

WisDOT Endangered Species Act Guidance: Designated Sheepnose, Snuffbox, and Spectaclecase Mussels Critical Habitat

This document and accompanying flow chart provide Endangered Species Act (ESA) guidance for WisDOT projects. Unless there is a nuance identified for a specific species, the information and process will apply to the designated critical habitat for all three endangered mussel species.

1. What changes are occurring for the federally listed sheepnose, snuffbox, and spectaclecase mussels?

On April 27, 2026, the U.S. Fish and Wildlife Service (USFWS) announced a [final rule](#) designating several waterways in WI as critical habitat under the Endangered Species Act for 3* federally endangered mussels:

[Sheepnose mussel](#) (*Plethobasus cyphus*),

[Snuffbox mussel](#) (*Epioblasma triquetra*), and

[Spectaclecase mussel](#) (*Cumberlandia monodonta*).

Designated critical habitat is **effective on May 27, 2026**. The geographic boundaries of the critical habitat areas are specific to each species. Maps can be viewed in the final rule linked above and the attached pages.

*Note: Critical habitat for rayed bean was species was also included in the final rule. This species is not present in WI and is not included in this WisDOT guidance document.

2. What does this change mean for federalized actions and Section 7 consultation?

Designated critical habitat receives protection under Section 7 of the ESA. Designations affect only federal agency actions or actions with a federal nexus (i.e., federally funded, permitted or authorized).

Sheepnose, snuffbox and spectaclecase mussels are already listed as endangered species under the ESA. An effect determination must be made for the mussel species and its critical habitat when both are included in the IPaC Official Species List (OSL). The critical habitat impact assessment and effect determination are made based on the physical or biological features (PBFs) that are essential to the conservation of the species (see Q8). These designated critical habitats are not in the IPaC MN-WI Endangered Species determination key at this time.

Federal agency actions or actions with a federal nexus that **may affect** an area designated as critical habitat **require Section 7 consultation** with USFWS once the final rule is effective (May 27, 2026). As applicable, a NEPA document re-evaluation must be completed after the consultation is complete.

No effect determinations made for critical habitat do not require consultation, but WisDOT must document reasoning and rationale for how the determination was made in the NEPA environmental document. As applicable, a NEPA document re-evaluation must be completed after the determination is made.

If **Section 7 informal or formal conferencing** on the critical habitat was completed during the proposed status, WisDOT (informal) or FHWA (formal) must submit a request to USFWS confirming the impact assessment and effective determination remain valid and to ask for the conference concurrence/opinion to be adopted as the consultation concurrence/biological opining, thus fulfilling the consultation requirement.

If Section 7 *conferencing* was not completed for the mussel critical habitat during the proposed

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status, consultation must be completed for any critical habitat *may affect* determination, even if the mussel species consultation is already complete. Follow consultation process per FDM 24-10-10.

3. What does this change mean for projects that do not have a federal nexus?

Critical habitat designations do not apply to non-federal activities provided there is no federal nexus to be able to carry out the activity. Be aware that federal water permits (e.g., Clean Water Act Section 404) bring in a federal nexus. Federal water permits are commonly needed for projects that also have the potential to affect mussel critical habitat (e.g., bridge replacements). Coordination with the federal permitting agency early will help to determine the appropriate path forward for consultation on the critical habitat for their federal action (permit issuance).

4. How does this federal critical habitat designation affect the process for complying with Wisconsin's Endangered Species Law administered by WDNR?

The sheepnose, snuffbox, and spectaclecase mussels are all state endangered species. Compliance with the WI Endangered Species law does not change as a result of the federal critical habitat designation.

Most mussel impacts/relocations generally fit under WDNR's [mussel broad incidental take permit/authorization](#). If projects cannot meet all of the requirements, individual state incidental take authorization would be required. WDNR may request/require mitigation for permanent impacts to suitable mussel habitat.

State compliance does not fulfill Endangered Species Act compliance requirements.

5. 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 (PBFs) that provide for a species' life history processes and are essential to the conservation of the species. 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.

6. What is suitable habitat for the endangered mussels?

Mussels require habitat with appropriate streamflow, substrate and hosts to complete their lifecycle. These elements vary between mussel species but all of these mussel species have fish host species.

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.

Sheepnose mussels inhabit medium to large stream systems, typically within shallow shoal habitats with moderate to swift currents. Suitable substrates are firm or stable coarse sand, gravel, or rock free from excessive silt.

Snuffbox mussels inhabit small- to medium-sized creeks, to larger rivers, and in lakes, typically in swift currents of riffles and shoals and wave-washed shores of lakes. Suitable substrates are stable gravel and sand with moderate flow and aquatic vegetation in and

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adjacent to riffles and shoals.

Spectaclecase mussels inhabit larger stream systems and is generally found in microhabitats sheltered from both high and low extremes in flow. Suitable substrates are firm or stable substrates of coarse sand and gravel, are free from excessive silt, and typically include large rock, slabs, or boulders.

7. 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 an NHI occurrence, WDNR does not evaluate the project for potential for suitable habitat.

If it is unclear if WDNR reviewed the project for suitable mussel habitat during the Endangered Resources Review (ERR) 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 [BTS ecological services contract](#) or consultant design contract.

8. What are the specific physical or biological features (PBFs) for these proposed critical habitats?

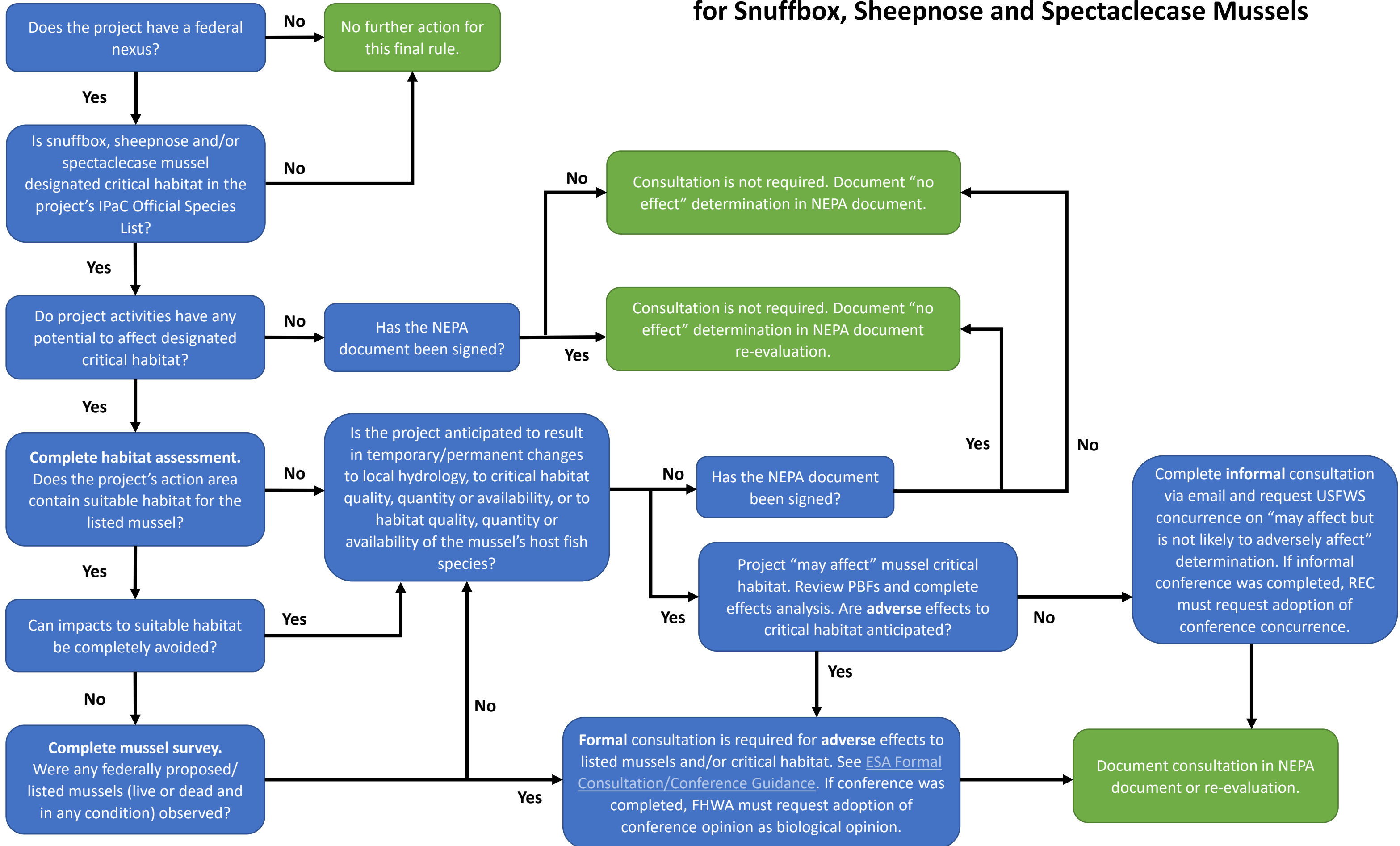
In the final rule, the physical or biological features that are essential to the conservation of the species were written separately for each species. Due to length of that text, it is not replicated within this document; refer to the final rule for species-specific PBFs.

Sheepnose: <https://www.federalregister.gov/d/2026-08146/p-503> (printed page 22645)

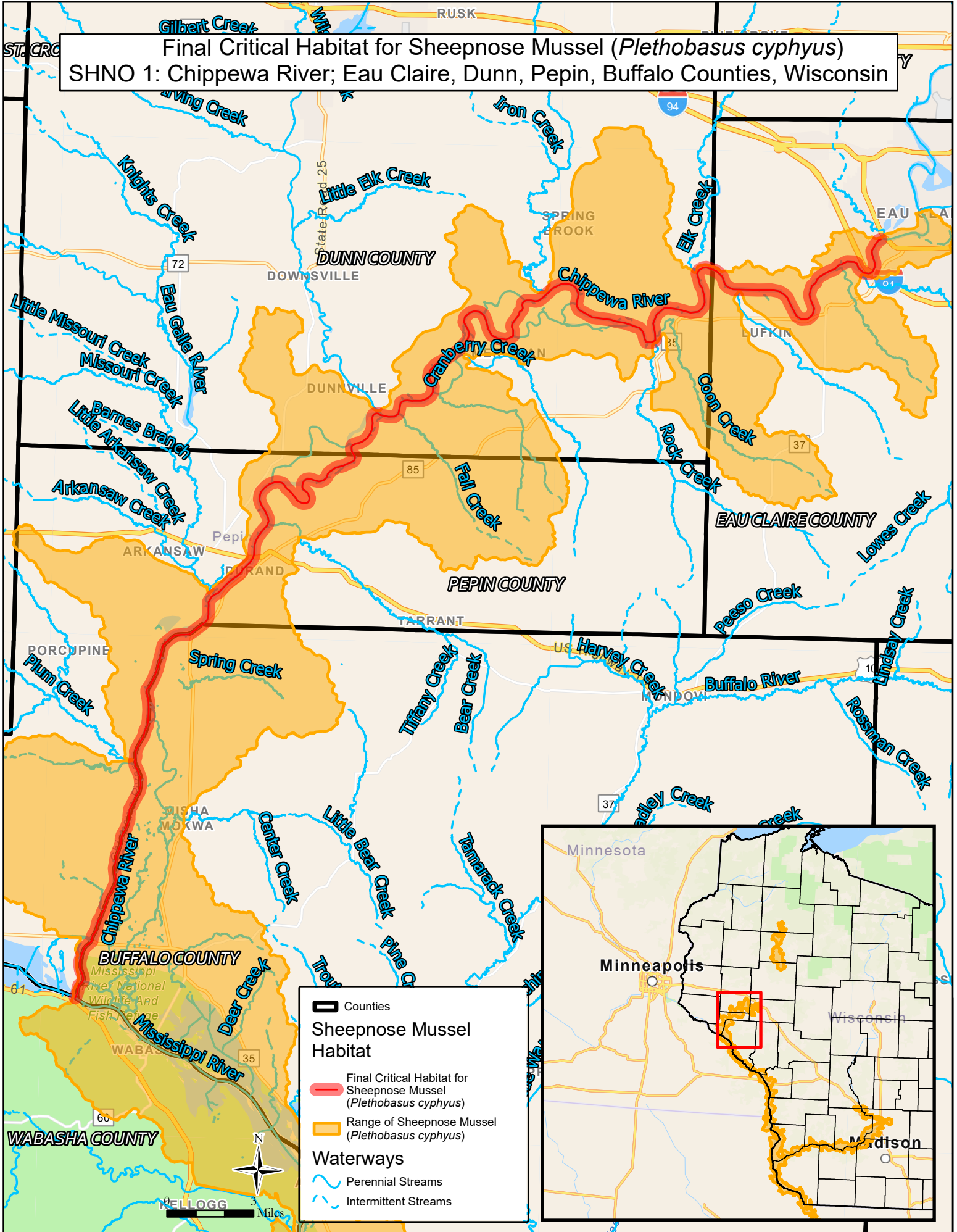
Snuffbox: <https://www.federalregister.gov/d/2026-08146/p-559> (printed page 22656)

Spectaclecase: <https://www.federalregister.gov/d/2026-08146/p-752> (printed page 22691)

WisDOT Process to Address Designated Critical Habitat for Snuffbox, Sheepnose and Spectaclecase Mussels



Final Critical Habitat for Sheepsnose Mussel (*Plethobasus cyphus*)
 SHNO 1: Chippewa River; Eau Claire, Dunn, Pepin, Buffalo Counties, Wisconsin



Counties

Sheepsnose Mussel Habitat

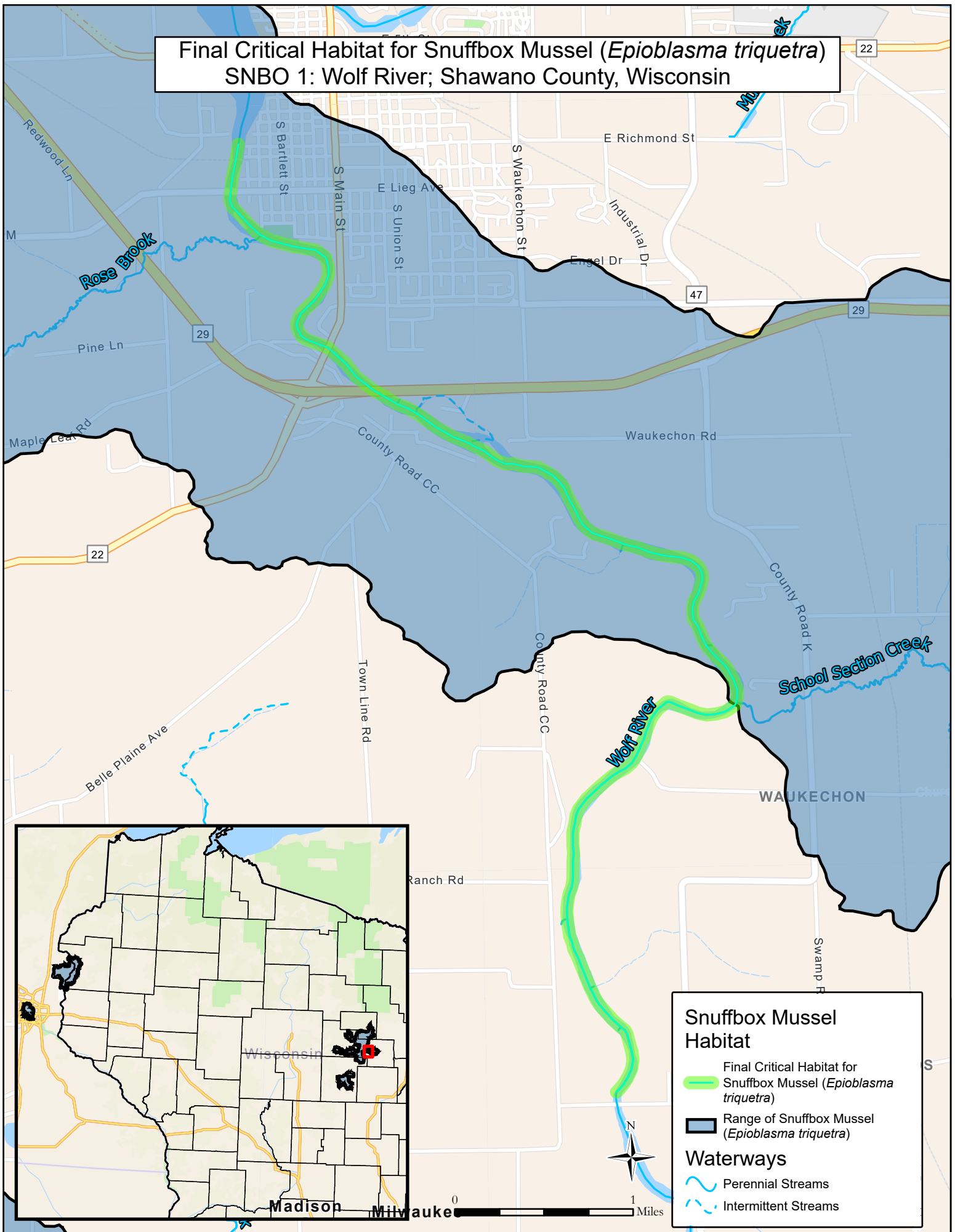
- Final Critical Habitat for Sheepsnose Mussel (*Plethobasus cyphus*)
- Range of Sheepsnose Mussel (*Plethobasus cyphus*)

Waterways

- Perennial Streams
- Intermittent Streams



Final Critical Habitat for Snuffbox Mussel (*Epioblasma triquetra*)
SNBO 1: Wolf River; Shawano County, Wisconsin



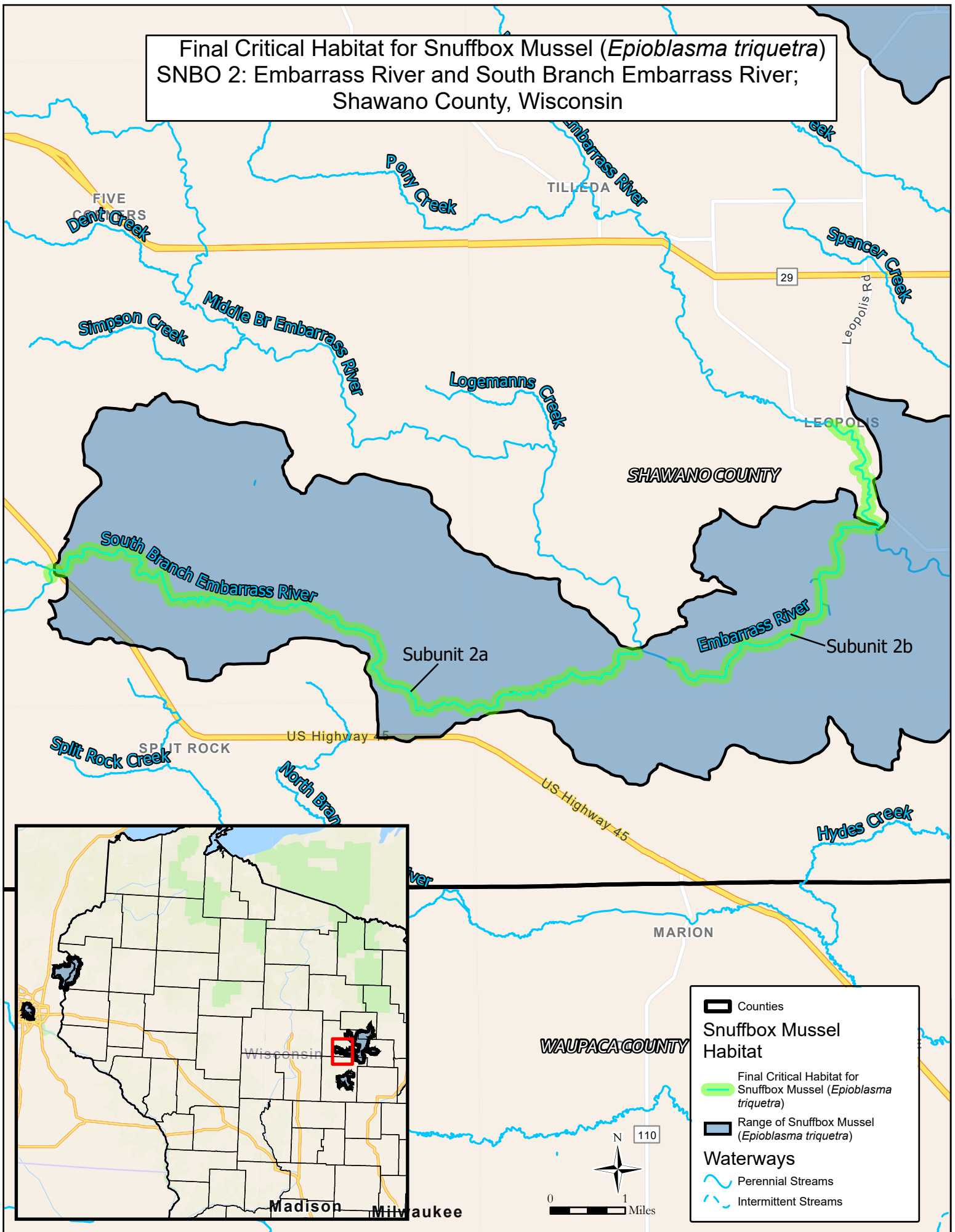
Snuffbox Mussel Habitat

- Final Critical Habitat for Snuffbox Mussel (*Epioblasma triquetra*)
- Range of Snuffbox Mussel (*Epioblasma triquetra*)

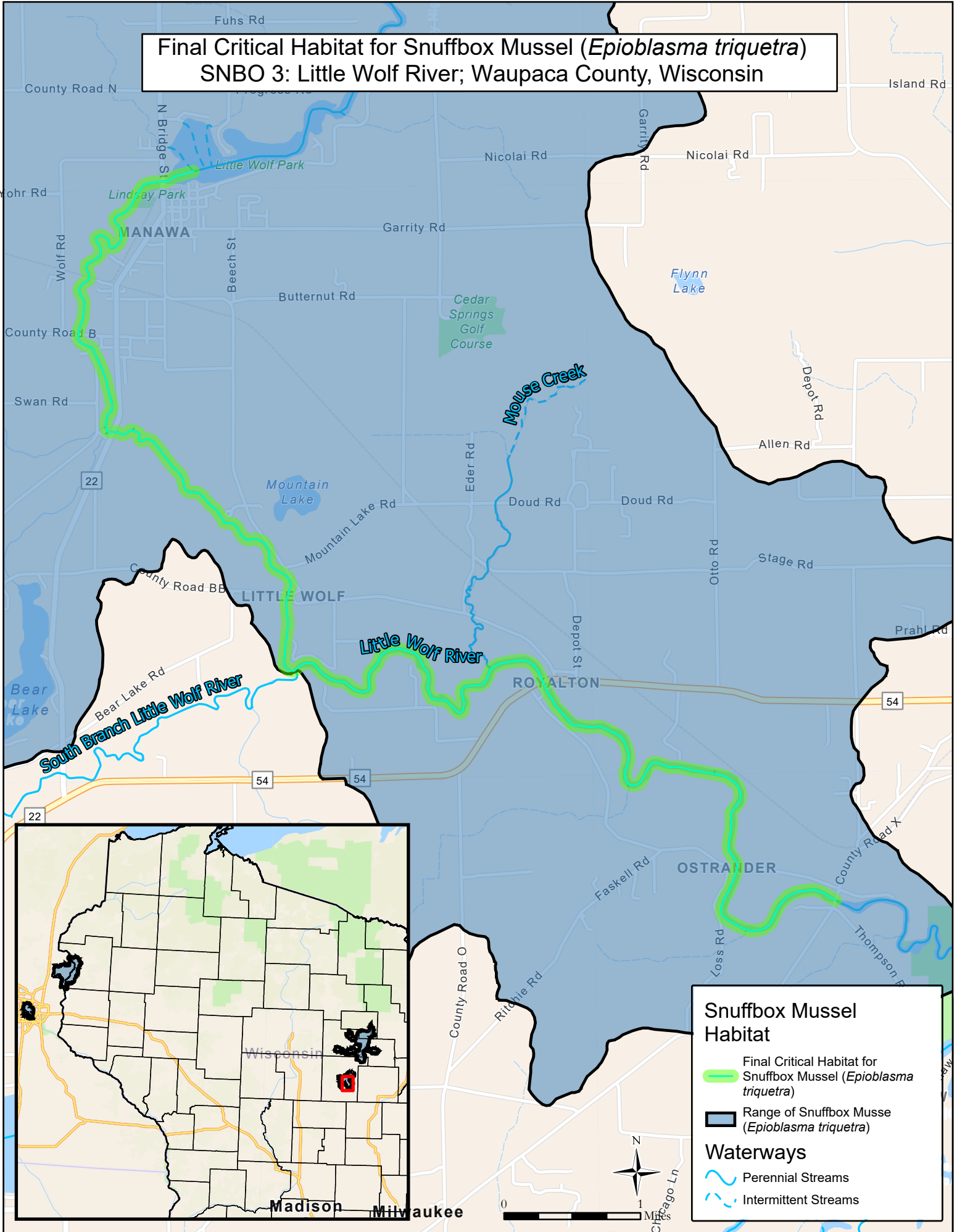
Waterways

- Perennial Streams
- Intermittent Streams

Final Critical Habitat for Snuffbox Mussel (*Epioblasma triquetra*)
 SNBO 2: Embarrass River and South Branch Embarrass River;
 Shawano County, Wisconsin



**Final Critical Habitat for Snuffbox Mussel (*Epioblasma triquetra*)
SNBO 3: Little Wolf River; Waupaca County, Wisconsin**



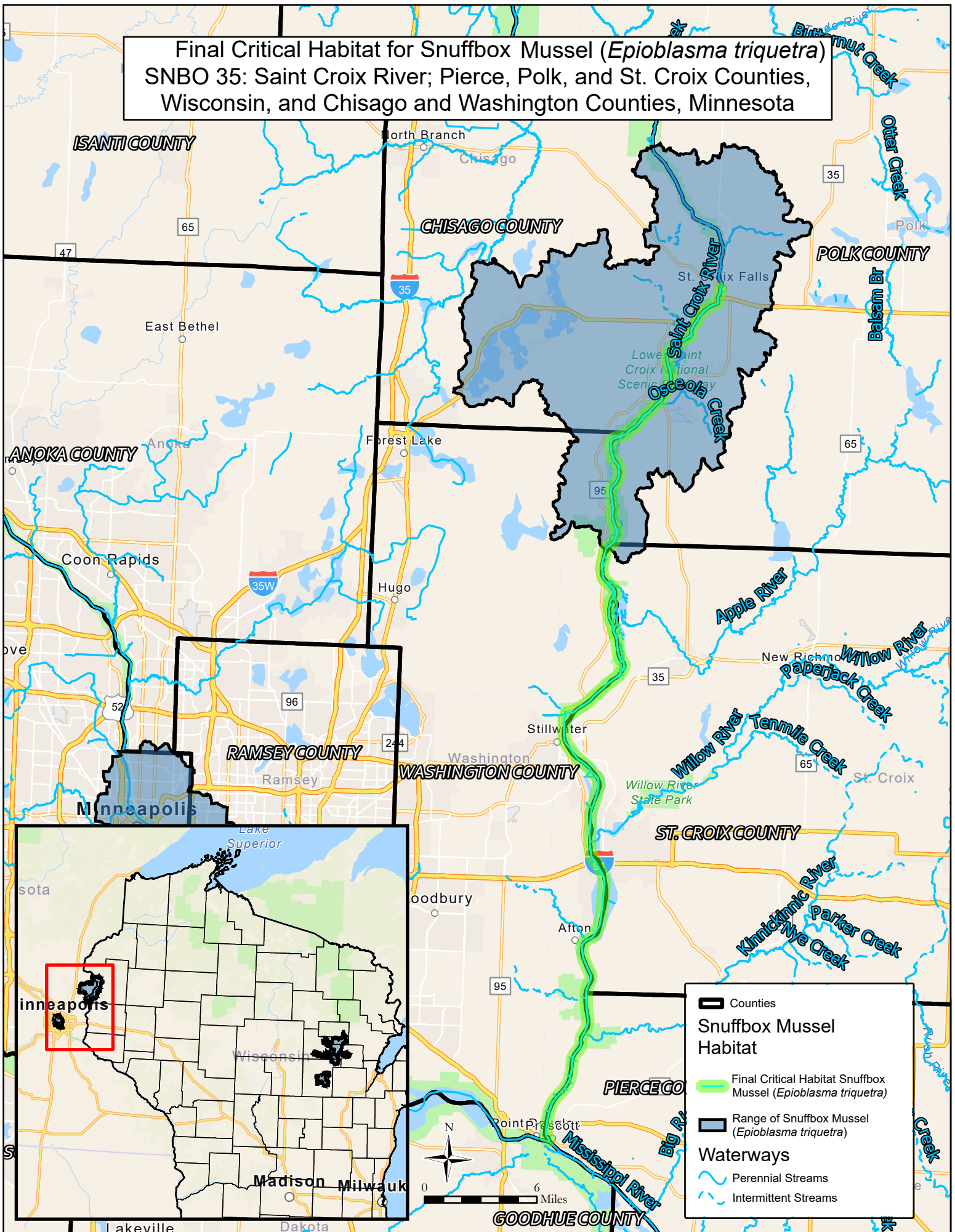
Snuffbox Mussel Habitat

- Final Critical Habitat for Snuffbox Mussel (*Epioblasma triquetra*)
- Range of Snuffbox Mussel (*Epioblasma triquetra*)

Waterways

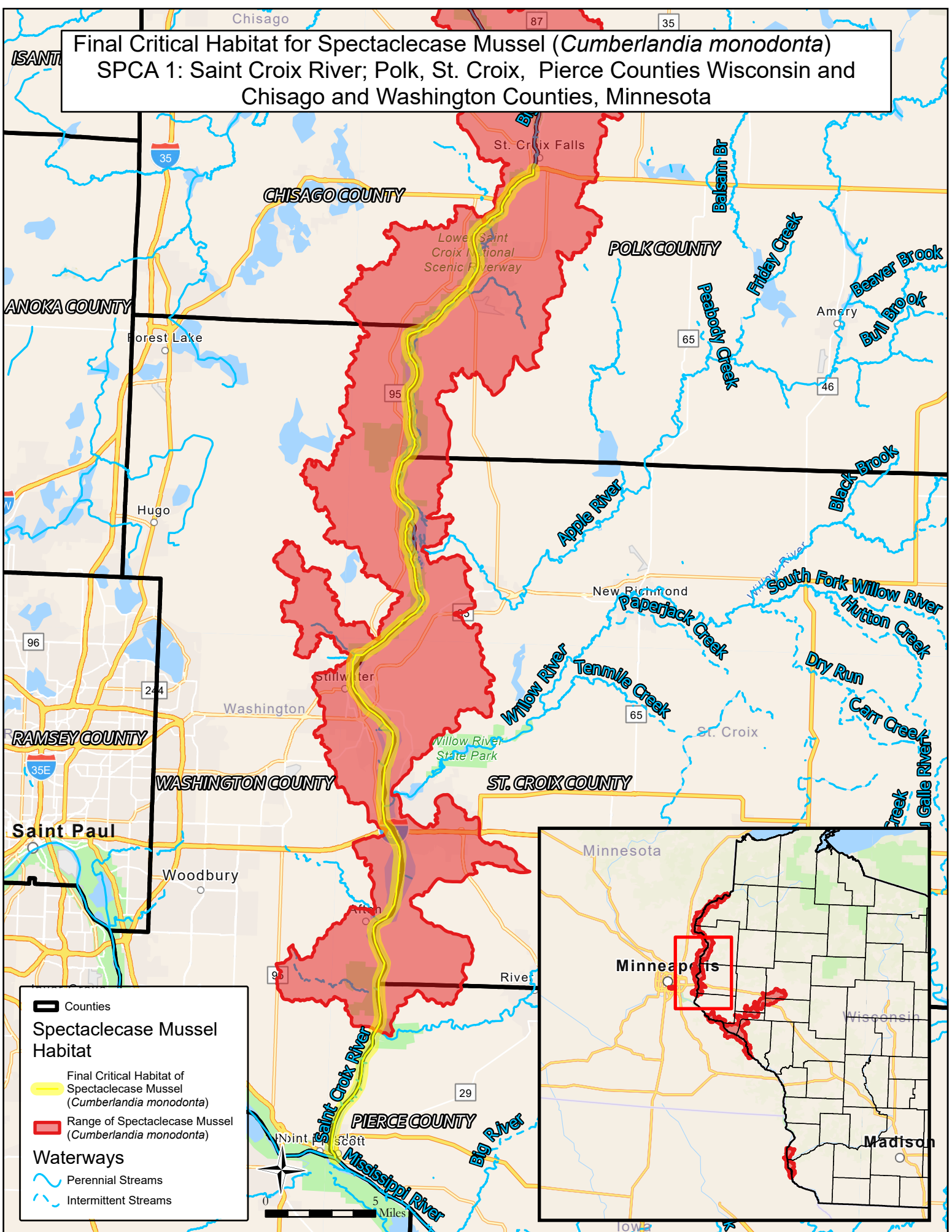
- Perennial Streams
- Intermittent Streams

Final Critical Habitat for Snuffbox Mussel (*Epioblasma triquetra*)
 SNBO 35: Saint Croix River; Pierce, Polk, and St. Croix Counties,
 Wisconsin, and Chisago and Washington Counties, Minnesota



- Counties
- Snuffbox Mussel Habitat**
 - Final Critical Habitat Snuffbox Mussel (*Epioblasma triquetra*)
 - Range of Snuffbox Mussel (*Epioblasma triquetra*)
- Waterways**
 - Perennial Streams
 - Intermittent Streams

Final Critical Habitat for Spectaclecase Mussel (*Cumberlandia monodonta*)
SPCA 1: Saint Croix River; Polk, St. Croix, Pierce Counties Wisconsin and
Chisago and Washington Counties, Minnesota



Counties

Spectaclecase Mussel Habitat

- Final Critical Habitat of Spectaclecase Mussel (*Cumberlandia monodonta*)
- Range of Spectaclecase Mussel (*Cumberlandia monodonta*)

Waterways

- Perennial Streams
- Intermittent Streams

