

this section, PHMSA will stay compliance with §§ 195.452(d) and 195.452 (j)(3) until it has completed an analysis of the notification. PHMSA will consult the Department of Energy, as appropriate, to help analyze the potential energy impact of loss of the pipeline. Based on the analysis, PHMSA may grant the operator a special permit to allow continued operation of the pipeline subject to alternative safety requirements.

(e) *Changes in unusually sensitive areas.*

(1) If, after June 3, 2008, an operator identifies a new USA that causes a segment of pipeline to meet the criteria in paragraph (b) of this section as a Category 1 or Category 2 rural low-stress pipeline, the operator must:

(i) Comply with the integrity management program requirement in paragraph (c)(1)(iii)(A) or (c)(2)(iii)(A) of this section, as appropriate, within 12 months following the date the area is identified regardless of the prior categorization of the pipeline; and

(ii) Complete the baseline assessment required by paragraph (c)(1)(iii)(C) or (c)(2)(iii)(C) of this section, as appropriate, according to the schedule in § 195.452(d)(3).

(2) If a change to the boundaries of a USA cause a Category 1 or Category 2 pipeline segment to no longer be within one-half mile of a USA, an operator must continue to comply with paragraph (c)(1)(iii) or paragraph (c)(2)(iii) of this section, as applicable, with respect to that segment unless the operator determines that a release from the pipeline could not affect the USA.

(f) *Record Retention.* An operator must maintain records demonstrating compliance with each requirement applicable to the category of pipeline according to the following schedule.

(1) An operator must maintain the segment identification records required in paragraph (c)(1)(i), (c)(2) (i) or (c)(3)(i) of this section for the life of the pipe.

(2) An operator must maintain the records necessary to demonstrate compliance with each applicable requirement set forth in paragraph (c) of this section according to the record retention requirements of the referenced section or subpart.

4. Section 195.48 is revised to read as follows:

§ 195.48 Scope.

This subpart prescribes requirements for periodic reporting and for reporting of accidents and safety-related conditions. This subpart applies to all pipelines subject to this part. An operator of a Category 3 rural low-stress pipeline meeting the criteria in § 195.12

is not required to complete those parts of the hazardous liquid annual report form PHMSA F 7000–1.1 associated with integrity management or high consequence areas.

Issued in Washington, DC, on June 16, 2010.

Jeffrey D. Wiese,

Associate Administrator for Pipeline Safety.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R2-ES-2009-0014]
[92210-1117-0000-B4]

RIN 1018-AW50

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Roswell Springsnail, Koster's Springsnail, Noel's Amphipod, and Pecos Assiminea

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, propose to revise designated critical habitat for the Pecos assiminea (*Assiminea pecos*), and to newly designate critical habitat for the Roswell springsnail (*Pyrgulopsis roswellensis*), Koster's springsnail (*Juturnia kosteri*), and Noel's amphipod (*Gammarus desperatus*), under the Endangered Species Act of 1973, as amended. In total, we are proposing to designate as critical habitat approximately 515 acres (208.4 hectares) for the four species. The proposed critical habitat is located in Chaves County, New Mexico, and Pecos and Reeves Counties, Texas. We also announce the availability of the draft economic analysis and draft environmental assessment for this action.

DATES: We request that comments be received or postmarked on or before August 23, 2010. Please note that submissions via the *Federal eRulemaking Portal* (see **ADDRESSES** section, below) must be made by 11:59 pm Eastern Standard Time on this date. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section by August 6, 2010.

ADDRESSES: You may submit comments by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Search for docket

number FWS-R2-ES-2009-0014 and then follow the instructions for submitting comments.

- *U.S. mail or hand-delivery:* Public Comments Processing, Attn: Docket No. FWS-R2-ES-2009-0014; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the **Public Comments** section below for more information).

FOR FURTHER INFORMATION CONTACT:

Wally “J” Murphy, Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, 2105 Osuna Rd NE, Albuquerque, NM 87113; telephone 505–761–4781; facsimile 505–246–2542. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Public Comments

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned government agencies, the scientific community, industry, or other interested parties concerning the proposed revisions to critical habitat for the Pecos assiminea (*Assiminea pecos*), and the proposed critical habitat for the Roswell springsnail (*Pyrgulopsis roswellensis*), Koster's springsnail (*Juturnia kosteri*), and Noel's amphipod (*Gammarus desperatus*), as well as the draft economic analysis and draft environmental assessment of the proposed designation. We will consider information and recommendations from all interested parties. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat is not prudent.

(2) Specific information on:

- The amount and distribution of habitat for the Roswell springsnail,

Koster's springsnail, Noel's amphipod, and Pecos assiminea (four invertebrates);

- What areas occupied at the time of listing and that contain features essential to the conservation of the species we should include in the designation and why;
- Special management considerations or protections that the features essential to the conservation of the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea that have been identified in this proposal may require, including managing for the potential effects of climate change; and
- What areas not occupied at the time of listing are essential for the conservation of the species and why.

(3) Land use management and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation. We are particularly interested in any impacts on small entities or families, and the benefits of including or excluding areas that exhibit these impacts.

(5) Information on whether the draft economic analysis identifies all local costs attributable to the proposed critical habitat designation and information on any costs that have been inadvertently overlooked.

(6) Whether the draft economic analysis correctly assesses the effect on regional costs associated with any land use controls that may derive from the designation of critical habitat.

(7) Whether the draft economic analysis or draft environmental assessment makes appropriate assumptions regarding current practices and likely regulatory changes imposed as a result of the designation of critical habitat.

(8) Whether the draft economic analysis and draft environmental assessment appropriately identify all costs and benefits that could result from the designation.

(9) Economic data on the incremental effects that would result from designating any particular area as critical habitat.

(10) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

To ensure that any final action resulting from this proposed rule will be as accurate and as effective as possible,

we request that you send relevant information for our consideration. The comments that will be most useful and likely to influence our decisions are those that you support by quantitative information or studies and those that include citations to, and analyses of, the applicable laws and regulations. Please make your comments as specific as possible and explain the bases for them. In addition, please include sufficient information with your comments to allow us to authenticate any scientific or commercial data you include.

You must submit your comments and materials concerning this proposed rule, the associated draft economic analysis, and the associated draft environmental assessment by one of the methods listed above in the **ADDRESSES** section. We will not accept comments sent by e-mail or fax or to an address not listed in **ADDRESSES**.

If you submit a comment via <http://www.regulations.gov>, your entire comment—including any personal identifying information, such as your address, telephone number, or e-mail address—will be posted on the Web site. Please note that comments submitted to this Web site are not immediately viewable. When you submit a comment, the system receives it immediately. However, the comment will not be publicly viewable until we post it, which might not occur until several days after submission.

If you mail or hand-carry a hardcopy comment directly to us that includes personal information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. To ensure that the electronic docket for this rulemaking is complete and all comments we receive are publicly available, we will post all hardcopy comments on <http://www.regulations.gov>.

In addition, comments and materials we receive, as well as supporting documentation used in preparing this proposed rule, will be available for public inspection in two ways:

(1) You can view them on <http://www.regulations.gov>. Search for docket number FWS-R2-ES-2009-0014.

(2) You can make an appointment, during normal business hours, to view the comments and materials in person at the U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

You may obtain copies of the original proposed rule, the draft economic analysis, and the draft environmental assessment online at <http://www.regulations.gov>, by mail from the

New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**), or by visiting our website at <http://www.fws.gov/southwest/es/NewMexico/>.

Public Availability of Comments

As stated above in more detail, before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Background

It is our intent to discuss only those topics relevant to the designation of critical habitat in this proposed rule. For more information on the Roswell springsnail (*Pyrgulopsis roswellensis*), Koster's springsnail (*Juturnia kosteri*), Noel's amphipod (*Gammarus desperatus*), and Pecos assiminea (*Assiminea pecos*), refer to the final listing rule published in the **Federal Register** on August 9, 2005 (70 FR 46304), and to the document announcing the reopening of the comment period on the proposed designation of lands of the Bitter Lake National Wildlife Refuge as critical habitat for these species that published on March 12, 2009 (74 FR 10701).

All four invertebrate species are associated with aquifer-fed spring systems in desert grasslands of the Pecos River Basin in southeast New Mexico and southwest Texas. This basin has abundant "karst" topography (landscape created by groundwater dissolving sedimentary rock), such as sinkholes, caverns, springs, and underground springs, which have created unique settings harboring diverse assemblages of plants and animals. The isolated limestone and gypsum springs, seeps, and wetlands located in and around Roswell, New Mexico, and Pecos and Reeves Counties, Texas, provide the last known habitats in the world for several endemic (native) species of fish, plants, mollusks, and crustaceans, including the Roswell springsnail and Koster's springsnail of the freshwater snail family Hydrobiidae, Pecos assiminea of the snail family Assimineidae, and Noel's amphipod (a crustacean of the family Gammaridae) (New Mexico Department of Game and Fish (NMDGF) 2005, pp. 9-12).

The Roswell springsnail and Koster's springsnail are aquatic species,

distributed in geographically separate populations in isolated limestone and gypsum springs, seeps, and wetlands. As with other snails in the family Hydrobiidae, the Roswell springsnail and Koster's springsnail are completely aquatic but can survive in seepage areas, as long as flows are perennial and within the species' physiological tolerance limits (NMDGF 2005, p. 9). The Roswell springsnail and Koster's springsnail are currently known only from the Middle Tract of Bitter Lake National Wildlife Refuge (Refuge) and a nearby complex of springs owned by the city of Roswell, Chaves County, New Mexico. The core population of Roswell springsnail is in the Sago Springs Complex and Bitter Creek on the Refuge. The Sago Springs Complex is approximately 1,000 feet (ft) (304 meters (m)) long, half of which flows underground with aboveground flow in the upper reaches restricted to sinkholes. Bitter Creek is six times longer than the Sago Springs Complex and has a total length of 1.1 miles (mi) (1.8 kilometers (km)). Roswell springsnail formerly occurred on private land at North Spring east of Roswell but has since been extirpated (NMDGF 2005, p. 12).

Koster's springsnail is most abundant in the deep organic substrates (material on the bottom of the stream) of Bitter Creek and its headwaters (Lang 1999, p. B36; NMDGF 2005, p. 13) on the Refuge; it also occurs at the Sago Springs Complex, but in lower numbers, as well as in Lake St. Francis, in the southwestern corner of Impoundment 15, in Hunter Marsh, in the spring-ditches of Impoundments 6 and 7, and in several springs adjacent to the Refuge owned by the city of Roswell (NMDGF 2005, p. 13; Sanchez 2009, p. 1; B. Lang, NMDGF, pers. comm. 2010). The species has not been found in recent times along the western boundary of the spring run originating from the saline waters of Bitter Lake, bordering Impoundment 3 on the Refuge (NMDGF 2005, p. 12), and it was recently extirpated from North Spring (NMDGF 2005, p. 11). Fossil records indicate that at least one or more of these snail species was historically found at Berrendo Spring, North Spring, and South Spring River,, and along the Pecos River (NMDGF 1999, pp. A1, A3, A8, A11). This evidence suggests an apparent historical decline in the numbers, range, and distribution of these species.

The Pecos assiminea is a minute marsh snail that seldom occurs immersed in water but prefers a humid microhabitat created by wet mud or beneath vegetation mats, typically within about 1 inch (in) (2 to 3

centimeters (cm)) of running water. Pecos assiminea is presently known from two sites at the Refuge, from a large population at Diamond Y Spring and its associated drainage in Pecos County, Texas, and at East Sandia Spring, in Reeves County, Texas. On the Refuge, Pecos assiminea occurs sporadically in Bitter Creek, in a dense population around the perimeter of a sinkhole within the Sago Springs Complex, on the western perimeter of Impoundment 7, and in the extreme southwest corner of Impoundment 15 (NMDGF 2005, p. 10). Critical habitat is currently designated for the Pecos assiminea at the Texas sites.

Noel's amphipod is a small, freshwater shrimp in the family Gammaridae that inhabits shallow, cool, well-oxygenated waters of streams, ponds, ditches, sloughs, and springs (Holsinger 1976, p. 28; Pennak 1989, p. 478). Noel's amphipod is currently known from the following five sites at the Refuge: Sago Springs Complex, Bitter Creek and its headwater springs, Unit 6 spring-ditch, Unit 7 spring-ditch, and Hunter Marsh (NMDGF 2005, p. 9; Sanchez 2009, p. 1). It is also found in several springs just outside the Refuge boundary on property owned by the City of Roswell (G. Warrick, pers. comm., 2005). The species was extirpated from Lander Springbrook between 1951 and 1960, and the North Spring population was lost between 1978 and 1988 (NMDGF 2005, p. 9). The extirpations were attributed to regional groundwater depletions and habitat alterations (spring channelization), respectively (Cole 1985, p. 94).

Previous Federal Actions

On August 9, 2005, we listed Roswell springsnail (*Pyrgulopsis roswellensis*), Koster's springsnail (*Juturnia kosteri*), Noel's amphipod (*Gammarus desperatus*), and Pecos assiminea (*Assiminea pecos*) as endangered under the Act (70 FR 46304). In that rule, we also designated critical habitat for Pecos assiminea at Diamond Y Springs Complex in Pecos County, Texas, and at East Sandia Springs in Reeves County, Texas. We excluded Bitter Lake National Wildlife Refuge from the critical habitat designation because special management for the four invertebrates was already occurring on the Refuge.

On March 12, 2009, in response to a complaint filed by Forest Guardians (now WildEarth Guardians) challenging the exclusion of the Refuge from the final critical habitat designation for the four species, we published a document announcing the reopening of the comment period on the proposed

designation of lands of the Bitter Lake National Wildlife Refuge as critical habitat for the four invertebrates (74 FR 10701).

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(i) 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

(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 at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 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 under 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, 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 prohibition against Federal agencies carrying out, funding, or authorizing the destruction or adverse modification of critical habitat. Section 7(a)(2) requires consultation on Federal actions that may affect 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 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. Where a landowner seeks or requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply, but even in the event of a

destruction or adverse modification finding, the Federal action agency's and the applicant's obligation is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time it was listed must contain the physical and biological features essential to the conservation of the species and be included only if those features may require special management considerations or protection. Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (areas on which are found the physical and biological features laid out in the appropriate quantity and spatial arrangement for the conservation of the species). Under the Act and regulations at 50 CFR 424.12, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed only when we determine that those areas are essential for the conservation of the species and that designation limited to those areas occupied at the time of listing would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial 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 developed during the listing process for the species. Additional information sources may include 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, or other unpublished materials and expert opinion or personal knowledge.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be required for recovery of the species.

Areas that are important to the conservation of the species, but are outside the critical habitat designation, will continue to be subject to conservation actions we implement under section 7(a)(1) of the Act. Areas that support populations are also subject to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available scientific information at the time of the agency action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information 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 these planning efforts calls for a different outcome.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and the regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied at the time of listing to propose as critical habitat, we consider the physical and biological features essential to the conservation of the species that may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the

historic, geographical, and ecological distributions of a species.

We consider the physical or biological features essential to the conservation of the species to be the primary constituent elements (PCEs) laid out in the appropriate quantity and spatial arrangement for the conservation of the species. We derived the specific PCEs from the biological needs of the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assimineia. We determined the PCEs for the four invertebrates from data and studies on their general habitat and life history requirements including, but not limited to: Noel 1954, pp. 120-135; Cole 1981, pp. 27-32; Taylor 1987, pp. 1-46; Pennak 1978, pp. 451-463; Pennak 1989, pp. 474-488; NMDGF 1999, p. A1-B46; and NMDGF 2005, pp. 1-80. A description of the essential environment as it relates to the specific PCEs required of the four invertebrates is described below.

Space for Individual and Population Growth and for Normal Behavior

Roswell springsnail, Koster's springsnail, Noel's amphipod

The aquatic environment provides foraging and sheltering habitat for Roswell springsnail, Koster's springsnail, and Noel's amphipod, as well as habitat structure necessary for reproduction and survival of offspring. These invertebrates are completely aquatic and require perennial, flowing water for all of their life stages. The springsnails can survive in seepage areas, as long as flows are perennial and within the species' physiological tolerance limit; pool-like habitat is less suitable for these species, which prefer flowing water. They inhabit springs and spring-fed wetland systems with variable water temperatures (10–20 degrees Celsius (°C) (50–68 degrees Fahrenheit (°F))). In general, the springsnails inhabit slow to moderate water velocities over compact substrate ranging from deep organic silts to gypsum sands and gravel (NMDGF 2005, pp. 13, 16). Habitat of Koster's springsnail consists of soft substrates of springs and seeps (Taylor 1987, p. 43). Roswell springsnail, on the other hand, was found to be most abundant on hard, gypsum substrate (NMDGF 2005, p. 16), which may make the species more susceptible to sedimentation. Noel's amphipod is found beneath stones and in aquatic vegetation (Cole 1988, p. 5; Smith 2001, pp. 572-574). The addition of stones, which increased current velocity, appeared to improve habitat for Noel's amphipod along Unit 6 spring-ditch on the Refuge (Lang 2002, p. 2).

The two springsnails and Noel's amphipod are sensitive to water contamination. Amphipods generally do not tolerate habitat desiccation (drying), standing water, sedimentation, or other adverse environmental conditions; they are very sensitive to habitat degradation (NMDGF 2000, p. B3; Smith 2001, p. 575; NMDGF 2005, p. 15). Further, Taylor (1985, p. 15) concluded that an unidentified groundwater pollutant was responsible for reduction in abundance of springsnail species in the headspring and outflow of Diamond Y Spring, in Pecos County, Texas.

Pecos assiminea

The Pecos assiminea requires saturated, moist soil at stream or spring-run margins and is found in wet mud or beneath mats of vegetation, usually within 1 in (2 to 3 cm) of flowing water. Spring complexes that contain flowing water create saturated soils that provide the specific habitat needed for population growth, sheltering, and normal behavior of the species. Although this snail seldom occurs immersed in water, the species cannot withstand permanent drying of springs or spring complexes. Consequently, wetland plant species are required to provide leaf litter (dead leaf material), shade, and appropriate microhabitat. Plant species such as American three-square (*Scirpus americanus*), spike rush (*Eleocharis* spp.), inland saltgrass (*Distichlis spicata*), and rushes (*Juncus* spp.) provide the appropriate cover and shelter required by Pecos assiminea (NMDGF 2005, p. 13).

Food

Invertebrates in small spring ecosystems depend on food from two sources: that which grows in or on the substrate (aquatic and attached plants and algae) and that which falls or is blown into the system (primarily leaves). Leaves from nonnative plants that fall into the water are often less suitable food sources for invertebrates because of either their resins or their physical structure (Bailey *et al.* 2001, p. 445). Water is also the medium necessary to provide the algae, detritus (dead or partially decayed plant materials or animals), bacteria, and submergent vegetation on which all four species depend as a food resource.

Roswell springsnail and Koster's springsnail

The springsnails feed on algae, bacteria, and decaying organic material (NMDGF 2005, p. 14). They will also incidentally ingest small invertebrates while grazing on algae and detritus. Submergent vegetation contributes the

necessary nutrients, detritus, and bacteria on which these species forage. Resource abundance and productivity appears to be an important factor in regulating population size (NMDGF 2005, p. 16).

Noel's amphipod

Amphipods are omnivorous, feeding on algae, submergent vegetation, and decaying organic matter (Holsinger 1976, p. 28; Pennak 1989, p. 476). Noel's amphipod is often found in beds of submerged aquatic plants, indicating that they probably feed on a surface film of algae, diatoms, bacteria, and fungi (Smith 2001, p. 575; NMDGF 2005, p. 14). Young amphipods depend on microbial foods, such as algae and bacteria, associated with aquatic plants (Covich and Thorp 1991, p. 677). Cannibalism may occur at high densities when food becomes limiting (Smith 2001, p. 575; NMDGF 2005, p. 15).

Pecos assiminea

The Pecos assiminea has a file-like radula (a ribbon of teeth) situated behind the mouth that it uses to graze or scrape food from the foraging surface. Saturated soils and wetland vegetation adjacent to spring complexes contribute to the necessary components to support the algae, detritus, and bacteria on which this species forages.

Summary of Primary Constituent Elements

Roswell springsnail and Koster's springsnail

Based on the above needs and our current knowledge of the life history, biology, and ecology of the species and the habitat requirements for sustaining the essential life history functions of the species, we have determined that the primary constituent element essential to the conservation of Roswell springsnail and Koster's springsnail is springs and spring-fed wetland systems that:

- (1) Have permanent, flowing, unpolluted water;
- (2) Have slow to moderate water velocities;
- (3) Have substrates ranging from deep organic silts to limestone cobble and gypsum;
- (4) Have stable water levels with natural diurnal (daily) and seasonal variations;
- (5) Consist of fresh to moderately saline water;
- (6) Vary in temperature between 10–20 °C (50–68 °F) with natural seasonal and diurnal variations slightly above and below that range; and
- (7) Provide abundant food, consisting of:

(a) Algae, bacteria, and decaying organic material; and

(b) Submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage.

Noel's amphipod

Based on the above needs and our current knowledge of the life history, biology, and ecology of the species and the habitat requirements for sustaining the essential life history functions of the species, we have determined that the primary constituent element essential to the conservation of Noel's amphipod is springs and spring-fed wetland systems that:

- (1) Have permanent, flowing, unpolluted water;
- (2) Have slow to moderate water velocities;
- (3) Have substrates including limestone cobble and aquatic vegetation;
- (4) Have stable water levels with natural diurnal (daily) and seasonal variations;
- (5) Consist of fresh to moderately saline water;
- (6) Have minimal sedimentation;
- (7) Vary in temperature between 10–20 °C (50–68 °F) with natural seasonal and diurnal variations slightly above and below that range; and
- (8) Provide abundant food, consisting of:

(a) Submergent vegetation and decaying organic matter;

(b) A surface film of algae, diatoms, bacteria, and fungi; and

(c) Microbial foods, such as algae and bacteria, associated with aquatic plants algae, bacteria, and decaying organic material.

Pecos assiminea

Based on the above needs and our current knowledge of the life history, biology, and ecology of the species and the habitat requirements for sustaining the essential life history functions of the species, we have determined that the primary constituent element essential to the conservation of Pecos assiminea is moist or saturated soil at stream or spring run margins:

- (1) With native vegetation growing in or adapted to aquatic or very wet environment, such as salt grass or sedges;
- (2) That consists of wet mud or occurs beneath mats of vegetation;
- (3) That is within 1 inch (2 to 3 centimeters) of flowing water;
- (4) That has native wetland plant species that provide leaf litter, shade, cover, and appropriate microhabitat;
- (5) That contains wetland vegetation adjacent to spring complexes that

supports the algae, detritus, and bacteria needed for foraging;

(6) That has adjacent spring complexes with:

- (a) Permanent, flowing, unpolluted, fresh to moderately saline water; and
- (b) Stable water levels with natural diurnal and seasonal variations.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and that may require special management considerations or protection. As stated in the final listing rule (70 FR 46304, August 9, 2005), threats to the four invertebrates include reducing or eliminating water in suitable or occupied habitat through drought or pumping; introducing pollutants to levels unsuitable for the species from urban areas, agriculture, release of chemicals, and oil and gas operations; fires that reduce or eliminate available habitat; and introducing nonnative species into the invertebrates' inhabited spring systems such that suitable habitat is reduced or eliminated. Each of these threats is discussed below.

Water Quantity

These four species depend on water for survival. Therefore, the loss or alteration of spring habitat continues to be the main threat to the four invertebrates. The scattered distribution of springs makes them aquatic islands of unique habitat in an arid-land matrix (Myers and Resh 1999, p. 815). Members of the snail family Hydrobiidae (including Roswell and Koster's springsnails) are susceptible to extirpation or extinction because they often occur in isolated desert springs (Hershler 1989, p. 294; Hershler and Pratt 1990, p. 291; Hershler 1994, p. 1; Lydeard *et al.* 2004, p. 326). There is evidence these habitats have been historically reduced or eliminated by aquifer depletion (Jones and Balleau 1996, p. 4). The lowering of water tables through aquifer withdrawals for irrigation and municipal use has degraded desert spring habitats. At least two historic sites for the invertebrates (South Spring, Lander Spring) are currently dry due to aquifer depletion (Cole 1981, p. 27; Jones and Balleau 1996, p. 5), and Berrendo Spring, historical habitat for the Roswell springsnail, is currently at 12 percent of the original 1880s flow. However, during the mid-1970s, the areas proposed in this document as critical

habitat continued to flow, even though groundwater pumping was at its highest rate and the area was experiencing extreme drought (McCord *et al.* 2007, p. 15). This suggests these springs and seeps may be somewhat resilient to reduced water levels, although climate change may test that resiliency. Models suggest climate change may cause the southwestern United States to experience the greatest temperature increase of any area in the lower 48 States (IPCC 2007, p. 15). There is also high confidence that many semi-arid areas like the western United States will suffer a decrease in water resources due to climate change (IPCC 2007, p. 16), as a result of less annual mean precipitation and reduced length of snow season and snow depth (Christensen *et al.* 2007, p. 850). These predictions underscore the importance of maintaining aquifer levels to ensure survival of the four invertebrates.

The primary threat to Pecos assiminea in Texas is the potential failure of spring flow due to excessive groundwater pumping or drought or both, which would result in total habitat loss for the species. Diamond Y Spring is the last major spring still flowing in Pecos County, Texas (Veni 1991, p. 2). Pumping of the regional aquifer system for agricultural production of crops has resulted in the drying of most other springs in this region (Brune 1981, p. 356). Other springs that have already failed include Comanche Springs, which was once a large spring in Fort Stockton, Texas, about 8 mi (12.9 km) from Diamond Y Spring. Comanche Springs flowed at more than 142 cubic feet per second (cfs) (4.0 cubic meters per second (cms)) (Scudday 1977, p. 515; Brune 1981, p. 358) and undoubtedly provided habitat for rare species of fish and invertebrates, including springsnails. The spring ceased flowing by 1962 (Brune 1981, p. 358) except for brief periods (Small and Ozuna 1993, p. 26). Leon Springs, located upstream of Diamond Y Spring in the Leon Creek watershed, was measured at 18 cfs (0.5 cms) in the 1930s and was also known to contain rare fish, but ceased flowing in the 1950s following significant irrigation pumping (Brune 1981, p. 359). There have been no continuous records of spring flow discharge at Diamond Y Spring by which to determine trends in spring flow.

East Sandia Spring discharges at an elevation of 3,205 ft (977 m) from alluvial sand and gravel (Schuster 1997, pp. 92-93). Brune (1981, pp. 385-386) noted that flows from East Sandia Springs were declining. East Sandia Spring may be very susceptible to over-

pumping in the area of the local aquifer that supports the spring. Measured discharges in 1995 and 1996 ranged from 0.45 to 4.07 cfs (0.013 to 0.11 cms) (Schuster 1997, p. 94). The small outflow channel from East Sandia Spring has not been significantly modified, and water flows into an irrigation system approximately 328 to 656 ft (100 to 200 m) after surfacing.

Water Contamination

Water contamination, particularly from oil and gas operations, is a significant threat for these four invertebrates. In order to assess the potential for contamination, a study was completed in September 1999 to delineate the area that serves as sources of water for the springs on the Refuge (Balleau *et al.* 1999, pp. 1-42). This study reported that the sources of water that will reach the Refuge's springs include a broad area beginning west of Roswell near Eightmile Draw, extending to the northeast to Salt Creek, and southeast to the Refuge. This area represents possible pathways that contaminants may enter the groundwater that feeds the springs on the Refuge. This broad area sits within a portion of the Roswell Basin and contains a mosaic of Federal, State, and private lands with multiple land uses including expanding urban development.

There are 378 natural gas and oil wells in the 12-township area encompassing the source-water capture zone for the Middle Tract of the Refuge (the only tract on which these species are found) that are potential sources of contamination (Go-Tech 2010). Of these, 17 oil and gas leases are currently within the habitat protection zone designated by the Bureau of Land Management (BLM) to reduce risk from drilling operations to the four invertebrates. This habitat protection zone encompasses 12,585 ac (5,093 ha) of the Federal mineral estate within the water resource area for the Refuge (U.S. Fish and Wildlife Service (Service) 2005a, pp. 3-8). Twenty natural gas wells currently exist on these leases. The BLM has estimated a maximum potential development of 66 additional wells within the habitat protection zone, according to well spacing requirements established by the New Mexico Oil Conservation Division (Service 2005a, p. 4-6). From 2002 to 2004, there were 200 notices of "intentions to drill" (59 on State, 33 on private, and 108 on Federal lands) filed for oil or natural gas in Chaves County (Go-Tech 2005).

There are numerous examples in which oil and gas operations have met regulatory standards within karst lands

in New Mexico and other States, but these measures failed to protect groundwater resources and prevent aquifer drawdown (McCord *et al.* 2007, p. 8). To clean the aquifer would be extremely difficult should it become contaminated by oil, chemicals, or organics, such as nitrates. In most cases, contamination of an underground aquifer by agricultural, industrial, or domestic sources is treated only at the source. When a contamination site is discovered, the source of the contamination is treated, and rarely do remediation efforts pump water from the aquifer and treat it before sending it back. This is largely because these techniques are very costly and difficult to apply (S. McGrath, pers. comm. 2001). Because these invertebrate species are sensitive to contaminants, efforts to clean up pollution after the aquifer has been contaminated may not be sufficient to protect these species and the aquatic habitat on which they depend.

Currently there are two active gas wells on the Middle Tract of the Refuge that are upstream (within the underground watershed) of occupied habitat for the four invertebrates. In 2006, Yates Petroleum applied for two additional gas wells, one of which would have been just upstream of occupied habitat for the four invertebrates. The applications have since been withdrawn, although the potential for oil and gas development remains.

The Diamond Y Springs Complex is within an active oil and gas extraction field. At this time there are still many active wells and pipelines located within a hundred meters of the surface waters at the springs. In addition, a natural gas refinery is located within 0.5 mi (0.8 km) upstream of Diamond Y Spring. There are also old brine pits, which can contribute salt and other mineral pollutants to the groundwater, associated with previous drilling within feet of surface waters. In addition, oil and gas pipelines cross the spring outflow channels and marshes where the species occurs, creating a constant potential for contamination from pollutants from leaks or spills. These activities pose a threat to the habitat of the Pecos assiminea by creating the potential for pollutants to enter underground aquifers that contribute to spring flow or by point sources from spills and leaks of petroleum products on the surface.

As an example of the likelihood of a spill occurring, in 1992 approximately 10,600 barrels of crude oil were released from a 6-in (15.2 cm) pipeline that traverses Leon Creek above its

confluence with Diamond Y Draw. The oil was from a ruptured pipeline at a point several hundred feet away from the Leon Creek channel. The site itself is about 1 mi (1.6 km) overland from Diamond Y Spring. The distance that surface runoff of oil residues must travel is about 2 mi (3.2 km) down Leon Creek to reach Diamond Y Draw. The pipeline was operated at the time of the spill by the Texas-New Mexico Pipeline Company, but ownership has since been transferred to several other companies. The Texas Railroad Commission has been responsible for overseeing cleanup of the spill site. Remediation of the site initially involved aboveground land farming of contaminated soil and rock strata to allow microbial degradation. In recent years, remediation efforts have focused on vacuuming oil residues from the surface of groundwater exposed by trenches dug at the spill site. No impacts on the rare fauna of Diamond Y Springs Complex have been observed, but no specific monitoring of the effects of the spill was undertaken (Service 2005a, pp. 4-12).

Fire

Fire suppression efforts on the Refuge are largely restricted to established roads due to the safety hazards of transporting equipment over karst terrain. This severely limits the ability to quickly suppress fires that threaten fragile aquatic habitats on the Refuge. On March 5, 2000, the Sandhill wildfire burned 1,000 ac (405 ha) of the western portion of the Refuge, including portions of Bitter Creek. The fire burned through Dragonfly Spring, a spring in the headwaters of Bitter Creek, which is occupied habitat for Noel's amphipod and Koster's springsnail. The fire eliminated vegetation shading the spring, and generated a substantial amount of ash in the spring system (Lang 2002, p. 3; NMDGF 2005, p. 15). This resulted in the formation of dense algal mats, increased water temperature fluctuations, increased maximum water temperatures, and decreased dissolved oxygen levels (Lang 2002, pp. 5-6). The pre-fire dominant vegetation of submerged aquatic plants and mixed native grasses within the burned area has also been replaced by the invasive common reed (*Phragmites australis*) (NMDGF 2005, p. 15; 2008, p. 8). Following the fire at Dragonfly Spring, a dramatic reduction in Noel's amphipod was observed, and Koster's springsnail presently occurs at lower densities than were observed prior to the fire (Lang 2002, p. 7; NMDGF 2006a, p. 9). Strategically timed prescribed burns throughout the range of the species would significantly reduce fuel

loads, limiting the risk of detrimental wildfires.

Removal of vegetative cover by burning in habitats occupied by Pecos assiminea may be an important factor in decline or loss of populations (Taylor 1987, p. 5, NMDGF 2005, p. 16). It is likely that Pecos assiminea may survive fire or other vegetation reduction if sufficient litter and ground cover remain to sustain appropriate soil moisture and humidity at a microhabitat scale (NMDGF 2005, p. 16; Service 2004, pp. 4-5). Complete combustion of vegetation and litter, high soil temperatures during fire, or extensive vegetation removal resulting in soil and litter drying may create unsuitable habitat conditions and loss of populations (NMDGF 2005, p. 16). Pecos assiminea was discovered at Dragonfly Spring following the burning of habitat there during the Sandhill Fire (NMDGF 2005, p. 16). Season of burning, intensity of the fire, and frequency of fire likely determine the magnitude of the fire's effects on Pecos assiminea population persistence and abundance (NMDGF 2005, p. 16), as the species has been found to persist in areas following fires (Lang 2002, p. B8). Pecos assiminea is relatively vulnerable to fires because the assiminea resides at or near the surface of the water.

Introduced Species

Introduced species are one of the most serious threats to native aquatic species (Williams *et al.* 1989, p. 18; Lodge *et al.* 2000, p. 7). Because the distribution of the four invertebrates is so limited, and their habitat so restricted, introduction of certain nonnative species into their habitat could be devastating. Several invasive terrestrial plant species that may affect the invertebrates are present on the Refuge, including saltcedar (*Tamarix ramossissima*), common reed, and Russian thistle (*Salsola* spp.). Control and removal of nonnative vegetation has been identified as a factor responsible for localized extirpations of populations of Pecos assiminea in Mexico and New Mexico (Taylor 1987, p. 5). Saltcedar, found on the Refuge and at Diamond Y Spring Complex and East Sandia Spring, threatens spring habitats primarily through the amount of water it consumes and from the chemical composition of the leaves that drop to the ground and into the springs. Saltcedar leaves that fall to the ground and into the water add salt to the system, as their leaves contain salt glands (DiTomaso 1998, p. 333). Additionally, dense stands of common reed choke the stream channel, slowing water velocity and creating more pool-like habitat; this habitat is less suitable for Roswell and Koster's springsnails,

which prefer flowing water. Finally, Russian thistle (tumbleweed) can create problems in spring systems by being blown into the channel, slowing flow and overloading the system with organic material (Service 2005b, p. 2).

Nonnative mollusks have affected the distribution and abundance of native mollusks in the United States. Of particular concern for three of the invertebrates (Noel's amphipod, Roswell springsnail, and Koster's springsnail) is the red-rim melania (*Melanoides tuberculata*), a snail that can reach tremendous population sizes and has been found in isolated springs in the west. The red-rim melania has caused the decline and local extirpation of native snail species, and it is considered a threat to endemic aquatic snails that occupy springs and streams in the Bonneville Basin of Utah (Rader *et al.* 2003, p. 655). It is easily transported on fishing boats and gear or aquatic plants, and because it reproduces asexually (individuals can develop from unfertilized eggs), a single individual is capable of founding a new population. It has become established in isolated desert spring ecosystems such as Ash Meadows, Nevada, and Cuatro Ciénegas, Mexico, and within the last 15 years, the red-rim melania has become established in Diamond Y Springs Complex (Echelle 2001, p. 18). It has become the most abundant snail in the upper watercourse of the Diamond Y Springs Complex (Echelle 2001, p. 14). In many locations, this exotic snail is so numerous that it essentially is the substrate in the small stream channel. The effect the species is having on native snails is not known; however, because it is aquatic it probably has less effect on Pecos assiminea than on the other endemic aquatic snails present in the spring.

Criteria Used To Identify Critical Habitat

As required by section 4(b) of the Act, we used the best scientific and commercial data available in determining areas within the geographical area occupied at the time of listing that contain the features essential to the conservation of Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea, as well as in determining if areas outside of the geographical area occupied at the time of listing are essential for the conservation of the four invertebrates. We relied on information from knowledgeable biologists and recommendations contained in State wildlife resource reports (Cole 1985; Jones and Balleau 1996, pp. 1-16; Boghici 1997, pp. 1-120; Balleau *et al.* 1999, pp. 1-42; NMDGF 1999, pp. A1-

B46; NMDGF 2006b, pp. 1-16; NMDGF 2007, pp. 1-20; and NMDGF 2008, pp. 1-28) and the State recovery plan (NMDGF 2005, pp. 1-80) in making this determination. We also reviewed the available literature pertaining to habitat requirements, historic localities, and current localities for these species. This includes data submitted during section 7 consultations and regional geographic information system (GIS) coverages.

In proposing designation of revised critical habitat for the Pecos assiminea, and critical habitat for Roswell springsnail, Koster's springsnail, and Noel's amphipod, we selected areas based on the best scientific data available that possess those PCEs essential to the conservation of the species that may require special management considerations or protection. We identified critical habitat units that have the highest likelihood to contain populations of the four invertebrates based on the presence of the defined PCEs and the kind, amount, and quality of habitat associated with those occurrences. The units contain the appropriate quantity and distribution of PCEs to support the life cycle stages we have determined are essential to the conservation of the species.

The four invertebrates currently exist throughout their ranges in a spatial arrangement that would provide for their long-term conservation. For this reason, we are not currently proposing any areas outside the geographical area presently occupied by the species, because the occupied areas are sufficient for the conservation of the species.

When determining revised critical habitat boundaries within this proposed rule, we made every effort to avoid including structures such as culverts and roads, because areas with such structures lack PCEs for Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea. 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 areas. Any such structures inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat were finalized as proposed, a Federal action involving these areas would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the PCEs in the adjacent critical habitat.

Essential Areas

For areas not occupied by the species at the time of listing, the Service must demonstrate that these areas are essential to the conservation of the species in order to include them in a critical habitat designation. The four invertebrates are not migratory, nor is there frequent gene exchange between populations or critical habitat units. Further, the proposed critical habitat units in New Mexico and west Texas are sufficiently distant (40 to 100 mi (64 to 161 km)) from one another to rule out Pecos assiminea gene exchange. Therefore, due to the lack of frequent gene exchange, we have determined that each of these populations is essential to the conservation of the species because they provide for the maintenance of the genetic diversity of the four invertebrates. The areas we have determined meet the definition of critical habitat for the four invertebrates include populations containing all of the known remaining genetic diversity within each species.

Locations from within the historical range of the four invertebrates, including North Spring, Berrendo Spring, South Spring River, and Lander Springbrook, are no longer suitable habitat for the four invertebrates, and the species have been extirpated from these sites. South Spring and Lander Spring are both dry due to aquifer depletion (Cole 1981, p. 27; Jones and Balleau 1996, p. 5), and reaches of Berrendo Creek (the springbrook from Berrendo Spring) remain dry and unable to support the invertebrates (NMDGF 2005, p. 18). North Spring, located on the grounds of the Roswell Country Club, was enclosed by a brick wall, native vegetation was removed from the margins of the springhead and springbrook, and the banks were sodded (Cole, 1988, p. 2; NMDGF 2005, p. 18). The brick wall at North Spring has since been removed and the spring outflow has been widened, allowing a nearby pond to back into the spring, introducing carp to the system (B. Lang, NMDGF, pers. comm., 2010). Springsnails have not been found at North Spring since 1995, and suitable habitat is not present there. Because these formerly occupied sites have been so severely impacted in the past, it is not likely that they could be rehabilitated in the future and once again contain suitable habitat for the four invertebrates; therefore, they are unlikely to contribute to the recovery of the species and not considered essential to the conservation of the species.

Occupancy

We consider an area to be currently occupied if Roswell springsnail, Koster's springsnail, Pecos assiminea, or Noel's amphipod were found to be present by species experts within the last 5 years and no major habitat modification has occurred which would preclude their presence. Five years is an appropriate time period because surveys may not occur in all areas in all years. The species would be likely to persist in an area over multiple years unless major habitat modification occurred. We are proposing to designate as critical habitat all sites on or near the Refuge currently occupied by at least one of the four invertebrates.

In summary, this proposed critical habitat designation includes populations of the four invertebrates and habitats that possess the physical and biological features essential to the conservation of the species. We believe the populations included in this designation, if secured, would provide for the conservation of the Roswell springsnail, Koster's springsnail, Pecos assiminea, and Noel's amphipod by:

- (1) Maintaining the physical and biological features essential to the conservation of the species in areas where populations of the four invertebrates are known to occur, and
- (2) Maintaining the current distribution, thus preserving genetic variation throughout the ranges of the four invertebrates and minimizing the potential effects of local extinction.

Summary of Changes from Previously Proposed and Designated Critical Habitat

The areas identified in this proposed rule constitute a proposed revision of the areas we designated as critical habitat for the Pecos assiminea on August 9, 2005 (70 FR 46304). The significant differences between the 2005 rule and this proposal include the following:

- (1) Currently, two units in Texas (Diamond Y Spring complex and East Sandia Springs) totaling 396.5 ac (160.5 ha) are designated as critical habitat for the Pecos assiminea (70 FR 46304, August 9, 2005). We did not designate any areas as critical habitat for the

Roswell springsnail, Koster's springsnail, and Noel's amphipod in 2005, nor did we designate any lands of the Bitter Lake National Wildlife Refuge (Refuge) as critical habitat for these species. This proposed rule, which is based partly on new occupancy information since we originally proposed critical habitat, includes two units on the Refuge totaling 67.8 ac (27.4 ha). If adopted, this proposed rule would result in an increase of 70.6 ac (28.6 ha) from currently designated critical habitat for the Pecos assiminea and would include new critical habitat for the Roswell springsnail, Koster's springsnail, and Noel's amphipod.

(2) As stated above, our 2005 critical habitat designation (70 FR 46304; August 9, 2005) did not include any Refuge lands. In that rule, we determined that Refuge lands did not meet the definition of critical habitat in section 3(5)(A) of the Act because the special management for the four invertebrates was already occurring on the Refuge. In order to more fully consider special management of threats that may be occurring outside the Refuge boundaries, we are now proposing certain Refuge lands for critical habitat designation.

(3) In our February 12, 2002, proposal to designate critical habitat for the four invertebrates (67 FR 6459) we proposed 1,127 ac (456 ha) of critical habitat on the Refuge. This proposed designation of critical habitat includes only 67.8 ac (27.4 ha) on the Refuge; updated GIS techniques have allowed us to more closely map the wetlands, springs, and seeps on the Refuge in which the four invertebrates occur.

(4) This proposed designation of critical habitat includes 2.8 ac (1.1 ha) in one unit in the city of Roswell, New Mexico, adjacent to the Refuge that are not currently designated as critical habitat. We did not include this site in the August 9, 2005, designation (70 FR 46304) because occupancy by Noel's amphipod and Koster's springsnail was first documented following publication of the proposed rule to designate critical habitat (67 FR 6459; February 12, 2002).

(5) This proposed designation of critical habitat includes the two units in Texas (Diamond Y Spring complex and

East Sandia Springs) currently designated for Pecos assiminea, but we have used updated GIS information to offer more refined boundaries within those two units. While the critical habitat boundary at Diamond Y Spring complex did not change, the acreage calculation increased from 380 ac (153.8 ha) in the 2005 final rule (70 FR 46304, August 9, 2005) to 441.5 ac (178.7 ha) in this proposed rule. At East Sandia Spring, updated GIS techniques have allowed us to more closely map the wetlands, springs, and seeps in this area, resulting in fewer acres proposed for critical habitat; we designated 16.5 ac (6.7 ha) in 2005 (70 FR 46304, August 9, 2005), and we are proposing 3.0 ac (1.2 ha) for designation in this rule.

(6) This proposed designation of critical habitat includes more detailed PCEs than we proposed for Roswell and Koster's springsnails and Noel's amphipod in our 2002 proposal (67 FR 6459, February 12, 2002) or we adopted for Pecos assiminea in our 2005 designation (70 FR 46304, August 9, 2005); this detail adds clarity to the designation.

(7) We are proposing as critical habitat all occupied sites for the four invertebrates, as all of these sites are essential to the conservation of the species.

Proposed Critical Habitat Designation

We are proposing four units as critical habitat for the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea in New Mexico and Texas. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the four invertebrates. Roswell springsnail, Koster's springsnail, and Noel's amphipod occur in two of the four units; the two units we propose as critical habitat for these invertebrates, and their approximate areas, are displayed in Table 1. Pecos assiminea occurs in all four units; the four units we propose as revised critical habitat for this species, and their approximate areas, are displayed in Table 2. All locations were occupied at the time of listing and are currently occupied by the invertebrates.

TABLE 1. PROPOSED CRITICAL HABITAT UNITS FOR ROSWELL SPRINGSNAIL, KOSTER'S SPRINGSNAIL, AND NOEL'S AMPHIPOD [AREA ESTIMATES REFLECT ALL LAND WITHIN CRITICAL HABITAT UNIT BOUNDARIES.]

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Acres (Hectares)
1. Sago/Bitter Creek Complex	Service	31.9 (12.9)
2. Impoundment Complex	Service City of Roswell	35.9 (14.5) 2.8 (1.1)

TABLE 1. PROPOSED CRITICAL HABITAT UNITS FOR ROSWELL SPRINGSNAIL, KOSTER'S SPRINGSNAIL, AND NOEL'S AMPHIPOD [AREA ESTIMATES REFLECT ALL LAND WITHIN CRITICAL HABITAT UNIT BOUNDARIES.]—Continued

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Acres (Hectares)
Total		70.6 (28.6)

Note: Area sizes may not sum due to rounding.

TABLE 2. PROPOSED REVISED CRITICAL HABITAT UNITS FOR PECOS ASSIMINEA. [AREA ESTIMATES REFLECT ALL LAND WITHIN CRITICAL HABITAT UNIT BOUNDARIES.]

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Acres (Hectares)
1. Sago/Bitter Creek Complex	Service	31.9 (12.9)
2. Impoundment Complex	Service City of Roswell	35.9 (14.5) 2.8 (1.1)
3. Diamond Y Springs Complex	The Nature Conservancy	441.4 (178.6)
4. East Sandia Spring	The Nature Conservancy	3.0 (1.2)
Total		515.0 (208.4)

Note: Area sizes may not sum due to rounding.

We present brief descriptions of the units and reasons why the proposed critical habitat units meet the definition of critical habitat for the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea below.

Unit 1: Sago/Bitter Creek Complex

Unit 1 consists of 31.9 ac (12.9 ha) of habitat that was occupied by all four invertebrates at the time of listing and that remains occupied at the present time. We propose to designate this unit as critical habitat for all four species; it contains all of the features essential to the conservation of these species. Unit 1 is located on the northern portion of the Middle Tract of Bitter Lake National Wildlife Refuge, Chaves County, New Mexico. The adjacent gypsum sinkholes comprise the core population center for all four species. The proposed designation includes all springs, seeps, sinkholes, and outflows surrounding Bitter Creek and the Sago Springs complex. Habitat in this unit is threatened by subsurface drilling or similar activities that contaminate surface drainage or aquifer water; wildfire; nonnative fish, crayfish, snails, and vegetation; and unauthorized activities, including dumping of pollutants or fill material into occupied sites. Therefore, the PCEs in this unit may require special management considerations or protection to minimize impacts resulting from these threats. The entire unit is owned by the Service.

Unit 2: Impoundment Complex

Unit 2 consists of 38.7 ac (15.7 ha) of habitat that was occupied by the four

invertebrates at the time of listing and that remains occupied at the present time. We propose to designate this unit as critical habitat for all four species; it contains all of the features essential to the conservation of these species. Unit 2 is located on the southern portion of the Middle Tract of Bitter Lake National Wildlife Refuge and on property owned by the city of Roswell, Chaves County, New Mexico. This unit includes portions of impoundments 3, 6, 7, 15, and Hunter Marsh. This unit comprises a secondary population center for all four invertebrates. The proposed designation includes all springs, seeps, sinkholes, and outflows surrounding the Refuge impoundments. Habitat in this unit is threatened by subsurface drilling or similar activities that contaminate surface drainage or aquifer water; wildfire; nonnative fish, crayfish, snails, and vegetation; and unauthorized activities, including dumping of pollutants or fill material into occupied sites. Therefore, the PCEs in this unit may require special management considerations or protection to minimize impacts resulting from these threats. Land ownership in this unit includes the Service and the City of Roswell, New Mexico.

Unit 3: Diamond Y Springs Complex, Pecos County, Texas

This unit comprises a major population of Pecos assiminea and contains all of the features essential to the conservation of that species. We propose to designate this unit as critical habitat only for Pecos assiminea; the unit was occupied by that species at the time of listing. The proposed

designation includes the Diamond Y Spring and approximately 4.2 mi (6.8 km) of its outflow, ending at approximately 0.5 mi (0.8 km) downstream of the State Highway 18 bridge crossing. Also included in this proposed unit is approximately 0.5 mi (0.8 km) of Leon Creek upstream of the confluence with Diamond Y Draw. All surrounding riparian vegetation and mesic (wet) soil environments within the spring, outflow, and portion of Leon Creek are also proposed for designation, as these areas are considered habitat for the Pecos assiminea. This proposed designation is approximately 441 ac (178.6 ha) of aquatic and neighboring mesic habitat. Habitat in this unit is threatened by increased groundwater pumping; subsurface drilling or similar activities that contaminate surface drainage or aquifer water; wildfire; and nonnative fish, crayfish, snails, and vegetation. This complex occurs entirely on private lands. Private land in the immediate vicinity of the Diamond Y Springs Complex is managed as a nature preserve by The Nature Conservancy (TNC).

Unit 4: East Sandia Spring, Reeves County, Texas

East Sandia Spring is at the base of the Davis Mountains just east of Balmorhea, Texas, and is part of the San Solomon-Balmorhea Spring Complex, the largest remaining desert spring system in Texas where the Pecos assiminea is found. We propose to designate this unit as critical habitat only for Pecos assiminea; the unit was occupied by that species at the time of listing. The proposed designation

includes the springhead itself, surrounding seeps, and all submergent vegetation and moist soil habitat found at the margins of these areas, comprising the PCEs for the Pecos assimineae. This proposed designation is approximately 3.0 ac (1.2 ha) of aquatic and neighboring upland habitat. Habitat in this unit is threatened by increased groundwater pumping; wildfire; and nonnative fish, crayfish, snails, and vegetation. The spring is included in a 240-ac (97-ha) preserve owned and managed by TNC (Karges 2003, p. 145).

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. Decisions by the Fifth and Ninth Circuits Court of Appeals have invalidated our definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain those PCEs that relate to the ability of the area to periodically support the species) to serve its intended conservation role for the species.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, we document compliance with the requirements of section 7(a)(2) 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 or destroy or adversely modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define “Reasonable and prudent alternatives” at 50 CFR 402.02 as alternative actions identified during consultation that:

- Can be implemented in a manner consistent with the intended purpose of the action,
- Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
- Are economically and technologically feasible, and
- Would, in the Director’s opinion, avoid jeopardizing the continued existence of the listed species or 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 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency’s discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Federal activities that may affect the Roswell springsnail, Koster’s springsnail, Noel’s amphipod, and Pecos assimineae or their designated critical habitat require section 7 consultation under the Act. Activities on State, tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from us under section 10 of the Act) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) are

subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded, authorized, or permitted, do not require section 7 consultations.

Application of the “Adverse Modification” Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species, or retain those PCEs that relate to the ability of the area to periodically support the species. Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that appreciably reduces the conservation value of critical habitat for the Roswell springsnail, Koster’s springsnail, Noel’s amphipod, and Pecos assimineae. As discussed above, the role of critical habitat is to support the life history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore should result in section 7 consultation for the Roswell springsnail, Koster’s springsnail, Noel’s amphipod, and Pecos assimineae include, but are not limited to:

- (1) Actions that would contaminate or cause significant degradation of habitat occupied by these species, including surface drainage water or aquifer water quality. Such activities could include, but are not limited to, the use of chemical insecticides or herbicides that results in killing or injuring these species; subsurface drilling or similar activities within the 12,585-ac (5,093-ha) Federal mineral estate and 9,945-ac (4,025-ha) habitat protection zone in New Mexico (e.g., Bureau of Land Management 2002, p. 1; Balleau *et al.* 1999, p. 3) that contaminate or cause significant degradation of water quality in surface or aquifer waters supporting the habitat occupied by these species; septic tank placement and use where the groundwater is connected to sinkhole or other aquatic habitats occupied by these species; and unauthorized discharges or dumping of

toxic chemicals or other pollutants into the areas supporting the four invertebrates. These activities could alter water conditions to levels that are beyond the tolerances of the invertebrates and result in degradation of their occupied habitat to an extent that individuals are killed or injured or essential behaviors such as breeding, feeding, and sheltering are impaired.

(2) Actions that would destroy or alter habitat for the four invertebrates. Such activities could include, but are not limited to, discharging fill material into occupied sites, draining, ditching, tilling, channelizing, drilling, pumping, or other activities that interrupt surface or groundwater flow into or out of the spring complexes and occupied habitats of these species. These activities could result in significant impairment of essential life-sustaining requirements such as breeding, feeding, and sheltering.

(3) Actions that would introduce nonnative species into occupied habitats for the four invertebrates. Potential nonnative species include, but are not limited to, mosquitofish, crayfish, nonnative snails, or vegetation into habitat currently occupied by any of the four invertebrates. These species compete for scarce resources and may prey on the four species.

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:

- An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- A statement of goals and priorities;
- A detailed description of management actions to be implemented to provide for these ecological needs; and
- 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 (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

There are no Department of Defense lands within the areas we are proposing to designate as critical habitat for the four invertebrates; therefore we are not exempting any areas from designation.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary must designate and revise critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the legislative history is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If based on this analysis, we make this determination, then we can exclude the area only if such exclusion would not result in the extinction of the species.

When considering the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction 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.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; implementation of a management plan that provides equal to or more conservation than a critical habitat designation would provide; or some combination of these.

After evaluating the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to determine whether the benefits of exclusion outweigh those of inclusion. If we determine that they do, we then determine whether exclusion would result in extinction. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors.

A draft analysis of the economic effects of the proposed critical habitat designation was prepared and with this proposed rule is made available for public review. The economic analysis considers the economic impacts of conservation measures taken prior to and subsequent to the final listing and designation of critical habitat for the four invertebrates. Baseline impacts are typically defined as all management efforts that have occurred since the time of listing. We listed the four invertebrates in August 2005 (70 FR 46304). Incremental costs are those that are attributable to critical habitat designation alone. Total baseline costs associated with this proposed critical habitat designation are estimated to be \$1,080,000 to \$1,490,000 over the next 30 years, and incremental costs are estimated to be \$5,900 to \$62,500.

Copies of the draft economic analysis are available for downloading from the Internet at <http://www.regulations.gov>,

or by contacting the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and we may exclude areas from the revised final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense (DOD) where a national security impact might exist. In preparing this proposal, we have determined that the lands within the proposed designation of critical habitat for the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea are not owned or managed by the DOD. We are aware that there are DOD lands in the vicinity of the Refuge, but our proposed designation does not include these lands, and we anticipate no impact to national security. Therefore, there are no areas proposed for exclusion 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. We consider a number of factors, including whether the landowners have developed any habitat conservation plans (HCPs) or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this proposal, we have determined that there are currently no HCPs for the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea, and the proposed designation does not include any tribal lands or trust resources. We anticipate no impact to tribal lands, partnerships, or HCPs from this proposed critical habitat designation. There are no areas proposed for exclusion from this proposed designation based on other relevant impacts.

We have determined that areas managed by the Refuge meet the definition of critical habitat for the four

invertebrates. The Refuge has developed and completed a Comprehensive Conservation Plan (CCP) that provides the framework for protection and management of all trust resources, including federally listed species and sensitive natural habitats. These lands are protected areas for wildlife and are currently managed for the conservation of wildlife, including endangered and threatened species, and specifically the four invertebrates. Below we provide a description of the management being provided by the Refuge for the conservation of the four invertebrates within areas proposed for designation as critical habitat.

The Refuge was established on October 8, 1937, by Executive Order 7724 "as a refuge and breeding ground for migratory birds and other wildlife." The Refuge Recreation Act (16 U.S.C. 460k-460k-4) identifies the refuge as being suitable for incidental fish and wildlife-oriented recreational development, the protection of natural resources, and the conservation of endangered species or threatened species. While the Refuge was originally established to save wetlands vital to the perpetuation of migratory birds, the isolated gypsum springs, seeps, and associated wetlands protected by the Refuge have been recognized as providing the last known habitats in the world for several unique species. Management emphasis of the Refuge is placed on the protection and enhancement of habitat for endangered species and Federal candidate species, maintenance and improvement of wintering crane and waterfowl habitat, and monitoring and maintenance of natural ecosystem values.

The Refuge sits at a juncture between the Roswell Artesian Groundwater Basin and the Pecos River. These two systems and their interactions account for the diversity of water resources on the Refuge, including sinkholes, springs, wetlands, oxbow lakes, and riverine habitats. The Refuge has a federally reserved water right that essentially protects groundwater levels of the Roswell Basin in the Refuge vicinity. The Refuge has undergone adjudication of its federally reserved water rights by the State of New Mexico (order signed May 1997).

The National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act; Pub. L. 105-57, 111 Stat. 1252-1260) establishes a conservation mission for refuges, gives policy direction to the Secretary of the Interior and refuge managers, and contains other provisions such as the requirement to integrate scientific principals into the management of the

refuges. According to section 7 of the Refuge Improvement Act, all lands of the Refuge System are to be managed in accordance with an approved CCP that will guide management decisions and set forth strategies for achieving refuge purposes. In general, the purpose of the CCP is to provide long-range guidance for the management of National Wildlife Refuges. The Refuge Improvement Act requires all refuges to have a CCP and provides the following legislative mandates to guide the development of the CCP: (1) Wildlife has first priority in the management of refuges; (2) wildlife-dependent recreation, including hunting, fishing, wildlife observation, wildlife photography, environmental education and environmental interpretation, are the priority public uses of the Refuge System and shall be allowed when compatible with the refuge purpose; and (3) other uses have lower priority in the Refuge System and are only allowed if not in conflict with any of the priority uses and determined appropriate and compatible with the refuge purpose. The CCP must also be revised if the Secretary determines that conditions that affect the refuge or planning unit have changed significantly. In other words, a CCP must be followed once it is approved and regularly updated in response to environmental changes or new scientific information.

The Refuge has a Final CCP that was approved in September 1998. The CCP serves as a management tool to be used by the Refuge staff and its partners in the preservation and restoration of the ecosystem's natural resources. The plan is intended to guide management decisions over the next 5 to 10 years and sets forth strategies for achieving Refuge goals and objectives within that timeframe. Key goals of the CCP related to the four invertebrates include the following: (1) To restore, enhance and protect the natural diversity on the Refuge, including endangered and threatened species by (a) appropriate management of habitat and wildlife resources on refuge lands and (b) strengthening existing and establishing new cooperative efforts with public and private stakeholders and partners, and (2) To restore and maintain selected portions of a hydrological system that more closely mimics the natural processes along the reach of the Pecos River adjacent to the Refuge by (a) restoration of the river channel as well as restoration of endangered, threatened, and special concern species; and (b) control of exotic species and management of trust responsibilities for maintenance of plant and animal

communities and to satisfy traditional recreational demands. Specific objectives related to these goals include: (1) The restoration of populations of aquatic species designated as endangered, threatened, or of special concern to a sustainable level (aquatic species in these categories include the four invertebrates), and (2) the monitoring of wildlife populations, including endemic snails.

A final determination on whether we should exclude the Refuge from critical habitat for the four invertebrates will be made when we publish the final rule designating critical habitat. We will take into account public comments and carefully weigh the benefits of exclusion versus inclusion of these areas.

Editorial Changes

When we listed Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea as endangered species on August 9, 2005 (70 FR 46304), we neglected to insert the appropriate date code in the "When listed" column of the List of Endangered and Threatened Wildlife at 50 CFR 17.11(h). Further, information we had intended to display in the "Critical habitat" column was misplaced under the "When listed" column, and information intended for the "Special rules" column was misplaced under the "Critical habitat" column. We are proposing to correct these errors in this rule. This change is purely editorial; it would not affect the substance of the listing rule.

Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information we receive during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of

publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in the **FOR FURTHER INFORMATION CONTACT** section. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

Required Determinations

Regulatory Planning and Review—Executive Order 12866

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this proposed rule under Executive Order 12866 (E.O. 12866). OMB bases its determination upon the following four criteria:

(a) Whether the rule will have an annual effect of \$100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.

(b) Whether the rule will create inconsistencies with other Federal agencies' actions.

(c) Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

(d) Whether the rule raises novel legal or policy issues.

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, whenever an agency must 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 (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 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.

In the draft economic analysis of the proposed revised critical habitat designation, we evaluated the potential economic effects on small business entities resulting from conservation actions related to the listing of the

Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea (baseline costs), and the additional potential economic effects resulting from the proposed designation of their critical habitat (incremental costs). This analysis estimates prospective economic impacts due to the implementation of conservation efforts for the four invertebrates in five categories: (a) Modifications to oil and gas activities; (b) habitat management; (c) conservation of agricultural groundwater withdrawals; (d) control of residential septic systems; and (e) controls on confined animal feeding operations. We determined from our analysis that there will be minimal additional economic impacts to small entities resulting from the proposed designation of critical habitat, because almost all of the product modification and conservation costs identified in the economic analysis represent baseline costs that would be realized in the absence of critical habitat. There are several factors that eliminate the potential for incremental costs among small entities, including:

- Conservation measures implemented by New Mexico's oil and gas firms comply with BLM's Bitter Lake Habitat Restoration Zone requirements. Likewise, modifications pursued by oil and gas developers on private land near The Nature Conservancy units are already implemented for the benefit of various listed species in the immediate area.

- All of the proposed critical habitat is occupied. Therefore, ongoing project modifications and conservation measures are already required to satisfy the jeopardy standard.

- Most of the proposed critical habitat is already held in conservation. The small portion of proposed critical habitat owned by the City of Roswell has already been designated as critical habitat for the Pecos sunflower and is unsuitable for development.

- Habitat management costs are attributable to existing conservation agreements and are therefore classified as baseline costs.

- Most consultations under section 7 of the Act would be pursued in the absence of critical habitat. To the extent that incremental costs are introduced, they are borne by public agencies rather than private entities.

The draft economic analysis estimates the annual incremental costs associated with the designation of critical habitat for the invertebrates to be very modest, at approximately \$6,000. All of these costs would derive from the added effort associated with considering adverse

modification in the context of section 7 consultations.

We will consider the information in our final economic analysis, and in any public comments we receive, in determining whether this designation would result in a significant economic effect on a substantial number of small entities, and announce our determination in our final rule. Based on the above reasoning and currently available information, it appears that this rule may not result in a significant economic impact on a substantial number of small entities. If we determine that is the case, then we will certify that the designation of critical habitat for the four invertebrates will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis will not be required.

Unfunded Mandates Reform Act

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

(a) 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 do not 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.

(b) We do not believe that this rule will significantly or uniquely affect small governments. The public lands we are proposing to designate as critical habitat are owned by the City of Roswell and the Service. Small governments, such as the City of Roswell, 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. As discussed above, the areas owned by the City of Roswell which are being proposed for designation as critical habitat for the four invertebrates have already been designated as critical habitat for the Pecos sunflower and are unsuitable for development. Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we complete our final economic analysis, and review and revise this assessment as appropriate.

Takings

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 the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assimineia in a takings implications assessment. Critical habitat designation 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. The takings implications assessment concludes that this designation of critical habitat for the four invertebrates does not pose significant takings implications for lands within or affected by the designation.

Federalism

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in New Mexico and Texas. 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 and biological features of the habitat necessary to 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 local governments in long-range planning (rather than having them 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) would 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

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We propose designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions

and identifies the physical and biological features within the designated areas to assist the public in understanding the habitat needs of the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea.

Paperwork Reduction Act of 1995

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (NEPA)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)). However, when the range of the species includes States within the Tenth Circuit, such as that of the Roswell springsnail, Koster's springsnail, Noel's amphipod, and Pecos assiminea, under the Tenth Circuit ruling in *Catron County Board of Commissioners v. U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we will undertake a NEPA analysis for critical habitat designation and notify the public of the availability of the draft environmental assessment for this proposal when it is finished. This draft environmental assessment is available for review with the publication of this proposal. You may obtain a copy of the draft environmental assessment online at <http://www.regulations.gov>, by mail from the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**), or by visiting our website at <http://www.fws.gov/southwest/es/NewMexico/>.

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the

Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (a) Be logically organized;
- (b) Use the active voice to address readers directly;
- (c) Use clear language rather than jargon;
- (d) Be divided into short sections and sentences; and
- (e) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

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), E.O. 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal tribes on a government-to-government basis. In accordance with Secretarial 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.

We have determined that there are no tribal lands occupied at the time of listing that contain the features essential for the conservation, and no tribal lands that are essential for the conservation, of the Roswell springsnail, Koster's springsnail, Pecos assiminea, and Noel's amphipod. Therefore, we have not proposed designation of critical habitat for the four invertebrates on tribal lands.

Energy Supply, Distribution, or Use

On May 18, 2001, the President issued an Executive Order (E.O. 13211; Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) on regulations that

significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect it to significantly affect energy supplies, distribution, or use due to the small amount of habitat we are proposing for designation and the fact that the habitat is primarily on a National Wildlife Refuge. Therefore, we have made a preliminary determination that this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we complete our final economic analysis, and review and revise this assessment as appropriate.

References Cited

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the New Mexico Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, we propose to 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; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.11(h) by revising the entries for:

a. "Pecos assiminea", "Springsnail, Koster's", and "Springsnail, Roswell" under SNAILS; and

b. "Amphipod, Noel's" under CRUSTACEANS, in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*	*	*
SNAILS							
*	*	*	*	*	*	*	*
Pecos assimineia	<i>Assimineia pecos</i>	U.S.A. (NM, TX)	NA	E	770	17.95(f)	NA
*	*	*	*	*	*	*	*
Springsnail, Koster's	<i>Juturnia kosteria</i>	U.S.A. (NM)	NA	E	770	17.95(f)	NA
Springsnail, Roswell	<i>Pyrgulopsis roswellensis</i>	U.S.A. (NM)	NA	E	770	17.95(f)	NA
*	*	*	*	*	*	*	*
CRUSTACEANS							
*	*	*	*	*	*	*	*
Amphipod, Noel's	<i>Gammarus desperatus</i>	U.S.A. (NM)	NA	E	770	17.95(h)	NA
*	*	*	*	*	*	*	*

2. Amend § 17.95 by:

a. In paragraph (f), revising the entry for "Pecos Assimineia (*Assimineia pecos*)" and adding an entry for "Koster's springsnail (*Juturnia kosteri*) and Roswell springsnail (*Pyrgulopsis roswellensis*)" in the same alphabetical order that those species appear in the table at 50 CFR 17.11(h), to read as follows; and

b. In paragraph (h), adding an entry for "Noel's amphipod (*Gammarus desperatus*)" in the same alphabetical order that the species appears in the table at 50 CFR 17.11 (h), to read as follows.

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(f) *Clams and Snails.*

* * * * *

Pecos assimineia (*Assimineia pecos*)

(1) Critical habitat units are depicted for Chaves County, New Mexico, and

Pecos and Reeves Counties, Texas, on the maps below.

(2) The primary constituent element of critical habitat for the Pecos assimineia is moist or saturated soil at stream or spring run margins:

(i) With native vegetation growing in or adapted to aquatic or very wet environment, such as salt grass or sedges;

(ii) That consists of wet mud or occurs beneath mats of vegetation;

(iii) That is within 1 inch (2 to 3 centimeters) of flowing water;

(iv) That has native wetland plant species that provide leaf litter, shade, cover, and appropriate microhabitat;

(v) That contains wetland vegetation adjacent to spring complexes that supports the algae, detritus, and bacteria needed for foraging;

(vi) That has adjacent spring complexes with:

(A) Permanent, flowing, unpolluted, fresh to moderately saline water; and

(B) Stable water levels with natural diurnal and seasonal variations.

(3) Critical habitat does not include manmade 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 the effective date of this rule.

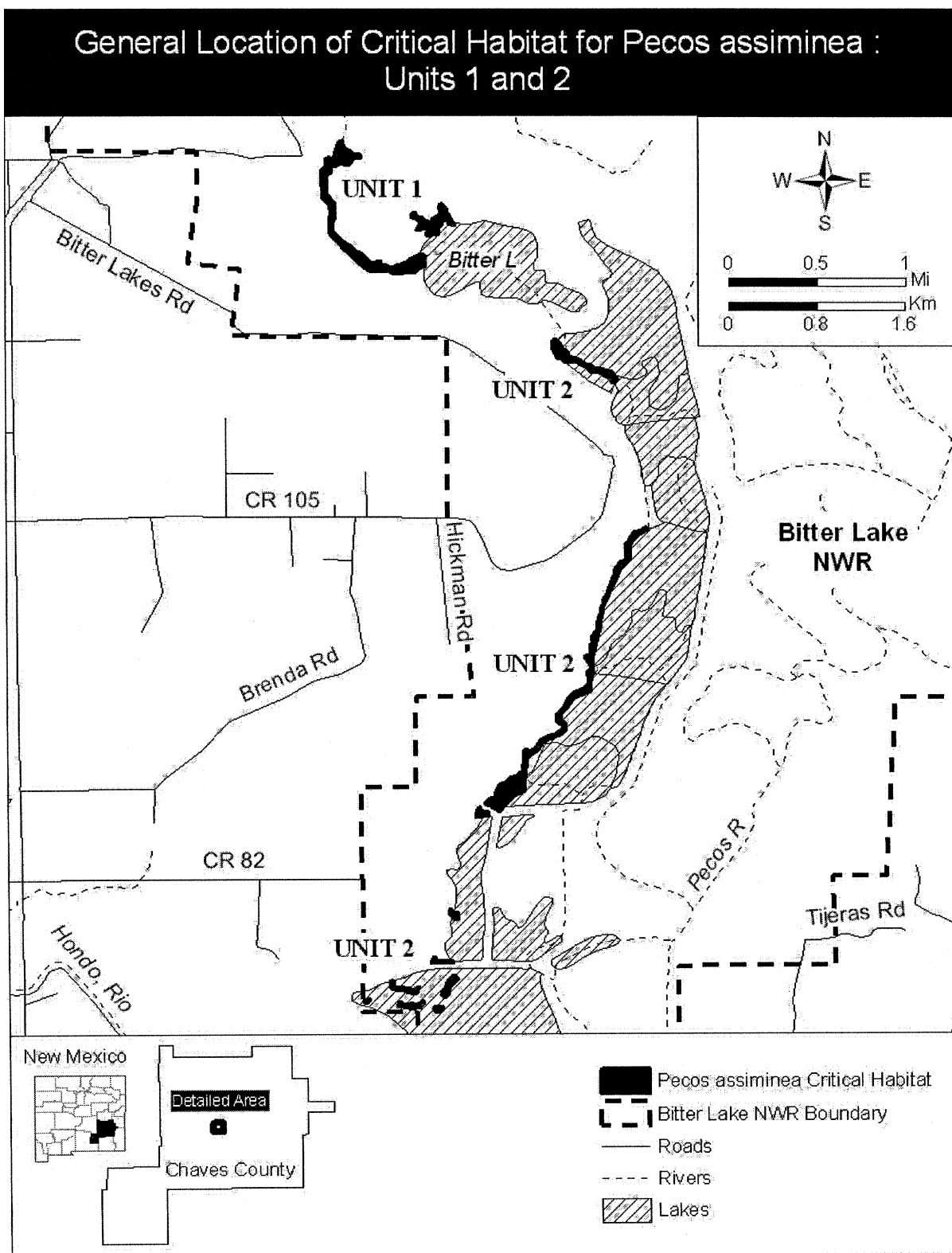
(4) *Critical habitat map units.* Data layers defining map units were created on a base of USGS 1:24,000 maps, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) Unit 1: Sago/Bitter Creek Complex, Chaves County, New Mexico.

(i) [Reserved for textual description of unit.]

(ii) Map of Units 1 and 2 (Map 1) for Pecos assimineia follows:

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(6) Unit 2: Impoundment Complex, Chaves County, New Mexico.

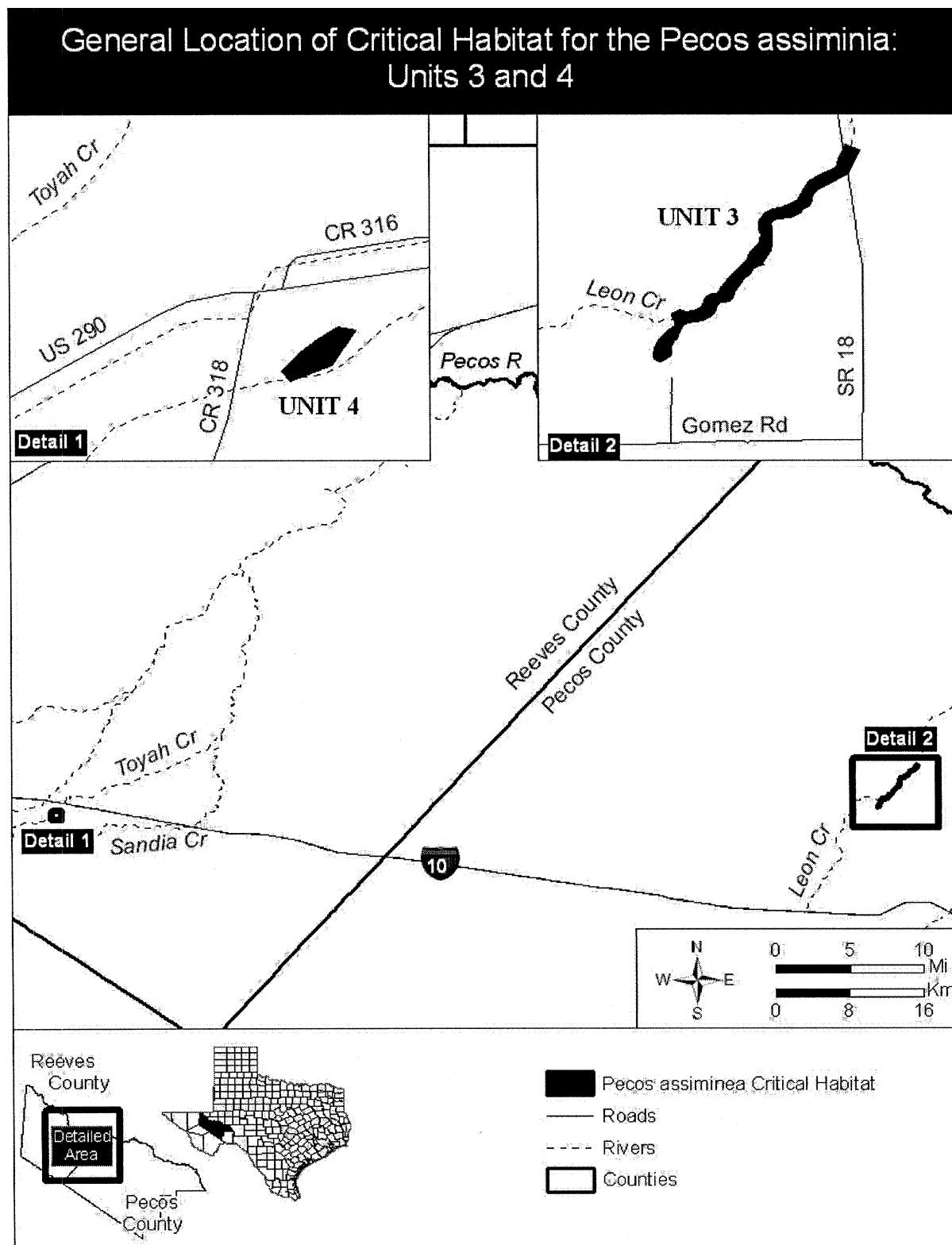
(i) [Reserved for textual description of unit.]

(ii) Map of Unit 2 for *Pecos assiminea* is provided at paragraph (5)(ii) of this entry.

(7) Unit 3: Diamond Y Springs Complex, Pecos County, Texas.

(i) [Reserved for textual description of unit.]

(ii) Map of Units 3 and 4 (Map 2) for *Pecos assiminea* follows:



(8) Unit 4: East Sandia Spring, Reeves County, Texas.

(i) [Reserved for textual description of unit.]

(ii) Map of Unit 4 for Pecos *assiminea* is provided at paragraph (7)(ii) of this entry.

* * * * *

Koster's springsnail (*Juturnia kosteri*) and Roswell springsnail (*Pyrgulopsis roswellensis*)

(1) Critical habitat units are depicted for Chaves County, New Mexico, on the map below.

(2) The primary constituent element of critical habitat for the Koster's springsnail and Roswell springsnail is springs and spring-fed wetland systems that:

(i) Have permanent, flowing, unpolluted water;

(ii) Have slow to moderate water velocities;

(iii) Have substrates ranging from deep organic silts to limestone cobble and gypsum;

(iv) Have stable water levels with natural diurnal (daily) and seasonal variations;

(v) Consist of fresh to moderately saline water;

(vi) Vary in temperature between 10–20 °C (50–68 °F) with natural seasonal and diurnal variations slightly above and below that range; and

(vii) Provide abundant food, consisting of:

(A) Algae, bacteria, and decaying organic material; and

(B) Submergent vegetation that contributes the necessary nutrients, detritus, and bacteria on which these species forage.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they

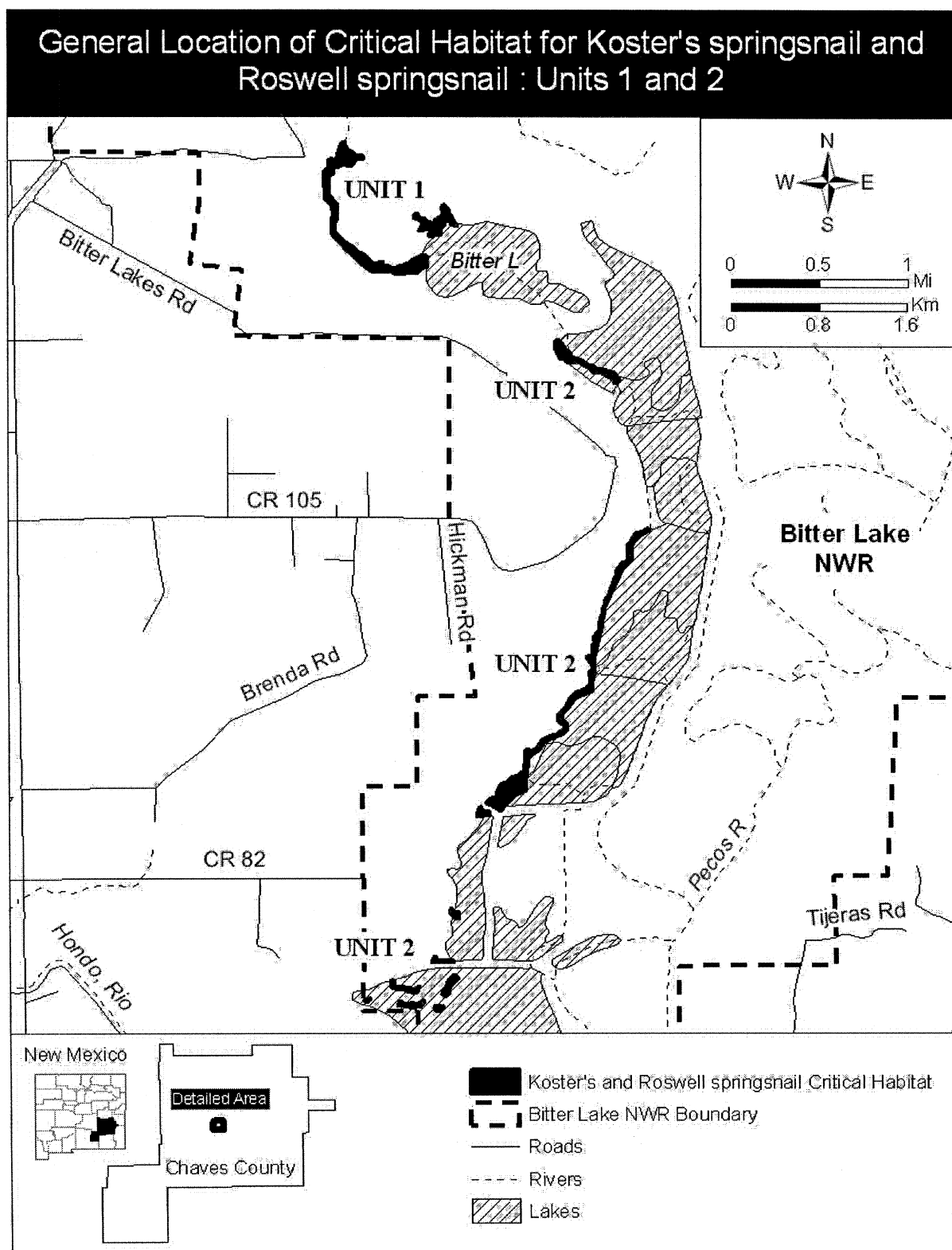
are located existing within the legal boundaries on the effective date of this rule.

(4) *Critical habitat map units.* Data layers defining map units were created on a base of USGS 1:24,000 maps, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) Unit 1: Sago/Bitter Creek Complex, Chaves County, New Mexico.

(i) [Reserved for textual description of unit.]

(ii) Map of Units 1 and 2 for Koster's springsnail and Roswell springsnail follows:



(6) Unit 2: Impoundment Complex, Chaves County, New Mexico.

(i) [Reserved for textual description of unit.]

(ii) Map of Unit 2 for Koster's springsnail and Roswell springsnail is

provided at paragraph (5)(ii) of this entry.

* * * * *

(h) *Crustaceans*.

* * * * *

Noel's amphipod (*Gammarus desperatus*)

(1) Critical habitat units are depicted for Chaves County, New Mexico, on the map below.

(2) The primary constituent element of critical habitat for Noel's amphipod is

springs and spring-fed wetland systems that:

- (i) Have permanent, flowing, unpolluted water;
- (ii) Have slow to moderate water velocities;
- (iii) Have substrates including limestone cobble and aquatic vegetation;
- (iv) Have stable water levels with natural diurnal (daily) and seasonal variations;
- (v) Consist of fresh to moderately saline water;
- (vi) Have minimal sedimentation;
- (vii) Vary in temperature between 10–20 °C (50–68 °F) with natural seasonal

and diurnal variations slightly above and below that range; and

- (viii) Provide abundant food, consisting of:
 - (A) Submergent vegetation and decaying organic matter;
 - (B) A surface film of algae, diatoms, bacteria, and fungi; and
 - (C) Microbial foods, such as algae and bacteria, associated with aquatic plants algae, bacteria, and decaying organic material.
- (3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they

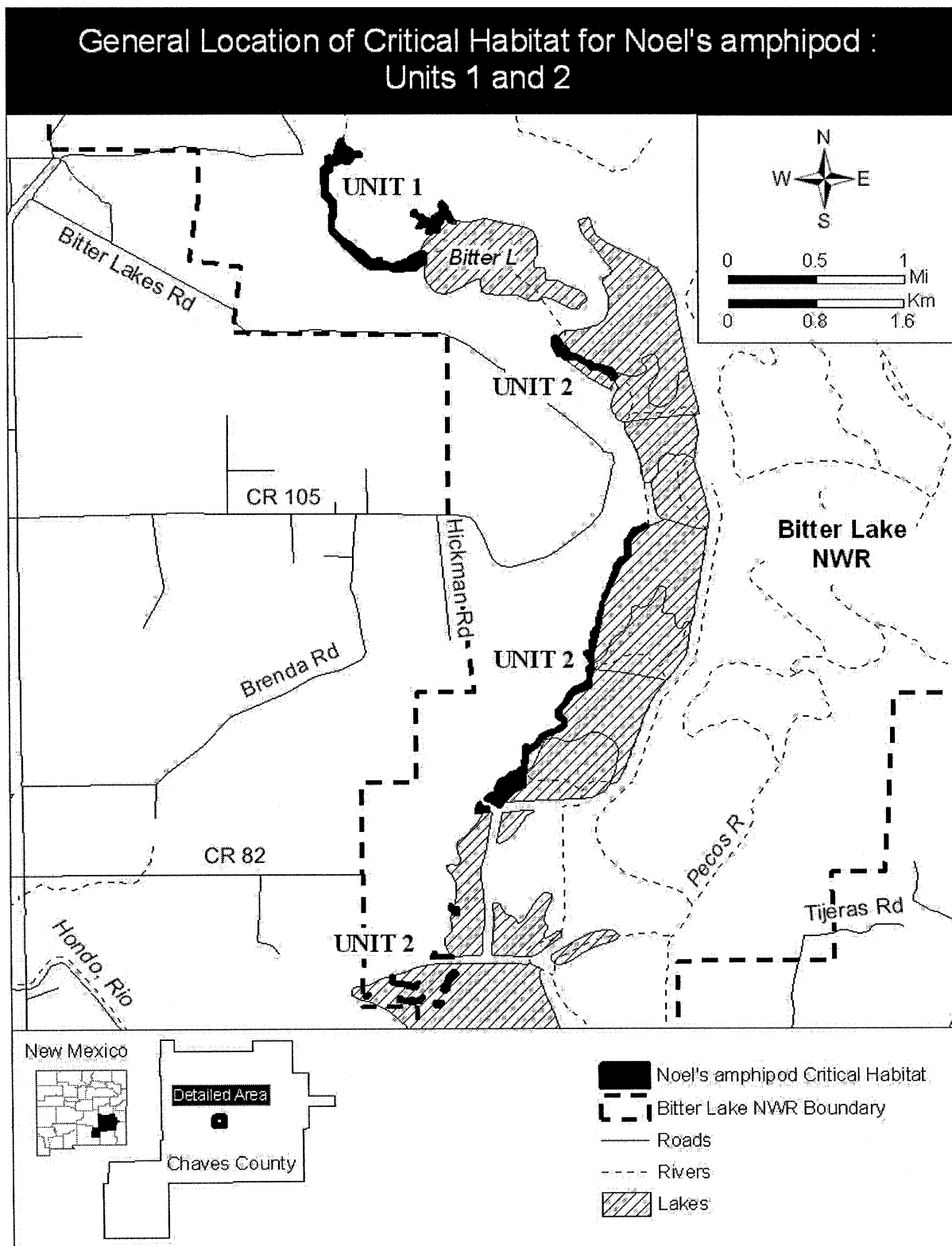
are located existing within the legal boundaries on the effective date of this rule.

(4) *Critical habitat map units.* Data layers defining map units were created on a base of USGS 1:24,000 maps, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) Unit 1: Sago/Bitter Creek Complex, Chaves County, New Mexico.

(i) [Reserved for textual description of unit.]

(ii) Map of Units 1 and 2 for Noel's amphipod follows:



(6) Unit 2: Impoundment Complex, Chaves County, New Mexico.

(i) [Reserved for textual description of unit.]

(ii) Map of Unit 2 for Noel's amphipod is provided at paragraph (5)(ii) of this entry.

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Dated: June 2, 2010

Eileen Sobeck,

Acting Assistant Secretary for Fish and Wildlife and Parks.

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