DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R3–ES–2024–0132; FXES1111090FEDR–267–FF09E21000]

RIN 1018–BH72

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Rusty Patched Bumble Bee

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the rusty patched bumble bee (*Bombus affinis*), a bumble bee historically known to occur broadly across the eastern United States and portions of Canada, under the Endangered Species Act of 1973, as amended (Act). In total, we are designating approximately 1,534,951 acres (621,172 hectares) of occupied critical habitat in 14 units across 33 counties in 6 States.

DATES: This rule is effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: This final rule is available on the internet at https://www.regulations.gov. Comments and materials we received are available for public inspection at https://www.regulations.gov at Docket No. FWS–R3–ES–2024–0132.

Availability of supporting materials: Supporting materials we used in preparing this rule, such as the species status assessment report, are available on the Service's website at https://www.fws.gov/species/rusty-patched-bumble-bee-bombus-affinis, at https://www.regulations.gov at Docket No. FWS–R3–ES–2024–0132, or both.

The coordinates or plot points or both from which the critical habitat maps are generated

are included in the decision file and are available at https://www.regulations.gov at Docket No. FWS–R3–ES–2024–0132.

FOR FURTHER INFORMATION CONTACT: Robert Tawes, Field Supervisor, U.S. Fish and Wildlife Service, Minnesota-Wisconsin Ecological Services Field Office; telephone 612–240–6343; robert_tawes@fws.gov. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act (16 U.S.C. 1531 *et seq*.), when we determine that any species warrants listing as an endangered or threatened species, we are required to designate critical habitat, to the maximum extent prudent and determinable. Designations of critical habitat can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq*.).

What this document does. This rule designates critical habitat for the rusty patched bumble on approximately 1,534,951 acres (621,172 hectares**)** of occupied critical habitat in 14 units across 33 counties in 6 States.

The basis for our action. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act

states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

Previous Federal Actions

Please refer to the proposed critical habitat rule (89 FR 93245) for the rusty patched bumble bee published on November 26, 2024, for a detailed description of previous Federal actions concerning this species.

Peer Review

In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review in listing and recovery actions under the Act (https://www.fws.gov/sites/default/files/documents/peer-review-policy-directors-memo-2016-08-22.pdf), we solicited independent scientific review of the information contained in the proposed critical habitat designation for the rusty patched bumble bee. We sent the proposed rule to three independent peer reviewers and received two responses. The peer reviews can be found at https://www.regulations.gov at Docket No. FWS–R3–ES–2024–0132. In preparing this final rule, we incorporated the results of these reviews, as appropriate. A summary of the peer review comments and our responses can be found in the **Summary of Comments and Recommendations** below.

Summary of Changes From the Proposed Rule

We began coordinating with the 88th Readiness Division (RD) of the Army Reserve prior to publication of the proposed critical habitat rule at their request. After we published the proposed critical habitat rule, the 88th RD updated their Integrated Natural Resources Management Plan (INRMP) to include the rusty patched bumble bee. We concluded that the 88th RD INRMP provides a benefit to the rusty patched bumble bee.

Consequently, we are exempting the lands covered by the INRMP that intersected with lands identified as proposed critical habitat. There are two Army Reserve Centers (ARC) in two States, totaling approximately 49 acres (20 hectares) of land included in the INRMP that are exempted from this final designation. These areas are Machesney Park ARC in Illinois and Fort Snelling ARC in Minnesota. The exemptions are also discussed in the **Exemptions** section below.

Based on additional information we received during the public comment period and a request to exclude lands under section 4(b)(2) of the Act, we are also excluding several areas from the designation that are enrolled in the Nationwide Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation Lands. We are excluding a total area of approximately 79,859 acres (32,318 hectares) across 11 units in this final rule. The exclusion analysis is summarized below in the **Consideration of Impacts under Section 4(b)(2) of the Act** section.

Additionally, the final designation decreased in overall acreage from the proposed designation by approximately 20,887 acres (8,453 hectares) due to discovery of a few imprecise data locations. The iNaturalist database accepts any level of accuracy for location data. The rusty patched bumble bee data accuracy ranged from 0 to approximately 6.5 million feet (ft) (1,982,493 meters (m)), and we concluded that range was not an acceptable level of precision for our critical habitat analysis because it far exceeds a typical survey site size. Therefore, points that had a greater than 328-ft (100-m) range of accuracy were removed from the dataset, which resulted in smaller critical habitat units in some cases. These data may have been inaccurate data points for rusty patched bumble bee locations, and we discovered this after the proposed designation had already published.

Also based on information received during the public comment period, we have removed the term “rodenticides” as an example of a pesticide application that may

require special management consideration from the unit descriptions of each critical habitat unit. Although rodenticides are a threat to the rusty patched bumble bee, their use is almost exclusively outside the realm of section 7 of the Act (typically there is no Federal nexus for their use), which makes it highly unlikely that the need to consult would arise in the critical habitat units. Maintaining the term in the final rule would likely create misconceptions around the regulatory impact of this critical habitat designation.

We clarified some of the definitions related to our physical or biological features based on requests to do so from the peer reviewers and public commentors, additional information they provided, and additional published studies that were not previously considered.

Lastly, we corrected a spelling error in the name of Unit 14. The proposed critical habitat rule labeled Unit 14 "Black Creek Mountain," when the correct spelling is actually "Back Creek Mountain."

Summary of Comments and Recommendations

In the proposed rule published on November 26, 2024 (89 FR 93245), we requested that all interested parties submit written comments on the proposal by January 27, 2025. We also contacted appropriate Federal and State agencies, Tribal entities, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. A newspaper notice inviting general public comment was published in the USA Today on November 29, 2024. We did not receive any requests for a public hearing. All substantive information received during comment periods has either been incorporated directly into this final determination or is addressed below.

Peer Reviewer Comments

As discussed in **Peer Review** above, we received comments from two peer reviewers on the proposed critical habitat designation. We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding

the contents of the proposed rule. Peer reviewer comments are addressed in the following summary.

Both peer reviewers had concerns with our **Criteria Used to Identify Critical Habitat** used for delineating the unit boundaries, specifically criteria number one which says, "areas within a contiguous High Potential Zone (HPZ; for more information on High Potential Zones see the **Criteria Used to Identify Critical Habitat** section below) with 50 or more positive observations since 2007." Peer reviewers stated that the number 50 was arbitrary and unsupported. After receiving this feedback, we undertook additional analysis to explore this concern. We conclude that this criterion was valid for use in delineating critical habitat, and we further explain our initial intent and additional analysis below.

Both peer reviewers (and several public commenters, see *Public Comments,* below) advocated for including additional areas in the critical habitat designation because there are several additional areas that the rusty patched bumble bee occupies or could occupy. We are not able to incorporate additional areas that include suitable habitat for the species but do not meet the definition of critical habitat. The Act defines, critical habitat as"(i) the specific areas within the geographical area occupied by the species at the time it is listed… on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species." These additional areas mentioned by the peer reviewers, though important, do not meet the definition of critical habitat as described in more detail below. While they may be important for the recovery of the rusty patched bumble bee

(along with other areas of suitable habitat), they do not meet the definition of critical habitat.

The occupied areas that meet the definition of critical habitat for rusty patched bumble bee contain the physical or biological features essential to the conservation of the species and meet the **Criteria Used to Identify Critical Habitat**. These areas support a general conservation strategy for rusty patched bumble bee that identifies areas that support the healthiest remaining populations, have limited interactions with managed bees, and have adequate pollen and nectar resources for the entire flight season. These areas also support genetically distinct populations of rusty patched bumble bees that are important for the conservation of the species.

Peer reviewers also provided updated information related to species biology and general expertise that are incorporated into this final designation.

Peer Reviewer Comments

(1) Comment: Peer reviewers disagreed with our 50-observation criterion used for delineating critical habitat. They stated this criterion was biased by human survey patterns, this was an arbitrary number, and that we did not provide an adequate rationale for choosing that number.

Our response: Critical habitat designations can only contain areas that meet the definition of critical habitat as established by the Act. Critical habitat is, in part, those areas that contain physical or biological features essential to the conservation of the species or as described by the U.S. Supreme Court, those areas that are "indispensable" to the conservation of the listed species (*Weyerhaeuser Co. v. United States Fish & Wildlife Serv*., 586 U.S. 9 (2018)). During our analysis of which areas meet the definition of critical habitat, we must develop criteria that help us delineate these areas that meet the definition of critical habitat. Areas that have had relatively high observations over time likely support the healthiest and most robust remaining populations of rusty patched

bumble bee. We concluded that these areas are indispensable to the conservation of the species.

We selected 50 observations as a starting point in our analysis to ensure that we were including all occupied habitat that supports a relatively large and sustained number of bees and specifically those areas that are known to be biologically important to the species. One of the criteria used to identify critical habitat is overlapping areas that likely have multiple colonies interacting with each other. A minimum of 50 verified rusty patched bumble bee observations since 2007 within estimated foraging and dispersal distances of one another likely represents multiple, interacting colonies existing over time, rather than observations of a single individual. No commentor or reviewer suggested an alternative number to 50 observations, or a rationale to support using any other number.

After reviewing the comments received, we conducted additional analyses to evaluate whether the use of 50 observations was a biologically appropriate criterion. We used a spatial analysis to overlay the results from an occupancy model (Ellis et al. 2025, entire), published subsequent to the proposed rule, to evaluate rusty patched bumble bee occupancy estimates among 3.9 square mile (mi^2; 10 square kilometer (km^2)) grid cells that do and do not contain proposed critical habitat. These data spatially incorporate the same ecological considerations we represented with our metric of 50 verified observations since 2007; that is, areas which represent multiple, interacting colonies existing over time. The model corrects for detection bias, non-detection or negative survey results, and estimated rates of extirpation and recolonization from neighboring grid cells (Ellis et al. 2025, pp.4–5). Further, with the correction for detection biases, concerns relating to survey effort bias and detection probability are also addressed (Ellis et al. 2025, pp. 4–5).

All proposed critical habitat occurs on occupied habitat within a subset of the areas delineated as high potential zones (HPZs; the areas with the highest likelihood of rusty patched bumble bee presence). The HPZs were created based on verified rusty patched bumble bee observation points from 2007–2022, estimated foraging and dispersal distances, and barriers to dispersal (more information on HPZs can be found online at https://www.fws.gov/media/high-potential-zone-model-rusty-patched-bumble-bee). Based on model results (Ellis et al. 2025, pp. 6–7, Ellis pers. comm. 2025) and using occurrence data from 2017 (the year rusty patched bumble bee was listed) to 2022, the mean average occupancy in the critical habitat units that overlap with HPZs is 0.69; mean average occupancy in all other HPZs is 0.50; and mean average occupancy of the species in areas outside of any HPZs is 0.10. In other words, the critical habitat units delineated using our original criteria cover areas that have a 59 percent higher average occupancy by rusty patched bumble bee since the time of listing than areas outside of the HPZs and a 19 percent higher average occupancy than HPZs with fewer than 50 recent observations of the species. The model focused on the Midwest (Ellis et al, p. 3), therefore the Back Creek Mountain Unit was not included in the model so that unit is not included in our analysis. We refer the reader to Ellis et al. (2025, pp. 2–4, 8) for important assumptions on the occupancy data used for their analyses.

(2) Comment: The peer reviewers and some public commenters stated that the designation was improperly limited to an assessment of known remaining populations, not of the "physical or biological features essential to the conservation" of the species. The peer reviewers did not feel that we adequately considered unoccupied critical habitat. They had concerns with a potential inconsistency between the Recovery Plan for this species and the proposed critical habitat designation. Per the commenters, the 2021 Recovery Plan defines conditions for recovery as including existence of multiple healthy populations in each of the five Conservation Units, but the proposal did not include

critical habitat in two of these Conservation Units (e.g., Conservation Units 3and 5), therefore potentially limiting recovery efforts.

Our Response: We identified the physical or biological features for the species based on its individual, population, and species level needs, as they relate to habitat requisites rather than population demographic metrics. To aid us in determining which areas meet the definition of critical habitat, we used a conservation strategy to help us identify key areas that contain the physical or biological features. This identification was not limited to only areas that were occupied at the time of listing. However, our analysis did not identify any specific geographic areas that were unoccupied at the time of listing, that could be identified as essential for the conservation of the species and that met the definition of critical habitat. Instead, we found there is a large amount of suitable unoccupied habitat, available for the species to use, throughout its historical range in each of the five Conservation Units identified in the 2021 Recovery Plan. For example, within Conservation Unit 5, there are 21,188,862 acres (8,574,828 hectares) of deciduous forest habitat (National Land Cover Database, https://www.usgs.gov/centers/eros/science/national-land-cover-database), some of which may be used for overwintering, but we were unable to identify any specific deciduous forest habitat in that Unit that meets the definition of critical habitat. Furthermore, recovery efforts are not restricted to areas that are designated as critical habitat. A lack of designated critical habitat does not preclude recovery efforts in either occupied or unoccupied areas. It is important to note that critical habitat is one of several tools available to support species recovery, and we are required to designate only those areas that meet the definition of critical habitat under the Act. Other mechanisms may, in some cases, provide more targeted or effective conservation benefits depending on the context (e.g., efforts to reduce threats and foster public and stakeholder engagement).

Recovery efforts for the rusty patched bumble bee are not limited by the decision to not include Conservation Units 3 and 5 in the critical habitat designation. Conservation actions outlined in the Recovery Plan can still be implemented regardless of a critical habitat designation. Finally, rusty patched bumble bees are still protected under section 9 and section 7 of the Act when it is found in these Conservation Units because it is listed as an endangered species wherever it is found.

(3) Comment: One peer reviewer stated the overwintering habitat description of upland closed-canopy forest interior does not encompass the full scope of areas where rusty patched bumble bee may overwinter. Upland closed-canopy forest interior is limited in occupied urban and suburban areas. They further stated that queens may overwinter within approximately 7.5 miles (mi; 12 kilometers (km)) of any extant sighting, as spring queens may travel approximately 6.2 mi (10 km) in search of nesting sites and the foragers produced at that site may travel an additional 0.6–1.2 mi (1–2 km) from their nests.

Our Response: We agree that the species may overwinter in several habitat types, but the best available scientific information does not identify other specific habitat types used for wintering by the rusty patched bumble bee. The only observation of an overwintering rusty patched bumble bee queen was about 0.3 mi (0.5 km) into a maple forest habitat (Herrick, University of Wisconsin-Madison Landscape Arboretum, 2016 and 2024, pers. comm.). Based on that observation, together with overwintering observations of other bumble bee species, we concluded that successful overwintering likely occurs in shaded areas to prevent early queen emergence due to warming soil temperatures (Alford 1969, pp. 149–169). Forests are consistently shaded natural areas. Therefore, we concluded overwintering likely occurs in forests. However, we have clarified our definition of overwintering habitat in response to the comments. Specifically, we note that rusty patched bumble bees may successfully overwinter in any

suitable contiguous forest patches (i.e., forested areas that provide pollen and nectar for immediate spring queen foraging after emergence from diapause, leaf litter or duff for burrowing, with uncompacted soils and not dominated by understory invasive plant species, like common buckthorn, (*Rhamus cathartica*) that contain sufficient shade). Suitable forest patches greater than 82 feet (ft; 25 meters (m)) from a non-forested edge are buffered from edge influences (Harper et al. 2005, p. 774) and therefore are more likely to have sufficient shade to prevent early queen emergence.

(4) Comment: One peer reviewer stated that high density managed bees (e.g., urban honey beekeeping) occurs within the proposed units, yet we do not include habitat within agricultural matrices, which may provide floral resources outside of periods when managed bees are being used in those landscapes.

Our Response: We evaluated all areas in the current and historical range of the rusty patched bumble bee to determine which areas meet the definition of critical habitat based on the physical or biological features and the criteria for delineating critical habitat, and we acknowledge that areas in agricultural landscapes may contain floral resources used by the species. There is a large amount of unoccupied and occupied suitable habitat within the historical range of the rusty patched bumble bee, but no additional areas meet the definition of critical habitat. The areas designated as critical habitat are those areas that contain the physical or biological features essential to the conservation of the species; these areas support the healthiest known populations of rusty patched bumble bee that remain today and are indispensable to the conservation of the species.

Critical habitat is just one tool used in the recovery of listed species. Other tools include (but are not limited to) the implementation of the Recovery Plan, education and outreach, integration of best management practices into land use planning (e.g. voluntary habitat restoration and management) and, Conservation Benefit Agreements (and other non-Federal agreements). Other areas that support smaller populations of rusty patched

bumble bee or contain unoccupied suitable habitat will be important to the recovery of the species. However, these areas do not meet the definition of critical habitat.

(5) Comment: Both peer reviewers suggested that the critical habitat unit designation should rely on crop-specific, spatially explicit estimates of pesticide use, managed pollinator needs or uses, and distribution of large apiaries to better address pesticide and pathogen exposure that may occur in alternative agricultural land uses.

Our Response: To address concerns around the potential exposure to pesticides and pathogens we evaluated the proximity of rusty patched bumble bee critical habitat units to commercial apiaries, large-scale agricultural land use, and associated pesticide use.

We considered using apiary location data in our analysis but concluded that we do not have a reliable dataset with enough apiary locations (e.g., covering a large enough geographic scope for a meaningful analysis) and details (e.g., managed bee species, dates of use, stocking rates). Generally, the locations of many apiaries are not publicly available.

To analyze the proximity of large-scale agriculture to the critical habitat units and crop-specific and spatially explicit estimates of pesticide use, we first conducted a spatial analysis to calculate the area of each specific agricultural crop type within the critical habitat units (e.g. "corn" or the agricultural classification "grassland/pasture") using the National Land Cover Database layer and classifications (https://www.usgs.gov/centers/eros/science/national-land-cover-database). Agricultural acres were calculated for each of the 14 units and within 6.2 mile (10 km) surrounding each of the 14 units, to determine if there were substantial differences in the proportion of agricultural land uses and dominant crop types at the estimated maximum dispersal distance for the rusty patched bumble bee (6.2 mi, 10 km) around these units. These data were then summarized into the top 5 agricultural crop types within the 14 units and again

at the 6.2 mi (10 km) buffered distance. Once we determined the dominant agricultural uses within each unit and in the surrounding 6.2 mi (10 km), we evaluated the typical pesticides used on each of the top five crops. Corn, soybeans, grassland/pasture, alfalfa (grown for hay/forage), and winter wheat were the top five crops within the unit and surrounding 6.2-mile area for all units except Unit 14. The top five crops in Unit 14 were deciduous forest, mixed forest, evergreen forest, grassland/pasture, and other hay (not alfalfa). Of the top 5 agricultural crops within both the critical habitat units and the 6.2 mi (10 km) buffers, none of these typically use commercially managed bees.

The limited pesticide data that are publicly available are time-limited estimates reported at scales much larger than the critical habitat units (e.g., USGS pesticide synthesis data (https://water.usgs.gov/nawqa/pnsp/usage/maps/county-level) reports 1992–2019 data at the county and state levels). We are unable to accurately extrapolate the pesticide use by crop type within units, and any attempt to do so would result in averaged estimates rather than unit-specific data. However, a summary of all the major publicly available pesticide data sets (n=5) between 1992–2012 showed that 34–44 percent of soybeans and 79–100 percent of corn hectares were treated with neonicotinoid seed treatments (NSTs) in 2011 (Douglas and Tooker 2015, entire). The NSTs are also used in winter wheat and other crops.

The ratio of crop acreage within the units is much less than the ratio outside of the units. For example, within Unit 10 (McHenry), the top five crop types by acre are grassland/pasture (10,709 ac (4,333 ha)), corn (5,921 ac (2,396 ha)), soybeans (4,120 ac (1,667 ha)), alfalfa (510 ac (206 ha)), and winter wheat (380 ac (154 ha)). Buffered at 6.2 mi (10 km), the top five crop types for Unit 10 are corn (52,935 acres (21,422 ha)), grassland/pasture (35,845 ac (14,505 ha)), soybeans (31,034 ac (12,559 ha)), alfalfa (5,801 ac (2,347 ha)), and winter wheat (3,907 ac (1,581 ha)). This same pattern exists for all critical habitat units, except the dominant crop types in and surrounding Unit 14

are different from the other units (i.e., Unit 14 is dominated by deciduous forest, mixed forest, evergreen forest, grassland/pasture, and other hay (not alfalfa) within the unit and within the 6.2 mi (10 km) buffer). Thus, while the agricultural acres increase substantially outside of the units (at the 6.2 mi (10 km) buffered distance), the crop types remain the same. Therefore, the types of pesticides in these areas (predominantly NSTs) do not change.

(6) Comment: One peer reviewer and several public commenters pointed out that we did not define "large scale" or "industrial" agriculture.

Our Response: Generally, large scale, intensive or industrial agriculture is agriculture which is designed for maximum yield and profit, and which typically relies at least in part on advanced technology, chemical inputs, and/or extensive irrigation. The U.S. Department of Agriculture (USDA) does not have an official definition of "industrial agriculture", but the term generally refers to large-scale, high-input farming systems that rely on mechanization, synthetic fertilizers, and pesticides to maximize crop and livestock yields.

Comments from States

(7) Comment: Virginia Department of Wildlife Resources (VADWR) commented that the critical habitat designation will limit their ability to manage habitat to meet their goals of restoring, creating, and managing native ecosystems for biodiversity, public access, and wildlife-related recreation.

Our Response: The critical habitat designation will have no additional regulatory effect on projects to manage habitat by the state of Virginia where there is no Federal nexus. Critical habitat designations only require Federal agencies to use their authorities to conserve endangered and threatened species and consult with us about actions that they carry out, fund, or authorize to ensure that they will not destroy or adversely modify critical habitat.

Unit 14 is largely owned by the U.S. Forest Service, making up approximately 90 percent of the unit. To facilitate the consideration of rusty patched bumble bees when conducting habitat restoration and maintenance in this largely forested area, we coordinated with the Eastern and Southern Regions of the U.S. Forest Service and are using consultation tools to facilitate their work. For example, we developed a proactive conservation approach to streamline section 7(a)(2) consultations for projects that may affect the rusty patched bumble bee on the Monongahela and George Washington and Jefferson National Forests (in West Virginia and Virginia). As a result, we issued a programmatic biological opinion outlining Forest Service habitat management actions that provide conservation benefits for the rusty patched bumble bee. The biological opinion also identified several possible conservation measures for each management action that when implemented, which will help minimize adverse effects to the rusty patched bumble bee. This consultation included all the rusty patched bumble bee habitat where the High Potential Zones (HPZs, mapped areas where the Service recommends consultations) and the two National Forests overlapped; this area largely coincides with the Back Creek Mountain Unit (Unit 14). We anticipate that the programmatic biological opinion for the species will also streamline consultations related to critical habitat designations in the two National Forests and streamline section 7 consultations for forest habitat management in other critical habitat units by providing a framework for other partners to use for similar activities. Further, this consultation and the resulting conservation measures could be used by other entities interested in conservation of the species.

(8) Comment: The VADWR commented that the Unit 14 designation does not offer enhanced rusty patched bumble bee conservation because Unit 14 overlaps considerably with the mapped HPZs in Virginia and the HPZs are already being used to trigger section 7 consultations on the species.

Our Response: The benefits of including lands in critical habitat can be regulatory, educational, or to aid in recovery of species as generally discussed throughout **Consideration of Impacts Under Section 4(b)(2) of the Act** below. For rusty patched bumble bee, the benefits of critical habitat include public awareness of the presence of species and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for rusty patched bumble bee due to protection from destruction or adverse modification of critical habitat.

Consultations under section 7 of the Act require that agencies ensure their activities are not likely to jeopardize the continued existence of federally listed species, like the rusty patched bumble bee. These consultations consider activities that may affect the species and often its habitat. However, under section 7 of the Act, the agencies are also required to ensure their activities will not likely adversely modify designated critical habitat. Regulations implementing these sections of the Act define "jeopardize the continued existence of" as: "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species," and "destruction or adverse modification" as: "a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species" (see 50 CFR 402.02). Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical. As required by the Act, we designate as critical habitat those areas occupied by the species at the time of listing and that contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection.

Public Comments

(9) Comment: Several public commenters stated we should add additional areas to the critical habitat designation. Specifically, one commenter said we failed to provide enough habitat to meet recovery goals, ignored unoccupied habitat and two Conservation Units, and did not include substantial areas that should be part of the critical habitat designation. The commenters stated that failure to designate critical habitat in unoccupied areas and agricultural areas diminishes the potential for recovery of the rusty patched bumble bee. Other commenters suggested that we should also designate other occupied areas (or all occupied areas) as critical habitat. Lastly, commenters suggested that we should include agricultural lands where rusty patched bumble bees are present. They assert that these are the most at-risk populations and need the most protection.

Our Response: We designate areas that meet the definition of critical habitat under the Act. Critical habitat is just one tool used to recover species. Some species may not have designated critical habitat, and we still work to recover these species. We do not identify acreages of critical habitat thresholds needed to recover a species in our recovery plans.

With respect to unoccupied habitat, the rusty patched bumble is a habitat generalist that historically occupied a relatively large range across a broad spectrum of habitat types. Sufficient suitable habitat exists throughout the historical range for rusty patched bumble bee recovery, and there are no specific unoccupied areas that are essential for the conservation of the species. See the **Criteria Used to Identify Critical Habitat** section below for more information. Recovery efforts may still take place in areas where rusty patched bumble bee is not present, but the best scientific data do not currently identify any specific unoccupied geographical areas that are essential for the conservation of the species (i.e., meet the definition of critical habitat). Accordingly, we have not designated any unoccupied critical habitat. Designating critical habitat does not "provide" additional habitat for a species. Critical habitat is one of several resources used

to recover a species and must be designated only in areas that meet the definition of critical habitat.

Not all occupied areas meet the definition of critical habitat; therefore, it would be inappropriate to include such areas in the designation. In this case, areas that are only occasionally occupied or support small populations and do not contain the physical or biological features essential to the conservation of the rusty patched bumble bee do not meet the definition of critical habitat.

See our response to Comment (4) above, related to the lack of agricultural areas included in the critical habitat designation. Furthermore, even if we were to designate agricultural areas as critical habitat (though we continue to maintain that there are no viable reasons to do so), under section 4(b)(2), we may exclude these areas from critical habitat if the benefits of exclusion outweigh those of inclusion, so long as exclusion will not result in extinction of the species.

(10) Comment: One public commenter provided more information about proposed Unit 7, specifically that the unit in Madison, Wisconsin includes lands managed by the U.S. Forest Service Forest Products Experimental Laboratory, University of Wisconsin Madison, hospitals and other developed lands that may not contain the physical or biological features essential to the conservation of the rusty patched bumble bee.

Our Response: We have included the additional ownership information in the unit description. The critical habitat designation overlaps a great deal of developed areas, such as lands covered by buildings, pavement, and other structures. These buildings, pavement, and other structures are not designated as critical habitat themselves because they lack the physical or biological features necessary for the rusty patched bumble bee. However, the physical or biological features for the rusty patched bumble bee are interspersed throughout the developed lands at such a scale that they cannot be mapped. The scale of the maps we prepared under the parameters for publication within the Code

of Federal Regulations may not reflect the exclusion of such structures. Any such structures inside critical habitat boundaries shown on the maps of this rule have been excluded by text in the rule and are not designated as critical habitat.

(11) Comment: Several commenters urged us to designate additional areas adjacent to proposed Unit 14 in the Appalachians due to the rusty patched bumble bee's genetic distinctiveness in this area and the unique ecological setting.

Our Response: We have designated a contiguous area in the Appalachian region (Unit 14) based on areas that meet the definition of critical habitat. The Appalachian unit represents a large and sufficient proportion of this genetically important and ecologically unique area. Following our methodology (see the **Criteria Used to Identify Critical Habitat** section), we identified areas in the Appalachians that contained 50 or more recent observations of the species or were genetically distinct from other Appalachian areas and were buffered from large-scale agriculture. Only one contiguous area (Unit 14) had 50 recent observations of the species. While additional areas show some genetic variation within the Appalachians, all the sampled sites in the area fell within the same genetic cluster (Mola et al. p. 6–7). Therefore, additional areas were not identified by our methodology. A lack of critical habitat does not prevent conservation for the rusty patched bumble bee from occurring in areas outside of the designated critical habitat. In addition, projects with a federal nexus that overlap with areas where there is a high likelihood of species presence (i.e., mapped HPZs) will still be considered in section 7(a)(2) consultations.

(12) Comment: Several commenters suggested that we designate corridors between proposed units as critical habitat, stating that these areas would provide additional opportunities for species interactions, support genetic exchange, and provide resilience from environmental stressors such as disease.

Our Response: Our conservation strategy and criteria for delineating critical habitat include considerations for genetic diversity and prevention of inbreeding, as well as resilience to stressors. As mentioned in the proposed rule, 50 verified rusty patched bumble bee observations since 2007 within the estimated foraging and dispersal distances likely represents multiple, interacting colonies existing over time, which facilitates genetic mixing. The proposed critical habitat polygons included some small-scale agricultural lands and agricultural lands that employ organic practices (though this was not a specific land cover type or land use designation used in our analysis), as well as connections between individual HPZs – notably within Units 1, 7 and 8.

Additionally, critical habitat designations do not specifically provide opportunities for species interactions, nor does the lack of a critical habitat designation prevent the opportunity. Though the areas suggested for critical habitat by the commenters are important habitats, they do not meet the definition of critical habitat because they do not contain the physical or biological features essential to the conservation of the species and do not meet our criteria for inclusion.

(13) Comment: One commenter suggested that all areas that would be enrolled in an anticipated Nationwide Conservation Benefit Agreement for Bumble Bees on Energy and Transportation Lands (bumble bee CBA) should be excluded from the rusty patched bumble bee critical habitat designation.

Our Response: Individuals who enroll in the 11-species bumble bee CBA will receive formal assurances that if they fulfill the conditions of the CBA, we will not require any additional or different management activities by the participants without their consent. The bumble bee CBA was signed on May 1, 2026; however, no areas have been enrolled in this program as of this date and thus cannot be considered for exclusion at this time. Additionally, we anticipate that many of the same partners participating in the monarch CCAA will enroll their lands in the bumble bee CBA, in which case these

overlapping areas would already be excluded from critical habitat. Once enrollment in the CBA begins, the bumble bee CBA will provide conservation benefits for the rusty patched bumble bee while providing regulatory assurances for those enrolled. Additionally, if we have a substantial number of enrollees in the bumble bee CBA, we could be petitioned to revise critical habitat under the Act or we may discretionarily revisit the critical habitat to determine whether those areas should be excluded from critical habitat under section 4(b)(2) of the Act.

(14) Comment: The Energy and Wildlife Action Coalition (EWAC) encouraged the Service to reconsider the breadth of the proposal. The EWAC stated that projects planned within or near areas designated as critical habitat and that have a Federal nexus will experience delay and increased costs associated with a section 7 consultation, even where surveys demonstrate rusty patched bumble bee absence from the project area.

Our Response: Projects with a Federal nexus that overlap with HPZs consult with the Service regardless of the critical habitat designation. In HPZs with suitable habitat, conducting surveys would not relieve the Federal agency of its requirement to consult. Areas that are not habitat within an HPZ, such as buildings, pavement, and other structures, are not designated as critical habitat, and no consultation is needed (See **Criteria Used to Identify Critical Habitat**). As described in the economic screening analysis, all areas designated as critical habitat for the rusty patched bumble bee are considered occupied and therefore already require section 7 consultation for activities that "may affect" the species independent of any critical habitat designation. The screening analysis projected additional administrative efforts to evaluate the potential for adverse modification of the rusty patched bumble bee critical habitat during the consultation process (IEc 2025, p. 11). As part of the consultation process, even if surveys are conducted that demonstrate absence of the species, the project proponent would still have to consider the critical habitat designation.

The critical habitat designation is based, in part, on the presence of rusty patched bumble bee. As confirmed in the "Rusty Patched Bumble Bee (*Bombus affinis*): Endangered Species Act Section 7(a)(2) Voluntary Implementation Technical Assistance" (available online https://www.fws.gov/media/esa-section-7a2-voluntary-implementation-technical-assistance-rusty-patched-bumble-bee), projects with a Federal nexus occurring within or affecting HPZs require section 7 consultations to assess potential adverse effects to the species. Once critical habitat is designated in these occupied areas, consultations in these critical habitat units would also need to consider potential for destruction or adverse modification to critical habitat. In recognition of the additional requirement to consider critical habitat in the section 7 consultation, the costs of this additional layer of compliance is quantified in the economic screening analysis. While we anticipate little to no additional consultations solely due to the designation because the areas are already considered to be occupied by the species, we note that additional analyses would be required to determine the effects of the action on the critical habitat in addition to the effects on the species. For the most part, the additional costs of avoiding the destruction and adverse modification of critical habitat are anticipated to be minimal because the measures implemented to minimize impacts to habitat to avoid jeopardizing the species are expected to prevent the destruction and adverse modification of critical habitat. As a result, the additional compliance costs associated with critical habitat designation are expected to be minimal. Nevertheless, in our economic screening analysis for the rusty patched bumble bee, we acknowledge the increased complexity of Section 7 consultations that consider critical habitat in addition to the species presence and quantify that administrative burden.

We acknowledge in rare cases that if an action agency chooses to conduct surveys and determines the rusty patched bumble bee does not occur in the action area and they determine there will be no effect to the species, the critical habitat designation could

trigger the need to consult, which would result in costs that are solely based on the critical habitat. Since the species listing in 2017, no action agency has chosen to conduct surveys to establish absence rather than consult with us on the species. We anticipate that this situation will continue to be exceedingly rare.

(15) Comment: The EWAC commented that the critical habitat designation will increase delays and costs to electric generation and transmission and distribution projects, despite the ongoing efforts of such entities to proactively engage in rusty patched bumble bee conservation efforts. The comment states that designation of critical habitat adds an additional regulatory hurdle that could render some development projects infeasible, create new barriers, and dampen industry efforts to employ proactive, creative solutions to addressing complex conservation and electric reliability issues. The comment further describes that where the designation overlaps with existing electric infrastructure, it will likely increase facility management costs, increasing the electricity costs to customers.

Our Response: The rusty patched bumble bee has been listed as an endangered species since 2017. Since that time, we have consulted on projects and activities with a Federal nexus and made recommendations for project modifications to ensure these projects and activities minimize or avoid adverse effects on the species. In developing the critical habitat rule, we considered the potential for critical habitat to result in different project modifications than those typically recommended to avoid adverse effects on the species (which already consider the species' habitat). Best management practices or project modifications associated with the section 7 consultation process to prevent adverse effects to the species are also likely to directly prevent adverse modification or destruction of critical habitat. And because adverse modification and destruction of critical habitat are evaluated at the scale of the entire designation, projects taking place in a single critical habitat unit for rusty patched bumble bee are unlikely to trigger adverse modification or destruction of critical habitat from a single project. We recognize the

proactive pollinator conservation that owners and operators of electric generation and transmission projects employ, and those activities will be considered during consultations for the species and its critical habitat.. Thus, it is unlikely that the critical habitat designation would result in additional project modifications or barriers for development projects or for existing infrastructure and facility management above and beyond what would already be recommended due to the listed status of the species.

(16) Comment: The EWAC commented that the Service should reconsider its approach to analyzing the economic impacts associated with designating critical habitat, stating that the Service only considers administrative costs to the agency of undertaking an adverse modification analysis in the context of section 7 consultations. The comment states that this approach ignores the actual costs of requirements for mitigation and project delays, particularly where designated critical habitat extends beyond habitat that is presently occupied by a species. The comment describes that, absent critical habitat, if a project proponent conducts presence/absence surveys that demonstrate absence of relevant species, formal section 7 consultation may not be required if the project proponent or federal action agency concludes that the action is not likely to affect the listed species. The commenter then states that if that same area is designated as critical habitat, consultation may be required if the action may affect critical habitat, even absent the presence of the listed species.

Our Response: The scope of the economic screening analysis is not limited to the administrative costs to the agency of conducting an adverse modification analysis as part of section 7 consultations. Consistent with 50 CFR 424.12, the economic screening analyses consider the "probable" incremental economic impacts of designating critical habitat. This includes considering potential for the rule to result in administrative costs (to the U.S. Fish and Wildlife Service, to Federal action agencies, and to third parties to consultation), costs of implementing project modifications resulting from section 7

consultation, and other costs potentially triggered by the rule even outside of section 7 consultation (e.g., potential for additional state or local regulatory requirements, project delays, or perceptional effects on land values).

Section 7 consultation is required for projects or activities with a Federal nexus that "may affect" the species or its critical habitat. For critical habitat area that is not occupied by the species (i.e., "unoccupied critical habitat"), the presence of critical habitat triggers the need for section 7 consultation. For example, the project or activity may not affect the species (because it is not present) but may affect the critical habitat. Accordingly, designation of unoccupied critical habitat may have a higher likelihood of generating additional costs of consultation (both administrative and project modification costs). However, we are not designating any unoccupied critical habitat for the rusty patched bumble bee. For the rusty patched bumble bee, where we determined that additional project modifications are a probable outcome of critical habitat designation, the economic screening analysis considered the associated costs.

EWAC provided baseline costs associated with the listing of the rusty patched bumble bee, which were incorporated into the economics analysis. However, they did not provide information to support their comment that designating critical habitat would increase the cost of consultation above that of associated administrative costs. In the case of the rusty patched bumble bee, all designated critical habitat is currently occupied by the species. Projects and activities with a Federal nexus in these areas are subject to section 7 consultation and associated project modification recommendations regardless of whether critical habitat is designated. The Service determined that critical habitat is unlikely to change the conservation recommendations made as part of these consultations. Thus, the analysis finds that costs of additional project modifications are not a probable outcome of the critical habitat rule.

Background

Section 4(a)(3) of the Act requires that, to the maximum extent prudent and determinable, we designate a species' critical habitat concurrently with listing the species. Critical habitat is defined in section 3(5)(A) of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (i.e., range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (e.g., migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3(3) of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that each Federal action agency ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of designated critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Rather, designation requires that, where a landowner requests Federal agency funding or authorization for an action that may affect an area designated as critical habitat, the Federal agency consult with the Service under section 7(a)(2) of the Act. If the action may affect the listed species itself (such as for occupied critical habitat), the Federal action agency would have already been required to consult with the Service even absent the designation because of the requirement to ensure that the action is not likely to jeopardize the continued existence of the listed species. Even if the Service were to conclude after consultation that the proposed activity is likely to result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement "reasonable and prudent alternatives" to avoid destruction or adverse modification of critical habitat. While these alternatives must be technologically and economically feasible, we acknowledge that their consideration may have incremental impacts on the timelines and cost of projects implemented within the critical habitat designation.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special

management considerations or protection. For these areas, critical habitat designations identify, to the extent known, and using the best scientific data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4(b)(2) of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information compiled in the SSA report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

A critical habitat designation does not signal that habitat outside the designated area is unimportant. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best scientific data available at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features Essential to the Conservation of the Species

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define “physical or biological features essential to the conservation of the species” as the features that occur in specific areas and that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles

of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, we may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

Species Needs

Overwintering

Little is known about the overwintering habitats of rusty patched bumble bee queens, but based primarily on observations of other species, we assume that rusty patched bumble bee queens overwinter in upland closed-canopy forest. Forests are ecosystems where trees are the dominant life form. Forest interiors are large blocks of unfragmented forest with continuous canopy that shows no detectable edge influences (Harper et al. 2005, p. 771) and forest edge is the interface between forested and non-

forested habitats that extends approximately 82 – 98 ft (25–30 m) into the forest (Harper et al. 2005, pp. 771, 774). Most overwintering *Bombus* queens reported in the literature in North America were underground, and most were in shaded areas near trees and in banks without dense vegetation (Liczner and Colla 2019, p. 787). The only documented overwintering rusty patched bumble bee queen, discovered in a hemlock grove within a larger maple oak-forest (about 0.3 mile (mi) (0.5 kilometer (km)) into the forest) in Wisconsin in 2016, was found on a level area near the bottom of a north-facing slope under a few centimeters of leaf litter and loose soil (Herrick, University of Wisconsin-Madison Landscape Arboretum, 2016 and 2024, pers. comm.). Other species of the *Bombus* genus typically form a chamber in loose (uncompacted), soft soil, a few centimeters deep in bare earth, in moss, under tree litter, or in bare patches within short grass, and they may avoid areas with dense vegetation (Alford 1969, p.156; Liczner and Colla 2019, p. 792). Overwintering habitat preferences may be species-specific and dependent on factors such as slope orientation and timing of emergence. For example, *Bombus* queens have been found in well-drained soil that was shaded from direct sunlight in banks or under trees and was free from living ground vegetation (Alford 1969, pp.150–152). For underground sites, soil type is often described as sandy and well-drained (Alford 1969, p. 169), which suggests that maintaining a consistently low moisture level is important (Sladen 1912, pp. 94–101). Because soil temperature influences diapause duration and emergence (Alford 1969, pp. 161–168; Beekman et al. 1998, p. 207), it has been hypothesized that the apparent preference for north-facing slopes and shaded areas is to prevent the overwintering queens from emerging too early on relatively warm days in the winter or early spring (Alford 1969, pp. 149–169), and more generally, it could suggest selection of sites that buffer hibernating bees from both temperature and moisture fluctuations (Williams et al. 2019, pp. 1–3). Based on these studies, we assume rusty patched bumble bees are overwintering in any contiguous forest patch (i.e., forested areas

with native plants that provide springtime pollen and nectar, with leaf litter or duff for burrowing, with uncompacted, well drained soils and not dominated by invasive understory plant species, like common buckthorn) that contains forest greater than 82–98ft (25–30m) from a non-forested edge.

Nesting

Rusty patched bumble bee nests are typically 1 to 4 ft (0.3 to 1.2 m) underground in abandoned rodent nests, other mammal burrows, or other underground cavities with ample cover, and occasionally at the soil surface or in aboveground structures (Plath 1922 pp. 190–191; Macfarlane 1974, p. 5; Macfarlane 1994, pp. 5–6). Among the rusty patched bumble bee nests studied in Ontario, 95 percent were underground (Macfarlane 1974, p. 6; Macfarlane 1994, p. 5). More recent rusty patched bumble bee nest observations were associated with rodent burrows (Boone et al. 2022; Smith et al. 2025, p. 10), as were recently discovered nests of a closely related species, the western bumble bee (*B. occidentalis*) (Everett et al. in process, entire), which is in the same subgenus as rusty patched bumble bee. Three western bumble bee nests excavated in 2022 and 2023 in central Oregon were located in abandoned rodent burrows with soils classified as loamy sand, with an average of 84 percent sand particles (Everett et al. in process, entire). The transition zone between forest and grassland, as well as field boundaries, meadow margins, and forest edges, can be particularly valuable bumble bee nesting habitat due to the presence of abandoned rodent nests and undisturbed habitat with diverse floral resources (Hines and Hendrix 2005, p. 1483).

Foraging

Bumble bees are generalist foragers that collect nectar and pollen from a wide diversity of plants (Xerces 2013, pp. 27–28). The rusty patched bumble bee is one of the first bumble bee species to emerge early in the spring and last to go into diapause (hibernation) in the fall. To meet its nutritional needs, the species requires a constant and

diverse supply of flowers that bloom throughout the colony's flight period from spring through the fall (MacFarlane et al. 1994, p. 5). The nectar from flowers provides carbohydrates and the pollen provides protein, fatty acids, and micronutrients for the species (Di Pasquale et al. 2013, p. 4; Lau et al. 2022, pp. 6–8). The number of new queens that a colony can produce is directly related to the amount of pollen that is available (Burns 2004, p. 150).

Based on other *Bombus* species, which typically exhibit foraging distances of less than 0.6 mi (1 km) from their nesting sites (Knight et al. 2005, p. 1816; Wolf and Moritz 2008, p. 422; Dramstad 1996, pp. 163–182; Osborne et al. 1999, pp. 524–526; Rao and Strange 2012, pp. 909–911), the rusty patched bumble bee may need floral resources in close proximity to its nest, although studies have not confirmed this to date. The rusty patched bumble bee may also be dependent on forest spring ephemeral flowers because of the species' early emergence in the spring and its association with forests and near forested habitats (Colla and Dumesh 2010, pp. 45–46, 48).

Readily available access to high-quality foraging habitats near nests allows other bumble bee species' workers to maintain short foraging distances (Crowther et al. 2019). In Wisconsin, detection probabilities of all bumble bee species, including rusty patched bumble bees, increased with floral abundance (Nunes et al. 2024, p. 221). Furthermore, colonies with low floral abundance around their nests may produce few workers, and males may fail to produce any new queens (Pelletier and McNeil 2003, pp. 691–692; Burns 2004, pp. 149, 155–156; Samuelson et al. 2018, pp. 57; Timberlake et al. 2021, p. 1013). Workers of other bumble bee species can forage 0.6 mi (1 km) or more from nests but may predominantly forage within a few hundred meters (Dramstad 1996, pp. 170–175; Osborne et al. 1999, pp. 524–526, 529; Wolf and Moritz 2008, p. 422; Rao and Strange 2012, p. 911). A paucity of spring floral resources contributed to high pathogen

loads in one bumble bee species studied in Pennsylvania and may exacerbate the threat posed by disease transmission from honeybee apiaries (McNeil et al. 2020, p. 3).

The availability of floral resources is dependent on the proper soil and precipitation conditions to sustain them. Extended periods of drought, for instance, may lessen the availability and diversity of flowering plants in a given area because plant phenology is primarily driven by temperature, precipitation, and the timing of snowmelt in the spring (Inouye and Wielgolaski 2003, p. 207; Wielgolaski and Inouye 2003, pp. 179–181; Pyke et al. 2016, p. 12).

Dispersal Habitat

Based on studies of closely related species, the buff-tailed bumblebee (*Bombus terrestris*) (Kraus et al. 2009, p. 249; Lepais et al. 2010, pp. 826–827) and the yellow-faced bumble bee (*B. vosnesenskii*) (Jha and Kremen 2013, p. 2492), the maximum dispersal distance of rusty patched bumble bee males and new queens is estimated to be up to 10 km (6.2 mi) to find mates in the autumn. Floral resource availability within dispersal areas is important for fueling flight, particularly for males and gynes (female bumble bees that will become queens).

Summary of Essential Physical or Biological Features

We derive the specific physical or biological features essential to the conservation of the rusty patched bumble bee from studies of the species' habitat, ecology, and life history as described above. Additional information can be found in the SSA report (Service 2016, entire; available on https://www.regulations.gov under Docket No. FWS–R3–ES–2015–0112–0245). We have determined that the following physical or biological features are essential to the conservation of the rusty patched bumble bee:

(1) For overwintering, contiguous upland forest habitat, at least 82 feet (25 meters (m)) from a non-forested edge, with plants that provide spring pollen and nectar for

spring queen foraging immediately after emergence from diapause, containing leaf litter or duff for burrowing, and without dense invasive plant understory vegetation.

(2) For nesting, upland grasslands, shrublands, savannas, and the forest edge interface between forested and non-forested natural habitats that extends approximately 30 meters into the forest.

(3) For nesting, abandoned rodent burrows, other mammal burrows, existing cavities with ample cover, or similar existing cavities at the soil surface or below to 4 feet underground.

(4) For nesting and overwintering, well-drained, uncompacted, loose soils sheltered from the elements.

(5) For foraging, diverse, abundant, native floral resources for the entire active flight season.

Special Management Considerations or Protection

When designating critical habitat, we assess whether there are specific areas within the geographical area occupied by the species at the time of listing containing physical or biological features which (1) are essential to the conservation of the species, and (2) may require special management considerations or protection. The features essential to the conservation of this species may require special management considerations or protection to reduce stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), actions that increase competition for floral resources (e.g., use of managed bees), and pesticide applications. Sources of these stressors include, but are not

limited to, agricultural, municipal, and residential land uses. The physical or biological features for the rusty patched bumble bee may require special management considerations or protection to address these threats.

Management activities that could ameliorate these threats include, but are not limited to: management techniques to enhance floral resources or reduce invasive plants or both, such as planting or seeding to increase the abundance and diversity of native wildflowers (although we acknowledge that non-native floral resources play a role in the rusty patched bumble bee diet), removing and controlling invasive plants, using prescribed fire, and mowing; use of best management practices for managed bees to reduce or eliminate competition for resources; and use of forestry best management practices to enhance early spring foraging resources (e.g., spring ephemerals, native flowering trees) and to reduce ground disturbance in forested areas during the overwintering season.

These management activities would protect the physical or biological features for the species by maintaining and increasing nectar and pollen resources, maintaining or increasing the availability of suitable nesting habitat and potential nesting sites (e.g., rodent burrows), and maintaining or increasing the availability of suitable overwintering habitat for the species.

Criteria Used to Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat. We are not designating any areas outside the geographical area occupied by the

species because we have not identified any unoccupied areas that meet the definition of critical habitat. There are no unoccupied areas that are essential for the conservation of the rusty patched bumble bee. We identified no unoccupied areas that are free from potential interactions with managed bees or large-scale agricultural lands and contain the physical or biological features essential to the conservation of the species. There are no other areas that meet the definition of critical habitat. Because there are no bees in unoccupied areas, no unoccupied areas support genetically distinct populations of rusty patched bumble bee that are important for the conservation of the species or support the healthiest remaining populations that are still on the landscape. There are many unoccupied areas that may contain suitable habitat for the rusty patched bumble bee; however, we did not identify any specific unoccupied areas that are essential for the conservation of the species. Rusty patched bumble bee range is not restricted by a lack of habitat in its historical range. There are large areas of available suitable habitat where the rusty patched bumble bee no longer occurs; these areas can be considered in our recovery efforts with or without a critical habitat designation.

Sources of data for the rusty patched bumble bee and its habitat needs include research published in peer-reviewed articles on the species and related species, agency reports, communication with species experts, the 2021 rusty patched bumble bee recovery plan (Service 2021, entire), data submitted from 10(a)(1)(A) scientific recovery permit holders and public participation websites (e.g., https://www.inaturalist.org/), and the Service's published "High Potential Zones" (HPZ) and potential dispersal area data for rusty patched bumble bee (available from ArcGIS online at https://www.arcgis.com/home/item.html?id=15b68d967aab4737981d172e8e25f78f, accessed June 9, 2024).

After identifying areas that contain the physical or biological features essential to the conservation of the species, we then identified overlapping areas that likely have

multiple colonies interacting with each other. A minimum of 50 verified rusty patched bumble bee observations since 2007 within estimated foraging and dispersal distances of one another likely represents multiple, interacting colonies existing over time, rather than single observations of a single individual (most observations are of female workers; however, some observations are males or queens). Clustered, interacting colonies foster gene flow among them, thereby helping to facilitate genetic health. Maintaining gene flow among colonies is especially important in species like the rusty patched bumble bee because of genetic characteristics that can produce inviable or sterile males (that is, single locus complementary sex determination), which may lead to rapid extirpation, especially as colonies become small and isolated (Zayed and Packer 2005, p. 10744; Zayed 2009, entire).

We used the HPZ model developed at the time of listing to determine areas with the highest potential for the species to be present and for which observation points were within likely foraging or dispersal distances from each other. This model uses ArcGIS software that considers the likelihood of rusty patched bumble bee movement based on the National Land Cover Database (NLCD; https://www.usgs.gov/centers/eros/science/national-land-cover-database). This model assesses the likelihood of rusty patched bumble bee distribution from the locations of known records based on the manner in which various land cover types may affect bumble bee movement and behavior. Land cover types are grouped as having strong, moderate, weak, or no limits on the species' movement based on the best available information for this species or similar bumble bee species. This methodology was based on a similar model created to examine movement of the yellow-faced bumble bee (*Bombus vosnesenskii*) (Jha and Kremen 2013, entire). The polygons generated from the HPZ model suggest areas with the highest potential for the species to be present, based on typical bumble bee foraging distances, estimated dispersal distances, and the ability of

bumble bees to move through various land cover types, but the model does not attempt to identify or quantify suitable habitat for the species (for more details, see https://www.fws.gov/media/high-potential-zone-model-rusty-patched-bumble-bee).

After identifying areas that likely have multiple interacting colonies and are within a contiguous HPZ, we then identified areas that are genetically distinct. Analyses of rangewide genetic data collected from extant records show that rusty patched bumble bees in the Appalachian region of West Virginia and Virginia represent a genetically distinct population cluster with substantial differentiation from the rest of the extant range (Mola et al. 2024, p. 8).

Finally, we included areas buffered from the impacts of large-scale agricultural use of pesticides and managed bees. Prior to its listing as endangered in 2017, the species experienced a widespread and steep decline. The exact cause of the decline is unknown, but evidence suggests a synergistic interaction between an introduced pathogen and exposure to pesticides (specifically, insecticides and fungicides; Service 2016, p. 53). Pathogens can be introduced to rusty patched bumble bees through managed bees. Generally, the term "managed bees" is defined as hives or colonies of bees that are used commercially to provide pollination services for a wide variety of crops over the growing season, with some hives or colonies moved within and among States multiple times throughout any one growing season. We, therefore, include only areas that are at least 0.6 mi (1 km) away from large-scale and intensive agricultural areas that rely on pesticides, or use a variety of managed bees for pollination, or both. This distance is used to buffer areas from the potential impacts of managed bees and pesticides that may be used in large-scale agriculture.

In summary, for areas within the geographical area occupied by the species at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) Areas within a contiguous high potential zone (HPZ) with 50 or more positive observations since 2007.

(2) Areas that include any known genetically distinct populations.

(3) Areas that are at least 0.6 mi (1 km) away from large-scale agriculture that use pesticides, managed bees, or both.

By applying this methodology, we delineated the areas that meet the definition of critical habitat for the rusty patched bumble bee. The Act's definition of "critical habitat" requires the Secretary to identify areas based on the conservation needs of the species and section 4(b)(2) expressly requires designations to be made based on the best scientific data available. Having followed the biologically driven first step of identifying "critical habitat" for a species, the Secretary next turns to the remaining procedures set forth in section 4(b)(2), which allow for consideration of whether those areas ultimately should be designated as critical habitat. Pursuant to the first sentence of section 4(b)(2), the Secretary undertakes the mandatory consideration of impacts on the economy and national security, as well as any other impacts the Secretary determines relevant. However, weighing analyses for exclusion under section 4(b)(2) of the Act are not conducted for areas not identified as critical habitat.

This critical habitat overlaps a great deal of developed areas, such as lands covered by buildings, pavement, and other structures. These structures are not designated as critical habitat themselves because such structures lack the physical or biological features essential to the conservation of the rusty patched bumble bee. However, the physical or biological features for rusty patched bumble are interspersed throughout the developed lands at such a scale that they cannot be mapped. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such structures. Any such structures left inside critical habitat boundaries shown on the maps of this rule have been excluded by text in the rule

and are not designated as critical habitat. Therefore, a Federal action involving such structures (and not affecting the designated critical habitat) will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action will affect the physical or biological features in the surrounding critical habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Regulation Promulgation**. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on https://www.regulations.gov at Docket No. FWS–R3–ES–2024–0132 and on our internet site https://www.fws.gov/species/rusty-patched-bumble-bee-bombus-affinis.

Final Critical Habitat Designation

We are designating 14 units as critical habitat for the rusty patched bumble bee. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for rusty patched bumble bee. The 14 areas we designate as critical habitat are: (1) Minneapolis-St. Paul Metropolitan; (2) Northfield; (3) Rochester; (4) Winona; (5) Denzer; (6) Bunker Hill; (7) Madison; (8) Milwaukee; (9) Rockford; (10) McHenry; (11) Elgin; (12) Lost Nation; (13) Iowa City; and (14) Back Creek Mountain. Table 1 shows the critical habitat units and the approximate area of each unit.

Table 1. Final Critical Habitat Units for the Rusty Patched Bumble Bee.

[Area estimates reflect all land within critical habitat unit boundaries.]

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Acres (Hectares)	Change from the Proposed Rule

1. Minneapolis-St. Paul Metropolitan (Minnesota)	Private Federal State/local Tribal **Total**	462,540 (187,183) 5,337 (2,160) 49,891 (20,190) 3,086 (1,249) 520,854 (210,782)	-46,951 ac (-19,000 ha)
2. Northfield (Minnesota)	Private Federal State/local Tribal **Total**	11,542 (4,671) 0 496 (201) 0 12,038 (4,872)	-518 ac (-210 ha)
3. Rochester (Minnesota)	Private Federal State/local Tribal **Total**	40,727 (16,482) 0 889 (360) 0 41,616 (16,841)	-1,475 ac (-597 ha)
4. Winona (Minnesota)	Private Federal State/local Tribal **Total**	27,905 (11,293) 0 404 (163) 0 28,309 (11,456)	-1,514 ac (-613 ha)
5. Denzer (Wisconsin)	Private Federal State/local Tribal **Total**	26,283 (10,636) 0 706 (286) 0 26,989 (10,922)	-20 ac (-8 ha)
6. Bunker Hill (Wisconsin)	Private Federal State/local Tribal **Total**	13,558 (5,487) 0 4,758 (1,925) 0 18,316 (7,412)	-370 ac (-150 ha)
7. Madison (Wisconsin)	Private Federal State/local Tribal **Total**	198,107 (80,171) 304 (123) 6,712 (2,716) 4 (2) 205,127 (83,011)	-5,626 ac (-2,277 ha)
8. Milwaukee (Wisconsin)	Private Federal State/local Tribal **Total**	225,865 (91,404) 126 (51) 12,927 (5,231) 10 (4) 238,928 (96,691)	-14,064 ac (-5,692 ha)
9. Rockford (Illinois)	Private Federal State/local Tribal **Total**	128,064 (51,826) 0 2,604 (1,054) 0 130,668 (52,879)	-19,441 ac (-7,867 ha)
10. McHenry (Illinois and Wisconsin)	Private Federal State/local Tribal **Total**	58,601 (23,715) 2 (1) 6,861 (2,777) 0 65,464 (26,492)	-2,831 ac (-1,146 ha)
11. Elgin (Illinois)	Private	57,285 (23,182)	-5,301 ac

	Federal State/local Tribal **Total**	0 12,494 (5,056) 0 69,761 (28,231)	(-2,145 ha)
12. Lost Nation (Illinois)	Private Federal State/local Tribal **Total**	12,046 (4,875) 0 597 (242) 0 12,643 (5,116)	-2,400 ac (-971 ha)
13. Iowa City (Iowa)	Private Federal State/local Tribal **Total**	30,500 (12,343) 11,209 (4,536) 3,922 (1,587) 0 45,631 (18,466)	-271 ac (-109 ha)
14. Back Creek Mountain (Virginia and West Virginia)	Private Federal State/local Tribal **Total**	11,193 (4,530) 105,551 (42,715) 1,845 (747) 0 118,589 (47,991)	-14 ac (-6 ha)
Totals	Private Federal State/local Tribal **Total**	1,304,216 (527,797) 122,529 (49,586) 105,106 (42,535) 3,100 (1,255) 1,534,951 (621,173)	-100,795 ac (-40,790 ha)

Note: Area sizes may not sum due to rounding.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for rusty patched bumble bee, below. All units are occupied and contain all of the essential physical or biological features.

Unit 1: Minneapolis-St. Paul Metropolitan

Unit 1 consists of 520,854 ac (210,782 ha) in the Minneapolis-St. Paul metropolitan area of Minnesota in Ramsey, Scott, Dakota, Pierce, Washington, Carver, Hennepin, and St. Croix Counties. This unit consists of private lands (462,540 ac (187,183 ha)), Minnesota State and local government-owned lands (49,891 ac (20,190 ha)), Tribal lands (3,086 ac (1,249)), and Federal lands (5,337 ac (2,160 ha)). The Federal lands include the National Park Service's Mississippi National River and Recreational Area and Lower St. Croix National Scenic Riverway, and the Service's Minnesota Valley National Wildlife Refuge. Approximately 212 ac (86 ha) of privately owned lands are

managed by the U.S. Department of Agriculture's Natural Resources Conservation Service (USDA-NRCS) Wetlands Reserve Program. Tribal lands include Shakopee Mdewakanton Sioux Community and Shakopee Mdewakanton Sioux Community Off-Reservation Land Trust.

In the proposed rule, this unit comprised 567,805 ac (229,782 ha), an area which included lands covered by the monarch CCAA. We have excluded from the final designation the portion covered by the monarch CCAA, approximately 40,226 ac (16,279 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 6,725 ac (2,722 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule). This unit also exempts approximately 47 ac (19 ha) of the Ft. Snelling ARC. Their INRMP was updated to include the rusty patched bumble bee between the proposed and final designation of critical habitat (see the Exemptions section below).

Special management considerations or protection may be required within Unit 1 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 2: Northfield

Unit 2 consists of 12,038 ac (4,872 ha) in the Northfield, Minnesota, metropolitan area in Dakota and Rice Counties. This unit consists of private lands (11,542 ac (4,671 ha)), and Minnesota State and local government-owned lands (496 ac (201 ha)). There are no Federal or Tribal lands identified in this unit.

In the proposed rule, this unit comprised 12,557 ac (5,082 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 518 ac (210 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below).

Special management considerations or protection may be required within Unit 2 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 3: Rochester

Unit 3 consists of 41,616 ac (16,841 ha) in the Rochester, Minnesota, metropolitan area in Olmsted County. This unit consists of private lands (40,727 ac (16,482 ha)), and Minnesota State and local government-owned lands (889 ac (360 ha)). There are no Federal or Tribal lands identified in this unit.

In the proposed rule, this unit comprised 43,091 ac (17,438 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 1,094 ac (443 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 381 ac (154 ha) from this final designation, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 3 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction

activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 4: Winona

Unit 4 consists of 28,309 ac (11,456 ha) in the Winona, Minnesota, area in Winona County. This unit consists of private lands (27,905 ac (11,293 ha)), and Minnesota State and local government-owned lands (404 ac (163 ha)). There are no Federal or Tribal lands identified in this unit.

In the proposed rule, this unit comprised 29,823 ac (12,069 ha), an area which included lands covered by the monarch CCAA. We have excluded this unit the portion covered by the monarch CCAA, approximately 674 ac (273 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 840 ac (340 ha) from this final designation, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 4 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 5: Denzer

Unit 5 consists of 26,989 ac (10,922 ha) in Sauk County near Denzer, Wisconsin. This unit consists of private lands (26,283 ac (10,636 ha)), and Wisconsin State and local government-owned lands (706 ac (286 ha)). There are no Federal or Tribal lands identified in this unit.

In the proposed rule, this unit comprised 27,009 ac (10,930 ha). We removed an area of 20 ac (8 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 5 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 6: Bunker Hill

Unit 6 consists of 18,316 ac (7,412 ha) in Iowa County near Bunker Hill, Wisconsin. This unit consists of private lands (13,558 ac (5,487 ha)) and Wisconsin State and local government-owned lands (4,758 ac (1,925 ha)). There are no Federal or Tribal lands identified in this unit.

In the proposed rule, this unit comprised 18,686 ac (7,562 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 370 ac (150 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below).

Special management considerations or protection may be required within Unit 6 to alleviate impacts from stressors that are anticipated to degrade the physical or

biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 7: Madison

Unit 7 consists of 205,127 ac (83,011 ha) in Dane and Iowa Counties near Madison, Wisconsin. This unit consists of private lands (198,107 ac (80,171 ha)), Wisconsin State and local government-owned lands (6,712 ac (2,716 ha)), Tribal lands (4 ac (2 ha)), and Federal lands (156 ac (63 ha)). The Federal lands include the U.S. Forest Service's Forest Products Experimental Laboratory, National Park Service's Ice Age National Scenic Trail, and the Service's Dane County Waterfowl Production Area. Approximately 304 ac (123 ha) of private lands in this unit are managed by the USDA-NRCS Wetlands Reserve Program, and approximately 53 ac (21 ha) of private lands are managed by the USDA-NRCS Emergency Waters Protection Program. The Tribal lands are managed by the Ho-Chunk Nation.

In the proposed rule, this unit comprised 210,753 ac (85,289 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 5,598 ac (2,265 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 28 ac (11 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 7 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction

activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 8: Milwaukee

Unit 8 consists of 238,928 ac (96,691 ha) in the Milwaukee, Wisconsin, metropolitan area in Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties. This unit consists of private lands (225,865 ac (91,404 ha)), Wisconsin State and local government-owned lands (12,927 ac (5,231 ha)), and Tribal lands (10 ac (4 ha)), and Department of Defense (126 ac (51 ha)) lands. Approximately 66 ac (27 ha) of private lands in this unit are managed by the USDA-NRCS Wetlands Reserve Program. Tribal lands are in the Forest County Potawatomi Off-Reservation Land Trust.

In the proposed rule, this unit comprised 252,992 acres (102,382 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 12,590 ac (5,095 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 1,474 ac (597 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 8 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments,

alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 9: Rockford

Unit 9 consists of 130,668 ac (52,879 ha) in Boone, Ogle, and Winnebago Counties near Rockford, Illinois. This unit consists of private lands (128,064 ac (51,826 ha)), and Illinois State and local government-owned lands (2,604 ac (1,054 ha)). There are no Federal or Tribal lands identified in this unit. Approximately 669 ac (271 ha) of private lands in this unit are managed by the USDA-NRCS Wetlands Reserve Program.

In the proposed rule, this unit comprised 150,108 ac (60,747 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 10,414 ac (4,214 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 9,027 ac (3,653 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule). This unit also exempts approximately 2 ac (0.8 ha) of lands on the Machesney ARC. Their INRMP was updated to include the rusty patched bumble bee between the proposed and final designation of critical habitat (see the Exemptions section below).

Special management considerations or protection may be required within Unit 9 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 10: McHenry

Unit 10 consists of 65,464 ac (26,492 ha) near McHenry, Illinois, in McHenry and Lake Counties, Illinois, and Kenosha County, Wisconsin. This unit consists of private lands (58,601 ac (23,715 ha)), Illinois state and local government-owned lands (6,861 ac (2777 ha)), and Federal lands (2 ac (1 ha)). The Federal lands are owned by the Bureau of Land Management. Thirty-nine ac (16 ha) of a conservation easement within the Hackmatack National Wildlife Refuge, managed by the Service, falls within this unit. Approximately 412 ac (167 ha) of private lands within this unit are managed by the USDA-NRCS Wetlands Reserve Program. There are no Tribal lands identified in this unit.

In the proposed rule, this unit comprised 68,295 ac (27,638 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 2,827 ac (1,144 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 4 ac (2 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 10 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 11: Elgin

Unit 11 consists of 69,761 ac (28,231 ha) in Cook, Kane, Lake, and McHenry Counties near Elgin, Illinois. This unit consists of private lands (57,285 ac (23,182 ha)),

and Illinois state and local government-owned lands (12,494 ac (5,056 ha)). There are no Federal or Tribal lands identified in this unit.

In the proposed rule, this unit comprised 75,080 ac (30,384 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 5,319 ac (2,153 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below).

Special management considerations or protection may be required within Unit 11 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 12: Lost Nation

Unit 12 consists of 12,643 ac (5,116 ha) in Lee and Ogle Counties near Lost Nation, Illinois. This unit consists of private lands (12,046 ac (4,875 ha)), and Illinois State and local government-owned lands (597 ac (242 ha)). There are no Federal or Tribal lands identified in this unit.

In the proposed rule, this unit comprised 15,043 ac (6,088 ha), an area which included lands covered by the monarch CCAA. We have excluded from this unit the portion covered by the monarch CCAA, approximately 228 ac (92 ha) (see Consideration of Impacts Under Section 4(b)(2) of the Act, below). We also removed an additional 2,172 ac (879 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 12 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 13: Iowa City

Unit 13 consists of 45,631 ac (18,466 ha) in Johnson County near Iowa City, Iowa. This unit consists of private lands (30,500 ac (12,343 ha)), Iowa State and local government-owned lands (3,922 ac (1,587 ha)), and Federal lands (11,209 ac (4,536 ha)). The Federal lands include the U.S. Army Corps of Engineers' Coralville Lake and Coralville Reservoir. A portion of the U.S. Army Corps of Engineers' land is managed by the State of Iowa (1,333 ac (539 ha)) and the University of Iowa (421 ac (170 ha)).

In the proposed rule, this unit comprised 45,902 ac (18,576 ha). We removed an area of 271 ac (110 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).Special management considerations or protection may be required within Unit 13 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications.

Unit 14: Back Creek Mountain

Unit 14 consists of 118,589 ac (47,991 ha) near Back Creek Mountain in Highland and Bath Counties, Virginia, and Greenbrier and Pocahontas Counties, West Virginia. This unit consists of private lands (11,193 ac (4,530 ha)), Virginia State lands (1,845 ac (747 ha)), and Federal lands (105,551 ac (42,715 ha)). The Federal lands include the Monongahela and George Washington–Jefferson National Forests.

In the proposed rule, this unit comprised 118,603 ac (47,997 ha). We removed an area of 14 ac (6 ha) from this unit, resulting from the correction of an error (see Summary of Changes From the Proposed Rule).

Special management considerations or protection may be required within Unit 14 to alleviate impacts from stressors that are anticipated to degrade the physical or biological features, including, but not limited to, ground disturbance or compaction activities (e.g., road and rail construction), habitat management (e.g., prescribed burns, herbicide use), forestry activities (e.g., timber harvest), actions that cause an increase in the extent or duration of surface flooding or soil saturation (e.g., water impoundments, alteration or interruption of existing drainage patterns, surface runoff alterations), and pesticide applications. Sources of these stressors include, but are not limited to, forestry, recreational, municipal, and residential land uses.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species.

Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical

or biological features essential to the conservation of a species or that preclude or significantly delay development of such features (50 CFR 402.02).

Compliance with the requirements of section 7(a)(2) is documented through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species, destroy or adversely modify critical habitat, or both, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during formal consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinitiate consultation. Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) if a new species is listed or critical habitat designated that may be affected by the identified action. As provided in 50 CFR 402.16, the requirement to reinitiate consultations for new species listings or critical habitat designation does not apply to certain agency actions (e.g., land management plans issued by the Bureau of Land Management in certain circumstances).

Destruction or Adverse Modification of Critical Habitat

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires that our proposed or final regulations include, to the maximum extent practicable, a brief description and evaluation of those activities (whether public or private) which, in the opinion of the Secretary, if undertaken may adversely modify critical habitat, or may be affected by such designation. Activities that may be affected by designation of critical habitat for the rusty patched bumble bee include those that may affect the physical or biological features of the rusty patched

bumble bee's critical habitat (see **Physical or Biological Features Essential to the Conservation of the Species**, above).

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act provides that the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DoD), or designated for its use, that are subject to an INRMP prepared under

section 101 of the Sikes Act, if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the range of the critical habitat designation for rusty patched bumble bee to determine if they meet the criteria for exemption from critical habitat under section 4(a)(3) of the Act. The following areas are DoD lands with completed, Service-approved INRMPs within the critical habitat designation.

Approved INRMPs

The 88th Readiness Division (RD) Integrated Natural Resources Management Plan covers 125 sites in Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin, and there is an emphasis on habitat management, threatened and endangered species conservation, and coordination with State and Federal agencies (88th Readiness Division 2024). The INRMP was updated in 2024 and incorporates the rusty patched bumble in its revisions. There is an emphasis throughout the document on invasive species management—primarily control and prevention of invasive plants and noxious weeds—which in turn promotes native floral communities. There is also an emphasis on using native vegetation materials for erosion control and habitat restoration actions. These best management practices (BMPs) will promote native floral communities which benefit the rusty patched bumble bee.

In addition, the INRMP identifies management considerations for the monarch butterfly, a species proposed for listing under the Act, as well as for other listed invertebrates, including Poweshiek skipperling. Needs for these species will be taken into consideration for landscaping and habitat restoration plans on a site-by-site basis. Management actions taken to protect and benefit these species, such as promoting native

floral resources and limiting the use of pesticides, will similarly benefit rusty patched bumble bee.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act and evaluating the criteria under 50 CFR 424.12(h), we have determined that the identified lands are subject to the 88th Readiness Division INRMP and that conservation efforts identified in the INRMP will provide a benefit to the rusty patched bumble bee.

The U.S. Army Reserve 88th RD INRMP includes two sites that overlapped with the rusty patched bumble bee proposed critical habitat designation in Illinois and Minnesota. The INRMP includes Machesney Park Army ARC in Illinois, with 2 ac (1 ha) that overlapped Unit 9 (Rockford) of the proposed critical habitat designation and Fort Snelling ARC in Minnesota, which overlapped with approximately 47 ac (19 ha) in Unit 1 (Minneapolis-St. Paul Metropolitan). Both sites are exempted from the final critical habitat designation. Additionally, other sites were discussed in the proposed critical habitat designation that no longer overlap with this final designation due to the changes to unit boundaries previously discussed. All areas that are included in the 88th RD INRMP are exempted from the final critical habitat designation.

Machesney Park Army Reserve Center, Machesney Park, IL; Unit 9 (Rockford); 2 ac (1 ha)

This ARC consists of one building complex, secured military equipment parking, privately owned vehicle parking, an entrance driveway, sidewalks, one solar panel, manicured and maintained turf grass areas, and one constructed drainage swale feature. The project area is bounded by commercial development to the north, Steele Drive to the south, commercial development and Burden Road to the east, and fallow land to the west. The site is used for classroom training, general administrative services, and light vehicle maintenance. The 88th RD owns the land and buildings that comprise the site. The

footprint of the ARC is approximately 15 acres (ac; 6 hectares (ha)) of which only 2 ac (1 ha) overlap with Unit 9. All areas within the Machesney Park ARC that were included in the proposed critical habitat designation are exempted from the final critical habitat designation.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the 88th RD INRMP and that conservation efforts identified in the INRMP will provide a benefit to the rusty patched bumble bee. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 2 ac (1 ha) of habitat in this final critical habitat designation because of this exemption.

Fort Snelling Army Reserve Center, Fort Snelling, MN; Unit 1 (Minneapolis-St. Paul Metropolitan); 47 ac (19 ha)

The Fort Snelling ARC consists of three administration buildings, three Area Maintenance Support Activity/Organizational Maintenance Shop buildings, a gate guard building, and associated parking areas. Surrounding land use includes Highway 62 to the north, Minneapolis St. Paul International Airport and the Minnesota Air National Guard 133rd to the south, parking and a federal building to the east, and U.S. Air Force Reserve 934th to the west. The site uses include administrative services, classroom training, light and heavy vehicle maintenance, and military equipment storage. The 88th RD owns all seven buildings and the land. The entire footprint of Fort Snelling ARC falls within the boundaries of Unit 1.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the 88th RD INRMP and that conservation efforts identified in the INRMP will provide a benefit to the rusty patched bumble bee. Therefore, lands within this installation are exempt from

critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 47 ac (19 ha) of habitat in this final critical habitat designation because of this exemption.

Consideration of Impacts under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, the impact on national security, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if the benefits of exclusion outweigh those of inclusion, so long as exclusion will not result in extinction of the species concerned. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (hereafter, the "2016 Policy"; 81 FR 7226, February 11, 2016)—both of which were developed jointly with the National Marine Fisheries Service (NMFS). We also refer to a 2008 Department of the Interior Solicitor's opinion entitled, "The Secretary's Authority to Exclude Areas from a Critical Habitat Designation under Section 4(b)(2) of the Endangered Species Act" (M-37016). We explain each decision to exclude areas, as well as decisions not to exclude, to demonstrate that the decision is reasonable.

When evaluating the exclusion of a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise discretion to exclude the area only if such exclusion would not result in the extinction of the species. In making the determination to exclude a particular area, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use

and how much weight to give to any factor. In this final rule, we explain any decision to exclude areas, as well as decisions not to exclude, to make clear the rational basis for our decision. We describe below the process that we undertook for deciding whether to exclude any areas—taking into consideration each category of impacts and our analysis of the relevant impacts.

Exclusions Based on Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and screening analysis which, together with our narrative and interpretation of effects, we consider to be our economic analysis of the critical habitat designation and related factors (IEc 2025, entire). The analysis, dated July 12, 2024, was made available for public review and comment from November 26, 2024, through January 27, 2025 (89 FR 93245). The economic analysis addressed probable economic impacts of critical habitat designation for the rusty patched bumble bee. Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Additional information relevant to the probable incremental economic impacts of critical habitat designation for the rusty patched bumble bee is summarized below and available in the updated screening analysis for the rusty patched bumble bee, dated May 6, 2025 (IEc 2025, entire), available at https://www.regulations.gov at docket number FWS–R3–ES–2024–0132. The updated screening analysis memorandum includes only updates to reflect changes in guidance for regulatory impact analysis from the administration (specifically, reverting to the 2003 version of Circular A-4 and the $100 million threshold for an economically significant rulemaking) and the addition of an administrative cost model appendix. Public comments

submitted related to the economics analysis are addressed in the *Public Comments* section above.

The full description of the findings from the economic analysis are outlined in the proposed rule (89 FR 93245; November 26, 2024). The estimated incremental cost of the total proposed critical habitat designation for rusty patched bumble bee was found to be less than $390,000 per year. Therefore, with the removal of 100,795 ac (40,790 ha) of critical habitat from this final critical habitat designation to exclusion of areas covered by the monarch CCAA, exemptions of military lands with an INRMP including the rusty patched bumble bee, and lands erroneously included in the proposed rule, the annual administrative burden is very unlikely to reach $100 million, which is the threshold for a significant regulatory action under Executive Order (E.O.) 12866.

As discussed above, we considered the economic impacts of the critical habitat designation, and the Secretary is not exercising their discretion to exclude any areas from this designation of critical habitat for the rusty patched bumble bee based on economic impacts.

Exclusions Based on Impacts on National Security and Homeland Security

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), we must still consider impacts on national security, including homeland security, of designating those lands or areas as critical habitat in accordance with section 4(b)(2). Accordingly, if DoD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns, or we have otherwise identified national-security or homeland-security impacts from designating particular areas as critical habitat, we generally have reason to consider excluding those areas.

We consulted with DoD on this designation. No potential national-security impact was identified, nor request for an exclusion from critical habitat based on potential national-security impacts was received. Consequently, the Secretary is not exercising their discretion to exclude any areas from this designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security as discussed above. To identify other relevant impacts that may affect the exclusion analysis, we consider a number of factors, including whether there are approved and permitted conservation agreements or plans covering the species in the area such as safe harbor agreements (SHAs), candidate conservation agreements with assurances (CCAAs), "conservation benefit agreements" or "conservation agreements" (CBAs) (CBAs are a new type of agreement replacing SHAs and CCAAs in use after April 2024 (89 FR 26070; April 12, 2024)) or habitat conservation plans (HCPs)—or whether there are non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at whether Tribal conservation plans or partnerships, Tribal resources, or government-to-government relationships of the United States with Tribal entities may be affected by the designation. No Tribes expressed concern with being included in this critical habitat designation and we did not receive any requests for exclusion during our coordination efforts or during the public comment period. We also consider any State, local, social, or other impacts that might occur because of the designation.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive due to the protection from destruction or adverse modification as a result of actions with a Federal nexus, the educational benefits

of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat. In the case of rusty patched bumble bee, the benefits of critical habitat include public awareness of the presence of rusty patched bumble bee and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for rusty patched bumble bee due to protection from destruction or adverse modification of critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation, or in the continuation, strengthening, or encouragement of partnerships. Additionally, continued implementation of an ongoing management plan that provides equal to or more conservation than a critical habitat designation would reduce the benefits of including that specific area in the critical habitat designation.

We evaluate the existence of a conservation plan when considering the benefits of inclusion. We consider a variety of factors, including, but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of

the species. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Based on the information provided by entities seeking exclusion, as well as additional public comments we received, and the best scientific data available, we evaluated whether certain lands in the critical habitat are appropriate for exclusion from the final designation under section 4(b)(2) of the Act. If our analysis indicates that the benefits of excluding lands from the final designation outweigh the benefits of designating those lands as critical habitat, then the Secretary may exercise their discretion to exclude the lands from the final designation. In the paragraphs below, we provide our analysis of the areas being excluded under section 4(b)(2) of the Act.

Private or Other Non-Federal Conservation Plans or Agreements Associated with Permits Under Section 10 of the Act

As mentioned above, as part of our 4(b)(2) analysis, we consider whether there are approved and permitted conservation agreements or plans covering the species in the area such SHAs, CCAAs, CBAs or HCPs. Under sections 10(a)(1)(A) and 10(a)(1)(B) of the Act, non-federal entities may develop these agreements or plans when they seek authorization for take that may otherwise be prohibited under section 9 through an enhancement of survival (EOS) or incidental take permit (ITP), respectively.

Property owners seeking an EOS permit collaborate with the Service to develop a CBA to support the application. The EOS permit authorizes take associated with implementing the agreement and ongoing land management activities that provide a net conservation benefit to the covered species. The CBA replaces two previous types of voluntary agreements (SHAs and CCAAs) going forward for new agreements after April 2024. However, permitted SHAs and CCAAs or those we gave notice of in a *Federal Register* publication prior to April 2024 remain in effect.

For incidental take permits issued under section 10(a)(1)(B) of the Act, applicants

are required to develop a conservation plan, more commonly known as an HCP, to support their application. ITPs authorize take that is incidental to, but not the purpose of, carrying out otherwise lawful activities provided that the impact of the taking is minimized and mitigated to the maximum extent practicable.

For both section 10(a)(1)(A) and 10(a)(1)(B) permits, we provide permittees with assurances. In the case of 10(a)(1)(A) permits, we may not require additional or different conservation measures to be undertaken by a permittee without the consent of the permittee. In the case of section 10(a)(1)(B), we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the HCP.

We place great value on the partnerships that are developed during the preparation and implementation of conservation plans and agreements. In some cases, permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone.

When we undertake a discretionary section 4(b)(2) exclusion analysis based on conservation plans or agreements, we anticipate consistently excluding such areas if incidental take caused by the activities in those areas is covered by the permit under section 10 of the Act and the plan meets all of the following three factors (see the 2016 Policy for additional details. Because combining types of agreements such as SHAs and CCAAs into the term "CBAs" is a recent development (see 89 FR 26070; April 12, 2024), the 2016 Policy did not expressly reference CBAs. However, because CBAs replace CCAAs and SHAs, moving forward we treat CBAs similarly to how we treat CCAA/SHA/HCPs described below:

a. The permittee is properly implementing the CCAA/SHA/HCP and is expected to continue to do so for the term of the agreement. A CCAA/SHA/HCP is properly implemented if the permittee is, and has been, fully implementing the commitments and

provisions in the CCAA/SHA/HCP, implementing agreement, and permit.

b. The species for which critical habitat is being designated is a covered species in the CCAA/SHA/HCP, or very similar in its habitat requirements to a covered species. The recognition that the Services extend to such an agreement depends on the degree to which the conservation measures undertaken in the CCAA/SHA/HCP would also protect the habitat features of the similar species.

c. The CCAA/SHA/HCP specifically addresses that species' habitat and meets the conservation needs of the species in the planning area.

Nationwide Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportations Lands

The Nationwide Candidate Conservation Agreement with Assurances for the Monarch Butterfly on Energy and Transportation Lands monarch CCAA with an integrated Candidate Conservation (Agreement) represents a unique collaboration between the University of Illinois at Chicago (permit holder), the U.S. Fish and Wildlife Service, and more than 83 interested entities from the energy and transportation sectors. Since the signing of the Agreement in 2020, it has been properly implemented with 6,883,308 ac (2,785,600 ha) enrolled and of these acres, 79,859 ac (32,318 ha) occur in 11 critical habitat units (see Table 2 below). We expect proper implementation to continue into the future based on the permittee's record and the submitted applications that are being processed. The Agreement is in place until 2045, unless terminated or revoked before that time. The interested entities represent companies and organizations managing lands associated with electric power generation, electric transmission and distribution, oil and gas transmission and distribution, and renewable energy development, as well as a network of individual state departments of transportation, with support from the Federal Highway Administration, who were involved in the

conceptualization and preparation of this Agreement. As of August 2025, there are 64 entities with signed certificates of inclusion in the Agreement.

This Agreement includes adaptive management principles to incorporate new information and research as it becomes available. The Agreement also incorporates processes to address changed circumstances over the duration of the Agreement. Using adaptive management principles, and with the consent of the permit holder and us, this Agreement may be amended to address emerging and changing conservation needs. This programmatic Agreement includes:

- A general description of responsibilities of all involved participating agencies and Partners, and the area covered under the programmatic Agreement;
- Background and general threats to monarchs, the goals of this Agreement, and the conservation measures needed to reduce or potentially remove those identified threats in line with that goal;
- Expected benefits of prescribed actions in relation to the five threat factors the Service is required to evaluate when considering whether or not to list a species; and
- A description of assurances where applicable, monitoring, annual reporting, and discussion on level of impact (or take, if listed) that is likely to occur from activities on enrolled lands.

This Agreement encourages involvement in voluntary conservation, which has potential to support the creation of a widespread network of lands managed to benefit monarch habitat across the nation. The Agreement covers lands within the monarch butterfly's range across the lower 48 States. In doing so, the infrastructure needed for energy and transportation can voluntarily help achieve biological conservation goals for the monarch and play an important role in long-term conservation on these working lands.

Although the monarch CCAA was not developed specifically for the rusty patched bumble bee, many of the goals and objectives of the plan will also benefit the rusty patched bumble bee and its habitat. A stated objective of the monarch CCAA is to "Enhance and expand available monarch habitat by adopting appropriate conservation measures that promote sustainable breeding (milkweed) and foraging (nectar plants) habitat." This objective specifically is beneficial to all five physical or biological features essential to the conservation of the rusty patched bumble bee. The five physical or biological features essential to the conservation of the species are derived from the needs of the rusty patched bumble bee and are habitat-based. For example, an important component of rusty patched bumble bee foraging habitat is diverse, abundant, native floral resources. Maintaining and creating habitat that is beneficial for the monarch butterfly is generally also beneficial to the rusty patched bumble bee and its habitat, as these activities will create or protect foraging habitat that is suitable for both monarch and rusty patched bumble bee. Activities identified in the Agreement that maintain and create habitat include targeted herbicide treatments, conservation mowing, brush removal, restricted pesticide use, and promotion of native floral resources (including milkweed). Although it is not a stated objective, the monarch CCAA will manage and protect habitat for the benefit of the physical or biological features of the rusty patched bumble bee. For more specific information on the monarch CCAA, visit https://www.fws.gov/media/nationwide-candidate-conservation-agreement-monarch-butterfly.

Benefits of Inclusion—Monarch CCAA Lands

The benefits of including lands in critical habitat can be regulatory, educational, or to aid in recovery of species as generally discussed in **Consideration of Impacts Under Section 4(b)(2) of the Act** above. The following is our assessment of the benefits for inclusion of the portions of the critical habitat for the rusty patched bumble bee that

are covered by the monarch CCAA. This agreement has contributed to the development of a formal partnership between the dozens of partners and the U.S. Fish and Wildlife Service since 2020

The designation of critical habitat can help to educate the public regarding the potential conservation value of an area and can focus efforts by clearly delineating areas of high conservation value for the rusty patched bumble bee. The rusty patched bumble bee has been listed as an endangered species throughout all its range since 2017; conservation actions benefitting the rusty patched bumble bee have been implemented since the time of listing. These actions include restoration and protection of habitat, efforts to address threats to the species, as well as outreach and education. Little additional educational benefit would be gained from designation of critical habitat on the monarch CCAA lands as a result of informing the public of the presence of the rusty patched bumble bee, especially since these areas are within the historical range and surrounded by areas designated as critical habitat. Therefore, we find that the benefits of inclusion of areas in the monarch CCAA are reduced as a result of past and ongoing actions.

The designation of critical habitat can aid in recovery of the species by raising awareness of landowners and managers by calling attention to recovery actions that could be implemented. In the case of the rusty patched bumble bee, habitat-based threats to the physical or biological features are already being addressed in many cases throughout the species' range by the endangered listing determination and ongoing section 7 consultations since listing in 2017. There is a substantial consultation history for the rusty patched bumble bee throughout the range since the time of the final listing determination, as well as outreach and education specific to rusty patched bumble bee. The conservation actions implemented for rusty patched bumble bee since 2017 are complementary to, not exclusive of, the conservation benefits from excluding lands enrolled in the monarch

CCAA. Therefore, the overall benefit from raising awareness of landowners and managers to the recovery of the species from critical habitat in the areas covered by the monarch CCAA is reduced.

The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that protection is provided to avoid destruction or adverse modification of critical habitat. However, we conclude that few regulatory benefits to the rusty patched bumble bee would be gained from a designation of critical habitat on areas covered by the monarch CCAA. Through the consultation process for specific projects, we would determine if there were any anticipated effects to listed species or potential destruction or adverse modification of critical habitat. We have been conducting section 7 consultations for the rusty patched bumble bee since its listing in 2017 (and will continue to regardless of a critical habitat designation) and have not found that any projects have risen to the level of a jeopardy finding. Projects that take place within the areas excluded from the final designation of critical habitat because of the monarch CCAA would still need to be consulted on, though they would not need to have an adverse modification analysis conducted under section 7 of the Act.

In our evaluation of the probable economic impact of a critical habitat designation, we identified the effects expected to occur solely due to the designation of critical habitat and not from the protections that are in place due to the species being listed under the Act. Our assessment concluded that any project modifications that would avoid adverse effects to the species are likely to also avoid adverse modifications of the physical or biological features present in the critical habitat units. In the event of an adverse modification determination, we expect that reasonable and prudent alternatives to avoid jeopardy to the species would also avoid adverse modification of the critical habitat. Therefore, the only substantive difference between an analysis of jeopardy and

destruction or adverse modification is the minor additional cost of the consultation for destruction or adverse modification. Accordingly, we find the benefits of inclusion for portions of 12 of the 14 units (see Table 2, below) the units based on the consultation requirement for a designation of critical habitat are minimal for the rusty patched bumble bee in areas enrolled in the monarch CCAA.

We expect few to no additional benefits to the recovery of the rusty patched bumble bee as a result of the inclusion of the areas covered under the monarch CCAA. Overall, with minimal regulatory, educational, and recovery benefits likely, we foresee limited benefits to further the recovery of the species as a result of the designation of critical habitat on the areas enrolled in the monarch CCCA at the time of this final designation.

Benefits of Exclusion—Monarch CCAA Lands

The benefits of excluding the 79,859 ac (32,318 ha) of enrolled lands in the monarch CCAA from the designation of critical habitat for the rusty patched bumble bee are substantial and include: (1) Continuing and strengthening our effective working relationship with private and State landowners to promote voluntary, proactive conservation of the rusty patched bumble bee and its habitat as opposed to reactive regulation; (2) allowing for continued meaningful collaboration and cooperation in working toward species recovery and incentivizing future agreements (e.g. bumble bee CBA), potentially including conservation benefits that might not otherwise occur; (3) encouraging the creation of dozens of new partnerships for the conservation benefit of the monarch butterfly and consequently, the rusty patched bumble bee; (4) ensuring conservation measures are effective through the Agreement's monitoring program; and (5) encouraging the development of additional conservation easements and other conservation and management plans in the future for other federally listed and sensitive species beyond pollinators.

Partnerships with non-Federal landowners are vital to the conservation of listed species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions. In the case considered here, excluding these areas from critical habitat will help foster the partnerships the landowners and land managers in question have developed with Federal and State agencies and local conservation organizations; will encourage the continued implementation of voluntary conservation actions and agreements for the benefit of the rusty patched bumble bees (and other pollinators) and its habitat on these lands; and may also serve as a model and aid in fostering future cooperative relationships with other parties here and in other locations for the benefit of other endangered or threatened species. Therefore, we consider the positive effect of excluding from critical habitat areas managed by active conservation partners to be a significant benefit of exclusion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Monarch CCAA Lands

We found there to be few benefits of including the areas enrolled in the monarch CCAA as part of the final critical habitat designation for the rusty patched bumble bee. This includes the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid destruction or adverse modification of critical habitat and minimal additional educational opportunities. The benefits of inclusion are outweighed by the more substantial benefits of excluding the areas enrolled in the monarch CCAA at the time of this designation including: (1) Continuing and strengthening our effective working relationship with private and State landowners to promote voluntary, proactive conservation of the rusty patched bumble bee and its habitat as opposed to reactive regulation; (2) allowing for continued meaningful collaboration and cooperation in working toward species recovery and incentivizing future agreements (e.g. bumble bee CBA), potentially including conservation benefits

that might not otherwise occur; (3) encouraging the creation of dozens of new partnerships for the conservation benefit of the monarch butterfly and consequently, the rusty patched bumble bee; (4) ensuring conservation measures are effective through the Agreement's monitoring program; and (5) encouraging the development of additional conservation easements and other conservation and management plans in the future for other federally listed and sensitive species beyond pollinators. In conclusion, we have found the benefits of including the areas enrolled in the monarch CCAA as part of the critical habitat designation for the rusty patched bumble bee are outweighed by the benefits of excluding these areas.

Exclusion Will Not Result in Extinction of the Species

We determined that the exclusion of areas enrolled in the monarch CCAA at the time of this designation will not result in extinction of the rusty patched bumble bee. Protections afforded to the monarch butterfly (and rusty patched bumble) and their habitats by the agreement provide assurances that the rusty patched bumble bee will not go extinct as a result of excluding these lands from the critical habitat designation.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that critical habitat does not carry with it a regulatory requirement to restore or actively manage habitat for the benefit of listed species; the regulatory effect of critical habitat is only the avoidance of destruction or adverse modification of critical habitat should an action with a Federal nexus occur. It is, therefore, advantageous for the conservation of the species to support the proactive efforts of non-Federal landowners who are contributing to the enhancement of essential habitat features for listed species through exclusion. The jeopardy standard of section 7 of the Act will also provide protection in these occupied areas when there is a Federal nexus. Therefore, based on the above discussion, the Secretary is exercising their

discretion to exclude approximately 79,859 ac (32,318 ha) of land from the designation of critical habitat for the rusty patched bumble bee.

Summary of Exclusions

As discussed above, based on the information provided by entities seeking exclusion, as well as any additional public comments received, we evaluated whether certain lands in the proposed critical habitat were appropriate for exclusion from this final designation pursuant to section 4(b)(2) of the Act. We are excluding the following areas from critical habitat designation for the rusty patched bumble bee (TABLE 2).

TABLE 2. Areas excluded from critical habitat designation by critical habitat unit.

Critical Habitat Unit	Area Excluded in Acres (Hectares)	State
1. Minneapolis-St. Paul Metropolitan	40,226 (16,279)	Minnesota
2. Northfield	518 (210)	Minnesota
3. Rochester	1,094 (443)	Minnesota
4. Winona	674 (273	Minnesota
6. Bunker Hill	370 (150)	Wisconsin
7. Madison	5,598 (2,265)	Wisconsin
8. Milwaukee	12,590 (5,095)	Wisconsin
9. Rockford	10,414 (4,214)	Illinois
10. McHenry	2,827 (1,144)	Illinois
11. Elgin	5,319 (2,153)	Illinois
12. Lost Nation	228 (92)	Illinois
Totals	**79,859 (32,318)**	

Note: Area sizes may not sum due to rounding.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order (E.O.) 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all rules identified as significant pursuant to section 3(f) of E.O. 12866. OIRA has determined that this final rule is significant under E.O. 12866 and is considered an E.O. 14192 regulatory action. We estimate that this rule will generate no more than $390,000 (2024 dollars) in annualized costs at a 7% discount rate.

E.O. 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the Nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. E.O. 13563 directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 et seq.), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; title II of Pub. L. 104–121, March 29, 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a

certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, only

Federal action agencies will be directly regulated by this designation. The RFA does not require evaluation of the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities will be directly regulated by this rulemaking, we certify that this critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule, we reviewed and evaluated all information submitted during the comment period on the proposed rule (89 FR 93245; November 26, 2024) that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this critical habitat designation will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare statements of energy effects "to the extent permitted by law" when undertaking actions identified as significant energy actions (66 FR 28355; May 22, 2001). E.O. 13211 defines a "significant energy action" as, among other things, an action that (i) meets the definition of a "significant regulatory action" under E.O. 12866; and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy. In our economic analysis, we did not find that this critical habitat designation would significantly affect energy supplies, distribution, or use. This screening analysis finds that incremental costs associated with section 7 consultations for the rusty patched bumble bee are likely limited to administrative costs. Additionally, many of the energy distribution rights-of-way are excluded from the final critical habitat designation because they are enrolled in the

monarch CCAA. Therefore, this action is not a significant energy action, and no statement of energy effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following finding:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or Tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or Tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions are not likely to destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) This rule will not significantly or uniquely affect small governments because small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for rusty patched bumble bee in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require

Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed and concludes that this designation of critical habitat for the rusty patched bumble bee does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this rule does not have significant federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this critical habitat designation with, appropriate State resource agencies. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, this final rule does not have substantial direct effects either on the States, or on the relationship between the Federal Government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act will be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule will not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this rule identifies the physical or biological features essential to the conservation of the species. The areas of designated critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) is not required. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this

determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations. In a line of cases starting with *Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. 1995), the courts have upheld this position.

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951, May 4, 1994), E.O. 13175 (Consultation and Coordination with Indian Tribal Governments), the President's memorandum of November 30, 2022 (Uniform Standards for Tribal Consultation; 87 FR 74479, December 5, 2022), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes and Alaska Native Corporations on a government-to-government basis. In accordance with Secretary's Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. During the development of this rule, we approached the Tribes whose lands overlapped with the range of the rusty patched bumble bee in an effort to coordinate with them on the critical habitat designation. We received interest from the Prairie Island Indian Community in working with us on rusty patched bumble bee conservation (unrelated to this designation). The final critical habitat does not overlap with Prairie Island Indian Community lands, but we will continue to coordinate with the Tribe in recovery efforts for the species. We also actively coordinated and shared information with the Shakopee Mdewakanton Sioux Community, whose lands overlap with a portion of Unit 1. We will continue to work with

all interested Tribal entities regarding the conservation of rusty patched bumble and its critical habitat and welcome continued coordination in the future.

References Cited

A complete list of references cited in this rulemaking is available on the internet at *https://www.regulations.gov* and upon request from the Minnesota-Wisconsin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. In § 17.11, in paragraph (h), amend the List of Endangered and Threatened Wildlife by revising the entry for "Bee, bumble, rusty patched" under INSECTS to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* * * * * * *				
INSECTS				
* * * * * * *				
Bee, bumble, rusty patched	*Bombus affinis*	Wherever found	E	82 FR 3186, 1/11/2017; 50 CFR 17.95(i).[CH]

* * * * * * *

3. In § 17.95, amend paragraph (i) by adding an entry for "Rusty Patched Bumble Bee (*Bombus affinis*)" before the entry for "Casey's June Beetle (*Dinacoma caseyi*)" to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(i) *Insects*.

Rusty Patched Bumble Bee (*Bombus affinis*)

(1) Critical habitat units are depicted for Boone, Cook, Kane, Lake, Lee, McHenry, Ogle, and Winnebago Counties, Illinois; Johnson County, Iowa; Carver, Dakota, Hennepin, Olmsted, Pierce, Ramsey, Rice, Scott, St. Croix, Washington, and Winona Counties, Minnesota; Bath and Highland Counties, Virginia; Greenbrier and Pocahontas Counties, West Virginia; and Dane, Iowa, Kenosha, Milwaukee, Ozaukee, Racine, Sauk, Washington, and Waukesha Counties, Wisconsin, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the rusty patched bumble bee consist of the following components:

(i) For overwintering, contiguous upland forest habitat, at least 82 feet (25 meters (m)) from a non-forested edge, with plants that provide spring pollen and nectar for spring queen foraging immediately after emergence from diapause, containing leaf litter or duff for burrowing, and without dense invasive plant understory vegetation.

(ii) For nesting, upland grasslands, shrublands, savannas, and the forest edge interface between forested and non-forested natural habitats that extends approximately 30 meters into the forest.

(iii) For nesting, abandoned rodent burrows, other mammal burrows, existing cavities with ample cover, or similar existing cavities at the soil surface or below to 4 feet underground.

(iv) For nesting and overwintering, well-drained, uncompacted, loose soils sheltered from the elements.

(v) For foraging, diverse, abundant, native floral resources for the entire active flight season.

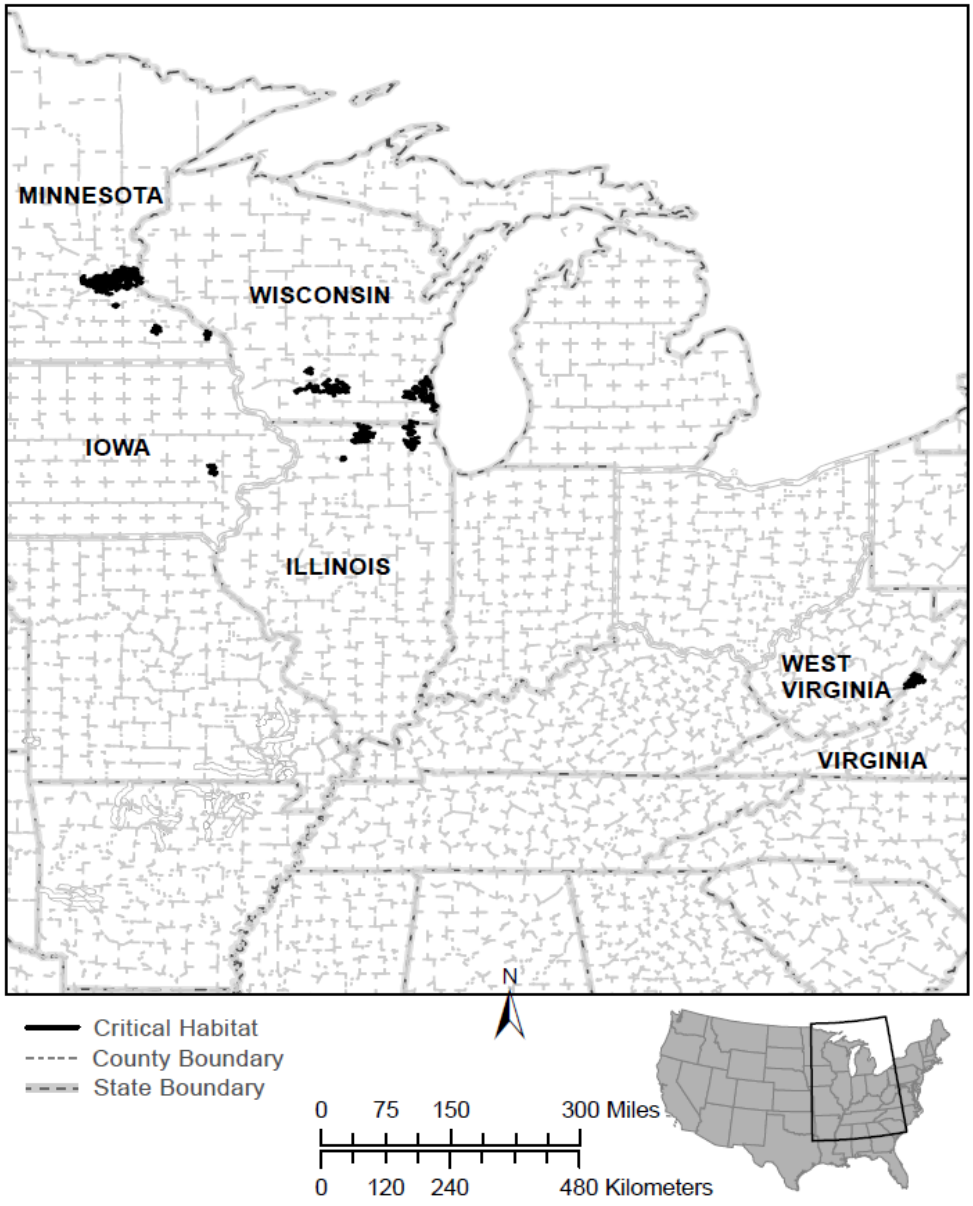
(3) Critical habitat does not include human-made structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

(4) Data layers defining map units were created using the data from the Service's modeled High Potential Zones (accessed June 9, 2024) and potential dispersal areas for rusty patched bumble bee. The projection used in mapping and calculating distances and locations within the units was European Petroleum Survey Group (EPSG) code 4269–North American Datum 1983 (NAD83), which is a geographic coordinate system used for mapping locations in North America. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's internet site at *https://www.fws.gov/species/rusty-patched-bumble-bee-bombus-affinis*, at *https://www.regulations.gov* at Docket No. FWS–R3–ES–2024–0132, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

Figure 1 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (5)

Index Map: Rusty Patched Bumble Bee (*Bombus affinis*) Critical Habitat Units



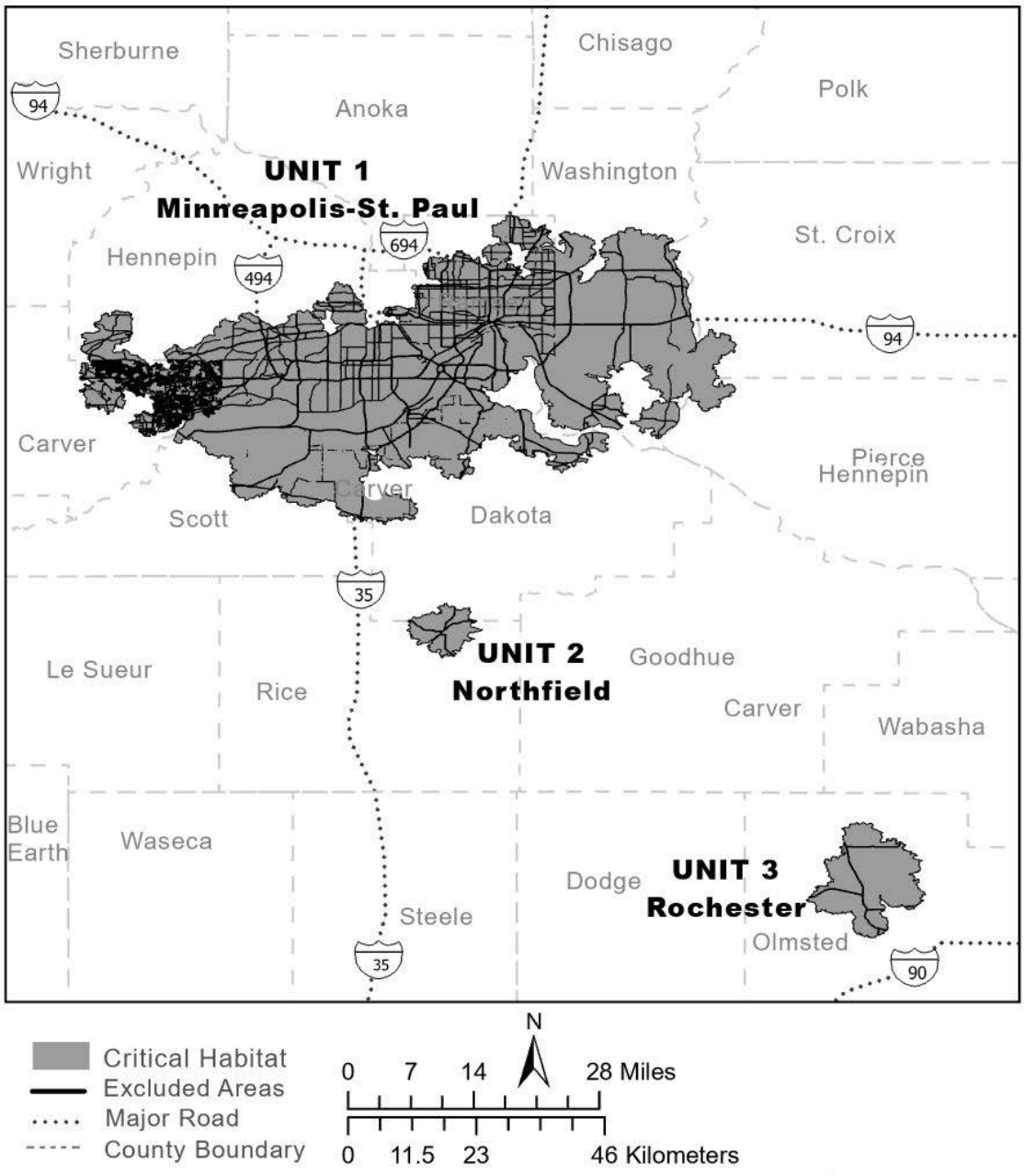
(6) Unit 1: Minneapolis-St. Paul Metropolitan; Ramsey, Scott, Dakota, Pierce, Washington, Carver, Hennepin, and St. Croix Counties, Minnesota.

(i) Unit 1 consists of 520,854 acres (ac) (210,782 hectares (ha)) in the Minneapolis-St. Paul metropolitan area of Minnesota in Ramsey, Scott, Dakota, Pierce, Washington, Carver, Hennepin, and St. Croix Counties. Unit 1 is composed of primarily private lands (462,540 ac (187,183 ha)), Minnesota State and local government-owned lands (49,891 ac (20,190 ha)), and Tribal lands (3,086 ac (1,249 ha)). Federal lands (5,337 ac (2,160 ha)) in Unit 1 include National Park Service's Mississippi National River and Recreational Area and Lower St. Croix National Scenic Riverway, and the Service's Minnesota Valley National Wildlife Refuge. Approximately 212 ac (86 ha) of privately owned lands are managed by the U.S. Department of Agriculture's Natural Resources Conservation Service (USDA-NRCS) Wetlands Reserve Program. Tribal lands include Shakopee Mdewakanton Sioux Community and Shakopee Mdewakanton Sioux Community Off-Reservation Land Trust.

(ii) Map of Units 1, 2, and 3 follows:

Figure 2 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (6)(ii)

Critical Habitat for Rusty Patched Bumble Bee
Unit 1: Minneapolis-St. Paul; Ramsey, Scott, Dakota, Pierce, Washington, Carver, Hennepin, St. Croix Counties, Minnesota
Unit 2: Northfield; Dakota and Rice Counties, Minnesota
Unit 3: Rochester; Olmsted County, Minnesota



(7) Unit 2: Northfield; Dakota and Rice Counties, Minnesota.

(i) Unit 2 consists of 12,038 ac (4,872 ha) in Dakota and Rice Counties. This unit includes private lands (11,542 ac (4,671 ha)), and Minnesota State and local government-owned lands (496 ac (201 ha)).

(ii) Map of Unit 2 is provided at paragraph (6)(ii) of this entry.

(8) Unit 3: Rochester; Olmsted County, Minnesota.

(i) Unit 3 consists of 41,616 ac (16,841 ha) in Olmsted County. This unit includes private lands (40,727 ac (16,482 ha)), and Minnesota State and local government-owned lands (889 ac (360 ha)).

(ii) Map of Unit 3 is provided at paragraph (6)(ii) of this entry.

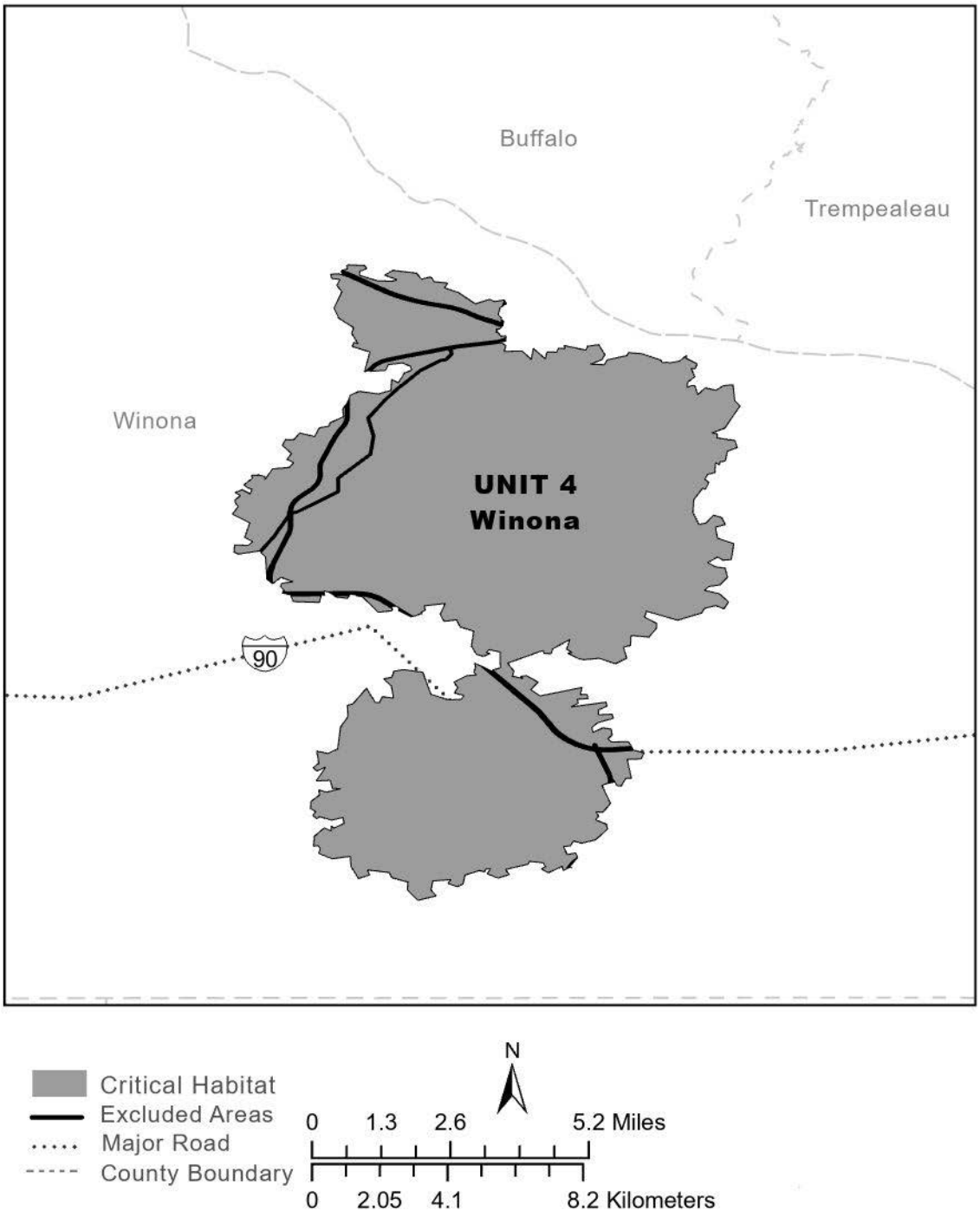
(9) Unit 4: Winona; Winona County, Wisconsin.

(i) Unit 4 consists of 28,309 ac (11,456 ha) in Winona County. This unit includes private lands (27,905 ac (11,293 ha)), and Minnesota State and local government-owned lands (404 ac (163 ha)).

(ii) Map of Unit 4 follows:

Figure 3 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (9)(ii)

Critical Habitat for Rusty Patched Bumble Bee
Unit 4: Winona; Winona County, Minnesota



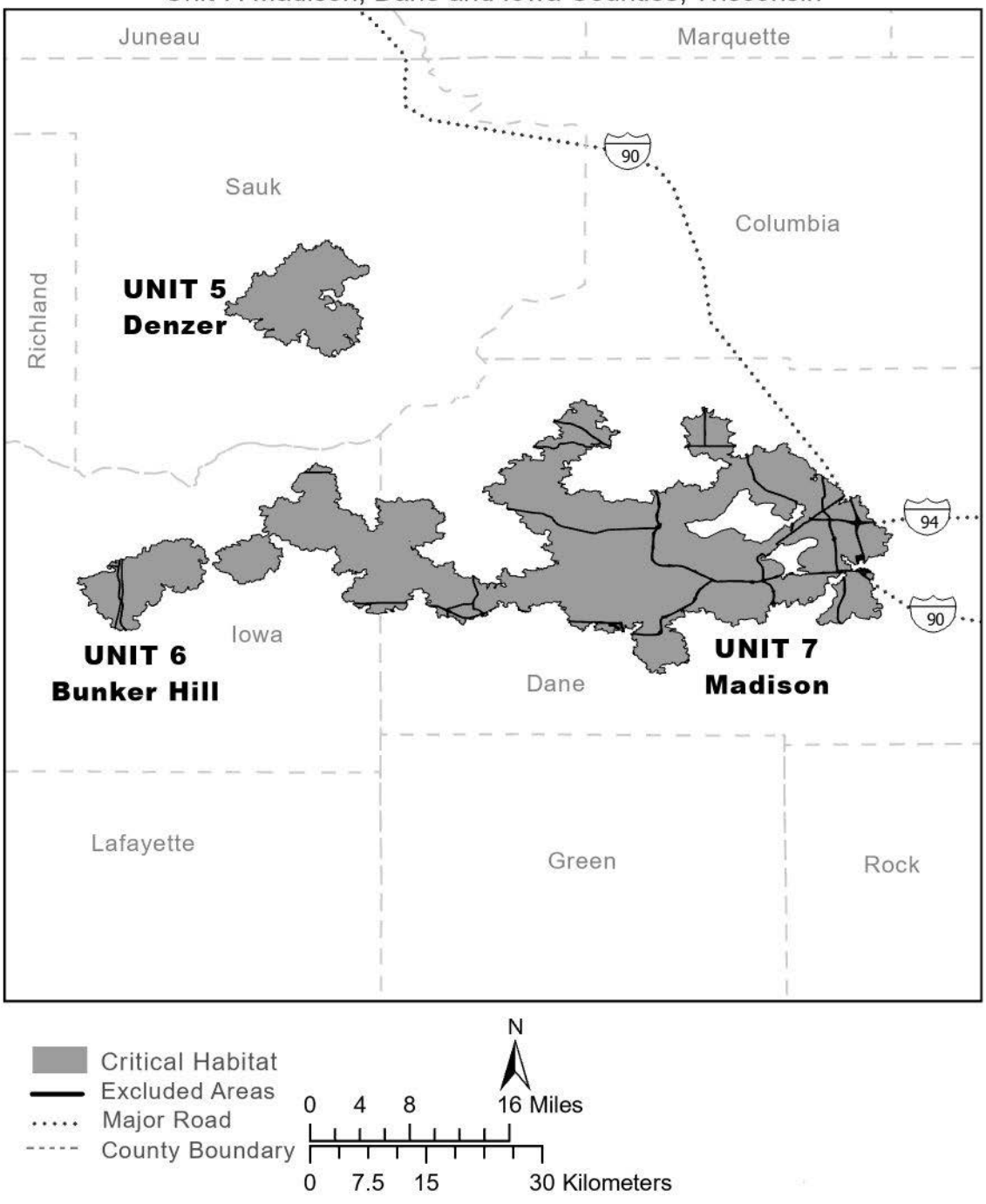
(10) Unit 5: Denzer; Sauk County, Wisconsin.

(i) Unit 5 consists of 26,989 ac (10,922 ha) in Sauk County. This unit is composed of private lands (26,283 ac (10,636 ha)), and Wisconsin State and local government-owned lands (706 ac (286 ha)).

(ii) Map of Units 5, 6, and 7 follows:

Figure 4 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (10)(ii)

Critical Habitat for Rusty Patched Bumble Bee
Unit 5: Denzer; Sauk County, Wisconsin
Unit 6: Bunker Hill; Iowa County, Wisconsin
Unit 7: Madison; Dane and Iowa Counties, Wisconsin



(11) Unit 6: Bunker Hill; Iowa County, Wisconsin.

(i) Unit 6 consists of 18,316 ac (7,412 ha) in Iowa County. This unit includes private lands (13,558 ac (5,487 ha)) and Wisconsin State lands and government-owned lands (4,758 ac (1,925 ha)).

(ii) Map of Unit 6 is provided at paragraph (10)(ii) of this entry.

(12) Unit 7: Madison; Dane and Iowa Counties, Wisconsin.

(i) Unit 7 consists of 205,127 ac (83,011 ha) in Dane and Iowa Counties. This unit includes primarily private lands (198,107 ac (80,171 ha)), Wisconsin State and local government-owned lands (6,712 ac (2,716 ha)). This unit contains 4 ac (2 ha) of Ho-Chunk Nation Tribal lands. Federal lands (156 ac (63 ha)) in Unit 7 include the U.S. Forest Service's Forest Products Experimental Laboratory, National Park Service's Ice Age National Scenic Trail, and the Dane County Waterfowl Production Area owned by the U.S. Fish and Wildlife Service. In this unit, approximately 304 ac (123 ha) of private lands are managed by the USDA-NRCS Wetlands Reserve Program, and approximately 53 ac (21 ha) of private lands are managed by the USDA-NRCS Emergency Waters Protection Program.

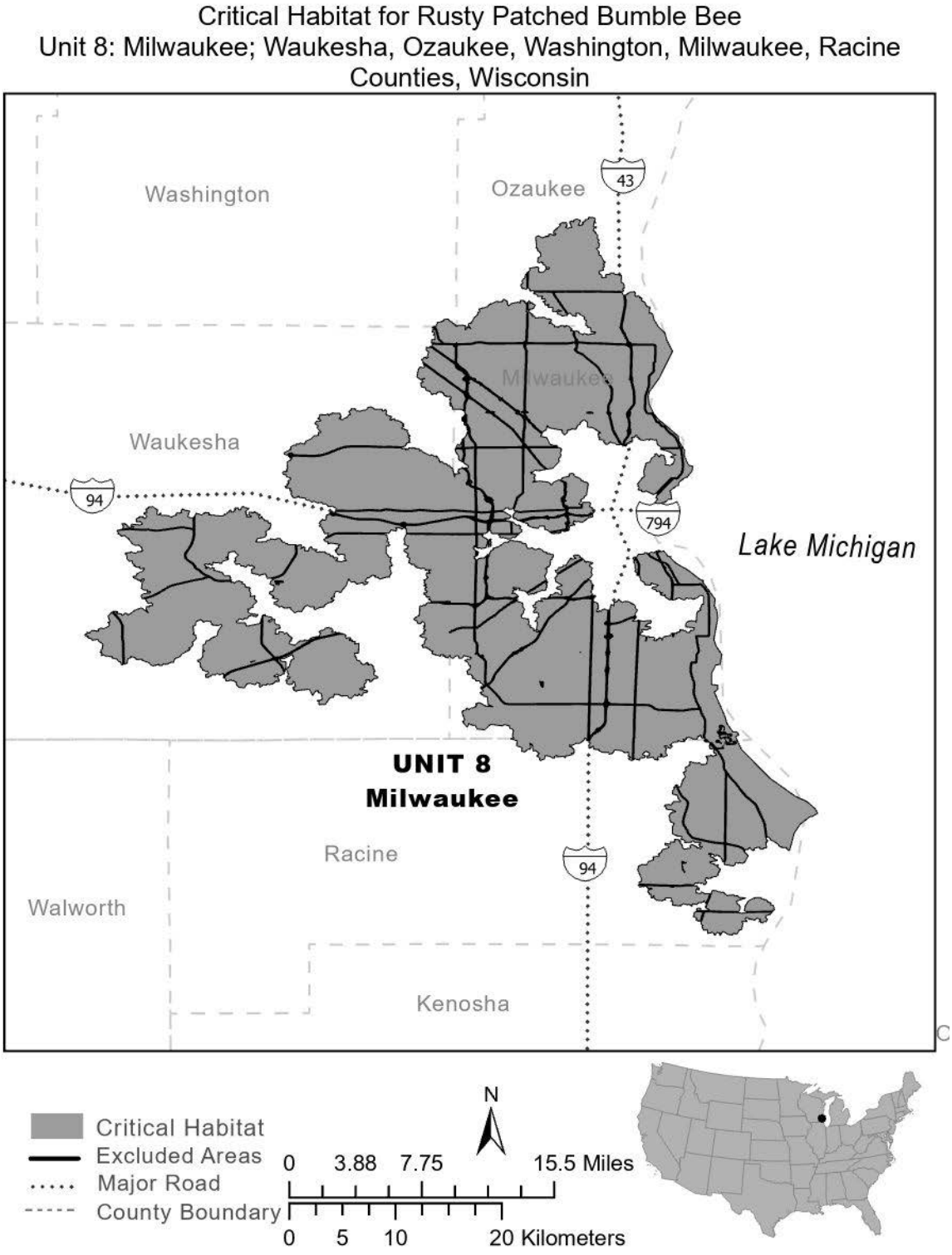
(ii) Map of Unit 7 is provided at paragraph (10)(ii) of this entry.

(13) Unit 8: Milwaukee; Waukesha, Ozaukee, Washington, Milwaukee, and Racine Counties, Wisconsin.

(i) Unit 8 consists of 238,928 acres (96,691 hectares) in Waukesha, Ozaukee, Washington, Milwaukee, and Racine Counties. This unit includes primarily private lands (225,865 ac (91,404 ha)), and Wisconsin State and local government-owned lands (12,927 ac (5,231 ha)). Tribal lands include the Forest County Potawatomi Off-Reservation Land Trust (10 ac (4 ha)). Federally owned lands include 5 ac (2 ha) owned by the Bureau of Land Management and 126 ac (51 ha)) of Department of Defense-owned lands. Approximately 66 ac (27 ha) of private lands in this unit are managed by USDA-NRCS Wetlands Reserve Program.

(ii) Map of Unit 8 follows:

Figure 5 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (13)(ii)

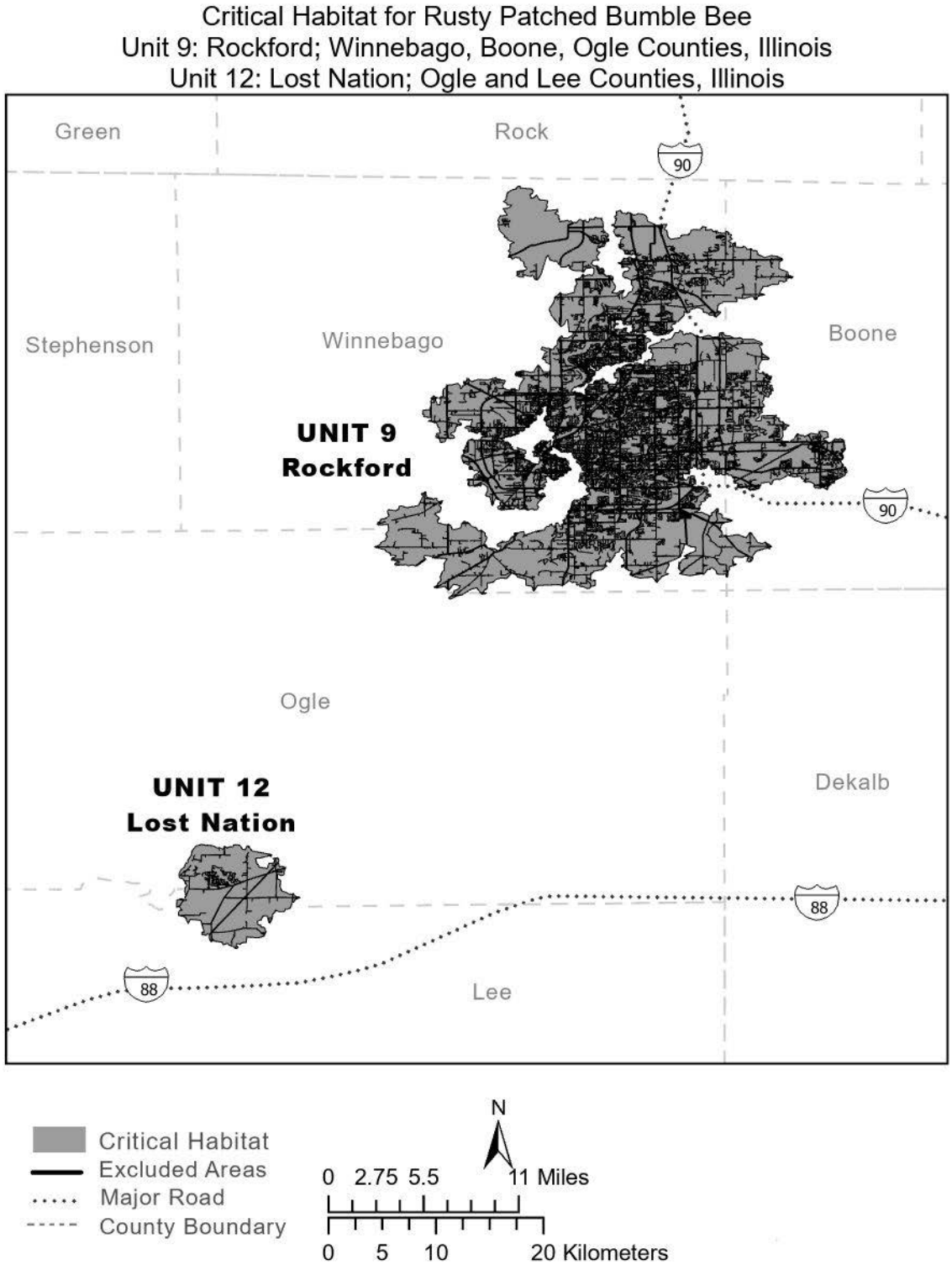


(14) Unit 9: Rockford; Winnebago, Boone, and Ogle Counties, Illinois.

(i) Unit 9 consists of 130,668 ac (52,879 ha) in Boone, Ogle, and Winnebago Counties. This unit includes primarily private lands (128,064 ac (51,826 ha)), and Illinois State and local government-owned lands (2,604 ac (1,054 ha)). Approximately 669 ac (271 ha) of private lands in this unit are managed by the USDA-NRCS Wetlands Reserve Program.

(ii) Map of Unit 9 and 12 follows:

Figure 6 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (14)(ii)



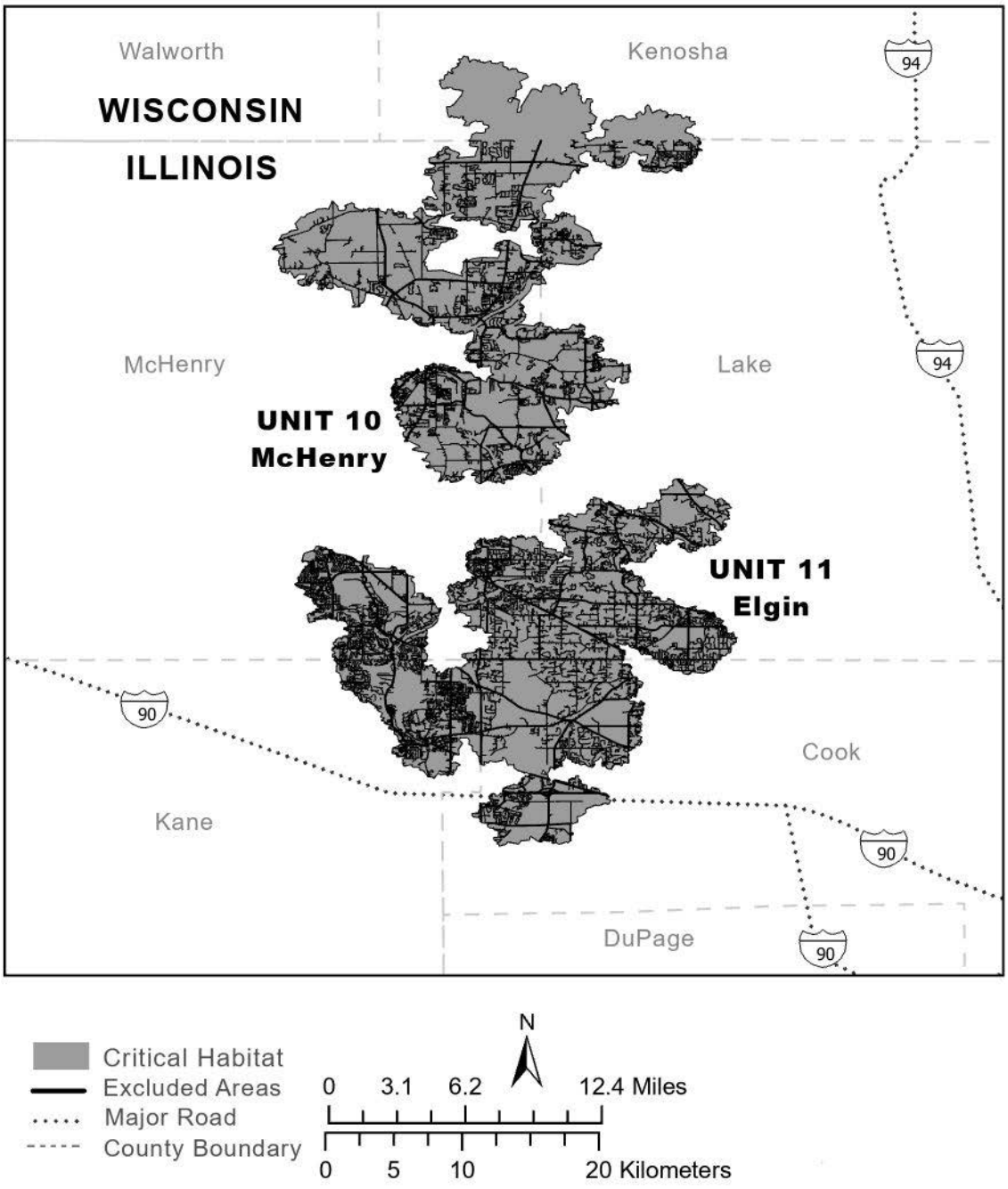
(15) Unit 10: McHenry; McHenry and Lake Counties, Illinois, and Kenosha County, Wisconsin.

(i) Unit 10 consists of 65,464 ac (26,492 ha) in McHenry and Lake Counties, Illinois, and Kenosha County, Wisconsin. This unit includes primarily private lands (58,601 ac (23,715 ha)), and Illinois State and local government-owned lands (6,861 ac (2,777 ha)). The Bureau of Land Management owns 2 ac (1 ha) of land in this unit. A conservation easement within the Hackmatack National Wildlife Refuge, managed by the Service, falls partially (39 ac (16 ha)) within this unit. Approximately 412 ac (167 ha) of private lands within this unit are managed by the USDA-NRCS Wetlands Reserve Program.

(ii) Map of Units 10 and 11 follows:

Figure 7 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (15)(ii)

Critical Habitat for Rusty Patched Bumble Bee
Unit 10: McHenry; McHenry and Lake County, Illinois; Kenosha County, Wisconsin
Unit 11: Elgin; Lake, Cook, Kane, McHenry Counties, Illinois



(16) Unit 11: Elgin; Lake, Cook, Kane, and McHenry Counties, Illinois.

(i) Unit 11 consists of 69,761 ac (28,231 ha) in Cook, Kane, Lake, and McHenry Counties. This unit includes primarily private lands (57,285 ac (23,182 ha)), and Illinois State and local government-owned lands (12,494 ac (5,056 ha)).

(ii) Map of Unit 11 is provided at paragraph (15)(ii) of this entry.

(17) Unit 12: Lost Nation; Ogle and Lee Counties, Illinois.

(i) Unit 12 consists of 12,643 ac (5,116 ha) in Lee and Ogle Counties. This unit is composed of private lands (12,046 ac (4,875 ha)), and State lands owned by Iowa Department of Natural Resources (597 ac (242 ha)).

(ii) Map of Unit 12 is provided at paragraph (14)(ii) of this entry.

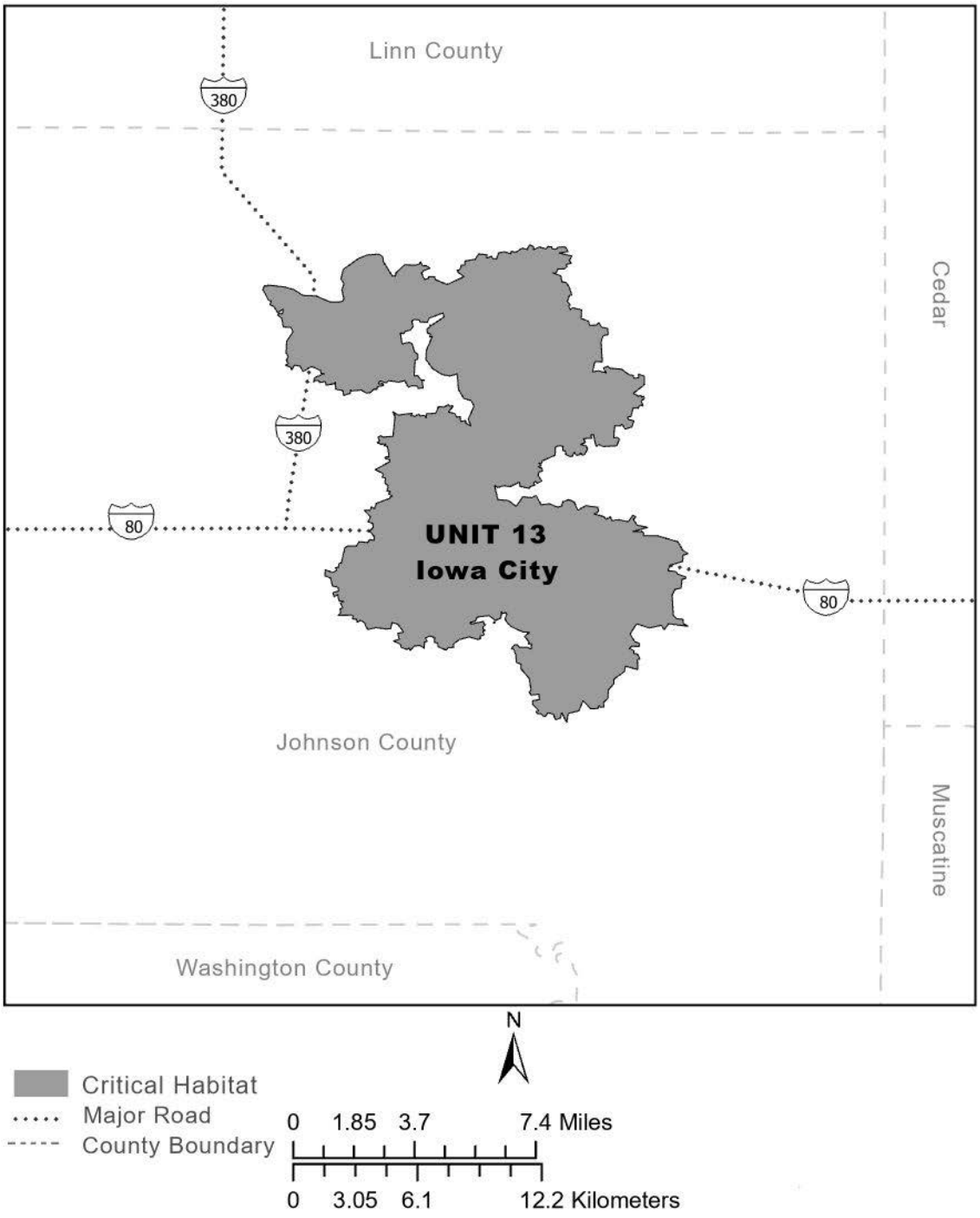
(18) Unit 13: Iowa City; Johnson County, Iowa.

(i) Unit 13 consists of 45,631 ac (18,466 ha) in Johnson County. This unit includes primarily private lands (30,500 ac (12,343 ha)), Iowa State and local government-owned lands (3,922 ac (1,587 ha)). Federal lands (11,209 ac (4,536 ha)) in this unit include U.S. Army Corps of Engineers' Coralville Lake and the Coralville Reservoir. A portion of the U.S. Army Corps of Engineers' land in this unit is managed by the State of Iowa (1,333 ac (539 ha)) and the University of Iowa (421 ac (170 ha)).

(ii) Map of Unit 13 follows:

Figure 8 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (18)(ii)

Critical Habitat for Rusty Patched Bumble Bee
Unit 13: Iowa City; Johnson County, Iowa



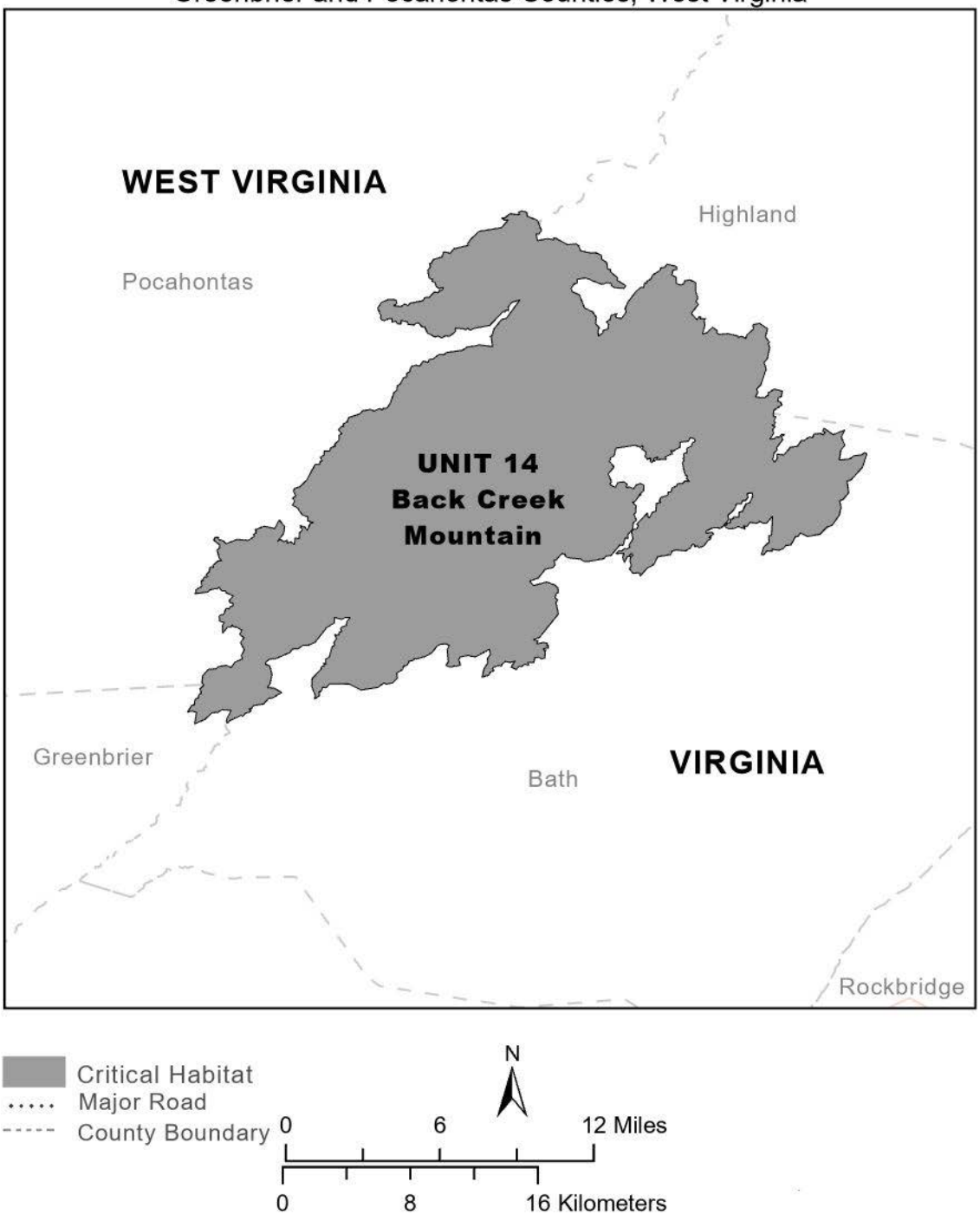
(19) Unit 14: Back Creek Mountain; Highland and Bath Counties, Virginia, and Greenbrier and Pocahontas Counties, West Virginia.

(i) Unit 14 consists of 118,589 ac (47,991 ha) in Highland and Bath Counties, Virginia, and Greenbrier and Pocahontas Counties, West Virginia. This unit includes Federal lands (105,551 ac (42,715 ha)), private lands (11,193 ac (4,530 ha)), and Virginia State lands (1,845 ac (747 ha)). Federal lands include the Monongahela and the George Washington–Jefferson National Forests.

(ii) Map of Unit 14 follows:

Figure 9 to Rusty Patched Bumble Bee (*Bombus affinis*) paragraph (19)(ii)

Critical Habitat for Rusty Patched Bumble Bee
Unit 14: Back Creek Mountain; Highland and Bath Counties, Virginia;
Greenbrier and Pocahontas Counties, West Virginia



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Brian R. Nesvik,
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U.S. Fish and Wildlife Service.

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