

## Wisconsin Natural Heritage Inventory (NHI) Screening Guidance for the Rusty Patched Bumble Bee (RPBB)

This guidance was adapted from the U.S. Fish and Wildlife Service's (USFWS) guidance documents, [available through the main RPBB webpage](#), and is subject to change per USFWS and/or updates to the Implementation Guidance documents.

### Introduction

The Rusty Patched Bumble Bee (*Bombus affinis*) is a Federally Endangered and Wisconsin Special Concern Species. The Rusty Patched Bumble Bee High Potential Zones (HPZ) were developed through a model to identify areas around current records (2007-present) where there is a high potential for the species to be present. It **does not** represent the species distribution. Additional element occurrences (EOs) representing individual RPBB observations outside the HPZ are mapped separately in the NHI Portal.



The USFWS has created an [interactive map of the RPBB HPZ](#).

There may be other rare and listed plants and animals where the RPBB occurs. Please use the [NHI Public Portal](#) for information on whether other state or federally listed species may occur in the project area.

### Screening Guidance for the Rusty Patched Bumble Bee

Per the U.S. Fish and Wildlife Service's (USFWS) Voluntary Implementation Guidance of the Endangered Species Act screening for the Rusty Patched Bumble Bee should be conducted according to the following guidance.

1. **Does the proposed project overlap with a High Potential Zone?** Use the NHI Portal to locate your project.

**YES.** Continue to question 2.

**NO.** Screening requirements are met for the RPBB.

2. **Is suitable habitat for the Rusty Patched Bumble Bee present?**

Information on land use and site photos may be used to determine if suitable habitat is present. Refer to the Voluntary Implementation Guidance of the Endangered Species Act (available at <https://www.fws.gov/midwest/endangered/insects/rpbb/ProjectProponent.html>) and [Conservation Management Guidelines](#) for the Rusty Patched Bumble Bee (*Bombus affinis*), Version 1.6, for current, detailed habitat information.

- **Suitable foraging and nesting habitat** (active season, mid-March through mid-October) includes but is not limited to: prairies, woodlands, marshes/wetlands, agricultural landscapes and residential parks and gardens. The RPBB relies on diverse and abundant flowering plant species in proximity to suitable overwintering sites for hibernating queens. **Overwintering habitat** (mid-October through mid-March) may include, but is not limited, to: non-compacted soils, leaf litter,

and duff of upland forests and woodlands. Wetlands may provide forage but are not suitable (too wet) for overwintering and nesting.

- **Non-suitable habitat** includes but is not limited to: permanently flooded areas/open water, paved areas, areas planted to monoculture crops (with some exceptions like sunflowers or alfalfa when in bloom), forest where invasive shrubs are dominant and spring ephemeral flowers are absent, and areas mowed too frequently to allow development of foraging resources (e.g., turf grass with no/few flowering plants, road shoulders, medians, lawns).

**YES.** Continue to question 3.

**NO.** If suitable habitat for the Rusty Patched Bumble Bee is not present within the site, the project will not likely impact the RPBB. Screening requirements are met for the RPBB. It is recommended that the general voluntary measures listed below be incorporated into the project design, where possible.

**3. Assume the Rusty Patched Bumble Bee could be present on-site. The FWS recommends one of the following options be implemented to reduce or remove adverse effects.**

A) Voluntary Conservation Measures

- For prescribed fire, mowing/haying, grazing, pesticide use and tree clearing/thinning, follow the voluntary conservation measures listed in the [Conservation Management Guidelines for the Rusty Patched Bumble Bee \(\*Bombus affinis\*\)](#).
- For all other activities, follow the general voluntary measures listed below:
  - use native trees, shrubs and flowering plants in [landscaping](#),
  - provide [plants](#) that bloom from spring through fall,
  - remove and control invasive plants in any habitat used for foraging, nesting, or overwintering.

**OR**

B) Conduct surveys according to USFWS survey protocol. USFWS recommends conducting surveys during four evenly spaced sampling periods between early-June and mid-August. Refer to the [Survey Protocols](#) for details on how to conduct a presence/absence survey. Please keep in mind that a federal [recovery permit](#) is needed for the capture of bees for identification and handling. For further information about obtaining a federal permit and surveyor qualifications please see Appendix A in the survey protocol document.

If the bee is found to be present during surveys, then the recommended conservation measures above should be followed, and survey results should be submitted to the [Endangered Resources Review Team](#) and to USFWS according to the Federal Recovery Permit reporting requirements.

*Note: Rusty Patched Bumble Bee surveys should be conducted within a year before the project is initiated for negative survey results to remain valid through the duration of the project (unless new information suggests otherwise).*

**If suitable habitat is present and none of the above conservation measures can be followed or surveys cannot be completed, then contact the USFWS Bloomington Field Office at (952) 252-0092 or [TwinCities@fws.gov](mailto:TwinCities@fws.gov) for further consultation.**

For questions regarding the review process, contact [Endangered Resources Review Staff](#) or at [DNRRERReview@wisconsin.gov](mailto:DNRRERReview@wisconsin.gov).