present in a project's action area.

3. When must the salamander mussel and its critical habitat be considered for a project?

- If the proposed species/critical habitat are included in the IPaC Official Species List (OSL), they must be considered.
 - This will occur when the project is within the range of the proposed species.
 - The project may also be within the proposed critical habitat for the species (the OSL will note this too).
 - ****Important**** We cannot assume the salamander mussel will only be found in proposed critical habitat. The species may be present in any suitable habitat within the range of the species.
- If this species/critical habitat are not included in the OSL, no further action is necessary.

4. What project activities require further evaluation for potential impacts to the salamander mussel and its proposed critical habitat?

In-water work, work along stream banks, culvert/bridge work, temporary/permanent effects to local hydrology or any other activity that has the potential to affect mussels or the critical habitat areas directly or indirectly. See additional guidance below in Q. 7.

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5. What needs to be done if the project does not include any activities that could affect this proposed species/critical habitat?

A. If the environmental document has not been signed (or there is an ongoing re-evaluation):

- Include sufficient justification that the proposed action does not have the potential to affect the proposed species/critical habitat.
- Also, include the following:

On August 22, 2023, the U.S. Fish and Wildlife Service (USFWS) announced a proposal to list the salamander mussel (*Simpsonaias ambigua*) as endangered under the Endangered Species Act (ESA). [If critical habitat is included in OSL, add: Additionally, USFWS is proposing to designate critical habitat for the species in the project area.] If listed, WisDOT will resolve ESA compliance prior to let, as appropriate. Construction activities for this project will not take place until WisDOT [if federally funded, add: , in coordination with our lead federal agency,] satisfies Endangered Species Act compliance for the salamander mussel [if needed, add: and its critical habitat].

- If listed, ESA compliance will be required after the effective date. This will prompt the need for an environmental document re-evaluation.

B. If the environmental document has already been signed:

- No need to reevaluate the document at this time solely due to this proposed listing.
- ESA compliance will be required after the effective date, if listed. This will prompt the need for a re-evaluation.

6. What needs to be done if the project does include activities that could affect this proposed species/critical habitat?

Evaluate the waterbodies within the project to determine if salamander mussel suitable habitat exists in the project's action area. Note: species range and potential suitable habitat is broader than the proposed critical habitat areas. See additional guidance below in Q. 7.

7. What is suitable habitat for the salamander mussel?

- Mussels require habitat with appropriate streamflow, substrate and host species. These elements vary between mussel species.
- Salamander mussels inhabit rivers and streams with fairly swift velocities, prefer shelter habitat with space under slab rock/bedrock crevice-type structures, and rely upon the mudpuppy as their host.
- Mussels can survive short-term very low/no water conditions, but cannot tolerate extended periods of very low/no water. Generally, ephemeral waterbodies are not suitable habitat.

8. How is suitable habitat determined?

- WDNR only reviews waterbodies for suitable habitat if the project is within 2 miles of a species occurrence in the Natural Heritage Inventory (NHI). In absence of a NHI occurrence, WDNR does not evaluate the project for potential for suitable habitat.

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- If it is unclear if WDNR reviewed the project for suitable mussel habitat during the initial review process, verify with the transportation liaison. WDNR may not have the resources available to make a suitable habitat determination for WisDOT for federal ESA compliance.
- Unless waterbodies are determined to be clearly unsuitable through a desktop review, in-field habitat assessment is needed.
- Environmental consultants generally have staff with appropriate expertise to conduct habitat assessments for WisDOT. This can be accomplished through the ecological services contract or consultant design contract.

9. What is required if the project's action area does not have suitable habitat for salamander mussel?

- If the project area does not contain suitable habitat and is not within proposed critical habitat, follow guidance under Q. 5 above.
- If the project area does not contain suitable habitat but is within proposed critical habitat, conferencing/consultation would be required if the project results in permanent changes to local hydrology, to critical habitat quality, quantity, or availability, or habitat quality, quantity, or availability of its mudpuppy host. See guidance for conferencing/consultation under Q. 12.

10. What is required if the project's action has suitable habitat for salamander mussel?

- If impacts to the suitable habitat can be fully avoided, follow guidance under Q. 9 above.
- If impacts to suitable habitat cannot be avoided, a mussel survey is needed.
 - Surveys must follow state/federal survey protocols. Surveys can only be completed when air and water temperatures allow, generally late spring through early fall.
 - Environmental consultants generally have staff with appropriate expertise/permits to conduct mussel surveys for WisDOT. This can be accomplished through the ecological services contract or consultant design contract.
 - WDNR has limited capacity to assist WisDOT with these surveys. Contact WDNR transportation liaison to determine.

11. What is required if the survey did not find any salamander mussels (live or dead and in any condition) in the project's action area?

A. If any other federally listed mussel species are observed:

- Formal consultation is required.
- The salamander mussel/critical habitat would be addressed in the project's biological assessment (BA). See additional guidance below.

B. If no federally listed mussel species are observed:

- Conferencing would not be required **unless** the project results in permanent changes to local hydrology, to critical habitat quality, quantity, or availability, or habitat quality, quantity, or availability of its mudpuppy host. See additional guidance below.
 - i. **If the environmental document has not been signed (or there is an ongoing re-evaluation):**

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- Include sufficient summary and justification that the proposed action may affect the species/critical habitat but does not have the potential to jeopardize the continued existence of the proposed species and if necessary, that the project will not result in destruction or adverse modification of its critical habitat.

- Also, include the following:

On August 22, 2023, the U.S. Fish and Wildlife Service (USFWS) announced a proposal to list the salamander mussel (*Simpsonaias ambigua*) as endangered under the Endangered Species Act (ESA). *If critical habitat is included in OSL, add:* Additionally, USFWS is proposing to designate critical habitat for the species in the project area.] If listed, WisDOT will resolve ESA compliance prior to let, as appropriate. Construction activities for this project will not take place until WisDOT *if federally funded, add:* , in coordination with our lead federal agency,] satisfies Endangered Species Act compliance for the salamander mussel *if needed, add:* and its critical habitat].

- ESA compliance will be required after the effective date, if listed. This will prompt the need for a re-evaluation.

ii. If the environmental document has already been signed:

- No need to reevaluate the document at this time solely due to this proposed listing.
- ESA compliance will be required after the effective date, if listed. This will prompt the need for a re-evaluation.

12. What is required if the survey did find salamander mussels (live or dead and in any condition) in the project's action area?

- Conferencing is needed for projects that are scheduled for construction in the next few years. Projects later in the program may end up going straight to formal consultation if the listing occurs in late 2024/early 2025.
- After the mussel survey is complete, a biological assessment (BA) must be prepared. This will take a few months for drafting and review.
- FHWA initiates conferencing/consultation when they submit the BA to USFWS. This process has a 135 day time frame, unless USFWS requests an extension.
- Compensatory mitigation will likely be required by FWS and specifics are determined based on project impacts and anticipated take.
- This process must be complete before an environmental document can be signed. If the document has been previously signed, conferencing would prompt the need for an environmental document re-evaluation.
- Mussel relocation cannot occur until conferencing/consultation is complete. This is true even if WDNR is completing the relocation.

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- If the listing occurs prior to relocation/construction, FHWA must ask USFWS to convert the conference opinion to a biological opinion and incidental take statement. This would prompt the need for an environmental document re-evaluation.

13. How does this federal listing affect the process for state compliance?

- The salamander mussel is already a state threatened species. Compliance with the WI Endangered Species law does not change as a result of the proposed federal listing.
- Most mussel impact/relocations generally fit under WDNR's [mussel broad incidental take authorization/permit](#). If projects cannot meet all of the requirements, individual incidental take authorization would be required.
- State compliance does not fulfill Endangered Species Act compliance requirements.