

(3) *Comment:* The proposed rule did not show that designating critical habitat was essential to conservation of the species or requires special management.

Our Response: Section 3 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 protection; and (ii) specific areas outside the geographical area occupied by the species * * * upon a determination * * * that such areas are essential for the conservation of the species.” Regulations (50 CFR 424.12) direct us to “focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species.” Conservation is defined in the Act, section 3, as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.” We believe the proposed rule demonstrated that the primary constituent elements we recognized are essential to the conservation of the species. The areas we are designating all contain one or more of such features.

The caves and the associated karst are essential to the conservation of the species because the invertebrates live, feed, and reproduce in the caves and the associated karst structures. The subsurface drainage area is essential to provide the environmental conditions in the cave that are requirements for the species. The surface drainage area helps maintain the environmental conditions and helps maintain an energy flow into the underground karst system. The surface vegetation is a direct source of energy through plant materials entering the karst system, and the surface vegetation also supports animals (such as cave crickets) that process the plant materials and then leave the resulting nutrients in the cave. Cave crickets are likely one of the most important sources of nutrients that support the endangered karst invertebrates. We believe this final rule documents that the areas designated meet the definition of critical habitat in that they contain one or more of the physical and biological features that are essential to the conservation of the endangered karst invertebrates. We also have carefully reviewed whether such areas may require special management considerations or protection, as called for under the

definition of critical habitat in section 3(5)A(i) of the Act. On the basis of our evaluation of certain areas already covered by conservation plans and thus already have special management considerations or protection, we did not include some areas in this final designation. (See “Lands Covered Under Existing Conservation Plans” section, below.)

(4) *Comment:* Because critical habitat must contain those physical or biological features essential to the conservation of the species, with the term “conservation” being considered synonymous with recovery, it appears that the same criteria used by the Service to delineate critical habitat must be incorporated into recovery plans for the Bexar County karst invertebrates. The commenter also hypothesized that the recovery of the Bexar County invertebrates will require establishment of a certain number of caves within adequate preserves that meet the parameters described in the proposed rule for critical habitat designation. Although a recovery plan has not yet been developed for these species, some of the areas proposed as critical habitat do not appear as if they will meet likely future recovery criteria for these species.

Our Response: We recognize that our designation of critical habitat may not include all the habitat areas that might eventually be determined to be necessary for the conservation of the listed karst invertebrates. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be recommended for attention as part of a recovery plan. Similarly, critical habitat designations made on the basis of the best information available at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts, particularly if new information available to these planning efforts calls for a different outcome. We also note that as provided for under section 4(a)(3) of the Act, we can revise our designation of critical habitat in the future if it is appropriate to do so.

Designation of critical habitat does not establish recovery criteria; that is one of the purposes of a recovery plan. Pursuant to section 4(f)(1) of the Act, the Service develops and implements plans, referred to as recovery plans, for the conservation and survival of listed species. As defined in section 3 of the Act, “conservation” means “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided

pursuant to this Act are no longer necessary.” A key purpose of a recovery plan is to recognize the threats to the listed species and propose methods for removing or minimizing the threats.

A Recovery Team, including stakeholders, currently is working with the Service to prepare a draft recovery plan for these species. While the Team has discussed recovery criteria, no draft plan has been developed. When a plan is developed, the public’s review and comments will be solicited before a final plan is adopted by the Service. We cannot currently say how many or which areas will be identified in the recovery plan as being important for the conservation of the species.

(5) *Comment:* The Service’s recommendation for the size of the critical habitat units appears to be based on the study of a single cave (Lakeline Cave in Williamson County, Texas) that may not be representative of the other karst features.

Our Response: The recommended size for critical habitat units is not based on the results of the Lakeline Cave cricket study. The Service used the Lakeline study as one source of information that suggests small areas of native vegetation, surrounded by urban development, are not adequate to sustain the cave cricket population, which is believed to be a key to the ecology of karst invertebrates and a primary source of cave nutrients. Our designation is based on the use of the best scientific data available regarding the physical and biological features that are essential to the conservation of the species and the identification of specific areas where such features are found.

(6) *Comment:* The size of the area needed to support native plant communities is based on the need for the plants to support each other, not one karst ecosystem. Therefore, no reason exists that multiple cave/karst ecosystems cannot occur within the boundaries of one critical habitat unit, as long as the actual areas providing nutrients to each cave are encompassed.

Our Response: We agree that the approach taken in the proposed rule of providing adequate surface plant communities for the karst ecosystem does not necessarily require more surface area to support multiple caves in close proximity. In the final rule, we revised our methods for delineating critical habitat to include multiple caves within the same smaller surface area, where appropriate. For each cave, we overlaid the areas needed to include the surface and subsurface drainages, cave cricket foraging area, and the vegetative surface community (see “Critical Habitat” section).