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Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*); Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AI46

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule; notice of availability.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) pursuant to the Endangered Species Act of 1973, as amended (Act). The designation includes 8 habitat units totaling approximately 12,632 hectares (ha) (31,222 acres (ac)) found along 578.1 kilometers (km) (359.2 miles (mi)) of rivers and streams in the States of Colorado and Wyoming. The designation includes river and stream reaches and adjacent areas in the North Platte River and South Platte River.

The critical habitat designation defines the width of designated critical habitat as a distance outward from the river or stream edge (as defined by the ordinary high water mark) varying with the size (order) of a river or stream. This publication also provides notice of the availability of the Addendum to the Economic Analysis of Critical Habitat Designation for the Preble's Meadow Jumping Mouse (Addendum to the Economic Analysis) and the final Environmental Assessment for Designation of Critical Habitat for the Preble's Meadow Jumping Mouse (EA) for this final rule.

DATES: This final rule is effective July 23, 2003.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection, by appointment, during normal business hours at the Colorado Ecological Services Field Office, U.S. Fish and Wildlife Service, 755 Parfet Street, Suite 361, Lakewood, CO 80215. You may obtain copies of this final rule, the Addendum to the Economic Analysis, and the final EA from the field office address above or by calling 303–275–2370.

FOR FURTHER INFORMATION CONTACT: Field Supervisor, Colorado Ecological Services Field Office, (*see* **ADDRESSES** section), (telephone 303–275–2370; facsimile 303–275–2371).

SUPPLEMENTARY INFORMATION:

Designation of Critical Habitat Provides Little Additional Protection to Species

In 30 years of implementing the ESA, the Service has found that the designation of statutory critical habitat provides little additional protection to most listed species, while consuming significant amounts of conservation resources. The Service's present system for designating critical habitat is driven by litigation rather than biology, limits our ability to fully evaluate the science involved, consumes enormous agency resources, and imposes huge social and economic costs. The Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it consumes large amounts of conservation resources. Sidle (1987) stated, ''Because the ESA can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7.''

Currently, only 306 species or 25% of the 1,211 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat. We address the habitat needs of all 1,211 listed species through conservation mechanisms such as listing, section 7 consultations, the Section 4 recovery planning process, the Section 9 protective prohibitions of unauthorized take, Section 6 funding to the States, and the Section 10 incidental take permit process. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been inundated with lawsuits regarding critical habitat designation, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits and to comply with the growing number of adverse court orders. As a result, the Service's own to proposals to undertake conservation actions based on biological priorities are significantly delayed.

The accelerated schedules of court ordered designations have left the Service with almost no ability to provide for additional public participation beyond those minimally required by the APA, the Act, and the FWS implementing regulations, or to take additional time for review of comments and information to ensure the rule has addressed all the pertinent issues before making decisions on listing and critical habitat proposals, due to the risks associated with noncompliance with judicially imposed. This in turn fosters a second round of litigation in which those who will suffer adverse impacts from these decisions challenge them. The cycle of litigation appears endless, is very expensive, and in the final analysis provides little additional protection to listed species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with NEPA, all are part of the cost of critical habitat designation. These costs result in minimal benefits to the species that is not already afforded by the protections of the Act enumerated earlier, and they directly reduce the funds available for direct and tangible conservation actions.

Background

Much of what is now known about the Preble's meadow jumping mouse is a result of information gained from the early 1990s to the present. Following the Preble's listing as a threatened species in 1998, knowledge about its distribution, habitat requirements, abundance, and population dynamics has grown substantially. However, much of the biology and ecology of the Preble's is still not well understood. Where gaps in knowledge exist, scientists have relied on information from closely related subspecies of the meadow jumping mouse (*Zapus hudsonius*), whose biology and ecology

appear similar to the Preble's. Information presented below that is specific to the Preble's is described as being relevant to this subspecies, the Preble's, but when information pertains to what is known about other subspecies of meadow jumping mouse, it will be described as relevant to the species, the meadow jumping mouse. Portions of the following have been adapted from the general biology section of the Preble's Meadow Jumping Mouse Recovery Team's (Recovery Team's) February 27, 2002, working draft of a recovery plan for the Preble's (the Draft Discussion Document referenced in the proposed rule) and the updated March 11, 2003, working draft of the recovery plan for the Preble's (Working Draft). We believe that the information provided in the Working Draft represents the best available science on the Preble's.

Taxonomy and Description

The Preble's is a member of the family Dipodidae (jumping mice) with four living genera, two of which, *Zapus* and *Napaeozapus,* are found in North America (Hall 1981). The three living species within the genus *Zapus* are *Z. hudsonius* (the meadow jumping mouse), *Z. princeps* (the western jumping mouse), and *Z. trinotatus* (the Pacific jumping mouse).

Edward A. Preble (1899) first documented the meadow jumping mouse from Colorado. Krutzsch (1954) described the Preble's as a separate subspecies of meadow jumping mouse limited to Colorado and Wyoming. The Preble's is now recognized as 1 of 12 subspecies of meadow jumping mouse (Hafner *et al.* 1981).

The Preble's is a relatively small rodent with an extremely long tail, large hind feet, and long hind legs. The tail is bicolored, lightly-furred, and typically twice as long as the body. The large hind feet can be one-third again as large as those of other mice of similar size. The Preble's has a distinct, dark, broad stripe on its back that runs from head to tail and is bordered on either side by gray to orange-brown fur. The hair on the back of all jumping mice appears coarse compared to other mice. The underside hair is white and much finer in texture. Total length of adult Preble's mice is approximately 180 to 250 millimeters (mm) (7 to 10 inches (in)), with the tail comprising 108 to 155 mm (4 to 6 in) of that length (Krutzsch 1954, Fitzgerald *et al.* 1994).

The average weight of 120 adult Preble's mice captured early in their active season (prior to June 18) was 18 grams (g) (0.6 ounce (oz)); included were 10 pregnant females weighing more than 22 g (0.8 oz) (Meaney *et al.*, in prep.). Upon emergence from hibernation, adult Preble's mice can weigh as little as 14 g (0.5 oz). Through late August and into mid-September, Preble's adults ready for hibernation weighed 25 to 34 g (0.9 to 1.2 oz) (Meaney *et al.*, in prep.), comparable to pre-hibernation weights for the meadow jumping mouse cited by Muchlinski (1988).

While the western jumping mouse is recognized as a separate species from the Preble's, it is similar in appearance and can easily be confused with the Preble's. The range of the western jumping mouse in Wyoming and Colorado is generally west of, and at higher elevations than, the range of the Preble's. However, the two species appear to coexist over portions of their range in southeastern Wyoming and Colorado (Long 1965, Clark and Stromberg 1987, Schorr 1999, Meaney *et al.* 2001). Compared to the western jumping mouse, the Preble's is generally smaller, has a more distinctly bicolored tail, and a less obvious dorsal (back) stripe. However, field identification of the western jumping mouse and the Preble's in the range of overlap is difficult due to their similarity in size and color. Krutzsch (1954) described skull characteristics useful for differentiating the two species. Previously, studies found that the meadow jumping mouse could be distinguished from the western jumping mouse by a fold in the first lower molar (Klingener 1963, Hafner 1993). However, this molar characteristic is not always reliable due to tooth wear as animals age; specimens showing the tooth fold are presumed to be the Preble's, while specimens lacking the fold may be either species (Klingener 1963; Conner and Shenk, in prep.). A recent reevaluation of Preble's and western jumping mouse morphology showed that, by using a combination of six skull measurements and this molar characteristic, the Preble's could be distinguished from the western jumping mouse (Conner and Shenk, in prep.).

Riggs *et al.* (1997) analyzed the mitochondrial DNA from tissue samples of western and meadow jumping mice from Colorado and Wyoming and concluded that the Preble's forms ''a homogenous group recognizably distinct from nearby populations and adjacent species of the genus.'' Hafner (1997) reviewed the Riggs study and concluded that the Preble's does in fact form a relatively homogenous group, as determined by inspection of the original sequence data. Hafner (1997) also stated that he remained convinced of the accuracy of the biogeography and taxonomic arrangement of jumping mice. While results from the genetic study supported the taxonomic status of the Preble's, analysis of samples from jumping mice in a few Wyoming and Colorado locations produced unexpected results. In these cases, samples of assumed Preble's mice at lower elevations were later determined to be the western jumping mice and samples of assumed western jumping mice at higher elevations were later determined to be Preble's mice. Hafner (1997) suggested that limited hybridization could have affected the results of the study and Beauvais (2001) stated that zones of co-occurrence of the Preble's and the western jumping mouse in Wyoming provide the opportunity for hybridization. However, Krutzsch (1954) cited significant range overlap between the meadow jumping mouse and the western jumping mouse in North America and indicated that, based on examination of skulls from the area of range overlap, there was no evidence of interbreeding. The question of possible hybridization between the Preble's and the western jumping mouse has yet to be fully explored. Future DNA studies, including a current study being conducted at the Denver Museum of Nature and Science, may help to resolve this and other taxonomic questions regarding *Zapus.*

Geographic Range

The Preble's is found along the foothills in southeastern Wyoming, southward along the eastern edge of the Front Range of Colorado to Colorado Springs, El Paso County (Hall 1981, Clark and Stromberg 1987, Fitzgerald *et al.* 1994). Knowledge about the current distribution of the Preble's comes from collected specimens, and live-trapping locations from both range-wide survey efforts and numerous site-specific survey efforts conducted in Wyoming and Colorado since the mid-1990s. Recently collected specimens are housed at the Denver Museum of Nature and Science and survey reports are filed with the Service's Field Offices in Colorado and Wyoming.

In Wyoming, capture locations of mice confirmed as the Preble's, and locations of mice identified in the field as the Preble's and released, extend in a band from the town of Douglas southward along the Laramie Range to the Colorado border, with captures east to eastern Platte County and Cheyenne, Laramie County. In Colorado, the distribution of the Preble's forms a band along the Front Range from Wyoming southward to Colorado Springs, El Paso County, with eastern marginal captures in western Weld County, western Elbert

County, and north-central El Paso County.

The Preble's is likely an Ice Age relic (Hafner *et al.* 1981, Fitzgerald *et al.* 1994). Once the glaciers receded from the Front Range of Colorado and the climate became drier, the Preble's was confined to the riparian (river) systems where moisture was more plentiful. The semi-arid climate in southeastern Wyoming and eastern Colorado limits the extent of riparian corridors and restricts the range of the Preble's in this region. The Preble's has not been found east of Cheyenne in Wyoming or on the extreme eastern plains in Colorado. The eastern boundary for the subspecies is likely defined by the dry shortgrass prairie, which may present a barrier to eastward expansion (Beauvais 2001).

The western boundary of Preble's range in both States appears related to elevation along the Laramie Range and Front Range. The Service has used 2,300 meters (m) (7,600 feet (ft)) in elevation as the general upward limit of Preble's habitat in Colorado (Service 1998). Recent morphological examination of specimens has confirmed the Preble's to an elevation of approximately 2,300 m (7,600 ft) in Colorado (Meaney *et al.* 2001) and to 2,360 m (7,750 ft) in southeastern Wyoming (Cheri Jones, Denver Museum of Natural Science, *in litt.*, 2001). In a modeling study of habitat associations in Wyoming, Keinath (2001) found suitable habitat predicted in the Laramie Basin and Snowy Range Mountains (west of known Preble's occurrence) but very little suitable habitat predicted on the plains of Goshen, Niobrara, and eastern Laramie Counties (east of known Preble's occurrence).

Although there is little information on past distribution or abundance of the Preble's, surveys have identified various locations where the subspecies was historically present but is now absent (Ryon 1996). Since at least 1991, the Preble's has not been found in Denver, Adams, or Arapahoe Counties in Colorado. Its absence in these counties is likely due to urban development, which has altered, reduced, or eliminated riparian habitat (Compton and Hugie 1993, Ryon 1996).

Ecology and Life History

Typical habitat for the Preble's comprises well-developed plains riparian vegetation with adjacent, undisturbed grassland communities and a nearby water source. Well-developed plains riparian vegetation typically includes a dense combination of grasses, forbs, and shrubs; a taller shrub and tree canopy may be present (Bakeman 1997). When present, the shrub canopy is often *Salix* spp. (willow), although shrub species including *Symphoricarpus* spp. (snowberry), *Prunus virginiana* (chokecherry), *Crataegus* spp. (hawthorn), *Quercus gambelli* (Gambel's oak), *Alnus incana* (alder), *Betula fontinalis* (river birch), *Rhus trilobata* (skunkbrush), *Prunus americana* (wild plum), *Amorpha fruticosa* (lead plant), *Cornus sericea* (dogwood), and others also may occur (Bakeman 1997, Shenk and Eussen 1998).

The Preble's have rarely been trapped in uplands adjacent to riparian areas (Dharman 2001). However, in detailed studies of the Preble's movement patterns using radio telemetry, the Preble's has been found feeding and resting in adjacent uplands (Shenk and Sivert 1999b, Ryon 1999, Schorr 2001). These studies suggest that the Preble's uses uplands at least as far out as 100 m (330 ft) beyond the 100-year floodplain (Ryon 1999; Tanya Shenk, Colorado Division of Wildlife, *in litt.,* 2002). The Preble's also can move considerable distances along streams, as far as 1.6 km (1.0 mi) in one evening (Ryon 1999, Shenk and Sivert 1999a).

In a rangewide comparison of existing habitat data from Colorado, Clippenger (2002) found that subshrub cover and plant species richness are higher at most sites where meadow jumping mice are present as compared to sites where they are absent, particularly at distances 15 to 25 m (49 to 82 ft) from streams. In a study comparing habitats at Preble's capture locations on the Department of Energy's Rocky Flats Environmental Technology Site (Rocky Flats), Jefferson County, Colorado, and the U.S. Air Force Academy (Academy), El Paso County, Colorado, the Academy sites had lower plant species richness at capture locations but considerably greater numbers of the Preble's (Schorr 2001). However, the Academy sites had higher densities of both grasses and shrubs. It is likely that Preble's abundance is not driven by the diversity of plant species alone, but by the density and abundance of riparian vegetation (Schorr 2001).

The tolerance of the Preble's for invasive exotic plant species is not well understood. Whether or not exotic plant species reduce Preble's persistence at a site may be due in large part to whether plants create a monoculture and replace native species. There is particular concern about nonnative species such as *Euphorbia esula* (leafy spurge) that may form a monoculture, displacing native vegetation and thus reducing available habitat.

Fifteen apparent Preble's hibernacula (hibernation nests) have been located through radio telemetry, all within 78 m (260 ft) of a perennial stream bed or intermittent tributary (Bakeman and Deans 1997, Shenk and Sivert 1999a, Schorr 2001). Of these, one was confirmed through excavation (Bakeman and Deans 1997); others were left intact to prevent harm to the mice. Apparent hibernacula have been located under willow, chokecherry, snowberry, skunkbrush, *Rhus* spp. (sumac), *Clematis* spp. (clematis), *Populus* spp. (cottonwoods), Gambel's oak, *Cirsium* spp. (thistle), and *Alyssum* spp. (alyssum) (Shenk and Sivert 1999a). At the Academy, four of six apparent hibernacula found by radio-telemetry were located in close proximity to *Salix exigua* (coyote willow) (Schorr 2001). The one excavated hibernaculum, at Rocky Flats, was found 9 m (30 ft) above the stream bed, in a dense patch of chokecherry and snowberry (Bakeman and Deans 1997). The nest was constructed of leaf litter 30 centimeters (cm) (12 in) below the surface in coarse textured soil.

The Preble's constructs day nests composed of grasses, forbs, sedges, rushes, and other available plant material. They may be globular in shape or simply raised mats of litter, and are most commonly above ground but also can be below ground. They are typically found under debris at the base of shrubs and trees, or in open grasslands (Ryon 2001). An individual mouse can have multiple day nests in both riparian and grassland communities (Shenk and Sivert 1999a), and may abandon a nest after approximately a week of use (Ryon 2001).

Hydrologic regimes that support Preble's habitat range from large perennial rivers such as the South Platte River to small drainages only 1 to 3 m (3 to 10 ft) in width, as at Rocky Flats and in montane habitats. Flooding is a common and natural event in the riparian systems in southeastern Wyoming and along the Front Range of Colorado. This periodic flooding helps create a dense vegetative community by stimulating resprouting from willow shrubs, and allows herbs and grasses to take advantage of newly-deposited soil.

Fire is also a natural component of the Wyoming foothills and Colorado Front Range, and Preble's habitat naturally waxes and wanes with fire events. Within shrubland and forest, intensive fire may result in adverse impacts to Preble's populations. However, in a review of the effects of grassland fires on small mammals, Kaufman *et al.* (1990) found a positive effect of fire on the meadow jumping mouse in one study and no effect of fire on the species in another study.

Meadow jumping mice usually have two litters per year, but there are records of three litters per year. An average of five young are born per litter, but the size of a litter can range from two to eight young (Quimby 1951, Whitaker 1963).

The Preble's is long-lived for a small mammal, in comparison with many species of mice and voles that seldom live a full year. Along South Boulder Creek, Boulder County, Colorado, seven individuals originally captured as adults were still alive 2 years later, having attained at least 3 years of age (Meaney *et al., in prep.*). However, like many small mammals, the Preble's annual survival rate is low. Preble's survival rates appear to be lower over the summer than over the winter. Over-summer survival rates ranged from 22 to 78 percent and over-winter survival rates ranged from 56 to 97 percent (Shenk and Sivert 1999b; Ensight Technical Services 2000, 2001; Schorr 2001; Meaney *et al., in prep.*).

The Preble's has a host of known predators including garter snakes (*Thamnophis* spp.), prairie rattlesnakes (*Crotalus viridus*), bullfrogs (*Rana catesbiana*), foxes (*Vulpes vulpes* and *Urocyon cinereoargenteus*), house cats (*Felis catus*), long-tailed weasels (*Mustela frenata*), and red-tailed hawks (*Buteo jamaicensis*) (Shenk and Sivert 1999a, Schorr 2001). Other potential predators include coyotes (*Canis latrans*), barn owls (*Tyto alba*), great horned owls (*Bubo virginianus*), screech owls (*Otus* spp.), long-eared owls (*Asio otus*), northern harriers (*Circus cyaneus*), and large predatory fish.

Other mortality factors of the Preble's include drowning and vehicle collision (Schorr 2001, Shenk and Sivert 1999a). Mortality factors known for the meadow jumping mouse, such as starvation, exposure, disease, and insufficient fat stores for hibernation (Whitaker 1963) also are likely causes of death in the Preble's subspecies.

White and Shenk (2000) determined that riparian shrub cover, tree cover, and the amount of open water nearby are good predictors of Preble's densities, and summarized abundance estimates from nine sites in Colorado for field work conducted during 1998 and 1999. Estimates of abundance ranged from 4 to 67 mice per km (6 to 110 mice per mi) of stream and averaged 33 mice per km (53 mice per mi) of stream.

While fecal analyses have provided the best data on the Preble's diet to date, they overestimate the components of the diet that are less digestible. Based on fecal analyses the Preble's eats insects; fungus; moss; pollen; willow; *Chenopodium sp.* (lamb's quarters); *Salsola* sp. (Russian thistle); *Helianthus* spp. (sunflowers); *Carex* spp. (sedge); *Verbascum* sp. (mullein); *Bromus, Festuca, Poa, Sporobolus* and *Agropyron* spp. (grasses); *Lesquerella* sp. (bladderpod); *Equisetum* spp. (horsetail); and assorted seeds (Shenk and Eussen 1998, Shenk and Sivert 1999a). The diet shifts seasonally; it consists primarily of insects and fungus after emerging from hibernation, shifts to fungus, moss, and pollen during mid-summer (July-August), with insects again added in September (Shenk and Sivert 1999a). The shift in diet along with shifts in mouse movements suggests that the Preble's may require specific seasonal diets, perhaps related to the physiological constraints imposed by hibernation (Shenk and Sivert 1999a).

The Preble's is a true hibernator, usually entering hibernation in September or October and emerging the following May, after a potential hibernation period of 7 or 8 months. Adults are the first age group to enter hibernation because they accumulate the necessary fat stores earlier than young of the year. Similar to other subspecies of meadow jumping mouse, the Preble's does not store food, but survive on fat stores accumulated prior to hibernation (Whitaker 1963). Apparent hibernacula of the Preble's have been located both within and outside of the 100-year floodplain of streams (Shenk and Sivert 1999a, Ryon 2001, Schorr 2001). Those hibernating outside of the 100-year floodplain would likely be less vulnerable to flood-related mortality.

Meadow jumping mice are docile to handle and not antagonistic toward one another (Whitaker 1972). Introduced species that occupy riparian habitats may displace or compete with the Preble's. House mice (*Mus musculus*) were common in and adjacent to historic capture sites where the Preble's was no longer found (Ryon 1996).

The Preble's is primarily nocturnal or crepuscular but also may be active during the day, when they have been seen moving around or sitting still under a shrub (Shenk 1998). Little is known about social interactions and their significance in the Preble's. Jones and Jones (1985) described lively social interactions in which several Preble's mice were observed jumping into the air and squeaking and suggested that they formed a gregarious unit. In a recent study, for the month their radio-collars were active, several Preble's mice came repeatedly from different day-nest locations to meet at one spot at night (Shenk, pers. comm., 2002).

Conservation Issues

The Preble's is closely associated with riparian ecosystems that are relatively narrow and represent a small percentage of the landscape. If habitat for the Preble's is destroyed or modified, populations in those areas will decline or be extirpated. The decline in the extent and quality of Preble's habitat is considered the main factor threatening the subspecies (Service 1998, Hafner *et al.* 1998, Shenk 1998). Habitat alteration, degradation, loss, and fragmentation resulting from urban development, flood control, water development, agriculture, and other human land uses have adversely impacted Preble's populations. Habitat destruction may impact individual Preble's mice directly or by destroying nest sites, food resources, and hibernation sites, by disrupting behavior, or by forming a barrier to movement.

Despite numerous surveys, the Preble's has not recently been found in the Denver and Colorado Springs metropolitan areas, and is believed to be extirpated from these areas as a result of extensive urban development. Given the overlap of the Preble's range with an area of extensive and rapid urban development along the Colorado Front Range, it is likely that significant losses of Preble's populations and habitats have occurred and may continue to occur.

Conversion of native riparian ecosystems to commercial croplands and grazed rangelands was identified as the major threat to Preble's persistence in Wyoming (Clark and Stromberg 1987, Compton and Hugie 1993). Intensive grazing and haying operations may negatively impact the Preble's by removing food and shelter. While some Preble's populations coexist with livestock operations, overgrazing can decimate riparian communities on which the Preble's depends. Similarly, haying operations that allow significant riparian vegetation to remain in place may be compatible with persistent Preble's populations.

Trail systems frequently parallel or intersect riparian communities and thus are common throughout Preble's range. Trail development can alter natural communities and may impact the Preble's by modifying nest sites, food resources, and hibernation sites, and by fragmenting its habitat. Humans and pets using these trails may alter behavior patterns of the Preble's and cause a decrease in survival and reproductive success.

Habitat fragmentation limits the extent and abundance of the Preble's. In

general, as animal populations become fragmented and isolated, it becomes more difficult for them to persist. Small, isolated patches of habitat are unable to support as many Preble's mice as larger patches of habitat. When threats to persistence are similar, larger populations are more secure from extirpation than smaller ones.

The structure and function of riparian ecosystems are determined by the hydrology of the waterway. Changes in timing and abundance of water can alter the channel structure, riparian vegetation, and the adjacent floodplain, and may result in changes that are detrimental to the persistence of the Preble's. Similarly, depletion of groundwater also affects the habitat components needed by the Preble's. As groundwater supplies are depleted, more xeric (low moisture) plant communities replace the riparian vegetation. The conversion of habitats from mesic (moderate moisture), shrub-dominated systems to drier grass-dominated systems may preclude the Preble's from these areas.

Alluvial aggregate extraction may produce long-term changes to Preble's habitat by altering hydrology and removing riparian vegetation. In particular, such extraction removes and often precludes reestablishment of habitat components required by the Preble's. Such mining impacts the deposits of alluvial sands and gravels that may be important hibernation locations for the Preble's.

Within the Preble's range, bank stabilization, channelization, and other measures to address flooding and stormwater runoff have increased the rate of stream flow, straightened riparian channels, and narrowed riparian areas (Pague and Grunau 2000). Using riprap and other structural stabilization options to reduce erosion may destroy riparian vegetation, and prevent or delay its re-establishment. In some cases these measures can alter the hydrologic processes and plant communities present to the point where Preble's populations can no longer persist.

Transportation and utility corridors frequently cross Preble's habitat and may negatively affect populations. As new roads are built and old roads are maintained, habitat is destroyed or fragmented. Roads and bridges also may act as barriers to dispersal.

The increasing presence of humans near Preble's habitats may result in increased level of predation that may pose a threat to the Preble's. The striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), red fox (*Vulpes vulpes*), and the domestic and feral cat are found in greater densities in and around areas of human activity; all four of these species feed opportunistically on small mammals. The indication that summer mortality is higher than overwinter mortality underscores the impact that predators can have on the Preble's.

While normal flooding events help maintain the riparian and floodplain communities that provide suitable habitat for the Preble's, increased development and surfaces impervious to water absorption within a drainage can result in more frequent and severe flood events, increase erosion, cause downcutting of channels (lowering of channel grade relative to the banks and adjacent floodplain), and prevent the re-establishment of riparian communities.

Catastrophic fires can alter habitat dramatically and change the structure and composition of the vegetation communities so that the Preble's may no longer persist. In addition, precipitation falling in a burned area may degrade Preble's habitat by causing greater levels of erosion and sedimentation along creeks. Controlled use of fire may be one method to maintain appropriate riparian, floodplain, and upland vegetation within Preble's habitat. However, over the past several decades, as human presence has increased through Preble's range, significant effort has been made to suppress fires. Long periods of fire suppression may result in a build-up of fuel and result in a catastrophic fire.

Previous Federal Actions

On July 17, 2002, we published the proposed rule to designate critical habitat for the Preble's (67 FR 47154). In that proposed rule (beginning on page 47518), we included a detailed summary of the previous Federal actions completed prior to publication of the proposal. We now provide updated information on the actions that we have completed since the proposed critical habitat designation. Four public hearings were held during the 60-day public comment period, which closed September 16, 2002. Public hearings were held in Cheyenne, Wyoming, on August 27; Wheatland, Wyoming, on August 28; Castle Rock, Colorado, on August 28; and Loveland, Colorado, on August 29. Because of numerous requests to reopen the comment period and hold additional public hearings in Colorado, the comment period was reopened on November 21, 2002, for 60 days, through January 21, 2003 (67 FR 70202). Two additional public hearings were held in Golden, Colorado, on November 21. On January 28, 2003, the Service announced the availability of the Draft Economic Analysis of Critical Habitat Designation for the Preble's Meadow Jumping Mouse (Draft Economic Analysis) and draft EA for the proposed designation of critical habitat for the Preble's (68 FR 4160), and opened the comment period on all three documents through February 27, 2003.

Recovery Plan

Restoring an endangered or threatened species to the point where it is recovered is a primary goal of our endangered species program. To help guide the recovery effort, we prepare recovery plans for most of the listed species native to the United States. Recovery plans describe actions considered necessary for conservation of the species, establish criteria for downlisting or delisting the species, and estimate time and cost for implementing the recovery measures needed.

In early 2000, the Recovery Team was established by the Service pursuant to section 4(f)(2) of the Act and our cooperative policy on recovery plan participation, a policy intended to involve stakeholders in recovery planning (59 FR 34272). Stakeholder involvement in the development of recovery plans helps minimize the social and economic impacts that could be associated with recovery of endangered species. Various stakeholders are represented on the Recovery Team and other public participation (including oral comments at recovery team meetings and written comments on the early drafts of the recovery plan) has taken place. The Recovery Team has prepared a series of drafts of a recovery plan for the Preble's. They identify the criteria for reaching recovery and delisting of the Preble's. A draft recovery plan, once completed, will be published in the **Federal Register**, will be available for public comments, and will provide an additional venue for stakeholder and public participation. Our proposed rule to designate critical habitat cited the draft dated February 27, 2002, which we referred to as the Draft Discussion Document. This final rule and the conservation strategy that supports it have been developed incorporating information included through the March 11, 2003, Working Draft.

Summary of Comments and Recommendations

In the July 17, 2002, proposed rule, we requested all interested parties to submit comments or information concerning the designation of critical habitat for the Preble's meadow jumping mouse. During the comment period, we held four informational meetings followed by public hearings. We

published newspaper notices inviting public comment and announcing the public hearings. In addition we contacted interested parties (including elected officials, media outlets, local jurisdictions, and interest groups) through a press release and related fact sheets, faxes, mailed announcements, telephone calls, and e-mails. We received numerous requests to reopen the comment period and hold additional public hearings in Colorado. On September 12, 2002, prior to the closing of the initial comment period, the Service contacted interested parties in a letter, committing to reopen the comment period and, in response to criticism that the previous Colorado hearings had been inadequately publicized, committed to holding at least one more hearing in Colorado. The Service expanded efforts to notify interested parties directly for the second (and third) comment periods. The second comment period opened on November 21, 2002, for a period of 60 days. Two additional public hearings were held. On January 28, 2003, the Service announced the availability of the Draft Economic Analysis and draft EA for the proposed designation of critical habitat for the Preble's and opened a 30-day comment period on all three documents.

In accordance with our policy published on July 1, 1994 (59 FR 34270), we seek the expert opinions of at least three appropriate and independent specialists regarding proposed rules. The purpose of such review is to ensure decisions are based on scientifically sound data, assumptions, and analyses. We solicited opinions of four independent experts familiar with the species or the conservation of small mammals to peer review the proposed critical habitat designation. Three of the four peer reviewers provided comments. We also received 170 written and 47 oral comments. Many individuals or organizations commented more than once. Approximately 104 comments were from Colorado and 102 from Wyoming. Additionally, comments were received from 6 other States. Overall, 121 written comments and 38 oral comments opposed designation or favored reduced designation, 28 written comments and 6 oral comments supported designation or favored expanded designation, and 21 written comments and 3 oral comments were deemed neutral. Several neutral comments consisted of requests for extending the comment period or holding additional hearings.

Peer Review Comments

Comment 1: Two reviewers commented on the taxonomy of the Preble's, both in relation to the western jumping mouse and as compared with other subspecies of the meadow jumping mouse. One reviewer stated that the limited genetic data available is ''enough to suggest (consistent with the prevailing taxonomic review of the genus *Zapus* by Krutsch,1954) that *Zapus hudsonius* is distinct from the western jumping mouse, *Z. princeps.*'' He emphasized the need to review any available genetic studies regarding the validity of the Preble's as compared to *Z. h. luteus* to the south and *Z. h. campestris* to the north. It was that reviewer's opinion that the conservation value of the proposed rule was dependent on whether the recognized Preble's subspecies represents an evolutionarily significant unit. A second reviewer suggested that the two species, western jumping mouse and the meadow jumping mouse, may not be distinctly separate within the range of the Preble's and that the possibility of hybridization should be given more credence. This reviewer noted that the document ''presupposes that the taxon *Z. h. preblei* exists, and that dental, cranial, and genetic evidence is just some sort of double-checking of that forgone conclusion.'' He suggested specific language to describe existing evidence regarding the taxonomic status of the Preble's.

Our Response: At the time of the 1998 listing, the Service concluded that the best scientific and commercial data available indicated that the Preble's was a valid subspecies. Little additional information has become available since 1998 to revise this conclusion. We anticipate that genetic studies, including those currently being conducted at the Denver Museum of Nature and Science, will significantly add to the existing knowledge regarding the genetic makeup of the Preble's and its relationship to other jumping mice. Based on the court-approved settlement agreement setting a completion date of June 4, 2003, for designation of critical habitat, we can not wait for the results of ongoing genetics studies before completing critical habitat designation. The designation is based on the best scientific information available to date.

Comment 2: Two reviewers were critical of the use of an elevation of 2,300 m (7,600 ft) as a general upper limit to designated critical habitat. One pointed out that vegetation differs by elevation depending on factors such as aspect, slope, and latitude. The other reviewer stated that prairie habitats extend to higher elevations in the foothills of the Laramie Mountains than in the Front Range of Colorado. One of the reviewers questioned the premise that the Laramie Mountains represented the western boundary of Preble's range in southern Wyoming, since passes in the range do not exceed 2,300 m (7,600 ft) and appropriate habitat appears to exist west of the mountains.

Our Response: It is likely that a variety of factors dictate the maximum elevation at which the Preble's might be found in a given drainage. Research conducted to date on the Preble's has not provided specific knowledge of all factors involved, nor in most cases have drainage-specific trapping studies been done to document the upper limits of the Preble's. We believe that the 2,300 m (7,600 ft) elevation in most cases provides a reasonable estimate of habitat likely to be occupied by the Preble's. While it is possible that the Preble's ranges west of the Laramie Mountains in southern Wyoming (based on preliminary identification of recently acquired specimens), there is currently no conclusive evidence of this. If an established population of the Preble's is documented west of the Laramie Mountains, it would represent a change in our understanding of the Preble's range.

Comment 3: One reviewer stated that without comprehensive taxonomic or biosystematic study across the range of the Preble's, assumptions regarding the identity of trapped and released mice represented a critical deficiency in the proposed rule. In contrast, a second reviewer concluded that, in order to conserve the Preble's, it seemed acceptable to identify and designate critical habitat on stream reaches with ''reasonably high chances'' of supporting the Preble's, based on captures of jumping mice at elevations shown to support the Preble's.

Our Response: The western jumping mouse and Preble's meadow jumping mouse appear to coexist over portions of their range in southeastern Wyoming and Colorado, and they are difficult to distinguish by visual examination in the field. Detailed morphological or genetic examination is generally required to conclusively establish the identity of a specimen. We proposed critical habitat in some areas where the presence of Preble's was based only on field identification at sites with elevations appropriate for the presence of Preble's. However, we have re-examined the merits of this approach in light of the substantive and thoughtful critique from a peer reviewer. In consideration of these comments from a peer reviewer, we are not persuaded that it is

appropriate in this instance to include such areas within the critical habitat designation, and they are not included in the final designation. We have included in the final designation only those units occurring in drainages within which there is a specimen verified as Preble's through morphological or genetic means. Accordingly, we have removed the Horseshoe Creek unit (NP2), the Friend Creek and Murphy Canyon unit (NP4), the Horse Creek unit (NP5), the Lone Tree Creek unit (SP3), the Cedar Creek unit (SP7), and the Cherry Creek unit (SP11) from final critical habitat. Each of these units occurred in a drainage within which no mice had been verified to be Preble's through morphological or genetic means, but rather only through field identification.

For the purpose of determining whether federal actions may affect the Preble's in areas not designated as critical habitat, we will continue to accept field identification by qualified individuals using established survey guidelines as an adequate basis for determining presence or absence of this subspecies. We do not believe it is appropriate and practical to hold project-specific section 7 consultations to the same level of certainty as a final rulemaking designating critical habitat, nor do we believe it to be sound public policy to require genetic or morphological examination that could substantially delay project review. Federal agencies and project sponsors may voluntarily opt to employ these more detailed and time consuming identification techniques, but it will be at their discretion and not as a requirement of the Service.

Comment 4: One reviewer critiqued conservation strategies used to support the Draft Discussion Document and the proposed critical habitat rule. He emphasized the need to understand Preble's movements, connectivity of habitat, interchange of individuals among populations, and potential for re-colonization when populations are extirpated. He commented on the lack of redundancy in the proposed recovery populations within each hydrological unit, resulting in reduced opportunity for re-colonization, and he viewed the number of proposed recovery populations as potentially insufficient. He also emphasized that persistence of Preble's populations will be dependent on habitat quality at the selected recovery sites and that habitat quality may be a more important consideration than land ownership. Regarding the proposed rule to designate critical habitat, he acknowledged that in some drainages designation of additional populations beyond those identified as recovery populations in the Draft Discussion Document would increase the probability of Preble's persistence.

Our Response: Currently proposed distribution and potential connectivity of recovery populations were considered in developing the conservation strategy proposed in the Draft Discussion Document. Future peer review will address a draft recovery plan and the conservation strategies that support it. Regarding designation of critical habitat, we examined both quality of existing habitat and land ownership in making our determinations.

Comment 5: One reviewer suggested that hibernation is a key element that separated the Preble's from more common small riparian rodents within its range, and that location and integrity of alluvial deposits appropriate for excavating hibernacula may be an important aspect of Preble's habitat. He also suggested that ''bioassay'' (assessment) of probable habitat was preferable to delineating outward boundaries of critical habitat based on a set distance from the stream bank.

Our Response: We believe that designated outward limits of critical habitat capture most alluvial deposits likely used by the Preble's for hibernacula. We agree that site specific assessment of habitat would be preferable to use of a standard distance outward to designate extent of critical habitat. However, we had neither the time nor resources to conduct such a reach by reach assessment through the range of the Preble's. In addition, we believe that appropriate outward boundaries of critical habitat are not necessarily equivalent to probable Preble's habitat, which corresponds closely to vegetation currently present, and is dependent on current land use and recent site history.

Section 4(i) Comments From States

Comment 1: To suggest that no county-level or individual habitat conservation plans (HCPs) are likely to be implemented in Wyoming during the next 10 years is unacceptable (Governor Freudenthal, State of Wyoming).

Our Response: The Addendum to the Economic Analysis acknowledges the possibility that HCPs may be developed and implemented over the next 10 years for activities in Wyoming that are not exempt from sections 9 and 10 of the Act by the special 4(d) rule (*i.e.*, residential or industrial development).

Comment 2: An agricultural economist from the University of Wyoming should be hired for the economic analysis to ensure familiarity with both the economics field and the people being affected rather than relying on those who are comparatively unfamiliar with the subject matter (Wyoming Department of Agriculture).

Our Response: To address these very issues, Gary Watts (Watts and Associates, Inc., Laramie, Wyoming) was contracted to assist in development of the Draft Economic Analysis. Mr. Watts is a natural resource and environmental economist from Wyoming with over 30 years of research and consulting experience, including several years of experience as a Senior Economist with the Division of Business and Economic Research at the University of Wyoming. Mr. Watts' expertise and experience include economic analyses associated with water projects, irrigation, and agriculture.

Comment 3: The Service needs to define ''near'' as used on page ES–1 of the Draft Economic Analysis regarding future section 7 impacts in or near proposed critical habitat. Provide information on what being ''near'' critical habitat will mean (Wyoming Department of Agriculture).

Our Response: Section 7(a)(2) of the Act requires every Federal agency, in consultation with and with the assistance of the Secretary, to insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. In considering the effects of a proposed action, the Federal agency looks at the direct and indirect effects of an action on the species or critical habitat. Indirect effects are caused by the proposed action, are later in time, and are reasonably certain to occur. They may occur outside of the area directly affected by the action. For example, construction of a housing development upstream of critical habitat may result in increased runoff, sedimentation, and pollution in critical habitat. The definition of ''near'' or distance within which indirect effects should be considered will vary depending upon the type of Federal action occurring.

Comment 4: The Draft Economic Analysis was not clear regarding whether the total cost of section 7 included the Service's cost for consultation (Wyoming Game and Fish Department).

Our Response: The total cost of section 7 includes the administrative costs of consultation (borne by the Service, the Federal action agency, and occasionally third parties), as well as the costs of project modifications.

Comment 5: The benefits associated with critical habitat designations are overstated. Providing habitat for only one species in a riparian area will not enhance ecosystem health, but ultimately could be detrimental to the system in total. Prevention of vegetative succession and successional setbacks will decrease habitat diversity and harm some species (Wyoming Game and Fish Department).

Our Response: The Service contends that good Preble's habitat is generally a healthy riparian ecosystem. Clippenger (2002) found evidence of ecological disturbance in the form of lower native species diversity, lower richness, and increased presence of exotic species found in rodent communities at riparian sites lacking meadow jumping mice and concluded that Preble's can be a useful indicator of environmental integrity in riparian areas and associated upland areas in the Colorado piedmont.

Comment 6: Wyoming's contention continues to be that the original Preble's listing was not justified. The existence of the Preble's in Wyoming is yet to be verified. Designation of critical habitat based on the presumption of presence is wrong (Governor Geringer, State of Wyoming). The Service should perform a 5-year status review as required under the Act (Governor Freudenthal, State of Wyoming).

Our Response: We listed the Preble's as a federally-threatened species in 1998 and described its range based on the best scientific and commercial data available at that time. Substantial additional information on the Preble's has become available since the 1998 listing. Petitions to delist the Preble's have been received and are being addressed. We plan to initiate a 5 year review of Preble's meadow jumping mouse in the near future. We anticipate that the results of continuing genetic and morphological studies of *Zapus* will supplement current information on the taxonomic status of the Preble's subspecies and its distribution in Wyoming. The taxonomy and distribution of the Preble's are addressed in the Background section of this rule. *See also* the Peer Review section above. As discussed above, we have decided to include in the final critical habitat determination only those units occurring in drainages within which there is a specimen verified as Preble's through morphological or genetic means. Accordingly, we have removed the Horseshoe Creek unit (NP2), the Friend Creek and Murphy Canyon unit (NP4), the Horse Creek unit (NP5), and the Lone Tree Creek unit (SP3) in Wyoming; as well as the Cedar Creek unit (SP7), and the Cherry Creek unit (SP11) in Colorado. Each of these units occurred in a drainage within which no mice had been verified to be Preble's through morphological or genetic means, but rather only through field identification. If, in the future, one or more of these areas is determined to support mice verified as Preble's through morphological or genetic examination, we would consider whether rulemaking to amend critical habitat is warranted.

Comment 7: The majority of areas proposed as critical habitat have not been visited by Service personnel. (Wyoming Department of Agriculture)

Our Response: The Service used site visits to specific reaches, aerial photographs, habitat maps, coordination with Federal, State, and local government agencies, public comments, and other submitted information in determining proposed and final designation of critical habitat. Time, staffing, and monetary constraints, as well as issues of access, limited site visits and methods used to assess specific stream reaches.

Comment 8: The Service should prepare a list of all activities with a Federal nexus for which designation of critical habitat may have economic effects (Wyoming Game and Fish Department).

Our Response: In general, actions on Federal lands, and actions on non-federal lands that are funded or permitted by a Federal agency have a Federal nexus. An exception exists in cases where the Federal agency involved has no discretionary involvement or control over the action in question (see Federal Actions that May Destroy or Adversely Modify Preble's Meadow Jumping Mouse Critical Habitat, below). The determination of whether a Federal nexus exists for a given activity should be made on a case by case basis and largely rests with the Federal agency involved. Preparation of an all-inclusive list of potential Federal actions by all Federal agencies, that would result in a Federal nexus, is impractical.

Comment 9: Landowners may forgo Federal assistance because of the anxiety associated with section 7 consultations (Governor Freudenthal, State of Wyoming).

Our Response: In cases where a Federal nexus exists and the resulting action is beneficial or neutral to the Preble's, consultation requirements under section 7 of the Act can be easily completed. We anticipate that all Federal agencies will promote projects beneficial to the Preble's, work with landowners to reduce potential impacts to the Preble's, and provide information and guidance to landowners to help alleviate fears regarding Federal regulation of activities on private lands.

Comment 10: If designation of critical habitat is projected to have a modest impact on agricultural land use, why are these lands included in the designation (Governor Freudenthal, State of Wyoming)? It is puzzling that the Service believes that agricultural development is not a threat to the Preble's but still believes that agricultural lands need critical habitat designation (Wyoming Game and Fish Department).

Our Response: Agriculture, including grazing and haying, can be managed in many different ways, some of which may be beneficial to Preble's habitat, others harmful. Much of the habitat in Wyoming is currently being grazed or managed for hay production in a manner that maintains what appears to be good habitat for the Preble's. However, there are also areas being managed in a manner that is not conducive to the development or maintenance of Preble's habitat. As defined, critical habitat is essential to conserve the species and it may require special management considerations or protection. The areas designated as critical habitat have been determined to be essential to the conservation of the Preble's. Additionally, those areas where current management is resulting in maintenance of good habitat have no agreements committing to the continuation of such practices. In such cases, special management considerations or protections may be required. ''Agricultural development'' implies a change in land use and could be a threat to the Preble's. In instances where a Federal nexus exists, protections would ensure that changes in agricultural practices harmful to the Preble's are not instituted without required consultation.

Comment 11: Protection of the Preble's critical habitat is in direct opposition to the needs of the threatened Colorado butterfly plant (*Gaura neomexicana* ssp. *coloradensis*) and the threatened Ute ladies'-tresses orchid (*Spiranthes diluvialis*) (Wyoming Game and Fish Department).

Our Response: At a landscape scale, requirements of these species are not in conflict and they are able to co-exist. All have similar, although not identical, habitat requirements. All three occur in floodplain areas, often within the same drainages. Preble's requires more dense vegetation than do the plants, which do not compete well with dense vegetation. However, Preble's also utilizes these more open, grassy areas for foraging and other activities. We believe that

management can provide for a mosaic of habitat within individual drainages and allow for conservation of these and many other species.

Comment 12: The Draft Economic Analysis causes confusion by not specifying the costs generated from the designation of critical habitat as opposed to those generated by the listing. It is difficult to estimate the true economic impact of critical habitat designation (Governor Freudenthal, State of Wyoming).

Our Response: The court, as in *New Mexico Cattle Growers Ass'n* v. *U.S. Fish and Wildlife Service*, 248 F.3d 1277, requires us to look at co-extensive costs (consideration of the impact of all economic effects that could be a result of the designation, even if they are the same as those that arise from the listing). This is the approach the Draft Economic Analysis and Addendum to the Economic Analysis take. The Service recognizes that if an area is excluded from the final designation, not all of the economic impacts described in the Economic Analysis may be avoided.

Comment 13: Critical habitat boundaries should align with county-wide HCP boundaries for consistency (Colorado Department of Natural Resources).

Our Response: We agree with the comment that critical habitat boundaries should match HCP boundaries wherever possible. We have included modifications in SP4 where there is agreement on a proposed protection zone associated with a rural agricultural conservation plan. Additionally, we have excluded units SP8, SP9, SP12, and A1, and private lands in Douglas County in unit SP13, which are included presently in the following proposed HCPs: Boulder, Douglas County, and El Paso County. The reasons for excluding these pending HCPs are discussed below.

Public Comments

We reviewed all comments received for substantive issues and new data regarding critical habitat and the Preble's meadow jumping mouse, the Draft Economic Analysis, and the draft EA. In the following summary of issues we address comments received on all three documents during the comment periods and public hearing testimony.

Comments of a similar nature are grouped into issues.

Issue 1: Biological Concerns and Methodology

Comment 1: Critical habitat for the Preble's is not determinable. Too little is known about the Preble's, its habitat needs, population sizes, and its distribution to designate critical habitat.

Our Response: Several commenters cited our statement that "* * * much of the biology and ecology of the Preble's is still not well understood." A similar statement could probably made for a majority of species upon listing under the Act. See our statement above. We have used the best scientific and commercial data available, and exercised our professional judgment to propose critical habitat. In addition, peer review comments, all public comments, and any additional information received were considered in final designation of critical habitat.

Comment 2: The extent of critical habitat proposed by the Service is inadequate (*e.g.*, critical habitat should be designated for all occupied habitat; all high-quality habitat should be designated regardless if the Preble's has been documented in the area). A number of comments were received suggesting that specific reaches be added in the final designation of critical habitat. One commenter roughly mapped approximately 500 km (300 mi) of additional rivers and streams over approximately 50 additional reaches in Colorado as suggested additions to final critical habitat.

Our Response: We believe that the suggestions that critical habitat designation be extended to all habitat occupied by the Preble's or to all potentially occupied areas of high-quality habitat are not supported by the definition of critical habitat under 3(5)(A) of the Act. Within the geographic area occupied by the species we designate only areas currently known to be essential to conserve the species. In accordance with sections 3(5)(C) of the Act, not all areas that can be occupied by a species will be designated critical habitat. We designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species. Based on the best scientific data available there appears no basis for designation of critical habitat outside of the geographic area occupied by the species. Translocation of the Preble's from existing populations to unoccupied habitat is not part of our conservation strategy for the Preble's. Given the extent and distribution of known Preble's populations, we believe that protection within the area currently occupied will be sufficient to conserve the Preble's. Where suggestions for additions to proposed critical habitat were accompanied by specific justification, our responses are detailed in Issue 3, Comments on Specific Units, below. If in the future, we determine from information or analysis that those areas designated in this final rule need further refinement, or if we identify or determine additional areas to be essential to the conservation of the Preble's and requiring special management or protection, we will evaluate whether a revision of critical habitat is warranted.

Comment 3: The Draft Discussion Document is not a final document and has not received public review; therefore, it should not be used as a basis for designation of critical habitat.

Our Response: Although a draft recovery plan has not been published for public review, the Draft Discussion Document, as now modified in the subsequent Working Draft, provides the latest available scientific information on the Preble's. This information is being used in development of a recovery plan and has been used to develop a conservation strategy that supports the critical habitat designation. For example, information on range, occupancy, populations, and habitat characteristics are being used in both efforts. The critical habitat proposal has been refined through comments and additional information received, as has the Draft Discussion Document. Whenever and wherever the best scientific and commercial information presents itself to the Service, we will incorporate it into species conservation efforts, as illustrated here and in the recovery planning process for the Preble's.

Comment 4: Critical habitat should correspond more closely to proposed recovery populations described in the Draft Discussion Document. In several drainages, proposed critical habitat falls short of the recovery populations proposed. In some instances proposed critical habitat greatly exceeds minimum stream lengths of large or medium recovery populations described in the Draft Discussion Document. Also, proposed critical habitat has added units beyond those discussed as recovery populations in the Draft Discussion Document.

Our Response: The conservation strategy underlying this critical habitat designation was informed by the ongoing recovery planning process and the associated Draft Discussion Document and Working Draft, but the outcomes are not identical. The Draft Discussion Document and the subsequent Working Draft provide recovery criteria for achieving recovery of the species. Recovery populations are proposed for specific hydrological units within the range of the Preble's,

described by an 8-digit Hydrological Unit Code or HUC (hereafter, we refer to these specific subdrainages as ''HUCs.''). We adopted some of the same elements when developing a conservation strategy for designating critical habitat. For some HUCs there is little or no available information on the existence of Preble's populations or the extent of occupied habitat. In these cases we exercised our judgement as to whether the areas were essential to the conservation of the Preble's and whether designation of critical habitat was warranted based on any confirmed occurrence of the Preble's, and quality and distribution of appropriate habitat. The Draft Discussion Document provided minimum stream lengths deemed necessary to achieve population goals; however, we believe that the potential for reaching population goals increases with increased length of streams included in a recovery population. Therefore, we have not limited the extent of critical habitat to minimum stream lengths described in the Draft Discussion Document. In some HUCs we proposed critical habitat units beyond the number of recovery populations that the Draft Discussion Document specifies. We have placed emphasis on those Preble's populations occurring on Federal lands and have designated critical habitat for several Preble's populations on Federal lands independent of recovery populations proposed in the Draft Discussion Document and the subsequent Working Draft.

Comment 5: Proposed critical habitat units are discontinuous within some drainages. These areas should be linked even where intervening steam reaches do not support the Preble's.

Our Response: In most cases proposed critical habitat units exceed minimum reach lengths for large, medium, and small populations proposed in the Working Draft and reflected in our conservation strategy. All proposed critical habitat units exceed 5 km (3 mi) in length. In some cases we chose not to link stream reaches through designation of marginal habitat or to substantially extend critical habitat to cover a larger Preble's population where multiple small recovery populations are consistent with our conservation strategy.

Comment 6: Critical habitat should not be designated in reaches where the Preble's has not been confirmed present. The Service must clearly establish that the Preble's lives in the area before designating critical habitat.

Our Response: See response to Peer Review Comment 3 above.

Comment 7: Within proposed critical habitat units there are locations where Preble's habitat is not present. Some incised, or otherwise impacted or altered reaches of stream may be impassable for the Preble's and do not serve as travel corridors. There should be a process for site-specific exclusions from critical habitat where primary constituent elements are not present. Several commenters requested that specific sites within proposed critical habitat units not be included in the final critical habitat designation.

Our Response: The Act does not require that a species live in an area in order for it to be included in critical habitat. It defines critical habitat as including ''specific areas outside the geographical area occupied by the species at the time it is listed * * * upon a determination by the Secretary that such areas are essential for the conservation of the species'' Sec. 3(4)(ii). Additionally, our regulations state: ''The Secretary shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species'' (50 CFR 424.12(e)). All primary constituent elements upon which the Preble's depends are present within each proposed unit of critical habitat. At any given site within the unit, one or more primary constituent element must be present for the site to qualify as critical habitat. Site-specific determination of limits of critical habitat will be made by the Service on a site by site basis. For example, it may be determined that a reach qualifies as critical habitat based on its ability to provide connectivity between habitat upstream and downstream. Reaches that provide even minimal connectivity may be essential to maintaining Preble's population over a critical habitat unit. Yet, in the same reach, uplands away from the creek may be developed and not be considered critical habitat. The scale of mapping that we used to approximate our delineation of critical habitat did not allow us to exclude all developed areas such as roads and rural development. Federal actions limited to these areas would not trigger a section 7 consultation unless they affect the Preble's or primary constituent elements within designated critical habitat. Response to comments that suggest omitting specific areas from final critical habitat designation are included in Issue 3, Comments on Specific Units, below.

Comment 8: The primary constituent element addressing ecological processes should be more clearly described.

Our Response: We have listed and described the ''dynamic geomorphological and hydrological processes'' that create and maintain Preble's habitat as a primary constituent element. In designating critical habitat we consider presence of primary constituent elements. The integrity of such processes in a given area, and thus the probability that quality Preble's habitat will be maintained over time, was considered in the designation of critical habitat. As with other primary constituent elements, there is a qualitative aspect to ecological processes. Streams that have highly managed flows or whose flows are dictated by urban runoff, and those that are severely downcut, channelized, or armored to prevent erosion were less likely to be designated as critical habitat. Likewise, we chose not to designate man-made ditches as reaches of critical habitat, even though some have been shown to support Preble's populations. In some cases current land uses (mowing, overgrazing) may limit primary constituent elements relating to vegetation, but underlying ecological processes are still operative. Such areas may still qualify as critical habitat based on presence of this primary constituent element. Actions that would degrade these ecological processes would be viewed as adversely affecting critical habitat.

Comment 9: One component of a primary constituent element for the Preble's is ''open water throughout the Preble's active season.'' In some proposed reaches, water is not present throughout the Preble's active season.

Our Response: We believe that in each critical habitat unit proposed, open water is generally available throughout the Preble's active season. Portions of certain critical habitat units, including side tributaries, may have little or no water in late summer. In drought years availability of open water may be more generally limited.

Comment 10: Mountain streams areas are less important for the Preble's than streams with wider floodplains that are present in the foothills or on the plains.

Our Response: While it is likely that streams with wider floodplains support higher numbers of the Preble's per unit length of stream, we believe that mountain streams are also essential to the overall conservation of the Preble's. Preble's populations along mountain streams may be less subject to certain threats including water projects, residential development, flooding, and long-term climate change. For example, while the Upper South Platte River supports populations of the Preble's, few are thought to exist along the South

Platte River through the Denver metropolitan area and downstream areas that have been subject to residential development, agriculture, and aggregate extraction.

Comment 11: Varying the outward extent of critical habitat by stream order does not consider topography or habitat variability. These distances are arbitrary. Lines should be based on site-specific mapping of primary constituent elements or county mapping of habitat that has been done in support of HCPs currently being developed.

Our Response: We received significant comment on this topic but little in terms of viable alternative approaches, applicable throughout the range of the Preble's. Site-specific mapping across the range of the Preble's would be a more precise method of designating critical habitat, but was not practical given the time, personnel and funding constraints under which we were working. Mapping done to define boundaries of HCPs varies by planning effort and is being done using criteria unlike those used to designate critical habitat. The most common suggestion we received was to standardize the distance outward for all streams regardless of stream order. We continue to believe that varying outward extent of critical habitat based on the width of existing riparian corridor and flood plain is appropriate, and that stream order provides an approximation of this width.

Comment 12: The upland habitat included in proposed critical habitat is too extensive. Preble's use of uplands proposed as critical habitat is not supported by radio-telemetry studies. Value of upland habitat to the Preble's varies by type; shortgrass prairie should not be included in critical habitat.

Our Response: We did not intend the outward extent of the proposed critical habitat to be limited to areas of most frequent Preble's use. Some commenters cited the distance outward that would include 95 percent of all radio-tracking locations from studies done at research sites as an appropriate outward limit of critical habitat, apparently with the belief that this would include a significantly smaller distance outward than was proposed. (We believe that it would actually increase the distance outward.) In determining which areas to designate as critical habitat we are required to consider primary constituent elements that are essential to conservation of the species, and that may require special management considerations and protection. We believe that corridors of critical habitat proposed, ranging from 220 m (720 ft) to 280 m (920 ft) in width (plus the river or stream width) are appropriate to support the full range of primary constituent elements identified as essential for persistence of Preble's populations.

Frequently used habitat corresponds closely to vegetation currently present, and is dependent on current land use and recent site history. We do not have the time, funding or staffing to map vegetation over all stream reaches designated as critical habitat. The extent of designated critical habitat is designed to protect all primary constituent elements required by the Preble's, including geomorphological and hydrological processes that shape Preble's habitat. When a Federal action takes place that may affect critical habitat, a site-specific determination will be made as to the presence of primary constituent elements and potential adverse impacts. In some cases, it may be determined that the extent of critical habitat into upland areas is more limited than the outward boundary of critical habitat designated.

Comment 13: Stream edge is an ''ephemeral reference point'' and should not be used to designate boundaries of critical habitat. The proposal fails to identify ''specific geographic areas'' as required by the Act.

Our Response: Stream edge will eventually change, as will the stream centerline, 100-year flood plain and other pertinent lines of demarcation in Preble's habitat. Alternatives to the use of such boundaries would include extending limits of critical habitat to identifiable features such as the nearest road or ridgetop, or surveying an appropriate line. None of these alternatives were judged as desirable or practical as the method employed. Our critical habitat maps are based on recent GIS coverages depicting stream locations. Specific boundaries of designated critical habitat can be located on the ground based on stream edge, stream order, and occurrence of primary constituent elements.

Comment 14: Too many equivocations exist in the proposal. Phrases like ''presumed to be,'' ''appears that,'' and ''believed to exist'' appear too often.

Our Response: We are required to use the best available information regarding the Preble's. Often information available does not allow us to make statements of positive fact. We have tried to be honest and accurate in stating what is known with certainty and what is believed to be true based on the best scientific data available, and our professional judgement.

Comment 15: The 1998 listing of the Preble's is flawed. There is no evidence that the Preble's is declining. The Preble's should be delisted.

Our Response: The reasons for listing the Preble's were outlined in the 1998 rule listing the Preble's as threatened. While additional populations have been documented, the threats to the Preble's described at the time of listing remain. A process exists for petitioning the Service to delist a species and such petitions are currently being assessed. No decisions have been made regarding these delisting petitions that would affect the final designation of critical habitat.

Comment 16: Structural measures to control and stabilize channels are not a threat to the Preble's. Stabilization of channels is positive. Such measures will not affect hydrology.

Our Response: At times, structural measures may stabilize channels where erosion is taking place and allow revegetation. In some instances where habitat is largely degraded, such stabilization may provide benefits over time. However, in general, structural measures limit the hydrological and geomorphological processes that maintain and restore habitats required by the Preble's. Elimination of natural meanders, channelization, and armoring of rivers and streams generally degrades riparian and flood plain habitats needed by the Preble's. Impact of specific projects on the Preble's and its habitat must be assessed on a case by case basis.

Comment 17: Irrigation of hayfields is beneficial to the Preble's. It promotes Preble's habitat where it would not otherwise be present.

Our Response: Irrigation of hayfields maintains more moist conditions over a wider area of streamside habitat for a longer period than would naturally occur. This promotes a wider area of dense riparian-type vegetation along streams, but is generally accompanied by repeated mowing, sometime very near the banks of streams, that may kill individual mice, disrupt breeding and other behaviors, leave little native vegetation, and destroy food sources during the period when the Preble's is preparing for hibernation. While some aspects of irrigated hayfields are undoubtably beneficial to the Preble's, overall effects on Preble's populations are likely complex and have not yet been studied.

Comment 18: The Service should breed the Preble's in captivity and release them on unoccupied public lands or to supplement existing populations. The Preble's could be maintained in zoos or on small preserves; they do not need extensive habitat.

Our Response: At this time we do not anticipate that captive breeding and release will be part of the conservation strategy to recover the Preble's. We believe that translocation (moving animals from one site to another) and captive breeding should be considered only as a ''last resort'' for maintaining a population. Small populations in zoos or in small, highly managed preserves would not substantially contribute to recovery goals.

Issue 2: Procedural and Legal Compliance

Comment 19: Designation of critical habitat will result in taking of private lands.

Our Response: See Takings within the Required Determinations section of this rule below.

Comment 20: The Draft Economic Analysis and the draft EA should have been released along with the proposed critical habitat designation. The 30-day comment period following availability of all three documents was insufficient. They must be viewed together.

Our Response: Comments on the entire proposal, and all three document, were accepted for 30 days following the notice of availability of the Draft Economic Analysis and the draft EA. We believe that 30 days was sufficient time for review, especially considering that the proposed rule for critical habitat designation had been available for review months prior to release of the other two documents.

Comment 21: The proposed rule to designate critical habitat does not comply with Office of Management and Budget, and Department of Interior 2002 information quality guidelines.

Our Response: The rule to designate critical habitat is subject to the requirements of the Federal Data Quality Act (DQA) 44 U.S.C. 3506, and the specific guidelines that the Department of the Interior issued regarding data quality. These guidelines, Information Quality Guidelines Pursuant to section 515 of the Treasury and General Government Appropriations Act For Fiscal Year 2001, became effective October 1, 2002. This final rule meets these information quality standards as it is based on the best available information. The Service rulemaking with regard to designation of critical habitat for the Preble's includes a comprehensive public comment process and imposes a legal obligation on us to respond to comments on all aspects of the action. These procedural safeguards can ensure a thorough response to comments on quality of information. The thorough consideration required by this process generally meets the needs of the request for correction of information process. In the case of rulemakings and other public comment procedures, where we disseminate a study analysis, or other information prior to the final rulemaking, requests for correction will be considered prior to the final action. We believe the public comment and review process for this rulemaking adequately addresses the commenter's concerns regarding the quality, objectivity, utility, and integrity of the proposed rule.

Comment 22: The Service can not treat public lands and private lands differently when making decisions regarding designation of critical habitat.

Our Response: The Service has not treated public and private lands differently as far as prerequisites for critical habitat designation are concerned. However, public lands, especially undeveloped Federal lands and other public lands currently devoted to conservation purposes, are more likely, both currently and in the future, to support viable Preble's populations. Therefore, such lands contribute significantly to a rangewide conservation strategy for the Preble's and, as a percentage of occurrence, have more frequently been proposed as critical habitat than have private lands.

Comment 23: The final critical habitat designation should be postponed until the Service promulgates rules to clarify the definition of ''adverse modification.''

Our Response: In a March 15, 2001, decision of the United States Court of Appeals for the Fifth Circuit (Sierra Club v. U.S. Fish and Wildlife Service *et al.,* F.3d 434), the Court found our definition of destruction or adverse modification to be invalid. In response to this decision, we are reviewing the regulatory definition of adverse modification in relation to the conservation of the species. However, clarifying the adverse modification definition is not a sufficient reason to delay designation of critical habitat.

Comment 24: Under the Act, designated critical habitat should be limited to ''the geographic range occupied by the species at the time of listing.'' At the time of listing much less was known about the range of the Preble's.

Our Response: The reference to ''at the time of listing'' applies to designation of critical habitat concurrent with listing. When critical habitat is proposed later, as in this case, status at the time the proposal is used. It would make no sense to ignore the latest available scientific information when proposing critical habitat.

Comment 25: Insufficient notice was given for the public hearings. Service guidance indicates that a notice should be placed in the **Federal Register** 15 days prior to the hearing.

Our Response: We have attempted to provide the notice of public hearings through a variety of means. We held additional hearings based on requests received from the public. Delays in publication of the notice of meetings in the **Federal Register** prevented us from meeting the 15-day guidance.

Comment 26: All affected landowners should be notified directly of the proposed critical habitat designation. The Service should create a file of affected landowners.

Our Response: The Service employed the normal means to notify the public of the proposed rule and of public hearings. While direct notification of affected landowners would have been desirable, the scope of proposed critical habitat and the number of land owners involved made it impractical.

Comment 27: The Service should be receptive to making changes in the final rule that add critical habitat, rather than just deleting areas previously proposed.

Our Response: To add significantly to the critical habitat proposed would likely require us to repropose the rule and open an additional public comment period. Since the proposal was published, we have not received any scientific or commercial information that indicates that we should make significant additions to areas proposed.

Issue 3: Comments on Specific Units

Comment 28: The Horseshoe Creek unit (NP2), and Friend Creek and Murphy Canyon unit (NP4) contain lower quality habitat than many of the units comprised mostly of private land.

Our Response: Based on site visits and information provided by the Forest Service, these units contain habitat suitable for use by the Preble's. The Horseshoe Creek unit and the Friend Creek subunit contain wide riparian areas with beaver ponds, stands of willows, and subirrigated meadows interspersed with some narrower, rocky areas. These narrower areas provide connection between patches of good habitat. The Murphy Canyon subunit is a narrower, mountain canyon, but does support some healthy willow stands and healthy areas of native riparian vegetation. However, both units have been removed from this designation as the drainages contain no mice verified as Preble's through morphological or genetic means.

Comment 29: In the Chugwater Creek unit (NP3), remove Spring Creek and Three Mile Creek from critical habitat

designation based upon the very limited amount of actual riparian habitat, hydrology, and the nature of the surrounding upland habitat.

Our Response: Based upon information regarding habitat suitability obtained through public comment and additional site visits to portions of NP3, the Service has removed four tributaries to Chugwater Creek from the critical habitat designation. See the discussion of NP3 for more details regarding these tributaries and the rationale for their removal.

Comment 30: About 5 km (3 mi) upstream from Chugwater in the Chugwater Creek unit (NP3), the proposed critical habitat extends one-half mile from Chugwater Creek to include a pivot sprinkler in an attempt to gain control of the water.

Our Response: Our maps do not indicate any location in that general vicinity where the critical habitat widens to more than 120 m (394 ft) from Chugwater Creek nor are any small tributaries included in that vicinity of NP3.

Comment 31: In the Lodgepole Creek and Upper Middle Lodgepole Creek unit (SP1), extend critical habitat to join the two subunits into one larger, contiguous unit. Expand the Upper Middle Lodgepole Creek subunit upstream along the south branch of Middle Lodgepole Creek for a distance of approximately 2 mi (3 km).

Our Response: Our conservation strategy has a goal of three small recovery populations in this subdrainage. Each of the subunits is slightly larger than necessary to support a small population and is located in an area determined to support the Preble's. Expanding the critical habitat to connect the subunits would provide a larger unit than that called for in our conservation strategy. Additionally, it appears this intervening habitat is less suitable than the habitat found in each of the subunits. According to the National Wetland Inventory maps for the area, much of the habitat between the two subunits has little shrub component and becomes narrow and steep, providing only for connectivity between the two subunits. The Service has decided not to add additional critical habitat to connect these two subunits. Additionally, no areas of adequate habitat are available to provide a third subunit in this intervening area.

The Service considered upstream expansion of the Upper Middle Lodgepole Creek subunit. However, this upstream reach contains less of the shrub component and is less complex than the north branch of Middle Lodgepole Creek. Additionally, although the Service recognizes the difficulties in using elevation as a general upper limit to critical habitat (see response to Peer Review comment 2), the Service has generally used 2,300 m (7,600 ft) as the upper bound of critical habitat. This unit is an exception based upon genetic and morphological identification of a specimen in this area from approximately 2,350 m (7,700 ft). However, extension of the critical habitat upstream for 3 km (2 mi) on the south branch of Middle Lodgepole Creek would include elevations up to approximately 2,400 m (7,900 ft). Based on these factors, the Service has decided not to add the suggested additional critical habitat to this subunit.

Comment 32: In the Crow Creek watershed, add critical habitat on Middle Crow Creek from near Turtle Rock downstream to the forest boundary and unidentified sections of the south fork of Middle Crow Creek.

Our Response: The Service considered including Middle Crow Creek and the south fork of Middle Crow Creek on the Pole Mountain unit of the Medicine Bow National Forest when proposing critical habitat. Previously, Forest Service trapping efforts at sites relatively close to the forest boundary along both creeks yielded mice identified as the Preble's in the field. At that time, voucher specimens were not being collected for further morphological examination. As with most of the creeks occurring on the Pole Mountain unit, most of Middle Crow Creek and the south fork of Middle Crow Creek are at elevations above those generally used by the Preble's. The Service has decided not to include Middle Crow Creek or the south fork of Middle Crow Creek as critical habitat. However, the Service will encourage the collection of voucher specimens to clarify the actual distribution of the Preble's in these higher elevations.

Comment 33: In the Lone Tree Creek unit (SP3), extend critical habitat to join the two subunits into one larger, contiguous unit.

Our Response: We have removed this unit from the final designation of critical habitat after reevaluating the available data regarding the identification of jumping mice form this drainage. Mice from this drainage have not been confirmed as Preble's through morphological or genetic means.

Comment 34: Reduce the area proposed as critical habitat on the mainstem of the North Fork of the Cache La Poudre River unit (SP4) upstream of Seaman Reservoir, from the reservoir to approximately 0.5 mi (0.8 km) above Long Draw Creek. The reach supports only patches of willow and has little habitat for the Preble's.

Our Response: Within the limited area suggested for exclusion, current habitat appears discontinuous and of lower current quality than habitat upstream of this reach; however, we believe that the area in question does, and in the future will, help to support the Preble's population along the North Fork of the Cache La Poudre River. Therefore, the Service has included this reach as designated critical habitat.

Comment 35: On the North Fork of the Cache La Poudre River unit (SP4) critical habitat should not be designated for the area downstream for a distance of 600 m (2,000 ft) from the existing Halligan Dam. Disturbance from past dam construction, lack of continuous riparian vegetation, steep slopes, and heavy grazing contribute to conditions unlikely to support the Preble's.

Our Response: Preble's habitat downstream of Halligan Dam is within a canyon environment and is more limited in continuity and extent than habitat that develops on broad sedimentary floodplains. Nonetheless, we believe that this reach represents habitat essential to the conservation of the Preble's. The Service has included this reach as designated critical habitat. Depending on presence of primary constituent elements that support the Preble's, outward extent of critical habitat may be limited in certain canyon areas. Similarly, presence of past disturbance in areas directly below the Halligan Dam suggests that site specific adjustment of critical habitat boundaries may be appropriate based on presence or absence of primary constituent elements.

Comment 36: Mainstem portions of the Cache La Poudre River unit (SP5) are highly impacted by State Highway 14, campgrounds, and recreational use of the river. Human disturbance limits Preble's habitat and travel corridors used by the Preble's. The Cache la Poudre is designated a Wild and Scenic River and the mainstem has been classified as a Recreational River. Designation of critical habitat through this reach would make management of National Forest System lands along the river more difficult, with little benefit to Preble's populations.

Our Response: Habitat along the Cache La Poudre River serves as a travel corridor connecting several tributaries proposed as part of this critical habitat unit. While human uses have degraded and fragmented habitat in some areas, in other places high quality Preble's habitat occurs along the mainstem of the river. Therefore, the Service has included this reach as designated

critical habitat. We recognize that both natural limitations (steep canyon slopes) and human activities (roads, campgrounds, recreation areas) affect the site-specific boundaries of critical habitat present within this reach. We anticipate working closely with the Forest Service to further define areas that are, or are not, Preble's critical habitat, as determined by primary constituent elements present along the reach. Proposed Forest Service actions in this area that affect the Preble's will generally require section 7 consultation regardless of whether critical habitat is designated in this reach. We do not believe that this designation will substantially impact the management of National Forest System lands in this area. In addition, maintaining habitat for the Preble's appears consistent with wildlife management goals of the Recreational River segment.

Comment 37: The Buckhorn Creek unit (SP6) between Little Bear Gulch and Stringtown Gulch lacks habitat connectivity due to steep slopes. Bear Gulch has a series of waterfalls at its confluence with Buckhorn Creek that forms a barrier to movement.

Our Response: A confirmed Preble's and other mice thought to be the Preble's have been captured on Little Bear Creek and Bear Creek. These captures suggest that connectivity (either via riparian habitat or through nearby uplands) is being maintained through this reach. Therefore, the Service has included this reach as designated critical habitat. The ability of the Preble's to traverse canyon areas is not fully known. We do not anticipate that the Preble's climbs sheer cliffs; however, it may be adept at circumventing steep areas to travel up and down stream. Portions of the Buckhorn Creek unit may serve only as a travel corridor for the Preble's. Site-specific determinations could define boundaries of critical habitat and limits of areas that serve as travel corridors.

Comment 38: The Cedar Creek unit (SP7) should be omitted from final critical habitat designation. Jumping mice captured in the unit were not conclusively identified as the Preble's. Management of private and public lands in the unit is consistent with conservation of the Preble's.

Our Response: We have removed this unit from the final designation of critical habitat after reevaluating the available data regarding the identification of jumping mice form this drainage. Mice from this drainage have not been confirmed as Preble's through morphological or genetic means.

Comment 39: Designation of critical habitat is not needed along South Boulder Creek unit (SP8) because existing protection (City of Boulder Open Space and Mountain Parks Lands, Colorado State Natural Area) and reasonably foreseeable protections (Boulder HCP) exist.

Response: We have excluded the unit from critical habitat designation under 4(b)(2) of the Act (see Relationship to Sections 3(5)(A) and 4(b)(2) of the Act below).

Comment 40: Within the South Boulder Creek unit (SP8), designate critical habitat to connect Spring Creek to South Boulder Creek.

Our Response: We have elected not to designate critical habitat in this unit.

Comment 41: Spring Brook, in the South Boulder Creek unit (SP8) is discontinuous from South Boulder Creek and only about 1 mile of Spring Brook has been proposed as critical habitat. It does not meet the 5 km (3 mi) minimum criteria for a small population as described in the Draft Discussion Document. It is of insufficient length and quality to warrant critical habitat designation.

Our Response: See response to Comment 40.

Comment 42: Segments of the St. Vrain River and Coal Creek (Boulder County, Colorado) support the Preble's, have the primary constituent elements required by the Preble's, and should be designated critical habitat.

Our Response: We have reviewed these reaches and do not believe that they are known to be essential for the conservation of the Preble's consistent with our conservation strategy. Much of the St. Vrain River reach where the Preble's has been documented to occur is impacted by past or ongoing aggregate mining. While portions of Coal Creek have been show to support the Preble's, other portions have experienced repeated unsuccessful trapping efforts. Our conservation strategy calls for one medium recovery population in the St. Vrain subdrainage and designates South Boulder Creek as the location of that population.

Comment 43: Hake Ditch near Coal Creek (Boulder County, Colorado) should be designated as critical habitat.

Our Response: Hake Ditch is judged not worthy of critical habitat designation by the Service. As described above, Coal Creek is not known to be essential consistent with our conservation strategy for the Preble's. No reaches of ditches have been specifically designated as critical habitat in this rule.

Comment 44: On the Rocky Flats Environmental Technology Site unit (SP9), final critical habitat should be designated to improve connectivity between Rock Creek, Walnut Creek, and Woman Creek.

Our Response: These three creeks are not connected on or near the Rocky Flats site. As in other cases, we have designated critical habitat only along natural water courses. The Service has chosen not to connect these stream by designation of critical habitat over uplands separating these drainages. While not confirmed by studies to date, it appears probable that individual Preble's mice occasionally move from one drainage to another over uplands at Rocky Flats.

Comment 45: How would designation of Woman Creek on Rocky Flats Environmental Technology Site unit (SP9) affect the timing of ongoing cleanup at the facility and the transfer of lands at the site to the Service? How would it affect the designated road right-of-way along Indiana Street on Rocky Flats.

Our Response: We have excluded the Rocky Flats site from designation.

Comment 46: The Rocky Flats Environmental Technology Site unit (SP9) includes Indiana Street and a parcel east of the road, on property owned by the City and County of Broomfield, that does not support riparian habitat.

Our Response: See Response to Comment 45.

Comment 47: Preble's presence at the Ralston Creek unit (SP10) is based on a single positive trapping survey. The population is unlikely to persist over time.

Our Response: Under our conservation strategy, the Ralston Creek population would likely be one of three small recovery populations in the Clear Creek subdrainage. We believe that maintenance of even a small population along Ralston Creek is significant to the conservation of the Preble's and therefore the Service has designated this reach as critical habitat.

Comment 48: Exclude from final critical habitat three unnamed tributaries to Upper Lake Gulch in the Cherry Creek unit (SP11) in Douglas County, Colorado. In the West Plum Creek Unit (SP12) exclude portions of an unnamed tributary to West Plum Creek, Upper Metz Canyon, and Bear Creek in the Lake Waconda area. These reaches do not support Preble's habitat based on mapped done for the Douglas County HCP. They have been altered by human land uses and lack primary constituent elements required by the Preble's.

Our Response: We have removed the Cherry Creek unit (SP11) from the final designation of critical habitat after reevaluating the available data regarding

the identification of jumping mice form this drainage. Mice from this drainage have not been confirmed as Preble's through morphological or genetic means. We have excluded SP12 as part of the pending Douglas County HCP.

Comment 49: Subunits in the Upper South Platte River unit (SP13) should be connected to provide one contiguous critical habitat unit including the South Platte River and tributaries proposed for designation.

Our Response: Quality Preble's habitat is not contiguous along the South Platte River. In addition, ownership and land uses vary. The proposed areas largely consist of National Forest System lands. Many of the intervening reaches do not. The Service has determined that connection these subunits to form one very large critical habitat unit is not warranted.

Comment 50: Portions of proposed Upper South Platte River unit (SP13), were burned in the 2002 Hayman Fire. The Forest Service recommends that these areas be removed from consideration for critical habitat designation.

Our Response: We have visited the reaches in question and the Service has elected not to designate the proposed Wigwam Creek subunit as critical habitat. This subunit was severely burned, does not currently support the primary constituent elements required by the Preble's, and it appears that such habitat elements will not return for a period of years. In contrast, we have determined that other reaches proposed as critical habitat that were impacted by the Hayman Fire have been less severely burned and continue to support primary constituent elements required by the Preble's. These areas, in the South Platte River subunit and the Trout Creek subunit, have been designated critical habitat despite impacts of the Hayman Fire.

Comment 51: In the Upper South Platte River unit (SP13) there are instances where, based on mapping, critical habitat appears to extend above 2,300 m (7,600 ft). The Service should revisit the mapping to make sure it is consistent with coverage developed by the Forest Service and Colorado Division of Wildlife.

Our Response: The upward limit of critical habitat proposed in this unit was 2,300 m (7,600 ft). We have reviewed the maps that depict critical habitat boundaries and have not found deviation from the 2,300 m (7,600 ft) standard. Any apparent discrepancies may result from GIS base mapping used by the different agencies.

Comment 52: Proposed critical habitat within the Monument Creek unit (A1) should be modified to correspond to the mapped Regional Habitat Conservation Plan habitat area.

Our Response: The Service has not designated critical habitat in this unit.

Comment 53: Include the Union Meadows area (along Union Boulevard and the Templeton Gap Floodway) in El Paso County, Colorado, as critical habitat. An isolated site such as this could be valuable to the conservation of the Preble's.

Our Response: The Preble's is not known to exist on or near the area. Our evaluation of this area indicates that it does not warrant critical habitat designation.

Comment 54: Do not exclude the Academy, in El Paso County, Colorado from critical habitat.

Our Response: The Service has excluded the Academy from critical habitat for reasons cited in Relationship with Department of Defense Lands below.

Comment 55: Kettle Creek on the Academy should not be included in the Monument Creek unit (A1) based on the proposed exclusion for the Academy.

Our Response: Inclusion of this reach of the A1 Unit in the proposed rule to designate critical habitat was in error. Like all portions of the Academy, it is excluded in the final critical habitat designation.

Issue 4: Other Relevant Issues:

Comment 56: Provide exemptions from critical habitat where county-wide HCPs are currently being developed. Alternately, provide assurance that critical habitat will be terminated for an area addressed in an HCPs, upon Service issuance of a section 10 permit for a completed HCP.

Our Response: Currently, a limited number of regional or county-wide HCPs are being developed in close cooperation with the Service. For finalized HCPs where a section 10 permit has been issued, and for certain pending HCPs, the Service has considered whether the area covered by the HCP should be excluded under 3(5)(A) or 4(b)(2) of the Act. If pending HCPs are not completed, we will determine whether areas designated in this final rule need further refinement.

Comment 57: Exclude Denver Water properties included under Denver Water's recently completed HCP from final critical habitat designation. The eight properties in question include a total of approximately 250 ac (113 ha) of proposed critical habitat in four proposed critical habitat units in the South Platte River drainage.

Our Response: The Service has excluded these properties from final critical habitat designation (see Relationship to Habitat Conservation Plans below).

Comment 58: HCPs do not provide sufficient protection of the Preble's to allow exclusion of these areas covered from critical habitat designation. Specifically, areas included in the El Paso County HCP currently under development should not be excluded.

Our Response: See the response to Comment 56 above.

Comment 59: The Air Force Academy should not be excluded based on section 3(5)(A) of the Act.

Our Response: We continue to believe that an exclusion for the Academy is warranted (see Relationship with Department of Defense Lands below).

Comment 60: Critical habitat designation should be limited to public lands.

Our Response: As defined, critical habitat is not limited by land ownership, but rather based on being essential to the conservation of the species. Federal lands are limited in location, size, and habitat quality. We have designated Federal lands where we believe they have met the definition, but we are unable to limit critical habitat designation to Federal lands.

Comment 61: Table 1 of the proposed rule, describing land ownership, should separate out local government lands from private lands.

Our Response: Property ownership was determined from Bureau of Land Management maps that were determined to provide the best ownership information over the range of the Preble's. However, these maps address only Federal lands, State lands and ''other'' lands. Local government lands and private lands were not differentiated on these maps. Substantial additional effort, including incorporation of diverse mapping data from multiple local jurisdictions, would be required to differentiate local public lands from private lands.

Comment 62: What agricultural practices are allowable, beneficial, or detrimental to the Preble's in designated critical habitat?

Our Response: On May 22, 2001, we adopted special regulations governing take of the Preble's (66 FR 28125), which provide exemption from take provisions under section 9 of the Act for certain activities related to rodent control, ongoing agricultural activities, landscape maintenance, and existing uses of water because these activities are consistent with conservation of the Preble's. On October 1, 2002, we amended those regulations (67 FR 61531) to provide exemptions for certain activities related to noxious

weed control and ongoing ditch maintenance activities because these activities are also consistent with conservation of the Preble's. Any questions regarding specific practices and their potential effects to the Preble's should be addressed to the Service's Colorado or Wyoming Field Offices.

Comment 63: What does the Service consider to be the beneficial and adverse effects on critical habitat of forest thinning and prescribed burns?

Our Response: Thinning and prescribed burns may cause both short-term and long-term effects. These can be both beneficial or adverse for the Preble's. Often, minor short-term adverse effects are followed by more substantial long-term beneficial effects as ground level vegetation experiences enhanced growth.

Comment 64: What happens to critical habitat if it is greatly impacted, for example, from a catastrophic fire?

Our Response: Once critical habitat is designated, even if it is greatly impacted, the boundaries of unit continue to exist. Whether primary constituent elements required to support the species are still within a given area will be determined by the Service on a case by case basis during section 7 consultation.

Comment 65: Verify that if actions are covered by exemptions provided under the existing 4(d) rule, section 7 consultation under the Act is not needed.

Our Response: This is not the case. The 4(d) rule currently in place provides an exemption from take prohibitions found in section 9 of the Act. Federal agencies are required under section 7 of the Act to utilize their authorities to conserve listed species, to consult with the Service to ensure that their actions are not likely to jeopardize the Preble's or destroy or adversely affect its critical habitat. Exemptions from section 9 prohibitions do not alter this requirement. For consultations that involve the use of Federal land, we expect that those lands will be managed in furtherance of the conservation of the species to the maximum extent possible. Other types of section 7 consultations involve actions on non-federal lands. For example, many of the activities likely to affect Preble's undertaken outside of Federal land, but wholly or partly in wetlands, will be subject to permitting requirements of the Clean Water Act, such as section 404 permits issued by the Army Corps of Engineers. This would be true for sites occupied by the Preble's whether or not they are designated as critical habitat.

Comment 66: Weed control may be hampered by designation of critical habitat.

Our Response: Certain practices regarding the control of noxious weeds are currently covered under the 4(d) rule. However, consultation under section 7 may still be required where a Federal nexus exists. See our response to comment 65 above.

Comment 67: Describe the relationship between critical habitat and take prohibitions under section 9 of the Act.

Our Response: The regulatory effects of a critical habitat designation under the Act are triggered through the provisions of section 7, which applies only to activities conducted, authorized, or funded by a Federal agency (Federal actions). Individuals, organizations, States, local governments, and other non-Federal entities are not affected by the designation of critical habitat unless their actions occur on Federal lands, require Federal authorization, or involve Federal funding. Take prohibitions under section 9 are not affected by the designation of critical habitat.

Comment 68: Will take guidance issued by the Service for ditch cleaning be affected by the presence of critical habitat?

Our Response: The take guidance referred to was issued by the Service to define ditch-cleaning activities that we believe will not result in take of the Preble's as prohibited by section 9 of the Act. In addition, the existing 4(d) rule provides exclusions to section 9 prohibitions for certain ditch-cleaning activities. This guidance and rule are specific to section 9 prohibitions and will not be affected by designation of critical habitat.

Comment 69: Describe changes required in biological assessments and in ''mitigation ratios'' as a result of critical habitat.

Our Response: Biological assessments submitted to the Service by a Federal agency whose actions may adversely affect critical habitat of the Preble's, must address effects of the action on critical habitat. This analysis will be similar to that which would be conducted for any occupied Preble's habitat. In biological assessments, the term ''mitigation'' is generally used to describe conservation measures submitted by the project proponent as part of the described project. While appropriate extent and design of measures to create, restore, or enhance Preble's habitat, are unlikely to change based on the presence of designated critical habitat, such determinations are best made on a case by case basis.

Comment 70: It is not clear whether upstream activities that affect critical habitat downstream are regulated.

Our Response: In general, if a Federal nexus exists and a Federal agency has discretionary authority over an action, such activities would be regulated under section 7 of the Act. In any such cases the lead Federal agency must evaluate whether the activity may affect the Preble's, including designated critical habitat. The location of the activity in relation to the location of the effects is not an issue. The activity does not have to take place within critical habitat to be regulated under section 7.

Comment 71: Explain the process through which designated critical habitat could be amended in the future.

Our Response: Future modifications to critical habitat for the Preble's would occur through a rulemaking process similar to the one used to designate critical habitat.

Comment 72: Describe what happens to critical habitat upon delisting of the Preble's.

Our Response: Critical habitat terminates upon delisting. However, recovery criteria for the Preble's may include some long-term protection of the Preble's and its habitat.

Comment 73: Designation of critical habitat makes people lose trust in government.

Our Response: We agree that public support is a vital component of protection of the Preble's and its habitat, but designation of critical habitat is required under the Act. See our statement above.

Comment 74: Public comments and hearing testimony does not matter.

Our Response: All comments received, including oral comments provided at the public hearings, were carefully evaluated before we made a final designation of critical habitat. Changes have been made from the draft rule based on public comments and other information received during the comment periods.

Issue 5: Draft Economic Analysis and the Draft EA

Comment 75: The Service must address the costs of listing, including past costs, in the economic analysis.

Our Response: Our current policy is to consider only costs from the time of critical habitat designation forward. We consider co-extensive costs, including those associated with the jeopardy standard.

Comment 76: The 10-year time frame utilized for the economic analysis was inappropriate. The use of a ten-year time period for the analysis creates unrealistic cost estimates since species

typically are not delisted within ten years.

Our Response: The ten-year time frame was chosen for the Draft Economic Analysis because, as the time horizon for an economic analysis is expanded, the assumptions on which the projected numbers of projects are based become increasingly speculative. As a result, it is difficult to predict not only the numbers of projects, but also the cost estimates for the associated consultations, beyond a ten-year window. Consequently, any attempt to extend the economic analysis beyond the ten-year time window would be speculative.

Comment 77: The use of a ''national economic model'' in the economic analysis does not apply to Wyoming because local factors affect their economy differently than other areas of the nation.

Our Response: The Draft Economic Analysis utilized a cost model to estimate the administrative costs associated with technical assistance efforts, informal, and formal consultations. This cost model was developed using historical section 7 files from a number of Service field offices around the country. However, this model was used as the basis for cost estimates only in instances where area- and species-specific costs were not available. The reliance of the Draft Economic Analysis on area- and species-specific cost estimates, where available, reflects the use of the best commercial information available and consideration for the socioeconomics of the area.

Comment 78: The Draft Economic Analysis excluded an analysis of the lost opportunity costs when agricultural landowners forgo Federal operational and conservation funding in order to avoid a Federal nexus, and therefore consultation with the Service.

Our Response: While this may be an issue for some individual landowners, overall use of operational and conservation funding within the region is not expected to change as a result of the designation. The Natural Resources Conservation Service has confirmed that Federal operational and conservation funding rarely goes unused in this region, and that any forgone funding will likely be used by other landowners within the same county.

Comment 79: The designation of critical habitat will cause decreased land values in Wyoming. The proposed critical habitat designation may impose operational costs on agricultural activities that may affect the value of land sold for agricultural purposes, and the proposed designation may result in decreased values associated with the speculative nature of agricultural lands (*i.e.,* potential for sale and conversion to an alternative use, such as residential development).

Our Response: A variety of factors impact the value of land in Wyoming, including climate, elevation, water rights, population density, recreation and scenic values, and timber, mineral, and oil and gas resources. Furthermore, the demand for agricultural lands has increased slightly due to increased interest in agricultural lands for alternative uses, such as ''development potential, recreation, or scenic rural homes.'' Proposed critical habitat for the Preble's is likely to have only a modest impact on agricultural operations and the value of lands sold for agricultural purposes. The value of agricultural lands will be greatly reduced if farmers and ranchers cannot irrigate their lands. However, there will likely be no impacts to agricultural operations and land values as long as the 4(d) rule remains in effect. While there is growth pressure in these counties, a speculative impact on land values is not anticipated because proposed critical habitat is located a significant distance from town centers and is thus not experiencing development pressure. Therefore, impacts to the speculative value of lands within proposed critical habitat for the Preble's are also anticipated to be modest.

Comment 80: The Draft Economic Analysis excluded a discussion of impacts incurred by landowners operating under the special 4(d) rule.

Our Response: We were unable to identify any impacts experienced by landowners under the 4(d) rule. It appears that landowners would only experience a decrease in land values and profits following the expiration of the special 4(d) rule. Many landowners are relying on an extension of the 4(d) rule to avoid future adverse impacts to agricultural operations and irrigation ditch maintenance activities due to protections for the Preble's.

Comment 81: The Draft Economic Analysis excluded a discussion of several land use activities that may be impacted by the designation of critical habitat for the Preble's. Public comments provided input on costs associated with activities at F.E. Warren Air Force Base in Wyoming, construction of new utility lines, development of HCPs, construction of new dams and reservoirs, aggregate mining, Forest Service activities including development of Forest Management Plans.

Our Response: The Addendum to the Economic Analysis analyzes costs associated with the above activities and, where appropriate, provides modified cost estimates that reflect issues raised in public comments.

Comment 82: The protection of Preble's habitat may provide benefits to the public associated with improved ecosystem services, particularly services provided by riparian habitat areas (*e.g.,* habitat for fish and wildlife, erosion control).

Our Response: While the Draft Economic Analysis acknowledges that such benefits are likely, the analysis concludes that they cannot be monetized due to a lack of information linking project modifications for the Preble's to a quantifiable future environmental change.

Comment 83: The Draft Economic Analysis indicates that increasing the quantity of open space (*i.e.,* greenbelts, wetlands, wildlife corridors, and riparian areas) in a community can lead to enhanced residential property values. Open space already exists in Wyoming, precluding benefits associated with preserving open space in that State.

Our Response: The Draft Economic Analysis only assigns potential open space benefits to the areas of proposed designation in Colorado where a relative scarcity of open space enhances its value. We acknowledges the abundance of open space in Wyoming.

Comment 84: The Draft Economic Analysis should have utilized ''benefits transfer'' as a means to quantify the potential benefits associated with preserving open space.

Our Response: The Draft Economic Analysis considered the possibility of transferring the economic values obtained from the literature and applying them to the case of critical habitat for the Preble's. To accurately estimate economic impact through a benefits transfer approach the economic studies must demonstrate adherence to an agreed-upon set of standards or protocol to ensure reliability of results, and the attributes of the environmental good being valued by the study must be substantially similar to the attributes of critical habitat designation for the Preble's. The literature referenced in the Draft Economic Analysis provides examples of society's marginal willingness to pay for changes in open space. However, the values reflect a variety of open space attributes and housing market conditions, none of which are substantially similar to the policy question at hand. Data do not exist to accurately translate these values to areas that may be affected by critical habitat designation in Colorado. Therefore, application of benefits

transfer for the purpose of this analysis is not possible.

Comment 85: There is a lack of NEPA documentation, as the Service failed to produce an environmental analysis of the critical habitat proposal.

Our Response: On January 28, 2003, the Service announced the availability of the Draft Economic Analysis and draft EA for the proposed designation of critical habitat for the Preble's (68 FR 4160) and opened a comment period on the documents through February 27, 2003.

Comment 86: The draft EA fails to indicate whether or not the July 2002 Proposed Rule will result in significant impacts under NEPA and require an Environmental Impact Statement.

Our Response: Based on Information provided in the Draft Economic Analysis and the Addendum to the Economic Analysis, as well as comments received from the public, we prepared this final EA and made a Finding of No Significant Impact (FONSI), negating the need for preparing an Environmental Impact Statement. The final EA, Draft Economic Analysis, the Addendum to the Economic Analysis, and the FONSI provide our rationale for determining that critical habitat designation would not have a significant effect on the human environment. Those documents are available from the Colorado Ecological Services Field Office (U.S. Fish and Wildlife Service, 755 Parfet Street, Suite 361, Lakewood, CO 80215) or by calling 303–275–2370.

Comment 87: The Service should have considered in detail the alternative designating as critical habitat all areas described as Mouse Protection Areas and Potential Mouse Protection Areas in the 1998 Proposed Special Regulations for Preble's Meadow Jumping Mouse (63 FR 66777).

Our Response: The Service determined that full evaluation of this alternative was not appropriate for several reasons. Mouse Protection Areas and Potential Mouse Protection Areas were never official designations of areas, but rather general classifications of areas based on very crude mapping as an initial attempt to identify those areas of possible conservation value to the Preble's. Many of the areas were later determined to be unsuitable or only marginally suitable for use by Preble's. As such, these areas do not meet the definition of critical habitat under 3(5)(A) of the Act. Within the geographic area occupied by the species we designate only areas currently known to be essential to conserve the species. In accordance with sections 3(5)(C) of the Act, not all areas that can be occupied by a species will be designated critical habitat. We designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species. Based on the best science available, there appears no basis for designation of critical habitat outside of the geographic area occupied by the species.

Comment 88: The threats section of the draft EA is not an adequate representation of the threats. Characterizing grazing as a threat (based upon the conclusions of Compton and Hugie 1993) is inappropriate. The document needs to disclose the positive attributes relative to the mouse of several of the actions described as threats, specifically grazing and water management.

Our Response: Based upon information obtained since the listing of Preble's, the Service does not completely accept the broad conclusions of Compton and Hugie (1993). The Service has adjusted the discussion of grazing and water management to indicate that these activities, under certain management scenarios, may be consistent with Preble's conservation. However, the Service still views both grazing and water development/management as threats to the Preble's. Grazing can be managed in many different ways, some of which may be beneficial to Preble's habitat, others harmful. For example, much of the habitat in Wyoming is currently being grazed (or managed for hay production) in a manner that maintains what appears to be good habitat for Preble's. In those cases, it might be considered that special management is already taking place, although not committed to an agreement. However, there are also areas being managed in a manner that is not conducive to the development or maintenance of Preble's habitat. Changes in the timing and abundance of water may result in changes that are detrimental to Preble's habitat. Elimination of natural meanders, channelization, and armoring of streams generally degrades riparian and floodplain habitats needed by Preble's. While irrigation of hayfields may promote a wider area of dense riparian-type vegetation by maintaining more moist conditions over a wider area of streamside habitat for a longer period than would naturally occur, this is generally accompanied by repeated mowing that may kill individual mice, disrupt breeding and other behaviors, and destroy food sources during the period when Preble's is preparing for hibernation.

Comment 89: The section 7 informal consultation discussion (section 2.2.2) differs from that in the economic analysis.

Our Response: Changes were made to section 2.2.2 to better reflect pertinent information presented in the Draft Economic Analysis and the Addendum.

Comment 90: In Section 3.1, Alternatives Considered But Not Fully Evaluated, the Service incorrectly states that ''* * * much of the historic range does not meet the definition of critical habitat,'' since the entire historic range in Wyoming and most of that in Colorado has been proposed as critical habitat.

Our Response: Neither the entire range of Preble's in Wyoming nor most of its range in Colorado has been proposed for designation as critical habitat. Many areas of suitable habitat, including many known to be occupied by Preble's, have not been included in the proposed critical habitat. The Service did not find these areas to be essential to the conservation of Preble's.

Comment 91: In the draft EA, the Description of the Affected Environment, the descriptions of the states are not appropriately contrasted. For example, there is no mention of Federal water projects in the South Platte drainage.

Our Response: Changes were made to the Description of the Affected Environment to better contrast the states and river drainages.

Comment 92: The anticipated impacts to transportation projects (Wyoming Department of Transportation in particular) cannot be realistic and should be re-evaluated.

Our Response: We used information and estimates provided to us by the Wyoming Department of Transportation, the Colorado Department of Transportation, and others. These estimates are based on the best commercial information available since the best estimate of impacts is likely to come from the entity that will bear the costs.

Comment 93: The draft EA's discussion of Environmental Justice does not identify any adverse impacts unique to low-income populations. However, the ranching community in Wyoming is financially strapped. The average annual income in Wyoming is $21,000, much less than the average income in Colorado.

Our Response: The Service does not believe the ranching community in Wyoming qualifies as a low-income population, as discussed in Executive Order 12898 and further defined by the

Council on Environmental Quality (1997).

Comment 94: In the draft EA's Analysis of Significance, the statement that effects are expected to be small may be true on a national, regional or local scale, but on a family ranching operation scale they are significant.

Our Response: Significance is not addressed on an individual scale, but rather as it pertains to several different scales, including society as a whole, the affected region, the affected locality, and affected interests. The ranching community in the four affected counties in Wyoming was identified as an affected interest. Potential economic impacts to agricultural activities in Wyoming were evaluated in the Draft Economic Analysis and the Addendum to the Economic Analysis and discussed in the Regulatory Flexibility Act section in the Final Rule. Through those analyses, its was determined that only approximately 3 percent of the small agricultural operations in the counties in which critical habitat units are located may experience a significant effect from section 7 implementation in critical habitat annually.

Summary of Changes From the Proposed Rule

In development of this final designation of critical habitat for the Preble's meadow jumping mouse we made several changes to the proposed critical habitat designation based on review of public comments received on the proposed designation, the Draft Economic Analysis, the draft EA, and further evaluation of lands proposed as critical habitat.

In several cases, changes have been made based upon our reevaluation of available data regarding the method of identification of the Preble's (identification in the field versus through genetic or morphological means). Without morphological of genetic verification of the identity of the mice, it is not possible to know whether an area is essential to the conservation of the species. Therefore, we have decided to include in the critical habitat determination only those units occurring in drainages within which there is a specimen verified as Preble's through morphological or genetic means. Accordingly, we removed from final designation those units occurring in drainages where mice were identified as Preble's only through field identification. If, in the future, one or more of these areas is determined to support mice verified as Preble's through morphological or genetic examination, we would consider whether rulemaking to amend critical habitat is warranted.

In the North Platte River drainage, we have removed the Horseshoe Creek unit (NP2), the Friend Creek and Murphy Canyon unit (NP4), and the Horse Creek unit (NP5). Each of these units occurred in a drainage within which no mice had been verified to be Preble's through morphological or genetic means, but rather only through field identification.

Also in the North Platte River drainage, some adjustments were made to the tributaries included in Unit NP3, the Chugwater Creek unit in Albany, Laramie, and Platte Counties, Wyoming. Upon review of additional information obtained through public comment and during site visits to the area, four tributaries were removed from the final designation. These four tributaries include two named Spring Creek, Threemile Creek, and Sand Creek. Reasons why these tributaries were determined not to be critical habitat included limited riparian vegetation, lack of open water through the Preble's active season, arid uplands with limited grasses and forbs, and regular haying across one creek.

In the South Platte River drainage Unit SP2, the Warren Air Force Base unit, in Laramie County, Wyoming, was excluded in its entirety (see Relationship with Department of Defense Lands below).

Also in the South Platte River drainage, the Lone Tree Creek unit (SP3), the Cedar Creek Unit (SP7), and the Cherry Creek unit (SP11) have been removed in their entirety because they support no records of mice verified to be the Preble's through morphological or genetic means, but rather only through field identification.

In the North Fork Cache La Poudre River (SP4) we have amended the outward extent of the critical habitat boundary for two landowners to be consistent with a specific negotiated rural and agricultural conservation zone for the Preble's. Within existing properties belonging to The Nature Conservancy along the North Fork Cache La Poudre River and to Al Johnson along Rabbit Creek, Lone Pine Creek, and the North Fork Cache La Poudre River, designated critical habitat extends from the center line of the stream outward 325 ft (99 m) on both sides.

In the South Platte River drainage, areas of proposed critical habitat addressed in the Denver Water HCP were excluded from the final designation in units the South Boulder Creek unit (SP8), Boulder County, Colorado; the Ralston Creek unit (SP10), Jefferson County, Colorado; the West Plum Creek unit (SP12) in Douglas County, Colorado; and the Upper Platte River (SP13) unit in Douglas and Jefferson Counties, Colorado (see Relationship to Habitat Conservation Plans below).

Also in the South Platte River drainage some adjustments were made to tributaries included in the West Plum Creek unit (SP12), in Douglas County, Colorado. Upon review of additional information obtained through public comment and review of aerial photographs of the area, portions of two tributaries were removed from the final designation. These include portions of one unnamed tributary to West Plum Creek, and the upper portion of Metz Canyon. Reasons why the tributaries were determined not to be critical habitat included limited riparian vegetation, lack of dense vegetation, lack of open water through the Preble's active season, and alterations from human land uses.

In the Upper South Platte River unit (SP13), the proposed Wigwam Creek subunit in Jefferson County, Colorado, was removed from the final designation. This area was intensively burned during the Hayman Fire in the summer of 2002. Upon review of additional information obtained through public comment and a site visit to the area, it was determined that habitat capable of supporting the Preble's was no longer present and not likely to be re-established in the near future.

In the Arkansas River drainage, within the Monument Creek unit (A1), areas of proposed critical habitat addressed in the Lefever Property HCP and the Dahle Property HCP were excluded from the final designation. In the same unit an error occurred in the written description of Kettle Creek. The text accompanying the map of the unit erroneously included a reach of Kettle Creek on the Academy as critical habitat, while the map excluded it. The text has been changed to accurately reflect the intended reach of critical habitat.

Critical Habitat

Critical habitat is defined in section 3(5)(A) of the Act as (I) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to conserve the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential to conserve the species.

''Conservation'' means the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which listing under the Act is no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 also requires conferences with the Service on Federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as ''a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.'' Aside from the added protection that may be provided under section 7, the Act does not provide other forms of added protection to lands designated as critical habitat. Because consultation under section 7 of the Act does not apply to activities on private or other non-Federal lands that do not involve a Federal nexus, critical habitat designation does not result in any regulatory requirement for these actions.

To be included in a critical habitat designation, the habitat must first be ''essential to the conservation of the species.'' 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 (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Section 4 requires that we designate critical habitat at the time of listing and based on what we know at the time of designation. When we designate critical habitat at the time of listing or under short court-ordered deadlines, we will often not have sufficient information to identify all areas of critical habitat. We are required, nevertheless, to make a decision and thus must base our designations on what, at the time of designation, we know to be critical habitat.

In accordance with sections 3(5)(C) of the Act, not all areas that can be occupied by a species will be designated critical habitat. Within the geographic area occupied by the species we designate only areas currently known to be essential. Essential areas should already have the features and habitat characteristics that are necessary to conserve the species. We will not speculate about what areas might be found to be essential if better information becomes available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation. We will not designate areas within the geographic area occupied by the species unless at least one of the primary constituent elements are present, as defined at 50 CFR 424.12(b), that provide essential life cycle needs of the species. Moreover, areas occupied by certain known populations of the Preble's have not been proposed as critical habitat. For example, we did not designate critical habitat for some small scattered populations or habitats in areas highly fragmented by human development.

Our regulations state, ''The Secretary shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species'' (50 CFR 424.12(e)). Based on the best scientific data available, there appears to be no foundation upon which to make a determination that the conservation needs of the Preble's require designation of critical habitat outside of the geographic area occupied by the species, so we have not designated critical habitat outside of the geographic area believed to be occupied.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, procedures, and guidance to ensure decisions made by the Service represent the best scientific and commercial data available. It requires Service biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should be the listing package for the species. Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States, Tribes, and counties, scientific status surveys and studies, and 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 designation of critical habitat may not include all habitat eventually determined as necessary to recover the species. For these reasons, all should understand that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) of the Act, and the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the section 9 take prohibition, as determined on the basis of the best available information at the time of the action. Though unlikely, future federally-funded or assisted projects affecting listed species outside designated critical habitat areas could still result in likely-to-jeopardize 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, or other species conservation planning efforts, if new information available to these planning efforts calls for a different outcome.

Relationship to Sections 3(5)(A) and 4(b)(2) of the Act

Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species on which are found those physical and biological features (I) essential to the conservation of the species and (II) which may require special management considerations and protection. As such, for an area to be designated as critical habitat for a species it must meet both provisions of the definition. In those cases where an area does not provide those physical and biological features essential to the conservation of the species, it has been Service policy to not include these specific areas in designated critical habitat. Likewise, if we believe, based on an analysis, that an area determined to be biologically essential has an adequate management plan that covers the species, then special management and protection are already being provided, and those areas do not meet the second provision of the definition and are also not proposed as critical habitat.

We consider a current plan to provide adequate management or protection if it

meets three criteria: (1) The plan is complete and provides a conservation benefit to the species (*i.e.*, the plan must maintain or provide for an increase in the species' population, or the enhancement or restoration of its habitat within the area covered by the plan); (2) the plan provides assurances that the conservation management strategies and actions will be implemented (*i.e.*, those responsible for implementing the plan are capable of accomplishing the objectives, and have an implementation schedule or adequate funding for implementing the management plan); and (3) the plan provides assurances the conservation strategies and measures will be effective (*i.e.*, it identifies biological goals, has provisions for reporting progress, and is of a duration sufficient to implement the plan and achieve the plan's goals and objectives).

Further, section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data available after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. An area may be excluded from critical habitat if it is determined that the benefits of such exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such an area as critical habitat will result in the extinction of the species. Consequently, we may exclude an area from critical habitat based on economic impacts, or other relevant impacts such as preservation of conservation partnerships or military readiness considerations, if we determine that the benefits of excluding an area from critical habitat outweigh the benefits of including the area in critical habitat, provided that exclusion will not result in the extinction of the species.

In summary, we use both the definition in section 3(5)(A) and the provisions of section 4(b)(2) of the Act to evaluate those specific areas that are proposed for designation as critical habitat as well as for those areas that are subsequently finalized (*i.e.*, designated as critical habitat). On that basis, it has been our policy to not include in proposed critical habitat, or exclude from designated critical habitat, those areas: (1) Not biologically essential to the conservation of a species; (2) covered by a legally operative individual (project-specific) or regional HCP that covers the subject species; (3) covered by a complete and approved Integrated Natural Resources Plan (INRMP) for specific Department of Defense installations; or (4) covered by an adequate management plan or agreement that protects the primary constituent elements of the habitat.

As discussed below, for designation of critical habitat for the Preble's, we have considered, but have not designated as critical habitat, land covered by: The Denver Water HCP; the Lefever Property HCP in Black Forest, Colorado (Lefever Property HCP); the Dahle Property HCP in Colorado Springs, Colorado (Dahle Property HCP); the Academy's Integrated Natural Resources Management Plan (INRMP); and the F.E. Warren INRMP.

Relationship to Habitat Conservation Plans

Individual HCPs

In general, the lands essential to the conservation of the Preble's that are managed by an approved individual HCP do not require special management and protections because their value for conservation has been addressed by the existing protective measures and actions from the provisions of the HCP. Consequently, the areas defined in these individual HCPs do not meet the definition of critical habitat. Further, to the extent that these areas do meet the definition of critical habitat as defined in 3(5)(A)(i)(II), it is additionally appropriate to exclude these areas from critical habitat pursuant to the ''other relevant impacts'' provisions of section 4(b)(2). Therefore, individual HCPs that cover the Preble's are not being designated as critical habitat.

Section 10(a) of the Act authorizes the Service to issue permits for private actions which result in the taking of listed species that are otherwise lawful activities. Incidental take permit applications must be supported by an HCP that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the requested incidental take. Service-approved HCPs and their associated Incidental Take Permits contain management measures and protections for identified areas that protect, restore, and enhance the value of these lands as habitat for the Preble's. These measures, which include explicit standards to minimize any impacts to the covered species and its habitat, are designed to ensure that the biological value of covered habitat for the Preble's is maintained, expanded, or improved.

In approving these HCPs, the Service has provided assurances to permit holders that once the protection and management required under the plans are in place and for as long as the permit holders are fulfilling their obligations under the plans, no additional mitigation in the form of land or financial compensation will be required of the permit holders. Similar assurances will be extended to future permit holders in accordance with the Service's HCP Assurance (''No Surprises'') rule codified at 50 CFR 17.22(b)(5) and (6) and 17.32(b)(5) and (6).

In light of the intensive investigation and analysis, public comment, and internal section 7 consultations undertaken prior to approval of HCPs, we are confident that individual HCPs identify, protect, and, as appropriate and practicable, provide beneficial adaptive management for essential habitat within the boundary of HCPs. Therefore, we have considered, but not designated as critical habitat lands within approved HCPs that include the Preble's as a covered species. Our analysis of the special management considerations and protections provided by approved HCPs follows below as well as a comparison of benefits of including lands within approved HCPs versus excluding such lands from critical habitat designations.

Regional HCPs

Large regional HCPs expand upon the basic requirements set forth in section 10(a)(1)(B) of the Act reflecting a voluntary, cooperative approach to large-scale habitat and species conservation planning. The primary goal of such HCPs is to provide for the protection and management of habitat essential for the conservation of the species while directing development to other areas. HCPs provide a package of management considerations that: meet or enhance the conservation of the species and provide an opportunity for data collection and analysis regarding the use of particular habitat areas. HCPs and the accompanying implementation agreements contain management measures and protections for identified areas that protect, restore, and enhance the value of these lands as habitat for the Preble's. These measures, which include explicit standards to minimize any impacts to the covered species and its habitat, are designed to ensure that the value of the conservation lands as suitable habitat for the Preble's is maintained, expanded, and improved.

Approved HCPs provide assurances to permit holders that once the protection and management required under the plans are in place and for as long as the permit is valid and the holders are fulfilling their obligations under the plan, no additional mitigation in the form of land or financial compensation will be required of the permit holders

and in some cases, specified third parties. These assurances will be extended in accordance with the Service's No Surprises rule codified at 50 CFR 17.22(b)(5) and (6) and 17.32(b)(5) and (6).

Because of the similarities between the purposes of regional HCPs and designation of critical habitat, and in light of the intensive investigation and analysis undertaken in conjunction with regional HCP planning processes, regional HCPs currently under development will identify, protect and provide appropriate adaptive management for those specific lands within the boundaries of the plans that are essential for the long-term conservation of the species. Given this coordination, we anticipate that the analysis of these HCPs and proposed permits that will be conducted under section 7 of the Act will show that activities covered under such permits will not result in the destruction or adverse modification of designated critical habitat within the boundaries of the plans when the covered activities are carried out in accordance with the provisions of the HCPs.

For the foregoing reasons, we find that the continued development of the pending HCPs is beneficial. Furthermore, the Service has developed positive conservation relationships with the jurisdictions involved in the pending HCPs. The maintenance of these relationships serves to ensure the eventual completion of these HCPs. The pending HCPs, although at different stages of development, represent substantial biological analysis as well as substantial investment of public and private resources for the benefit of conservation. Exclusion of the lands within the pending HCPs benefits the species by providing an incentive to finalize the HCPs.

Inclusion as critical habitat of the lands in the pending HCPs provides no benefit greater than that which would result from completion of the HCPs. HCPs provide greater actual conservation than the mere designation of critical habitat. Thus, the benefits of excluding these areas from designation as critical habitat outweigh the benefits of including them. The exclusion will not cause the extinction of the species. If any pending HCP is not finalized as currently proposed, we will re-evaluate the need for critical habitat designation on lands not included in finalized HCPs.

Following is our preliminary analysis of the benefits of including lands within approved HCPs versus excluding such lands from critical habitat designation.

(1) Special Management Considerations and Section 3(5)(a)

On November 19, 2002, GreyStone Environmental Consults Inc. finalized an HCP for the Preble's on the Lefever Property and was issued a section 10 Incidental Take Permit by the Service. This HCP allows for the construction of a single-family residence in Black Forest, El Paso County, Colorado. Construction will directly impact 0.252 ha (0.561 ac) of potential Preble's habitat, including 0.087 ha (0.215 ac) of temporary disturbance and 0.140 ha (0.346 ac) of permanent disturbance. The applicant will preserve and enhance a 1.828 ha (4.515-ac) conservation easement of similar foraging habitat for the mouse in the remaining acres of property. This area has been deeded to El Paso County, Colorado, and shall be managed according to specific requirements laid out in the HCP. The following activities are expressly prohibited by the agreement on the property easement: construction or reconstruction of any building or other structure or improvement on portions of the property; any division or subdivision of the title to the property; commercial timber harvesting; mining or extraction of soil, sand, gravel, rock, oil, natural gas, fuel or any other mineral substance; paving or otherwise covering with concrete, asphalt, or any other paving material; and the dumping or uncontained accumulation of any trash, refuse or debris on the property. As further compensation for the impacted habitat, 0.36 ha (0.89 ac) of the 1.828 ha (4.515 ac) shall be planted with 100 shrubs to serve as Preble's habitat. This enhancement will follow a strict planting and care plan for 2 years to ensure success. A monitoring program will be in effect for three full growing seasons or until success is achieved. At the end of each growing season, a brief letter report will be submitted to the Service describing the status of any remedial work performed. The shrub planting will be considered successful when 67 percent of shrubs are established and able to survive a full growing season without supplemental irrigation.

On July 23, 2002, Lee Dahle finalized an HCP for Preble's on the Dahle Property and was issued a section 10 Incidental Take Permit by the Service on July 29, 2002. This HCP allows for the construction of a single-family residence on a 0.26 ha (0.65 ac) lot at 17 El Dorado Lane in the Thunderbird Estates in Colorado Springs, El Paso County, Colorado. Construction will directly impact 0.06 ha (0.15 ac) of upland Preble's habitat, including less than 0.01 ha (0.01 ac) of temporary disturbance and 0.034 ha (0.085 ac) of permanent disturbance. The applicant will preserve and enhance the remaining 0.2 ha (0.5 ac) of the property in a native and unmowed condition as a corridor for the mouse. As further compensation for the impacted habitat, the preserved 0.2 ha (0.5 ac) will be enhanced through weed control and willow planting. The enhancement area will be monitored for three full growing seasons or until success is achieved. At the end of each growing season, a brief letter report will be submitted to the Service describing the status of any mitigation work performed. The shrub planting will be considered successful when 67 percent of shrubs are established and able to survive a full growing season without supplemental irrigation. The weed control will be considered successful when a 50 percent reduction of individual weed plants is achieved.

On April 16, 2003, Denver Water finalized an HCP for the Preble's and was issued a section 10 Incidental Take Permit by the Service on May 1, 2003. This HCP covers the water facilities and infrastructure owned and operated by Denver Water including: the Foothills, Marston and Moffat treatment plants; 17 pump stations; 29 treated water storage reservoirs; and 3,968 km (2,464 mi) of pipe. The HCP promotes avoidance and minimization, and where practicable, implementation of applicable best management practices that avoid, minimize, and eliminate impacts to occupied and potential habitat. Where impacts occur, Denver Water will conduct mitigation proposed by the HCP. This HCP provides long-term assurances that Denver Water's covered activities are permitted and in compliance with the Act and provides the Service with a tool to minimize and mitigate take on occupied and potential habitat. To accomplish these goals, the plan requires the following special management and protection:

(a) Before conducting a covered activity (principally operations and maintenance activities) on occupied and potential habitat, Denver Water will determine whether avoidance and minimization efforts are applicable, practicable, and can be used to avoid, reduce, or eliminate take. Generally, the use of best management practices will be the most practicable avoidance or minimization tool. Appendix 5 of the HCP lists best management practices that may be applicable to Denver Water's routine operation and maintenance activities and projects. In some cases, the use of best management

practices will avoid take. In other situations, best management practices will minimize take. Where take still results, mitigation will be used to offset the impacts.

(b) As required by section 10 regulations, the HCP requires Denver Water to perform compliance monitoring and effectiveness monitoring to determine whether the terms and conditions of the HCP are being met. Monitoring activities will: document pre- and post-impact site conditions; determine the extent of take of occupied and potential habitat; determine the success of Preble's habitat revegetation efforts; report on additional Denver Water actions, including initiation of mitigation, discussion of best management practices utilized, if any, and other management decisions that address implementation of the HCP; hold an annual meeting between Denver Water and the Service; and prepare an Annual Monitoring Report.

(c) Adaptive management will be employed to gain new data, research or new information regarding the biology of the Preble's. The use of adaptive management in areas of questionable Preble's habitat suitability, Preble's use, or Preble's presence will likely increase the potential for success within the HCP and increase the potential for new and useful information on Preble's biology to be acquired.

(d) The HCP will result in the protection of over 2,700 ha (6,000 ac) of potential and occupied habitat. Denver Water will limit temporary impacts to 10 ha (25 ac) of occupied and potential habitat at any one time. Temporary impacts are not to exceed 30 ha (74 ac) over the term of the HCP. Denver Water will also track all impacts, restore disturbed vegetation, and track all successful restorations to ensure the above limits are not exceeded.

(e) To offset foreseeable permanent impacts to one-acre of habitat, Denver Water will create 0.10 ha (0.25 ac) of riparian shrub, 0.91 ha (2.25 ac) of upland occupied and potential habitat, and revegetate a number of trails and dirt roads. Should permanent impacts exceed the one-acre, this HCP covers a maximum of 4 ha (10 ac) of permanent impacts, and will mitigate this through: a conservation easement at a ratio of 8:1; by enhancements at a ratio of 2:1; or a combination of preservation at 6:1 and enhancements at 1:1.

(f) Other mitigation includes: weed management; education, training, and the distribution of information to Denver Water employees to promote avoidance, minimization, or best management practices as applicable and practicable; restoration of habitat linkage corridors; population monitoring and research; and provide trapping data to the Service.

Based on our evaluation of special management considerations and protection provided by the Denver Water HCP, the Lefever Property HCP, and Dahle Property HCP, and in light of the definition of critical habitat in section 3(5)(A) of the Act, we have considered, but not designated these areas as critical habitat. We believe that the Denver Water HCP, the Lefever Property HCP, and Dahle Property HCP meets the three criteria used by the Service to determine if a plan provides adequate special management or protection to a listed species. First, the HCPs provide a conservation benefit to the species through the various management actions discussed above. Second, the HCP provides assurances that the conservation management strategies and actions will be implemented. Denver Water has budgeted $30,000 in 2003 Operations Plan for activities required by the HCP. In consecutive years, it will have a separate line item in the budget. The Lefever Property HCP has funding assurances in the form of a $10,000 letter of credit, has been secured to ensure all obligations of the HCP are fulfilled. The Dahle Property HCP applicant will provide funding for this agreement. Third, the HCPs provides assurances that the conservation strategies and measures will be effective because they are based on the best scientific data available and they require monitoring and reporting to ensure compliance and success. The Denver Water HCP also employs adaptive management where practicable and appropriate.

(2) Benefits of Inclusion Under Section 4(b)(2)

The principal benefit of any designated critical habitat is that Federal activities that may affect the habitat require consultation under section 7(a)(2) of the Act. Consultation is designed to ensure that adequate protection is provided to avoid adverse modification or destruction of critical habitat resulting from an action authorized, funded, or carried out by a Federal agency. Where HCPs are in place and lands are covered by a section 10(a)(1)(B) permit, the benefit of designating such lands as critical habitat is negligible when the areas concerned are occupied by the species, because the occupied areas already are subject to section 7 consultation based on the ''jeopardy standard.'' Permitted HCPs are designed to ensure the long-term survival of listed species within the area covered by the permit. Under an HCP, an area that might be designated as critical habitat will already be protected by the terms of the HCP and the incidental take permit. The HCP and the incidental take permit include management measures and protections for conservation lands that are crafted to protect, restore, and enhance their value as habitat for covered species.

In addition, a section 10(a)(1)(B) permit issued by the Service as a result of an HCP application must itself undergo section 7 consultation. This consultation will address the likelihood of adverse modification or destruction of critical habitat and jeopardy to the listed. Since HCPs address land use within the plan boundaries, habitat issues within the plan boundaries will have been thoroughly addressed in the HCP and the consultation on the HCP.

The development and implementation of HCPs provides other important conservation benefits, including the development of biological information to guide conservation efforts and assist in species recovery and the creation of innovative solutions to conserve species while allowing for compatible land use. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term survival and conservation of the species, are essentially the same as those that would occur from the public notice and comment procedures required to establish an HCP, as well as the public participation that occurs in the development of all HCPs. For these reasons we believe that the designation of critical habitat has little or no benefit in areas covered by HCPs.

(3) Benefits of Exclusion Under Section 4(b)(2)

The benefits of excluding HCPs from designation as critical habitat are significant. Benefits of excluding HCPs include relieving landowners, communities, and counties of any additional regulatory review that might be imposed by critical habitat. Many HCPs take considerable time—sometimes years—to develop and, upon completion, become the basis for regional conservation plans that are consistent with the conservation of covered species. Many of these plans benefit both listed and non-listed species. Imposing an additional regulatory review after HCP completion may jeopardize conservation efforts and partnerships in many areas and could be viewed as a disincentive to those developing or considering developing HCPs. Excluding HCPs provides us with an opportunity to streamline regulatory

compliance and confirms regulatory assurances for HCP participants.

Another benefit of excluding HCPs is that exclusion encourages the continued development of partnerships with HCP participants, including States, local governments, conservation organizations, and private landowners, that together can implement conservation actions that the Service would be unable to accomplish alone. By excluding areas covered by HCPs from critical habitat designation, we preserve these partnerships, and set the stage for more effective conservation actions in the future.

Specifically, for the lands covered by the Denver Water HCP for the Preble's, in a letter dated January 21, 2003, Jennifer McCurdy, with Denver Water, noted the following: ''Denver Water believes that designation of Critical Habitat on Denver Water properties has negligible, if any, benefit to the recovery of the Preble's while the benefits resulting from the exclusion of Critical Habitat on those properties are many. There is little benefit to designating Critical Habitat on Denver Water properties because: (a) Denver Water will have an HCP in place covering the same properties proposed for designation; (b) Denver Water is a private landowner with primarily, if not exclusively, private (non-Federal) actions in these Critical Habitat areas; (c) No portion of designated habitat encompasses an entire unit of proposed habitat, but rather is a small fraction of a unit; (d) Designation of Critical Habitat on private property will discourage private landowners from participating in an HCP, especially when Critical Habitat can be designated on properties already under an HCP or an imminent HCP; and (e) In effect, Critical Habitat will not be treated differently for this species than what is required under Section 9 of the Act. The benefits of exclusion on Denver Water properties, however, are that: (a) Denver Water's HCP will provide greater assurances and conservation benefits to the Preble's than Critical Habitat designation because the HCP will assure the long-term protection (30-year) and management of the species and its habitat, and funding, through the standards in the HCP Handbook, 5-Point Policy, and No Surprises regulations; (b) Exclusion of properties within Denver Water's HCP reduces the requirements for additional regulatory review. Additional review would likely result in additional permitting costs (delays, administrative, consulting and mitigation) for Denver Water. The Service and other federal agencies would also be subject to additional administrative and technical costs resulting from an additional, redundant review process. If only Section 9 or an HCP are required, a greater amount of time and funding could possibly be spent on further conservation measures; (c) Exclusion of Critical Habitat and conservation management based on the HCP will allow more flexibility to a municipal water supplier with private lands and privately owned facilities to operate as it needs in order to meet its mission of supplying high-quality water to its customers; (d) Denver Water's HCP will provide other conservation benefits beyond habitat conservation such as collection and development of additional biological information to assist with conservation and recovery efforts, development of innovative programs, and education regarding the importance of species survival and habitat protection; and (e) The Denver Water HCP will provide an integrated and comprehensive approach to species conservation rather than the ''piecemeal'' approaches of multiple Section 7 consultations that only address activities with a federal nexus. Exclusion of Denver Water properties from the Critical Habitat listing will not result in the extinction of the Preble's, nor would it preclude conservation or recovery of the species.''

We have weighed the small benefit, if any, of including the lands in the HCP in critical habitat against the benefits of exclusion and determined that the benefit of excluding the land covered by the Denver Water HCP, the Lefever Property HCP, and the Dahle Property HCP from designation as Preble critical habitat outweighs the benefits of including the areas. Thus, as required by section 4(b)(2) of the Act, we have excluded them from the critical habitat designation.

In the event that future HCPs covering the Preble's are developed within the boundaries of designated critical habitat, we will provide technical assistance and work closely with the applicants to identify lands essential for the Preble's, ensure that the HCPs provide for protection and management of the habitat areas essential to the Preble's by either directing development and habitat modification to nonessential areas, or appropriately modifying activities within essential habitat areas so that such activities will not adversely modify the primary constituent elements. The HCP development process provides an opportunity for more intensive analysis and data collection regarding the use of particular habitat areas by the Preble's and a more detailed analysis of the importance of such lands.

Relationship With Department of Defense Lands

The Academy and F.E. Warren

(1) Special Management Considerations and Section 3(5)(a)

The Sikes Act Improvement Act of 1997 (Sikes Act) requires each military installation that includes land and water suitable for the conservation and management of natural resources to complete, by November 17, 2001, an INRMP. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found there. Each INRMP includes an assessment of the ecological needs on the installation, including needs 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. The Service consults with the military on the development and implementation of INRMPs for installations with listed species. Bases that have completed and approved INRMPs that address the needs of the species generally do not meet the definition of critical habitat discussed above, as they already provide special management or protection. Therefore, we do not include these areas in critical habitat designations if they meet the following three criteria: (a) A current INRMP must be complete and provide a conservation benefit to the species; (b) the plan must provide assurances that the conservation management strategies will be implemented; and (c) the plan must provide assurances that the conservation management strategies will be effective, by providing for periodic monitoring and revisions (adaptive management) as necessary. If all of these criteria are met, then the lands covered under the plan would not meet the second provision of the definition of critical habitat pursuant to section 3(5)(A)(i)(II) and consequently not be proposed as critical habitat for the covered species.

The Academy in El Paso County, CO has in place an INRMP, a 1999 ''Conservation and Management Plan for the Preble's Meadow Jumping Mouse at the U.S. Air Force Academy,'' and a 2000 programmatic section 7 consultation addressing certain activities at the Academy that may affect the Preble's. The conservation and management plan provides guidance for Air Force management decisions over the 2000 to 2005, five-year period. While it was based upon the most

current scientific knowledge available at the time that it was developed, research regarding the Preble's is ongoing at the Academy and the conservation and management plan will be updated as new information is collected.

F.E. Warren in Laramie County, WY also has in place an INRMP. Approved in December 2001, the INRMP provides for the conservation, protection, and management of fish and wildlife resources as required by the Sikes Act. The F.E. Warren INRMP also meets the three criteria for assessing whether the management area should be excluded as critical habitat. First, the INRMP is complete and provides a conservation benefit to the species. F.E. Warren's INRMP provides protection for the Preble by: conducting annual trapping surveys; collecting data on habitat preference; monitoring noxious weed infestation; using biological controls for noxious weeds rather than chemical controls; developing a native seed bank for use in restoration activities in sensitive habitats; designing an elevated nature trail to reduce habitat fragmentation and protect sensitive habitat; providing weekly public awareness briefings to all newcomers; conducting field trips for local elementary schools with emphasis on the Preble's and the Colorado Butterfly plant; and coordinating base projects with the Cheyenne Field Office of the Service. Second, the INRMP provides assurances that the conservation management strategies will be implemented. The Sikes Act requires F.E. Warren to implement its INRMP and provides the basis for the Department of Defense Conservation Program. Implementation of the INRMP is supported by Headquarters Air and Space Command and Headquarters U.S. Air Force through the planning, programming, and budgeting process. F.E. Warren and Headquarters Air and Space Command also conduct annual environmental compliance inspections where INRMP implementation is assessed. The goals of these programs are to provide assurances that the INRMP is implemented in accordance with the Sikes Act and Air Force and Department of Defense policy. F.E. Warren has an annual conservation budget of approximately $200,000 dedicated to monitoring, habitat management, and exotic vegetation control. These requirements have been validated by Headquarters Air and Space Command and are ''must fund'' items. Finally, the INRMP provides assurances that the conservation management strategies will be effective by providing for periodic monitoring and revisions as necessary. F.E. Warren has implemented an annual monitoring program to track the effectiveness of its management activities and to document population trends and changes in quality and availability of habitat. Additionally, F.E. Warren will continue to partner with the WY Game and Fish Department, the WY Field Office of the Service, and accredited universities and non-profit conservation organizations to ensure that the best science and technology is utilized in conservation efforts. In addition, pursuant to Air Force instructions, the INRMP is reviewed annually and revised at least every five years. Further, there are multiple layers of environmental protection that further lessen the need for special management or protection, including the additional conservation measures provided by implementation of NEPA, the Clean Water Act, Executive Order 11990, Executive Order 11988, and Department of Defense and Air Force policy.

We have reviewed these measures and have determined that they address the three criteria identified above. Therefore, Academy and F.E. Warren lands that are biologically essential to the Preble's, do not meet the second provision of the definition of critical habitat pursuant to section 3(5)(A)(i)(II) as they currently have special management and protection. Consequently, these lands have been considered, but not included in the proposed designation of critical habitat for the species. Further, to the extent that the areas of the Academy and F.E. Warren biologically essential to the Preble's may meet the definition of critical habitat as defined in 3(5)(A)(i)(II), it is additionally appropriate to exclude these areas from critical habitat pursuant to the ''other relevant impacts'' provisions of section 4(b)(2) as discussed below.

(2) Benefits of Inclusion Under Section 4(b)(2)

The primary benefit of proposing critical habitat is to identify lands essential to the conservation of the species which, if designated critical habitat, would require consultation with the Service to ensure activities would not adversely modify critical habitat or jeopardize the continued existence of the species. As previously discussed, the Academy and F.E. Warren have completed final INRMPs that provide for sufficient conservation management and protection for the Preble's. Moreover, the INRMPs are themselves, already consulted on for installations with listed species prior to approval. Further, activities authorized, funded, or carried out by Federal agencies in these areas that may affect the Preble's will still require consultation under section 7 of the Act, based on the requirement that Federal agencies ensure that such activities not jeopardize the continued existence of listed species. This requirement applies even without critical habitat designation on these lands. Thus, the Service believes designation of the Academy and F.E. Warren as critical habitat will not appreciably benefit the Preble's beyond protection already afforded the species under the Act and the approved INRMPs.

(3) Benefits of Exclusion Under Section 4(b)(2)

However, there would be appreciable benefits to excluding these areas from critical habitat pursuant to section 4(b)(2). If designated as critical habitat, both the Academy and F.E. Warren would be required to consult with the Service under section 7(a)(2) on any action likely to result in the destruction or adverse modification of designated critical habitat. Completion of any additional formal section 7(a)(2) biological opinions may require completion of biological assessments that can require extensive lengths of time and thousands of hours to complete. They may also require the employment of consultants. However, given that section 7(a)(2) consultations are still required, as discussed above, and that both areas are implementing approved INRMPs that provide special management and protection, these consultations offer little added benefit.

The added burden of consultations for activities adversely impacting critical habitat could also result in unnecessary delays, disruption of base activities and potentially impair our Nation's military readiness. F.E. Warren is the largest and most modern strategic missile unit in the U.S. and is comprised of four missile squadrons, each with five missile alert facilities and fifty launch facilities. Although the missile alert facilities and the launch facilities are dispersed throughout a large geographical area, most mission support functions are conducted at F.E. Warren, including administrative support, maintenance support, training, and helicopter support. The F.E. Warren area deemed essential to the conservation of the species, but not designated critical habitat totals 134 ha (331 ac) and effectively bisects the installation. This area, managed by an approved INRMP, extends 120m (400 ft) on either side of Crow Creek and includes several pieces of critical infrastructure such as 7 bridges, 6

buildings, 7 roads, a 15-tank propane tank farm, and a rail line used to transport equipment and supplies essential to the Inter Continental Ballistic Missile mission.

The Academy's Jack's Valley Training Center is also vital in the training of our armed forces and, ultimately, our national security. This 2,000 acre area is used for training throughout the year, but primarily for Basic Cadet Training. The training facility has a total of nearly 60 different obstacles that provide field training in such topics as survival and evasion, chemical warfare, problem solving, riffle and pyrotechnics, and anti-terrorism. Other training undertaken at the Academy include Combat Survival Training, airmanship programs, and free fall parachuting courses. The added burden of consultations for activities that adversely impact critical habitat could result in unnecessary delays or a disruption in these training activities.

Based on section 4(b)(2) and the consideration of the information described above, we find that the benefits of excluding the areas covered by the Academy and Warren greatly exceed the limited benefits of including these areas in the designation of critical habitat. Exclusion of these lands will not result in the extinction of the species.

Department of Energy's Rocky Flats

The Department of Energy's Rocky Flats site spans portions of the St. Vrain HUC and the Middle South Platte-Cherry Creek HUC. Rocky Flats has been a focus of research on the Preble's and monitoring of populations has taken place for several years. The Department of Energy and the Department of the Interior are concluding an agreement mandated by Congress under which the Rocky Flats site will become part of the National Wildlife Refuge system and will be administered by the Service. The Service will manage the refuge in a manner to conserve the Preble's. For that reason, we find that the Rocky Flats site is not in need of special management measures. Furthermore, there is no benefit to including a National Wildlife Refuge in a critical habitat designation under the circumstances presented here. Given concerns over the cleanup at the facility and the transfer of lands at the site to the Service, we find that the benefit of excluding these areas from designation as critical habitat outweigh the benefits of including them. Therefore we have excluded the Rocky Flats site under sections 3(5)(A) and 4(b)(2) of the Act. The exclusion will not cause the extinction of the species.

Methods

In determining areas essential to conserve the Preble's, we used the best scientific and commercial data available. We have reviewed approaches to the conservation of the Preble's undertaken by the Federal, State, and local agencies operating within the species' range since its listing in 1998, and the identified steps necessary for recovery outlined in the Working Draft of the recovery plan for the Preble's. We also reviewed available information that pertains to the habitat requirements of this species, including material received since the listing of the Preble's. The material included research published in peer-reviewed articles, academic theses and agency reports; reports from biologists conducting research under section 10(a)(1)(A) recovery permits; the Working Draft of the recovery plan for the Preble's; information from consulting biologists conducting site assessments, surveys, formal and informal consultations; as well as information obtained in personal communications with Federal, State, and other knowledgeable biologists in Colorado and Wyoming.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to designate as critical habitat we are required to base critical habitat determinations on the best scientific and commercial data available and to consider physical and biological features (primary constituent elements) that are essential to conservation of the species, and that may require special management considerations and protection. These physical and biological features 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, rearing (or development) of offspring; and (5) habitats protected from disturbance or that are representative of the historic geographical and ecological distributions of a species.

The primary constituent elements for the Preble's include those habitat components essential for the biological needs of reproducing, rearing of young, foraging, sheltering, hibernation, dispersal, and genetic exchange. The Preble's is able to live and reproduce in and near riparian areas located within grassland, shrubland, forest, and mixed vegetation types where dense herbaceous or woody vegetation occurs near the ground level, where available open water normally exists during their active season, and where there are ample upland habitats of sufficient width and quality for foraging, hibernation, and refugia from catastrophic flooding events. While willows of shrub form are a dominant component in many riparian habitats occupied by the Preble's, the structure of the vegetation appears more important to the Preble's than species composition.

Primary constituent elements associated with the biological needs of dispersal and genetic exchange also are found in areas that provide connectivity or linkage between or within Preble's populations. These areas may not include the habitat components listed above and may have experienced substantial human alteration or disturbance.

The dynamic ecological processes that create and maintain Preble's habitat also are important primary constituent elements. Habitat components essential to the Preble's are found in and near those areas where past and present geomorphological and hydrological processes have shaped streams, rivers, and floodplains, and have created conditions that support appropriate vegetative communities. Preble's habitat is maintained over time along rivers and streams by a natural flooding regime (or one sufficiently corresponding to a natural regime) that periodically scours riparian vegetation, reworks stream channels, floodplains, and benches, and redistributes sediments such that a pattern of appropriate vegetation is present along river and stream edges, and throughout their floodplains. Periodic disturbance of riparian areas sets back succession and promotes dense, low-growing shrubs and lush herbaceous vegetation favorable to the Preble's. Where flows are controlled to preclude a natural pattern and other disturbance is limited, a less favorable mature successional stage of vegetation dominated by cottonwoods or other trees may develop. The long-term availability of habitat components favored by the Preble's also depends on plant succession and impacts of drought, fires, windstorms, herbivory, and other natural events. In some cases these naturally-occurring ecological processes are modified or are supplanted by human land uses that include manipulation of water flow and of vegetation.

Primary constituent elements for the Preble's include:

(1) A pattern of dense riparian vegetation consisting of grasses, forbs,

and shrubs in areas along rivers and streams that provide open water through the Preble's active season.

(2) Adjacent floodplains and vegetated uplands with limited human disturbance (including hayed fields, grazed pasture, other agricultural lands that are not plowed or disced regularly, areas that have been restored after past aggregate extraction, areas supporting recreational trails, and urban/wildland interfaces).

(3) Areas that provide connectivity between and within populations. These may include river and stream reaches with minimal vegetative cover or that are armored for erosion control, travel ways beneath bridges, through culverts, along canals and ditches, and other areas that have experienced substantial human alteration or disturbance.

(4) Dynamic geomorphological and hydrological processes typical of systems within the range of the Preble's, *i.e.*, those processes that create and maintain river and stream channels, floodplains, and floodplain benches, and promote patterns of vegetation favorable to the Preble's.

Existing features and structures within the boundaries of the mapped units, such as buildings, roads, parking lots, other paved areas, lawns, other urban and suburban landscaped areas, regularly plowed or disced agricultural areas, and other features not containing any of the primary constituent elements are not considered critical habitat.

Criteria Used To Identify Critical Habitat

The Service's July 17, 2002, proposed rule to designate critical habitat for the Preble's meadow jumping mouse cited the Recovery Team's Draft Discussion Document of February 27, 2002, and the concepts described within it as a source of the best scientific and commercial data available on the Preble's, and used it as a starting point for identifying areas that are essential for the conservation of the Preble's. The proposed rule stated that a draft of the recovery plan would be issued for public comment prior to final designation of critical habitat. For various reasons, including staffing and funding limitations, a draft recovery plan for the Preble's has not yet been finalized or issued for public comment. However, a draft of the recovery continues to evolve. While even a final recovery plan is not a regulatory document (*i.e.*, recovery plans are advisory documents because there are no specific protections, prohibitions, or requirements afforded to a species solely on the basis of a recovery plan), the information, concepts, and conservation recommendations contained in the Working Draft were considered in developing this critical habitat designation. Areas identified as necessary for recovery in the Working Draft are based on the best available information as well as on our best judgement of what we believe to be necessary for recovery even in situations where information is limited. Total disclosure and open communication with the public of our judgements regarding possible future recovery scenarios are essential parts of recovery planning. Recovery plans are not regulatory documents and do not obligate or commit parties to the actions or determination of the plans. Public review, peer review, and stakeholder involvement are essential aspects of recovery planning, and are required by the Act and by Service policy. For these reasons, decisions made by the Service in designation of critical habitat will not preclude determination or decisions in any aspect of recovery planning that may be subject to public review. Therefore determinations as to recovery strategies, criteria, or tasks within the recovery plan will not be limited by this critical habitat designation.

The Working Draft identifies specific criteria for reaching recovery and the delisting of the Preble's. While elements of this Working Draft may change prior to plan finalization, the concepts described within it continue to represent the best scientific and commercial data available on the Preble's. To recover the Preble's to the point where it can be delisted, the Working Draft identifies the need for a specified number, size, and distribution of wild, self-sustaining Preble's populations across the known range of the Preble's. The distribution of these recovery populations is intended both to reduce the risk of multiple Preble's populations being negatively affected by natural or man-made events at any one time, and to preserve the existing genetic variation within the Preble's. The Working Draft identifies recovery criteria for each of the three major river drainages where the Preble's occurs (the North Platte River drainage in Wyoming, the South Platte River drainage in Wyoming and Colorado, and the Arkansas River drainage in Colorado) and for each subdrainage judged likely to support the Preble's. In some cases the Working Draft identifies recovery criteria for subdrainages where trapping for the Preble's has not yet occurred or where limited trapping has not confirmed the presence of the Preble's. Boundaries of drainages and subdrainages have been mapped by the U.S. Geological Survey (USGS). For the Working Draft, 8-digit HUC boundaries were selected to define subdrainages. A total of 19 HUCs are identified in the Working Draft as occupied or potentially occupied by the Preble's. Of these, 5 are located in the North Platte River drainage, 11 in the South Platte River drainage, and 3 in the Arkansas River drainage. In developing the conservation strategy that underlies this rule we have considered and incorporated aspects of the Working Draft.

One large and one medium Preble's population in Wyoming, and one large Preble's population in Colorado that are designated in the Working Draft as recovery populations, and are consistent with our conservation strategy, are reflected in this critical habitat designation. The Working Draft defines large populations as maintaining 2,500 mice and usually including at least 50 mi (80 km) of rivers and streams. It defines medium populations as maintaining 500 mice over at least 10 mi (16 km) of rivers and streams. While the Working Draft designates the approximate location of these recovery populations, it does not delineate specific boundaries. In addition, in each of the remaining ten HUCs within the Preble's range the Working Draft calls for three small recovery populations but, with the exception of the F. E. Warren in the Crow Creek HUC and Lone Tree Creek in the Lone Tree-Owl HUC, does not attempt designate their locations. In most of these remaining 10 HUCs, the Working Draft only prescribes the need to establish three small recovery populations (or the option of one medium recovery population) within a HUC. The Working Draft anticipates that, in the future, the locations of these remaining recovery populations will be designated and their specific boundaries delineated by State and local governments, and other interested parties, working in coordination with the Service. In contrast, to meet the requirements for this critical habitat designation, we have designated specific boundaries for all critical habitat units. It is probable that new information regarding populations in these areas will alter specific details of any future recovery plan. HUCs where little is know regarding status of the Preble's may be proven not to support viable populations. If such is the case they may be determined to be unnecessary for recovery, and may be deleted from a future recovery plan. Other HUCs may be determined to be necessary for recovery even if they are not included within this critical habitat designation.

Beyond designating critical habitat for sites essential to the conservation of the Preble's because they are important to recovery, we reviewed other sites of Preble's occurrence, especially on Federal lands, for possible designation as critical habitat. Our conservation strategy emphasizes the importance of protecting additional Preble's populations, to provide insurance for the Preble's in the event that designated recovery populations cannot be effectively managed or protected as envisioned by the recovery plan, or are decimated by uncontrollable catastrophic events such as fires or flooding. Our conservation strategy entails directing recovery efforts toward public lands rather than private lands where possible, and calls upon all Federal agencies to protect and manage for the Preble's wherever it occurs on Federal lands. As part of our conservation strategy, we believe that the designation of additional areas of critical habitat on Federal land is essential for the conservation of the Preble's. Should unforseen events cause the continued decline of Preble's populations throughout its range, Preble's populations and the primary constituent elements on which they depend are more likely to persist and remain viable on Federal lands than on non-Federal lands. The likelihood of maintaining stable populations is greatest on these Federal lands, where consistent and effective land management strategies can be more easily employed. Preble's populations on Federal lands could serve as substitute recovery populations should designated recovery populations decline or fail to meet recovery goals. In addition, some Preble's populations on Federal lands have been the subject of ongoing research that could prove vital to the conservation of the Preble's.

For the reasons stated above we have designated selected stream reaches on Federal lands supporting the Preble's that we believe to be essential to the conservation of the Preble's, even if these areas appear unlikely to be selected for initially designated recovery populations based on the Working Draft. These areas of designated critical habitat may include short reaches of intervening non-Federal lands that in some cases support all primary constituent elements needed by the Preble's or, if substantially developed, are likely to provide only connectivity between areas of Preble's habitat on nearby Federal lands.

Designated critical habitat units include only river and stream reaches, and adjacent floodplains and uplands, that are within the known geographic and elevational range of the Preble's, have the primary constituent elements present, and, based on the best scientific data available, are believed to currently support the Preble's.

In Wyoming and at higher elevations along the Front Range in Colorado the geographical distribution of the Preble's has been subject to scrutiny due to the close resemblance, and apparent range overlap, between the Preble's and the western jumping mouse. However, new information obtained since the time of the Preble's listing has not appreciably changed the known range of the Preble's. Based on the most recent information on elevational range of the Preble's we have, with one exception, limited designated critical habitat to 2,300 m (7,600 ft) in elevation and below.

Presence of primary constituent elements was determined through a variety of sources including, but not limited to—Colorado Division of Wildlife mapping of Preble's Habitat Similarity Models derived from interpretation of aerial photographs; the Services' 1998 mapping of sites occupied or potentially occupied by the Preble's produced in conjunction with the Colorado Department of Natural Resources as part of proposed special regulations under section 4(d) of the Act (63 FR 66777); working maps produced by the Recovery Team during development of the Working Draft; National Wetland Inventory maps produced by the Service; results of research conducted on a variety of Federal properties by the Forest Service, the Department of Energy, the Air Force, and the Army Corps of Engineers; results of research conducted by the Colorado Division of Wildlife, Colorado Department of Transportation, and the City of Boulder; field assessments of habitat by Service staff; information amassed to support regional HCPs including those in Boulder, Douglas, and El Paso Counties in Colorado, and for Denver Water properties in Colorado; coordination with Forest Service personnel from the Medicine Bow-Routt, Arapaho-Roosevelt, and Pike-San Isabel National Forests; and, numerous evaluations of potential Preble's habitat by consulting biologists in support of developers, landowners, and other clients.

Presence of the Preble's was determined based largely on the results of trapping surveys, the vast majority of which were conducted in the past 7 years. Sites judged to be occupied by the Preble's include those that—(1) have recently been documented to support jumping mice identified by genetic or morphological examination as the Preble's; or (2) have recently been documented to support jumping mice and for which historical verification of the Preble's exists. While in some cases designated critical habitat units extend well beyond these capture locations, boundaries of these critical habitat units include only those reaches that we believe to be occupied by the Preble's based on the best scientific data available regarding capture sites, the known mobility of the Preble's, and the quality and continuity of habitat components along stream reaches. Where appropriate, we have included details on the known status of the Preble's within specific subdrainages in the Critical Habitat Designation section of this document. Survey efforts to document the Preble's in Wyoming have been more limited than in Colorado and have been focused on—(1) Federal lands (the Medicine Bow-Routt National Forest, some Bureau of Land Management lands, and the F.E. Warren in Laramie County); (2) lands owned and surveyed by True Ranches; and (3) areas to be impacted by various proposed projects with a Federal nexus, most notably the Medicine Bow Lateral Pipeline.

We considered several qualitative criteria to judge the current status and probable persistence of Preble's populations in the selection and designation of specific areas as critical habitat. These included—(1) the quality, continuity, and extent of habitat components present; (2) the state of natural hydrological processes that maintain and rejuvenate suitable habitat components; (3) the presence of lands devoted to conservation, either public lands such as parks, wildlife management areas, and dedicated open space, or private lands under conservation easements; and (4) the landscape context of the site, including the overall degree of current human disturbance and presence, and likelihood of future development based on local planning and zoning.

In those units where, based on our conservation strategy, we designate critical habitat on Federal lands, we looked for contiguous Federal property along stream reaches at least 5 km (3 mi) in length supporting required primary constituent elements and occupied by the Preble's. In some cases shorter reaches on Federal lands were designated as critical habitat when they were separated from more substantial reaches on Federal lands by only small segments of intervening non-Federal lands.

North Platte River Drainage

Within the Glendo HUC, we have designated critical habitat on the Cottonwood Creek watershed consistent with the medium recovery population called for in our conservation strategy. Although we originally proposed critical habitat in the Horseshoe Creek watershed on National Forest System land, we have removed this unit from final designation after reevaluation of the available data regarding Preble's identification in this drainage. As indicated previously, we have decided to include in the critical habitat determination only those units occurring in drainages within which there is a specimen verified as Preble's through morphological or genetic means. The Horseshoe Creek has had no mice verified to be Preble's through morphological or genetic means, but rather only through field identification.

Within the Lower Laramie HUC, we have designated critical habitat on Chugwater Creek consistent with the large recovery population. Primary constituent elements required by the Preble's appear widespread within Chugwater Creek and its tributaries. Richeau Creek and Hunton Creek were not included as designated critical habitat since they are segregated from the main portion of the Chugwater Creek complex by long stretches of less suitable habitat. Upon review of additional information obtained through public comment and during site visits to the area, some adjustments were made to the tributaries proposed to be included in this unit. Four tributaries were removed from the final designation. These tributaries include two named Spring Creek, Threemile Creek, and Sand Creek. The Spring Creek located farthest downstream supports somewhat limited riparian vegetation, transitions immediately into arid uplands without adequately vegetation (rather than supporting meadows and hayfields like most of Chugwater Creek), and does not provide open water through the Preble's active season. This tributary is not be considered valuable in providing connectivity, as it does not link one area to another. Similarly, although Threemile Creek does flow through the Preble's active season, the riparian vegetation associated with this creek is extremely limited (only a few feet in width in some locations) and transitions immediately into arid uplands characterized by the presence of cacti and supporting only limited grasses and forbs. Sand Creek has reasonably well developed riparian vegetation, but does not regularly contain open, flowing water. Water flows are restricted to periods after storm events. The Spring Creek occurring farthest upstream flows underground (with haying occurring across it) through significant portions of its reach. Although the upstream reach of the tributary has above-ground flows and adequate vegetation to be considered suitable habitat for the Preble's, the upper reaches are not connected to the lower reach or Chugwater Creek.

Also in the Lower Laramie HUC, habitat components typically used by the Preble's exist on Federal property on the Medicine Bow-Routt National Forest. While many of these locations are at higher elevations than those that the Preble's has been shown to inhabit, surveys have also captured jumping mice identified in the field as the Preble's from the appropriate elevational range. Therefore, we originally proposed critical habitat on National Forest System lands and small parcels of intervening non-Federal lands within the Friend Creek watershed and within the Murphy Canyon watershed. However, as discussed previously, we have removed the Friend Creek and Murphy Canyon unit from this designation, as those drainages contain no mice verified as Preble's through morphological or genetic means.

Within the Horse Creek HUC, we originally proposed critical habitat on Horse Creek consistent with the medium recovery population called for in our conservation strategy. However, for reasons discussed previously, we have removed the Horse Creek unit from this designation as the drainage contains no mice verified as Preble's through morphological or genetic means.

Our conservation strategy calls for three small populations or one medium population in both the Middle North Platte-Casper HUC and the Middle North Platte-Scottsbluff HUC. Suitable habitat appears to be present throughout the Middle North Platte-Casper HUC. However, survey efforts targeted at the Preble's have occurred on only a limited basis in this subdrainage, with the only known captures of jumping mice at elevations above 2,800 m (7,800 ft) and likely to be western jumping mice. Therefore, while primary constituent elements for the Preble's appear present in this subdrainage and the Preble's probably occurs within this system, we have not designated critical habitat based on lack of known occurrence.

Habitat components suitable for the Preble's appear to be quite limited in the Middle North Platte-Scottsbluff HUC and are largely confined to the westernmost portions of the subdrainage. Some small pockets of suitable habitat are scattered throughout the rest of the subdrainage, but they are quite isolated. Additionally, trapping efforts targeted at the Preble's have occurred on a limited basis in this subdrainage with no surveys providing captures of the jumping mice. Therefore, while there is a high probability that the Preble's occurs within this subdrainage, we have not designated critical habitat based on lack of known occurrence.

South Platte River Drainage

Our conservation strategy calls for three small recovery populations or one medium population in the Upper Lodgepole HUC. Suitable habitat for the Preble's is generally limited to the western half of the subdrainage. Most trapping efforts in this HUC have been on the Medicine Bow-Routt National Forest at elevations above 2,300 m (7,700 ft). Additionally, one trapping effort at a lower elevation produced a jumping mouse identified in the field as a Preble's. We have designated two critical habitat units in this subdrainage, Lodgepole Creek and Upper Middle Lodgepole Creek, consistent with two of the three small recovery populations identified for the HUC in our conservation strategy.

In Crow Creek HUC we proposed designation of critical habitat consistent with one of the three small recovery populations called for in our conservation strategy. This area, limited to the F.E. Warren in Cheyenne, has been excluded from the final critical habitat designation under 3(5)(A) and 4(b)(2) of the Act (see Relationship with Department of Defense Lands).

The Lone Tree-Owl HUC supports primary constituent elements for the Preble's both in Wyoming and in Colorado. Based on the recovery criteria of three small or one medium recovery population assigned to this HUC in the Working Draft, we originally proposed two small areas of critical habitat along Lone Tree Creek, one in Wyoming and one in Colorado. However, for reasons discussed previously, we have removed the Lone Tree Creek unit from this designation as the drainage contains no mice verified as Preble's through morphological or genetic means.

We have elected not to designate additional critical habitat on Federal property in the Wyoming portion of the South Platte River drainage aside from the Upper Middle Lodgepole Creek subunit. Within these HUCs, Bureau of Land Management properties are largely upland areas with only small segments of streams. National Forest System lands in the Medicine Bow—Routt National Forest include many suitable-looking streams, but most occur at elevations

ranging from 2,200 m (7,300 ft) to 2,400 m (8,000 ft). Although surveys from these riparian areas have produced jumping mice that are potentially the Preble's, none have been verified as Preble's through genetic or morphological means. It is likely, based on elevation, that many of these are western jumping mice. We will continue to work with the Forest Service regarding potential Preble's populations on their lands and will encourage further survey effort and collection of jumping mouse specimens for species verification.

In the Cache La Poudre HUC, we have designated critical habitat along the lower portions of the North Fork of the Cache Le Poudre River and its tributaries, consistent with the large recovery population called for in our conservation strategy. In addition, further south in this subdrainage we have designated a second area limited largely to National Forest System lands along the main stem of the Cache Le Poudre River and on selected tributaries. While additional stream reaches that support Preble's populations are present on National Forest System lands in the upper reaches of the North Fork of the Cache Le Poudre and its tributaries, including Bull Creek, Willow Creek, Mill Creek, and Trail Creek, the extent of contiguous stream reaches in Forest Service ownership is very limited. A checkerboard pattern of land ownership, resulting in no significant contiguous reaches of Federal lands, convinced us that designating additional critical habitat centered on Federal lands is not warranted; therefore, we designated no critical habitat in this area.

In the Big Thompson HUC we designated critical habitat on Buckhorn Creek and its tributaries consistent with the medium recovery population called for in our conservation strategy. We also assessed National Forest System lands along the Big Thompson River and Little Thompson River for possible inclusion as critical habitat. Potential areas along the Big Thompson River and the North Fork of the Big Thompson River were largely in private ownership, with substantial human development occurring in many places. We originally proposed one additional area as critical habitat, centered on National Forest System lands on portions of Dry Creek and its tributaries. However, for reasons discussed previously, we have removed the Cedar Creek unit from this designation as the drainage contains no mice verified as Preble's through morphological or genetic means. Forest Service holdings along the Little Thompson River and its tributaries are highly fragmented by non-Federal lands or represent only short stream reaches near the 2,300 m (7,600 ft) elevation. No critical habitat has been designated on the Little Thompson River.

Within the St. Vrain HUC, our conservation strategy calls for a medium recovery population on South Boulder Creek.

At the request of representatives from the City of Boulder we considered designating critical habitat along the St. Vrain River between Hygiene and Lyons. We have little evidence to support designation of critical habitat for the Preble's population on the St. Vrain River as a preferable alternative to designation of critical habitat on South Boulder Creek, nor did we find reason to designate critical habitat on a second population on non-Federal lands within this subdrainage. We considered designating critical habitat for the Preble's on National Forest System lands at higher elevations along the North St. Vrain Creek and the Middle St. Vrain Creek. However, since no trapping efforts targeted at the Preble's have been conducted in these areas and we are aware of no records of the Preble's occurrence in these watersheds, neither has been designated as critical habitat.

The Department of Energy's Rocky Flats site spans portions of the St. Vrain HUC and the Middle South Platte-Cherry Creek HUC. Rocky Flats has been a focus of research on the Preble's and monitoring of populations has taken place for several years. The Department of Energy and the Department of the Interior are concluding an agreement mandated by Congress under which the Rocky Flats site will become part of the National Wildlife Refuge system and will be administered by the Service. The Service will manage the refuge in a manner to conserve the Preble's. For that reason, we find that the Rocky Flats site is not in need of special management measures. Furthermore, there is no benefit to including a National Wildlife Refuge in a critical habitat designation under the circumstances presented here. Therefore we have excluded the Rocky Flats site under sections 3(5)(A) and 4(b)(2) of the Act.

Our conservation strategy calls for three small recovery populations or one medium recovery population within the Clear Creek HUC, the Preble's has been captured along a segment of Ralston Creek above Ralston Reservoir. Based on limited occurrence of habitat components needed by the Preble's and the absence of other captures, we limited proposed designation of critical habitat within the Clear Creek HUC to this single population. In the summer of 2002, a single jumping mouse, confirmed as the Preble's through morphological examination, was captured on Elk Creek, a small tributary to Clear Creek. Past trapping efforts on Clear Creek and its tributaries have failed to document Preble's presence. After review of the site, we have decided not to designate the reach at the site of the Elk Creek capture as critical habitat.

Our conservation strategy calls for a medium recovery population along Cherry Creek in the Middle South Platte-Cherry Creek HUC. Preble's habitat in the upper reaches of the Cherry Creek basin appears extensive. We proposed critical habitat in an area that includes a segment of Cherry Creek, Lake Gulch, and its tributaries. However, for reasons discussed previously, we have removed the Cherry Creek unit from this designation as the drainage contains no mice verified as Preble's through morphological or genetic means.

We examined other areas of Preble's habitat on Federal lands within the Upper South Platte HUC, and have designated critical habitat on Army Corps of Engineers lands upstream of Chatfield Reservoir along the South Platte River and on three areas centered on National Forest System land in the Pike-San Isabel National Forest within the South Platte River watershed. Though National Forest System lands in the Upper South Platte HUC are extensive, much of the South Platte itself is not federally owned. On National Forest System lands on some of the major tributaries of the South Platte River, habitat components required by the Preble's have been degraded by catastrophic fire, flooding, or both. The Buffalo Creek watershed has been highly degraded by fire, followed by flooding, accompanying erosion, and sedimentation. Critical habitat has not been designated in the Buffalo Creek watershed. The Wigwam Creek subunit, proposed as critical habitat in the draft rule, has not been designated as critical habitat following intense burning by the 2002 Hayman Fire. In contrast, the Trout Creek subunit was lightly to moderately burned in the same fire, is expected to recover relatively quickly, and is designated as critical habitat. Combined, the four areas of designated critical habitat should help assure that a viable population of the Preble's is maintained in the portion of this HUC upstream of Chatfield Reservoir on the South Platte River.

While our conservation strategy calls for either three small populations or one

medium population in both the Kiowa and Bijou HUCs, no confirmation of the Preble's existed at the time of proposed critical habitat designation for either of these subdrainages. Based on lack of known Preble's occurrence, no critical habitat was proposed within either of these areas. Two 2002 trapping efforts on the Kiowa Creek resulted in captures of jumping mice identified in the field as the Preble's, with one specimen confirmed as the Preble's through morphological examination. After review of habitat at the capture sites in relation to that found elsewhere on Kiowa Creek and its tributaries, we have elected not to designate reaches adjacent to the capture sites as critical habitat. We encourage further trapping to better understand the extent and distribution of occupied habitat in the Kiowa Creek subdrainage.

Arkansas River Drainage

Within the Fountain Creek HUC our conservation strategy calls for a large recovery population along Monument Creek and its tributaries including lands within the Air Force Academy. While the Academy property would support an essential part of this recovery population, we have determined that the Academy does not meet the definition of critical habitat under 3(5)(A) and merits exclusion under 4(b)(2) of the Act (see Relationship with Department of Defense Lands).

Our conservation strategy calls for either three small recovery populations or one medium recovery population to meet recovery criteria in both the Chico and the Big Sandy HUCs. The Preble's has been documented at a single location within the Chico HUC, in apparently marginal habitat along an unnamed tributary of Black Squirrel Creek. Subsequent trapping could not relocate the Preble's at the site. Limited trapping of other sites has produced no captures of the Preble's and the extent of appropriate habitat components within the subdrainage appears limited. We have not designated critical habitat in the Chico HUC based on our uncertainty that the Preble's exists within any given reach in this area. In the Big Sandy HUC limited trapping efforts targeted at the Preble's have not confirmed Preble's presence. Sites supporting primary constituent elements required by the Preble's appear few. For these reasons we have not designated critical habitat in the Big Sandy HUC.

Delineation of Critical Habitat Boundaries

Critical habitat for the Preble's was delineated based on the interpretation of multiple sources used during the preparation of this rule. We used GIS-based mapping using ARCInfo that incorporated streams, steam order (Stahler method), roads, and cities from USGS maps, floodplains from Federal Emergency Management Agency maps, and surface management maps depicting property ownership from the Bureau of Land Management (primarily from the early 1990s). Lands designated as critical habitat were divided into specific mapping units, *i.e.*, critical habitat units, often corresponding to individual HUCs. For the purposes of this rule these units have been described primarily by latitude and longitude, and by section, township, and range, to mark the upstream and the downstream extent of designated critical habitat along rivers and streams.

We were presented with a decision in designating outward extent of critical habitat into uplands. The Service has typically described Preble's habitat as extending outward 300 ft (90 m) from the 100-year floodplain of rivers and streams (Service 1998). The Working Draft defines Preble's habitat as the 100-year floodplain plus 100 m (330 ft) outward on both sides, but allows for alternative delineations that provide for all the needs of the Preble's and include the alluvial floodplain, transition slopes, and pertinent uplands.

In order to allow normal behavior and to assure that the Preble's and the primary constituent elements on which it depends are protected from disturbance, the outward extent of critical habitat should at least approximate the outward distances described above in relation to the 100-year floodplain. Unfortunately, floodplains have not been mapped for many streams within Preble's range and electronic layers depicting 100-year floodplains needed to facilitate GIS mapping are not available for several counties within Preble's range. Where floodplain mapping is available, we have found that it may include local inaccuracies.

While alternative delineation of critical habitat based on geomorphology and existing vegetation could accurately portray the presence and extent of required habitat components, we lacked an explicit data layer that could support such a delineation over the species range. Creation of such a layer through interpretation of aerial photographs and site visits was not possible given the time and resources available for this designation.

We also considered determining the outward extent of critical habitat based on a distance outward from features such as the stream edge, associated wetlands, or riparian areas. We judged wetlands an inconsistent indicator of habitat extent and found no consistent source of riparian mapping available across the range of the Preble's. We also considered using an outward extent of critical habitat established by a vertical distance above the elevation of the river or stream to approximate the floodplain and adjacent uplands likely to be used by the Preble's.

For this designation we ultimately settled on delineating the upland extent of critical habitat boundaries as a set distance outward from the river or stream edge (as defined by the ordinary high water mark) varying with the size (order) of a river or stream. We compared known floodplain widths to stream order over a series of sites and approximated average floodplain width for various orders of streams. To that average we added an additional 100 m (330 ft) outward on each side. Based on this calculation, for streams of order 1 and 2 (the smallest streams) we have delineated critical habitat as 110 m (360 ft) outward from the stream edge, for streams of order 3 and 4 we have delineated critical habitat as 120 m (400 ft) outward from the stream edge, and for stream orders 5 and above (the largest streams and rivers) we have delineated critical habitat as 140 m (460 ft) outward from the stream edge. While designated critical habitat will not include all areas used by individual Preble's mice over time, we believe that these corridors of critical habitat ranging from 220 m (720 ft) to 280 m (920 ft) in width (plus the river or stream width) will support the full range of primary constituent elements essential for persistence of Preble's populations, and should help protect the Preble's and their habitats from secondary impacts of nearby disturbance. We received a number of public comments regarding the appropriate outward limits of critical habitat and means of establishing them. However, most comments suggested either standardizing a single outward distance for all rivers and streams, site specific mapping of critical habitat for each reach designated, or relying on alternative mapping created for HCPs as a surrogate for site-specific mapping of critical habitat. None of these alternatives were determined to be both feasible given the time and resources available to us, and a more accurate alternative to the methodology employed in the proposed rule.

In selecting areas of designated critical habitat, we made an effort to avoid developed areas that are not likely to contribute to Preble's conservation. However, the scale of mapping that we

used to approximate our delineation of critical habitat did not allow us to exclude all developed areas such as roads and rural development. In addition, some developed stream reaches serve as essential connectors within Preble's populations. Existing structures and features within the boundaries of the mapped units, such as buildings, roads, parking lots, other paved areas, lawns, other urban and suburban landscaped areas, regularly plowed or disced agricultural areas, and certain other areas are not likely to contain primary constituent elements for the Preble's and, therefore, are not critical habitat. Federal actions limited to these areas would not trigger a section 7 consultation unless they affect the Preble's or primary constituent elements within designated critical habitat.

We could not depend solely on federally-owned lands to designate critical habitat, as these lands are limited in geographic location, size, and habitat quality within the range of the Preble's. In addition to the federally-owned lands, we are designating critical habitat on non-Federal public lands and privately owned lands, including lands owned by the State of Colorado and State of Wyoming, and by local governments. All non-Federal lands designated as critical habitat meet the definition of critical habitat under section 3 of the Act in that they are within the geographical area occupied by the species, are essential to the conservation of the species, and may require special management considerations or protection.

Critical Habitat Designation

The designated critical habitat contained within units discussed below constitutes our best evaluation of areas necessary to conserve the Preble's. Critical habitat may be revised through rule-making (including notice and public comment) if new information becomes available after the final rule. Table 1 provides a summary of the area of critical habitat in each unit that has been designated as critical habitat. Critical habitat for the Preble's includes approximately 201.3 km (125.1 mi) of rivers and streams and 4,264 ha (10,542 ac) of lands in Wyoming and approximately 376.8 km (234.1 mi) of rivers and streams and 8,386 ha (20,680 ac) of lands in Colorado. Lands designated as critical habitat are under Federal, State, local government, and private ownership. No lands designated as critical habitat are under Tribal ownership. Estimates reflect the total river or stream length, or area of lands within critical habitat unit boundaries, without regard to the presence of primary constituent elements. Therefore, given exclusions for developed areas and other areas not supporting primary constituent elements, the area designated is actually less than indicated in Table 1.

TABLE 1.—CRITICAL HABITAT FOR THE PREBLE'S MEADOW JUMPING MOUSE BY UNIT IN WYOMING AND COLORADO

Linear River Kilometers and Hectares by State	
	Total
Wyoming	201.3 km (125.1 mi) 4,264 ha (10,542 ac)
NP1	43.3 km (26.9 mi) 924 ha (2,284 ac)
NP3	137.2 km (85.3 mi) 2912 ha (7,194 ac)
SP1	20.8 km (13.0 mi) 265 ha (654 ac)
Colorado	376.8 km (234.1 mi) 8,368 ha (20,680 ac)
SP 4	141.8 km (88.1mi) 3,321 ha (8,206 ac)
SP 5	82.4 km (51.2 mi) 1,912 ha (4,725 ac)
SP 6	69.2 km (43.0 mi) 1,537 ha (3,798 ac)
SP 10	12.9 km (8.0 mi) 277 ha (686 ac)
SP 13	70.5 km (43.8 mi) 1,321 ha (3,265 ac)

Lands designated as critical habitat are divided into 8 critical habitat units containing all of those primary constituent elements necessary to meet the primary biological needs of the Preble's. We exempted the proposed Warren Air Force Base unit (SP2 in the proposed rule) from critical habitat designation. In addition we have excluded the Horseshoe Creek unit (NP2), the Friend Creek and Murphy Canyon unit (NP4), and the Horse Creek unit (NP5), the Lone Tree Creek unit (SP3), the Cedar Creek unit (SP7), and the Cherry Creek unit (SP11). In order to avoid confusion from changing numbering critical habitat units, we have retained the original unit numbers of units that have been designated critical habitat.

In designating critical habitat, we did not include all areas currently occupied by the Preble's. A brief description of each Preble's critical habitat unit and the reasons why they are essential for the conservation of the Preble's are provided below. The units are generally based on geographically distinct river drainages and subdrainages. These units have been subject to, or are threatened by, varying degrees of degradation from human use and development. For these reasons, all of the areas in which we are designating critical habitat may require special management considerations or protection. Unless otherwise noted, references to ''morphological examination'' refer to Connor and Shenk (in prep.), references to genetic examination'' refer to Riggs *et al.* (1997), and references to ''captures presumed to be the Preble's'' refer to field surveys where jumping mice identified in the field as the Preble's were released alive and not subject to morphological or genetic examination.

The following critical habitat units are located in the North Platte River drainage:

Unit NP1: Cottonwood Creek, Albany, Platte, and Converse Counties, Wyoming

Unit NP1 encompasses approximately 924 ha (2,284 ac) on 43.3 km (26.9 mi) of streams within the Cottonwood Creek watershed. It includes Cottonwood Creek from Harris Park Road upstream to the 2,100–m (7,000–ft) elevation. Tributaries include North Cottonwood Creek and Preacher Creek. The unit includes both public and private lands, including a small portion on the Medicine Bow-Routt National Forest.

This unit is located in the Glendo HUC and is designated to address the large recovery population for the North Platte River drainage in our conservation strategy. The Preble's habitat on this unit appears generally excellent, particularly on the National Forest System lands. This population is essential not only to maintain distribution near the northernmost extreme of known Preble's range, but because the large size of the population (as predicted by amount and quality of habitat) should help ensure viability into the future. Private lands within the unit are used extensively for grazing, which could be beneficial to the Preble's and its habitat if managed appropriately.

A specimen examined by Krutzsch (1954) in describing the subspecies is from Springhill in this HUC. Five recent specimens from this subdrainage have been identified as the Preble's through morphological examination (tooth fold presence) (Jones, in litt., 2002). Captures of jumping mice identified in the field as the Preble's have occurred at several other locations in this subdrainage.

Unit NP3: Chugwater Creek, Albany, Laramie, and Platte Counties, Wyoming

Unit NP3 encompasses approximately 2,912 ha (7,194 ac) on137.2 km (85.3 mi) of streams within the Chugwater Creek watershed. It extends from several miles downstream of the town of Chugwater, upstream on Chugwater Creek and its

tributaries to approximately the 2,100–m (7,000–ft) elevation. Major tributaries within the unit include Middle Chugwater Creek, South Chugwater Creek, Ricker Creek, Strong Creek, and Shanton Creek. The unit consists of both public and private lands.

This unit is located in the Lower Laramie HUC and is designated to address the large recovery population in the North Platte River drainage called for in our conservation strategy. The unit supports excellent Preble's habitat with a complex tributary system and is likely to support a high density of the Preble's. While some isolated portions of this unit may be less suitable, we do not believe those areas are permanently affected by current land use practices or pose such barriers as to segregate portions of this Preble's population. Based on the amount and apparent quality of Preble's habitat contained in this unit, it may support one of the largest populations of the Preble's within its entire range and has a high probability of remaining viable well into the future. Threats are presented by future development, road construction, and road improvements. In addition, the unit is repeatedly crossed by gas pipelines and utility corridors. Haying and grazing may be threats to the Preble's in portions of the unit.

Specimens of the Preble's from this HUC include a specimen from Chugwater examined by Krutzsch (1954) in describing the subspecies, and specimens from Sybille Creek, Chugwater Creek, and Hunton Creek verified as the Preble's through morphological examination (tooth fold presence) (Jones, in litt., 2002). Capture of jumping mice presumed to be the Preble's has occurred at several other locations in this subdrainage.

The following critical habitat units are located in the South Platte River drainage:

Unit SP1: Lodgepole Creek and Upper Middle Lodgepole Creek, Laramie County, Wyoming

Unit SP1 encompasses approximately 265 ha (654 ac) on 20.8 km (13.0 mi) of streams within two subunits in the Lodgepole Creek watershed, Lodgepole Creek and the Upper Middle Lodgepole Creek. The Lodgepole Creek subunit includes Lodgepole Creek from Horse Creek Road (County Road 211) upstream beyond the confluence of North Lodgepole Creek and Middle Lodgepole Creek up to 2,300–m (7,000–ft) elevation on both creeks. The subunit consists of almost entirely private lands. The Upper Middle Lodgepole Creek subunit includes Middle Lodgepole Creek from the eastern boundary of the Pole Mountain Unit of the Medicine Bow-Routt National Forest upstream to about 2,400–m (7,750–ft) elevation and including the North Branch of Middle Lodgepole Creek. The unit consists of public lands including portions of the Medicine Bow-Routt National Forest.

This unit is located in the Upper Lodgepole HUC and is designated to address two of three small recovery populations called for in this HUC in our conservation strategy. The Lodgepole Creek subunit will likely be threatened in the future by development including road construction. The Upper Middle Lodgepole Creek subunit may be threatened by grazing pressure (particularly during drought conditions) and off-road vehicle use.

Critical habitat on this unit is designated based on captures of jumping mice on Middle Lodgepole Creek and North Branch of Middle Lodgepole Creek. Although these two trap sites are fairly high in elevation, a specimen was confirmed as the Preble's on the North Branch of Middle Lodgepole Creek through genetic examination and a second specimen was verified to be the Preble's through morphological examination (tooth fold presence) (Jones, in litt., 2001).

Unit SP4: North Fork Cache La Poudre River, Larimer, Colorado

Unit SP4 encompasses approximately 3,321 ha (8,206 ac) on 141.8 km (88.1 mi) of streams within the North Fork of the Cache La Poudre River watershed. It includes the North Fork of the Cache La Poudre River from Seaman Reservoir upstream to Halligan Reservoir. Major tributaries within the unit include Stonewall Creek, Rabbit Creek (including its North Fork, Middle Fork and South Fork), and Lone Pine Creek. The unit includes both public and private lands. It includes portions of the Arapaho-Roosevelt National Forest, as well as Lone Pine State Wildlife Area.

The unit is located in the Cache La Poudre HUC and is designated to address the large recovery population designated for this area in our conservation strategy. The area remains rural and agricultural with habitat components likely to support relatively high densities of the Preble's. Pressure for expanded development is increasing within the area. Within existing properties belonging to The Nature Conservancy along the North Fork Cache La Poudre River and to Al Johnson along Rabbit Creek, Lone Pine Creek, and the North Fork Cache La Poudre River, designated critical habitat extends from the center line of the stream outward 325 ft (99 m) on both sides.

Specimens from Rabbit Creek and Lone Pine Creek were verified through genetic examination as the Preble's. Jumping mice identified in the field as the Preble's have been captured at several locations within the unit.

Unit SP5: Cache La Poudre River, Larimer County, Colorado

Unit SP5 encompasses approximately 1,912 ha (4,725 ac) on 82.4 km (51.2 mi) of streams within the Cache La Poudre River watershed. It includes the Cache La Poudre River from Poudre Park upstream to the 2,300 m (7,600 ft) elevation (below Rustic). Major tributaries within the unit include Hewlett Gulch, Young Gulch, Skin Gulch, Poverty Gulch, Elkhorn Creek, Pendergrass Creek, and Bennett Creek. The unit is primarily composed of Federal lands of the Arapaho-Roosevelt National Forest, including portions of the Cache La Poudre Wilderness, but includes limited non-Federal lands.

The unit is located in the Cache La Poudre HUC and, while unlikely to serve as an initial recovery population, it encompasses a significant area of habitat likely to support a sizeable population of the Preble's. Due to Federal ownership, development pressure is minimal; however, the area is subject to substantial recreational use (rafting, kayaking, fishing) in the Cache La Poudre River corridor. Non-Federal lands include existing development that may limit habitat components present. Some such reaches may serve the Preble's mostly as connectors between areas containing all necessary primary constituent elements.

A number of jumping mice, identified in the field as the Preble's, have been captured from this unit, with one specimen from Young Gulch verified through morphological examination as a Preble's.

Unit SP6: Buckhorn Creek, Larimer County, Colorado

Unit SP6 encompasses approximately 1,537 ha (3,798 ac) on 69.2 km (43.0 mi) of streams within the Buckhorn Creek watershed. It includes Buckhorn Creek from just west of Masonville, upstream to the 2,300 m (7,600 ft) elevation. Major tributaries within the unit include Little Bear Gulch, Bear Gulch, Stringtown Gulch, Fish Creek, and Stove Prairie Creek. The unit includes both public and private lands, and includes portions of the Arapaho-Roosevelt National Forest.

The unit is located in the Big Thompson HUC and is designated to address the medium recovery population called for this area in our conservation strategy. Pressure for

expanded rural development exists on non-Federal lands within the unit.

Jumping mice identified in the field as the Preble's have been captured from various portions of this unit with one specimen from Little Bear Gulch verified through morphological examination as the Preble's.

Unit SP10: Ralston Creek, Jefferson County, Colorado

Unit SP10 encompasses approximately 277 ha (686 ac) on 12.9 km (8.0 mi) of streams within the Ralston Creek watershed. It includes Ralston Creek from Ralston Reservoir upstream to the 2,300 m (7,600 ft) elevation. The unit includes both public and private lands including lands in Golden Gate Canyon State Park and White Ranch County Park. Denver Water lands along Ralston Creek, originally proposed for designation within this unit, have been excluded from the final designation (see Relationship to Habitat Conservation Plans).

This unit is located in the Clear Creek HUC and is designated to partially address the criteria of three small recovery populations or one medium recovery population called for this area in our conservation strategy. The segment of Ralston Creek that passes through the Cotter Corporation's existing Schwartzwalder Mine serves as a connector between areas supporting all primary constituent elements required by the Preble's located in areas upstream and downstream. The Preble's has been verified through morphological examination of a specimen from the lower portion of this unit.

Unit SP13: Upper South Platte River, Jefferson and Douglas Counties, Colorado

Unit SP13 encompasses approximately 1,321 ha (3,265 ac) on 70.5 km (43.8 mi) of streams within the Platte River watershed. It includes four subunits. The Chatfield subunit includes a section of the South Platte River upstream of Chatfield Reservoir within Chatfield State Recreation Area (Army Corps of Engineers' property). The Bear Creek subunit includes Bear Creek and West Bear Creek, tributaries to the South Platte River on National Forest System lands. The South Platte sub-unit includes a segment of the South Platte River upstream from Nighthawk, including the tributaries Gunbarrel Creek and Sugar Creek. This subunit is centered on Federal lands of the Pike-San Isabel National Forest but includes some intervening non-Federal lands. Non-Federal lands in Douglas County are not included in the final designation (see Relationship to Habitat Conservation Plans below). The Trout Creek subunit includes portions of Trout Creek, a tributary to Horse Creek, and also portions of Eagle Creek, Long Hollow, Fern Creek, Illinois Gulch, and Missouri Gulch. This subunit is centered on Federal lands of the Pike-San Isabel National Forest but includes some intervening non-Federal lands along Trout Creek. Denver Water lands within the Chatfield, Bear Creek, and South Platte River subunits, originally proposed for designation within this unit, have been excluded from the final designation (see Relationship to Habitat Conservation Plans).

This unit is located in the Upper South Platte HUC and, while unlikely to serve as an initial recovery population, encompasses four areas of primarily Federal land spread through the drainage, three within the Pike-San Isabel National Forest boundary. Habitat components present and the likely density of Preble's populations vary. The Trout Creek subunit appears to have high quality Preble's habitat and may provide an opportunity to research relationships between the Preble's and the western jumping mouse, both of which have been verified from the same trapping effort in the subunit. Small segments of non-Federal lands in the unit are within the Douglas County HCP currently being developed. The Preble's has been confirmed through morphological examination of a specimen from Trout Creek near the Douglas County-Teller County boundary at 2,310 m (7,590 ft). Other captures of jumping mice from various locations within this unit have been identified in the field as the Preble's.

Effects of Critical Habitat Designation

Designating critical habitat does not, in itself, lead to recovery of a listed species. Designation does not create a management plan, establish population goals, prescribe management actions, or directly affect areas not designated as critical habitat. Specific management recommendations for areas designated as critical habitat are most appropriately addressed in recovery, conservation, and management plans, and through section 7 consultations and section 10 permits. Critical habitat designation does not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be the subject of the full range of considerations in recovery planning, conservation actions that may be implemented under Section 7(a)(1), regulatory protections afforded by the Section 7(a)(2) jeopardy standard, and the Section 9 take prohibition. Areas outside of critical habitat designation may still be determined to be necessary for species recovery and survival. Similarly, Federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings. Critical habitat designations made on the basis of the best scientific and commercial data available at the time of designation may not dictate the direction and substance of future recovery plans, habitat conservation plans under section 10 of the Act, or conservation planning.

Section 7 Consultation

The regulatory effects of a critical habitat designation under the Act are triggered through the provisions of section 7, which applies only to activities conducted, authorized, or funded by a Federal agency (Federal actions). Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR 402. Individuals, organizations, States, local governments, and other non-Federal entities are not affected by the designation of critical habitat unless their actions occur on Federal lands, require Federal authorization, or involve Federal funding.

Section 7 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. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as ''a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to: alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.'' However, in a March 15, 2001, decision of the United States Court of Appeals for the Fifth Circuit (*Sierra Club* v. *U.S. Fish and Wildlife Service et al.,* F.3d 434), the Court found our definition of destruction or adverse modification to be invalid. In response to this decision, we are reviewing the regulatory definition of adverse modification in relation to the conservation of the species.

Consultation for Designated Critical Habitat

If a Federal action may affect a listed species or its designated critical habitat, the action agency must initiate consultation with us (50 CFR 402.14). Through this consultation, we would

advise the agency whether the action would likely jeopardize the continued existence of the species or adversely modify its critical habitat.

When we issue a biological opinion that concludes that an action is likely to result in the destruction or adverse modification of critical habitat, we must provide reasonable and prudent alternatives to the action, if any are identifiable. Reasonable and prudent alternatives are actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the proposed action, are consistent with the scope of the action agency's authority and jurisdiction, are economically and technologically feasible, and would likely avoid the destruction or adverse modification of critical habitat (50 CFR 402.02).

Reinitiation of Prior Consultations

Following designation of critical habitat, regulations at 50 CFR 402.16 require a Federal agency to reinitiate consultation for previously reviewed actions that may affect critical habitat and over which the agency has retained discretionary involvement or control.

Federal Actions That May Destroy or Adversely Modify Preble's Meadow Jumping Mouse Critical Habitat

Section 4(b)(8) of the Act requires us, in any proposed or final rule designating critical habitat, to briefly describe and evaluate those activities that may adversely modify such habitat, or that may be affected by such designation.

Federal actions that, when carried out, funded or authorized by a Federal agency, may destroy or adversely modify critical habitat for the Preble's include, but are not limited to:

(1) Any activity that results in development or alteration of the landscape within a unit, including land clearing; activities associated with construction for urban and industrial development, roads, bridges, pipelines, or bank stabilization; agricultural activities such as plowing, discing, haying, or intensive grazing; off-road vehicle activity; and mining or drilling of wells;

(2) Any activity that results in changes in the hydrology of the unit, including construction, operation, and maintenance of levees, dams, berms, and channels; activities associated with flow control (*e.g.,* releases, diversions, and related operations); irrigation; sediment, sand, or gravel removal; and other activities resulting in the draining or inundation of a unit;

(3) Any sale, exchange, or lease of Federal land that is likely to result in the habitat in a unit being destroyed or appreciably degraded;

(4) Any activity that detrimentally alters natural processes in a unit including the changes to inputs of water, sediment and nutrients, or that significantly and detrimentally alters water quantity in the unit; and

(5) Any activity that could lead to the introduction, expansion, or increased density of exotic plant or animal species that are detrimental to the Preble's and to its habitat.

Federal actions not affecting listed species or critical habitat and actions on non-Federal lands that are not federally funded or permitted do not require section 7 consultation.

Previous Section 7 Consultations

Many section 7 consultations for Federal actions affecting the Preble's and its habitat have preceded this critical habitat designation, including, but not limited to:

(1) Activities on Federal lands including those of the Department of Defense, Forest Service, Department of Energy, and Bureau of Land Management;

(2) Activities affecting waters of the United States by the Army Corps of Engineers under section 404 of the Clean Water Act;

(3) Licensing or relicensing of dams by the Federal Energy Regulatory Commission;

(4) Development, operation, and maintenance of dams, canals, and other means of directing flows by the Army Corps of Engineers and the Bureau of Reclamation;

(5) Funding and regulation of highway and bridge construction, and improvements by the Federal Highway Administration;

(6) Licensing or construction of communication sites by the Federal Communications Commission;

(7) Hazard mitigation and post-disaster repairs funded by the Federal Emergency Management Agency; and

(8) Issuance of Endangered Species Act section 10(a)(1)(B) permits by the Fish and Wildlife Service.

If you have any questions regarding whether specific activities will likely constitute destruction or adverse modification of critical habitat, contact Field Supervisor, Colorado Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). Requests for copies of regulations on listed wildlife and inquiries about prohibitions and permits may be addressed to U.S. Fish and Wildlife Service, Ecological Services, P.O. Box 25486, DFC, Denver, CO 80225–0486 (telephone 303–236–7400; facsimile 303–236–0027).

Economic Analysis

Section 4(b)(2) of the Act requires that we designate critical habitat on the basis of the best scientific and commercial information available and that we consider the economic and other relevant impacts of designating a particular area as critical habitat. We based this final rule on the best scientific and commercial data available. In order to make a final critical habitat designation, we further utilized the Draft Economic Analysis, the Addendum to the Economic Analysis, and our analysis of other relevant impacts, and considered all comments and information submitted during the public hearings and comment periods. No areas proposed as critical habitat were excluded or modified because of economic impacts. However, we have excluded areas from the final designation on the basis of a final determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat (see Relationship to sections 3(5)(A) and 4(b)(2) of the Act). In accordance with section 4(b)(2) of the Act, we cannot exclude areas from critical habitat when their exclusion will result in the extinction of the species. We prepared a Draft Economic Analysis that was available for public review and comment during the comment period for the proposed rule. You can request copies of the Draft Economic Analysis, the Addendum to the Economic Analysis, and EA from the Colorado Ecological Services Field Office (see **ADDRESSES**).

Section 4(b)(2) of the Act and 50 CFR 424.19 require us to consider the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. Executive Order 12866 defines ''significant regulatory action,'' in part, as a regulatory action that is likely to result in a rule that may have an annual effect on the economy of $100 million or more. The Addendum to the Economic Analysis for this rule estimates that the potential economic effects could range from $7.9 to $17.8 million annually. This includes potential economic effects related to consultations, project modifications, and including those effects that may be attributed co-extensively with the listing of the species. Thus, we do not believe that the adverse modification prohibition (from critical habitat designation) will have significant economic effects such that it will have an annual economic effect of $100 million or more. We recognize, however, that while the impacts may

not be considered ''significant'' under Executive Order 12866, there will be some economic impact within Wyoming and Colorado. Additionally, the Addendum to the Economic Analysis recognizes the benefits associated with conservation of an endangered species. The Addendum to the Economic Analysis provides information on benefits associated with habitat protection for the Preble's (e.g., recreation, benefits to other species, ecosystem services, and value of open space). These benefits are described in detail in the Addendum to the Economic Analysis.

In accordance with Executive Order 12866, this document is a significant rule since the Office of Management and Budget (OMB) determined that this rule may raise novel legal or policy issues and it was reviewed by OMB. We prepared a Draft Economic Analysis of this action. We used this analysis to meet the requirement of section 4(b)(2) of the Endangered Species Act to determine the economic consequences of designating the specific areas as critical habitat. The Draft Economic Analysis was made available for public comment, and we considered those comments during the preparation of this rule. The draft analysis indicates that this rule will not have an annual economic effect of $100 million or more or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. Under the Act, critical habitat may not be destroyed or adversely modified by a Federal agency action; the Act does not impose any restrictions related to critical habitat on non-Federal persons unless they are conducting activities funded or otherwise sponsored or permitted by a Federal agency. Because of the potential for impacts on other Federal agencies' activities, we reviewed this action for any inconsistencies with other Federal agencies' actions. We believe that this rule will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients, except those involving Federal agencies which would be required to ensure that their activities do not destroy or adversely modify designated critical habitat. As discussed above, we do not anticipate that the adverse modification prohibition (from critical habitat designation) will have any significant economic effects such that it will have an annual economic effect of $100 million or more. OMB has determined that the critical habitat portion of this rule will raise novel legal or policy issues, and this rule was reviewed by OMB. The final rule follows the requirements for designating critical habitat contained in the Act.

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

Under the Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, whenever a Federal agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the RFA to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities. We are certifying that the designation of critical habitat for the Preble's will not have a significant effect on a substantial number of small entities. The following discussion explains our rationale.

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

To determine if the rule would affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, oil and gas production, timber harvesting, *etc.*). We apply the ''substantial number'' test individually to each industry to determine if certification is appropriate. SBREFA does not explicitly define either ''substantial number'' or ''significant economic impact.'' Consequently, to assess whether a ''substantial number'' of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in the area. Similarly, this analysis considers the relative cost of compliance on the revenues/profit margins of small entities in determining whether or not entities incur a ''significant economic impact.'' Only small entities that are expected to be directly affected by the designation are considered in this portion of the analysis. This approach is consistent with several judicial opinions related to the scope of the RFA. (*Mid-Tex Electric Co-op Inc.* v. *F.E.R.C.,* 773 F.2d 327 (D.C. Cir. 1985) and *American Trucking Associations, Inc.* v. *U.S. E.P.A.,* 175 F.3d 1027, (D.C. Cir. 1999)).

To be conservative, (*i.e.*, more likely to overstate impacts than understate them), the Preble's economic analysis assumes that a unique entity will undertake each of the projected consultations in a given year, and so the number of businesses affected is equal to the total annual number of consultations (both formal and informal).

Small businesses in the construction and related development industry could potentially be affected by section 7 protection for the Preble's if critical habitat designation leads to significant project modifications or delays. Our economic analysis assumes that 173 unique companies will consult with the Service on development projects during the next 10 years, or 17.3 businesses per year. There are approximately 335 small residential and related development companies in Boulder, El Paso, Douglas, and Larimer counties in which critical habitat units are located. Thus, according to our economic analysis, approximately 5 percent of small residential and related development companies may be affected by section 7 implementation in critical habitat annually.

Small businesses in the construction and development industries could potentially bear a per-business cost of $25,000 to $2.6 million. The annual sales that a company would require for this per-business cost to constitute a ''significant effect'' would be less than $86.7 million. Based on national

statistics, 100 percent of small developers and 100 percent of builders and general contractors in Boulder, Douglas, El Paso, Jefferson, Larimer, and Weld Counties have annual sales less than this amount. Thus, according to our economic analysis, the expected number of small businesses likely to experience a significant effect is 100 percent of 17.3, or 17.3 businesses annually. This number represents approximately 5 percent of construction and development companies in Boulder, Douglas, El Paso, Jefferson, Larimer, and Weld Counties.

To the extent that section 7 implementation may lead to an increase in the number of consultations and project modifications regarding agricultural operations in Wyoming, the Service estimates that approximately 54 informal and 10 formal consultations are likely to occur within critical habitat areas during the next 10 years, or 5.4 informal and 1 formal consultations per year. There are approximately 162 small farms and ranches in the Wyoming counties in which critical habitat units are located. Therefore, our economic analysis indicates that approximately 4 percent of small agricultural operations in the counties in which critical habitat units are located may be affected by section 7 implementation in critical habitat annually.

One hundred and sixty-two agriculture operations in Albany, Converse, Laramie and Platte Counties, or approximately 95 percent of all agriculture operations in the counties designated as critical habitat, are considered small. Small businesses in the agriculture industry could potentially bear a per-business cost of $4,100 per formal and $2,900 per informal consultation, respectively. The annual sales that a rancher or farmer would require for the $4,100 per-business cost and the $2,900 per-business cost to constitute a ''significant effect'' would be less than $137,000 and $97,000, respectively. Based on national statistics, approximately 86 percent of agriculture operations in the counties designated as critical habitat have annual sales less than the ''significant effect'' threshold for formal consultation, and 82 percent have annual sales less than the ''significant effect'' threshold for informal consultation. Thus, our economic analysis shows that the expected number of small agriculture businesses likely to experience a significant effect from formal consultation is 86 percent of 0.95 (95 percent of 1 formal consultation per year), or about 0.8 annually, and the number of small agriculture businesses likely to experience a significant effect from informal consultation is 82 percent of 5.1 (95 percent of 5.4 informal consultations per year), or about 4.2 annually. These 5 agriculture operations (0.8 plus 4.2) represent approximately 3 percent of the 162 small agricultural operations in the counties designated as critical habitat in Wyoming.

Small businesses in the utility industry could potentially be affected by section 7 protection for the Preble's if the designation leads to significant project modifications or delays. This analysis assumes that 79 unique companies may consult with the Service on utilities projects during the next 10 years, or 7.9 businesses per year. There are approximately 166 small utility, electric services, natural gas distribution, and water supply companies in Boulder, Douglas, El Paso, Jefferson, Larimer, Teller, and Weld in which critical habitat units are located. Thus, according to our economic analysis, approximately 5 percent of small utility companies may be affected by section 7 implementation in proposed critical habitat annually.

Small businesses in the utility industry could potentially bear a per-business cost of $9,000 to $18,600 per consultation. For utility companies with annual sales up to $1 million, 16 percent of all utility companies, this cost would be greater than or equal to 3.2 percent of annual sales. For utility companies with $1 million to $3 million in annual sales, 20 percent of all utility companies, this cost would comprise 1.1 to 1.8 percent of annual sales. For utility companies with $3 million to $5 million in annual sales, 9 percent of all utility companies, this cost would represent 0.6 percent of annual sales. For utility companies with greater than $5 million in annual sales, 55 percent of all utility companies, this cost would comprise less than 0.1 to 0.2 percent of annual sales.

Energy Supply, Distribution or Use (Executive Order 13211)

On May 18, 2001, the President issued Executive Order 13211, which applies to ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use.'' In order to ensure that Federal agencies ''appropriately weigh and consider the effects of the Federal government's regulations on the supply, distribution, and use of energy,'' the President has directed agencies to prepare and submit to the OMB's Office of Information and Regulatory Affairs a ''Statement of Energy Effects'' for their ''significant energy actions.'' The OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute ''a significant adverse effect'' when compared with the regulatory action under consideration: (1) Reductions in crude oil supply in excess of 10,000 barrels per day; (2) Reductions in fuel production in excess of 4,000 barrels per day; (3) Reductions in coal production in excess of 5 million tons per year; (4) Reductions in natural gas production in excess of 25 million mcf; (5) Reductions in electricity production in excess of 1 billion kilowatts per year or in excess of 500 megawatts of installed capacity; (6) Increases in energy use required by the regulatory action that exceed the thresholds above; (7) Increases in the cost of energy production in excess of one percent; (8) Increases in the cost of energy distribution in excess of one percent; or (9) Other similarly adverse outcomes.

Energy distribution via natural gas pipelines is the only activity related to this executive order where section 7 consultation regarding the Preble's appears likely. The Service has conducted consultations with the Federal Energy Regulatory Commission regarding construction of interstate gas pipelines through Preble's habitat. Efforts were made to minimize disturbance, in some cases through placing temporal limits on construction or by directional drilling under sensitive habitat, and to assure timely revegetation of areas disturbed. Costs related to required section 7 consultations represent far less than 1 percent of the cost of energy distribution. Consequently, this rule will not have a ''significant adverse effect'' on the supply, distribution, or use of energy, and no ''Statement of Energy Effects'' is required.

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

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

1. On the basis of information contained in the Draft Economic Analysis and Addendum to the Economic Analysis, this rule will not ''significantly or uniquely'' affect small governments. A Small Government Agency Plan is not required. Small governments will be affected only to the extent that any of their actions involving Federal funding or authorization must not destroy or adversely modify the critical habitat or take the species under section 9.

2. This rule will not produce a Federal mandate of $100 million or greater in any year (*i.e.,* it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act).

Takings

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights,'' March 18, 1988; 53 FR 8859), we have analyzed the potential takings implications of the designation of critical habitat for the Preble's meadow jumping mouse. The takings implications assessment concludes that this final rule does not pose significant takings implications. A copy of this assessment can be obtained by contacting the Colorado Services Field Office (see **ADDRESSES**).

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior policy, the Service requested information from and coordinated development of this critical habitat designation with appropriate State resource agencies in Wyoming and Colorado. We will continue to coordinate any future designation of critical habitat for the Preble's with the appropriate State agencies. The designation of critical habitat for the Preble's imposes few additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. While making this definition and identification does not alter where and what federally-sponsored activities may occur, doing so may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988, 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 designate critical habitat in accordance with the provisions of the Act. The rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the Preble's.

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

This rule does not contain any information collection requirements for which Office of Management and Budget approval under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) is required. This rule will not impose new 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 valid OMB control number.

National Environmental Policy Act

Our position is that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld in the courts of the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (1996)). However, when the range of the species includes States within the Tenth Circuit, pursuant to 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 complete a NEPA analysis with an EA. The range of the Preble's includes States within the Tenth Circuit; therefore, we completed a draft EA and made it available for public review and comment. A final EA and Finding of No Significant Impact have been prepared for this designation and are available from the Colorado Ecological Services Field Office (see **ADDRESSES**).

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), along with Executive Order 13175 and 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We are required to assess the effects of critical habitat designation on tribal lands and tribal trust resources. We believe that no tribal lands or tribal trust resources are essential for the conservation of the Preble's.

References Cited

A complete list of all references cited in this final rule is available upon request from the Colorado Ecological Services Field Office (see **ADDRESSES**).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

■ Accordingly, for the reasons we have stated in the preamble, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations as set forth below:

PART 17—[AMENDED]

■ 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. In § 17.11(h), revise the entry for ''Mouse, Preble's meadow jumping'' under ''MAMMALS'' 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						
MAMMALS							
*	*	*	*	*	*		*
Mouse, Preble's meadow jumping.	*Zapus hudsonius preblei.*	U.S.A. (CO, WY)	Entire	T	636	17.95(a)	NA
*	*	*	*	*	*		*

■ 3. Amend § 17.95(a) by adding critical habitat for the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) in the same alphabetical order as the species occurs in § 17.11(h) to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

(a) *Mammals.* * * *

Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*)

(1) Critical habitat units are depicted for Wyoming and Colorado. Maps and descriptions follow.

(2) Within these areas, the primary constituent elements for the Preble's include those habitat components essential for the biological needs of reproducing, rearing of young, foraging, sheltering, hibernation, dispersal, and genetic exchange. The primary constituent elements are found in and near riparian areas located within grassland, shrubland, forest, and mixed-vegetation types where dense herbaceous or woody vegetation occurs near the ground level, where available open water exists during their active season, and where there are ample upland habitats of sufficient width and quality for foraging, hibernation, and refugia from catastrophic flooding events. Primary constituent elements associated with the biological needs of dispersal and genetic exchange also are found in areas that provide connectivity or linkage between or within Preble's populations. The dynamic ecological processes that create and maintain Preble's habitat also are important primary constituent elements. Primary constituent elements include:

(i) A pattern of dense riparian vegetation consisting of grasses, forbs, and shrubs in areas along rivers and streams that provide open water through the Preble's active season;

(ii) Adjacent floodplains and vegetated uplands with limited human disturbance (including hayed fields, grazed pasture, other agricultural lands that are not plowed or disced regularly, areas that have been restored after past aggregate extraction, areas supporting recreational trails, and urban/wildland interfaces);

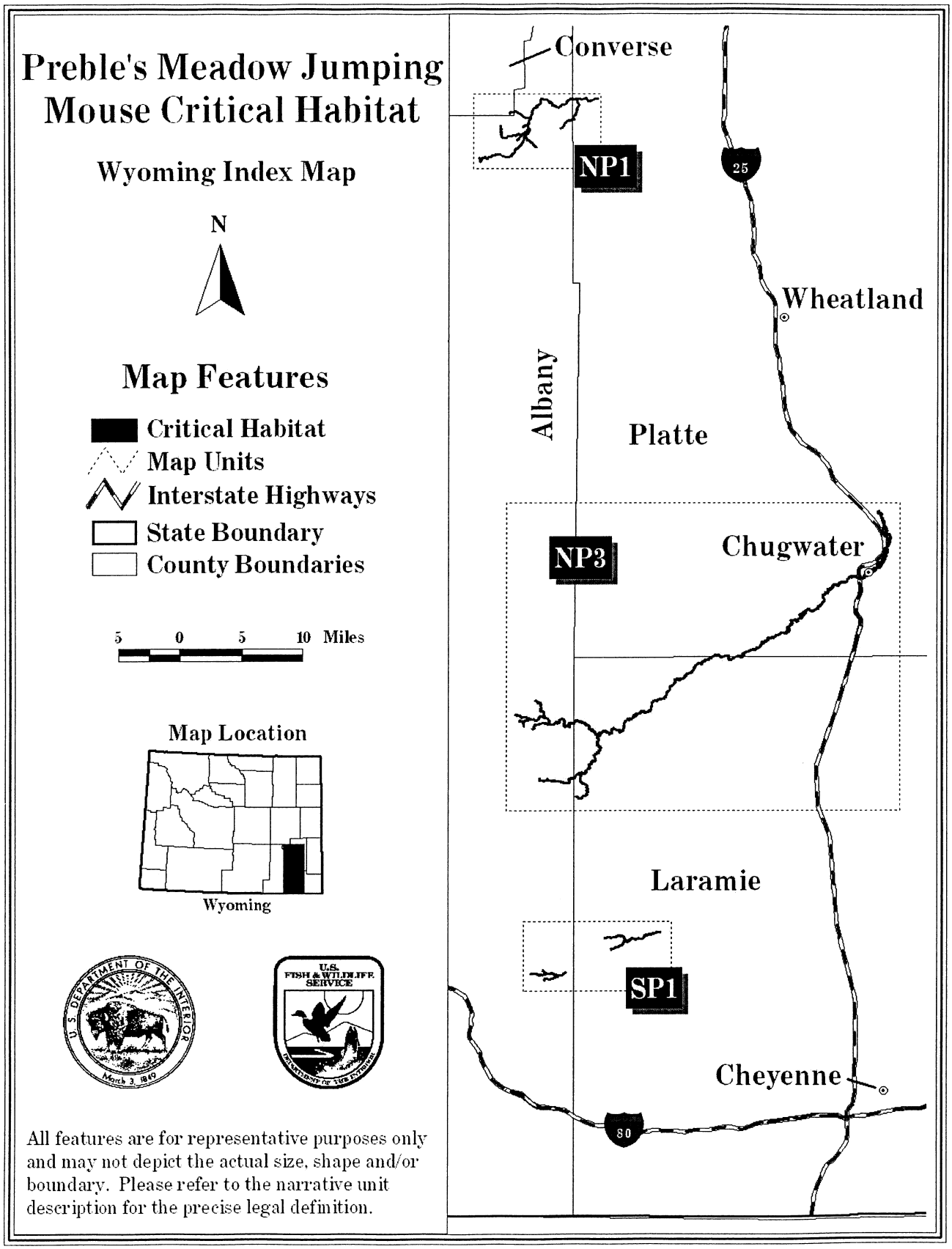
(iii) Areas that provide connectivity between and within populations (These may include river and stream reaches with minimal vegetative cover or that are armored for erosion control; travelways beneath bridges, through culverts, and along canals and ditches; and other areas that have experienced substantial human alteration or disturbance.); and

(iv) Dynamic geomorphological and hydrological processes typical of systems within the range of the Preble's, *i.e.,* those processes that create and maintain river and stream channels, floodplains, and floodplain benches, and promote patterns of vegetation favorable to the Preble's.

(3) Existing features and structures within the boundaries of the mapped units, such as buildings, roads, parking lots, other paved areas, lawns, other urban and suburban landscaped areas, regularly plowed or disced agricultural areas, and other features not containing any of the primary constituent elements are not considered critical habitat.

(4) Critical Habitat Units—Wyoming Index Map Follows:

BILLING CODE 4310–55–P

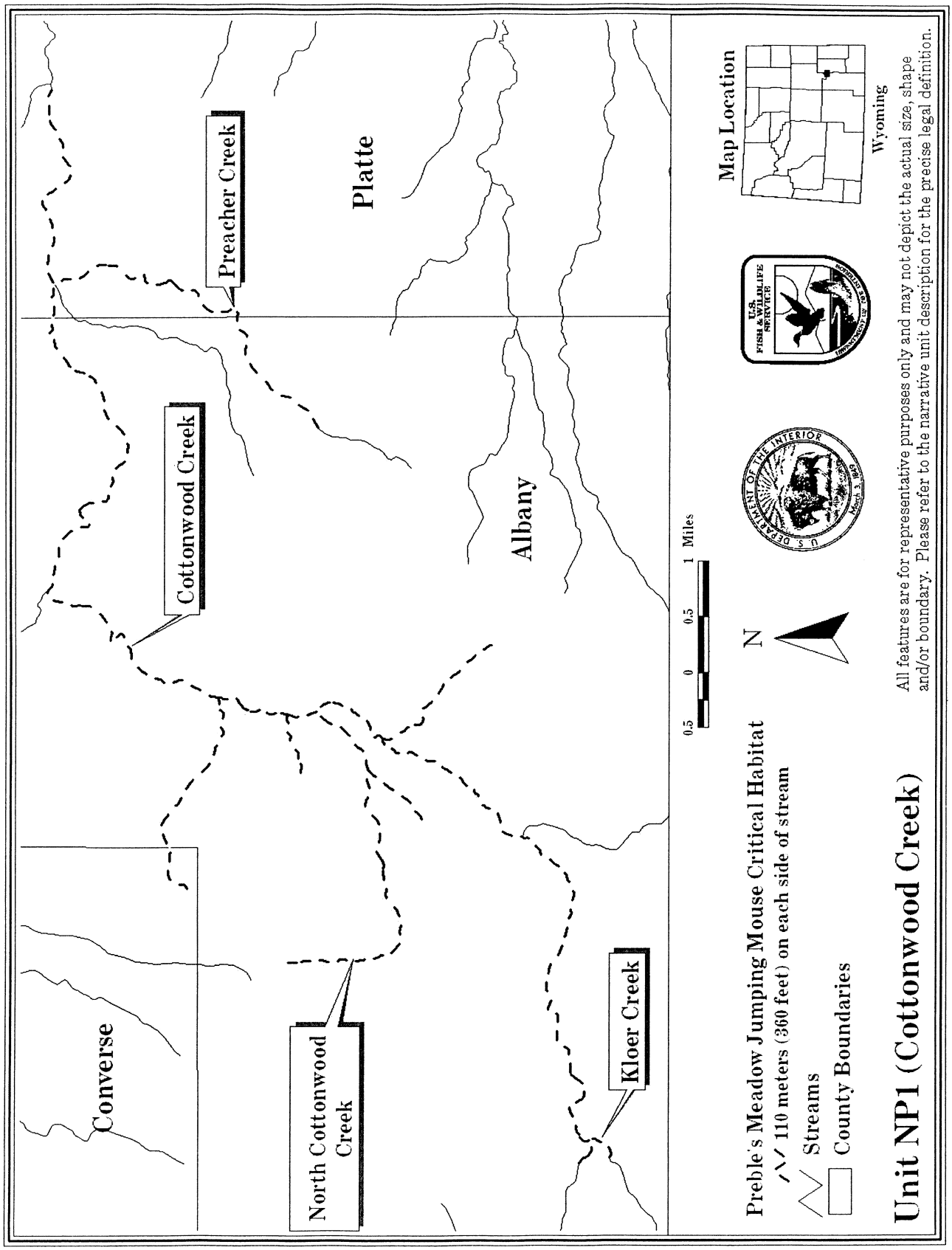

Preble's Meadow Jumping Mouse Critical Habitat
Wyoming Index Map
N
Map Features
Critical Habitat
Map Units
Interstate Highways
State Boundary
County Boundaries
5 0 5 10 Miles
Map Location
Wyoming
U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849
U.S. FISH & WILDLIFE SERVICE
All features are for representative purposes only and may not depict the actual size, shape and/or boundary. Please refer to the narrative unit description for the precise legal definition.
Converse
NP1
25
Wheatland
Albany
Platte
NP3
Chugwater
Laramie
SP1
Cheyenne
80

(5) Map Unit NP1: Cottonwood Creek, Albany, Platte, and Converse Counties, Wyoming.

(i) This unit consists of the following: 43.3 km (26.9 mi) of streams. Cottonwood Creek from the confluence with Held Creek at (42 18 44N 105 14 50W, T.27N., R.70W., Sec. 16) upstream to (42 14 34N 105 26 04W, T.26N., R.72W., Sec. 12). Includes Preacher Creek from its confluence with Cottonwood Creek at (42 18 43N 105 16 51W, T.27N., R.70W., Sec. 17) upstream to (42 16 39N 105 18 22W, T.27N., R.71W., Sec. 25). Also includes an unnamed tributary from its confluence with Cottonwood Creek at (42 17 24N 105 21 12W, T.27N., R.71W., south boundary Sec. 22) upstream to (42 17 39N 105 23 13W, T.27N., R.71W., Sec. 20). Also includes another unnamed tributary from its confluence with Cottonwood Creek at (42 16 51N 105 21 23W, T.27N., R.71W., Sec. 28) upstream to (42 16 46N 105 21 59W, T.27N., R.71W., Sec. 28). Also includes North Cottonwood Creek from its confluence with Cottonwood Creek at (42 16 39N 105 21 21W, T.27N., R.71W., Sec. 28) upstream to (42 16 51N 105 23 59W, T.27N., R.71W., Sec. 30). Which includes an unnamed tributary from its confluence with North Cottonwood Creek at (42 16 15N 105 21 57W, T.27N., R.71W., Sec. 33) upstream to (42 15 48N 105 22 30W, T.27N., R.71W., Sec. 32). Cottonwood Creek includes another unnamed tributary from its confluence with Cottonwood Creek at (42 16 08N 105 21 38W, T.27N., R.71W., Sec. 33) upstream to (42 15 17N 105 20 39W, T.26N., R.71W., Sec. 3). Also includes a final tributary, Kloer Creek from its confluence with Cottonwood Creek at (42 14 30N 105 25 49W, T.26N., R.72W., Sec. 12) upstream to (42 14 20N 105 26 00W, T.26N., R.72W., Sec. 12).

(ii) Map of Unit NP1 follows:

BILLING CODE 4310–55–P

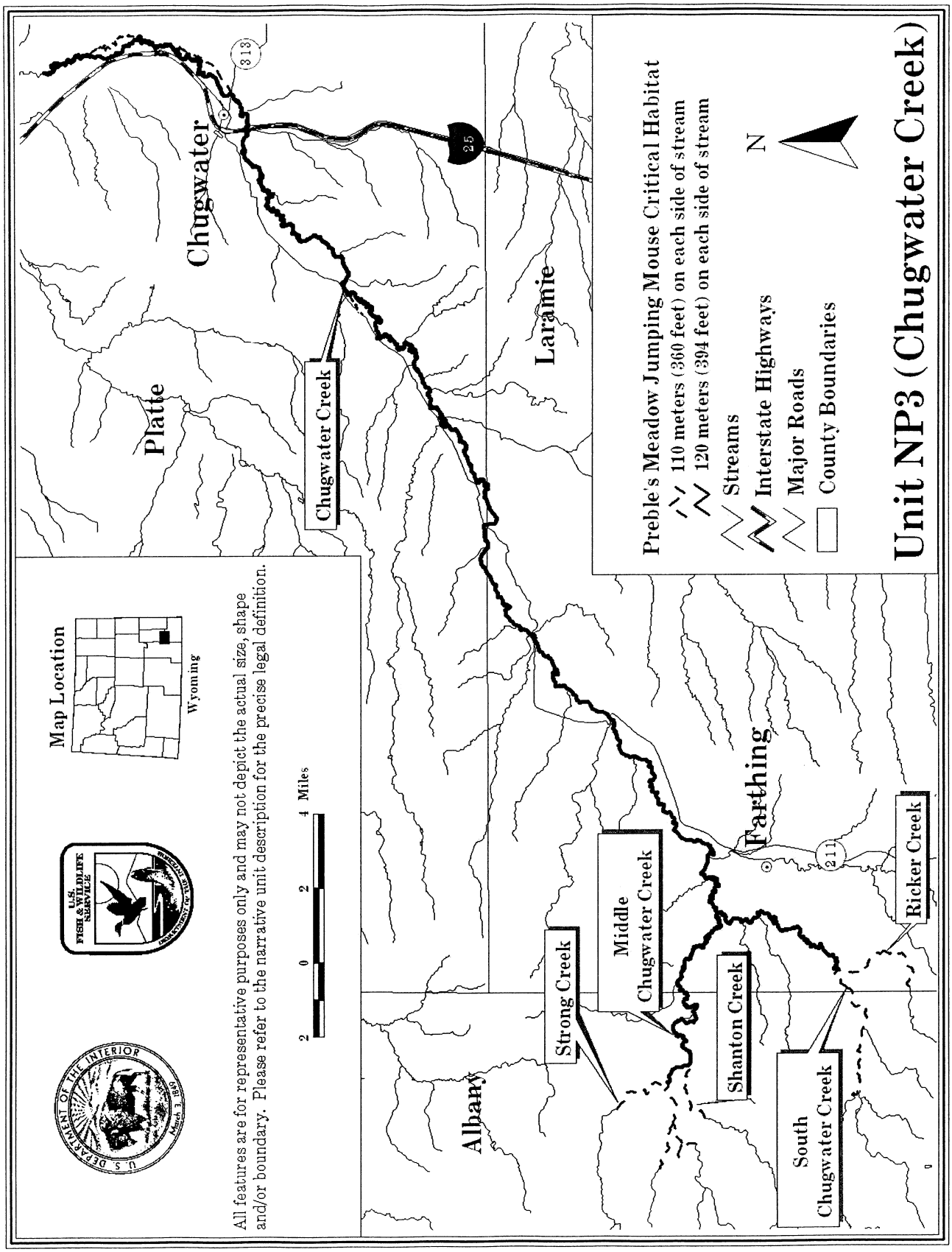

Preacher Creek
Platte
Cottonwood Creek
Albany
Converse
North Cottonwood Creek
Kloer Creek
Map Location
Wyoming
0.5 0 0.5 1 Miles
N
Preble's Meadow Jumping Mouse Critical Habitat
110 meters (360 feet) on each side of stream
Streams
County Boundaries
Unit NP1 (Cottonwood Creek)
All features are for representative purposes only and may not depict the actual size, shape and/or boundary. Please refer to the narrative unit description for the precise legal definition.

(6) Map Unit NP3: Chugwater Creek, Albany, Laramie, and Platte Counties, Wyoming.

(i) This unit consists of the following: 137.2 km (85.3 mi) of streams. Chugwater Creek from (41 49 41N 104 48 03W, T.21N., R.66W., north boundary Sec. 5) upstream to Farthing Reservoir (41 32 36N 105 14 31W, T.18N., R.70W., Sec. 9). Also includes Middle Chugwater Creek from its confluence with Chugwater Creek (41 33 55N 105 14 20W, T.18N., R.70W., Sec. 4) upstream to (41 34 23N 105 21 32W, T.19N., R.71W., Sec. 33). Which includes Shanton Creek from its confluence with Middle Chugwater Creek at (41 34 36N 105 19 05W, T.19N., R.71W., Sec. 35) upstream to (41 34 12N 105 20 41W, T.19N., R.71W., southwest corner Sec. 34). Also includes Strong Creek from its confluence with Middle Chugwater Creek at (41 35 04N 105 19 36W, T.19N., R.71W., Sec. 34) upstream to (41 36 16N 105 20 25W, T.19N., R.71W., Sec. 22). Middle Chugwater Creek also includes an unnamed tributary from its confluence with Middle Chugwater Creek at (41 34 56N 105 20 54W, T.19N., R.71W., Sec. 33) upstream to (41 35 14N 105 22 17W, T.19N., R.71W., Sec. 29). Finally, another unnamed tributary from its confluence with Middle Chugwater Creek at (41 34 43N 105 21 28W, T.19N., R.71W., Sec. 33) upstream to (41 34 47N 105 21 56W, T.19N., R.71W., Sec. 32). South Chugwater Creek is included in the unit from the ending point of Chugwater Creek at Farthing Reservoir (41 32 36N 105 14 31W, T.18N., R.70W., Sec. 9) upstream to (41 30 42N 105 20 03W, T.18N., R.71W., north boundary Sec. 27). Includes Ricker Creek from its confluence with South Chugwater Creek at (41 31 04N 105 16 07W, T.18N., R.70W., Sec. 19) upstream to (41 29 24N 105 16 39W, T.18N., R.70W., Sec. 31).

(ii) Map of Unit NP3 follows:

BILLING CODE 4310–55–P


Unit NP3 (Chugwater Creek)
Preble's Meadow Jumping Mouse Critical Habitat
110 meters (360 feet) on each side of stream
120 meters (394 feet) on each side of stream
Streams
Interstate Highways
Major Roads
County Boundaries
N
Platte
Chugwater
Laramie
Albany
Farthing
Chugwater Creek
Strong Creek
Middle Chugwater Creek
Shanton Creek
South Chugwater Creek
Ricker Creek
313
25
211
Map Location
Wyoming
2 0 2 4 Miles
All features are for representative purposes only and may not depict the actual size, shape and/or boundary. Please refer to the narrative unit description for the precise legal definition.
U.S. FISH & WILDLIFE SERVICE
U.S. DEPARTMENT OF THE INTERIOR

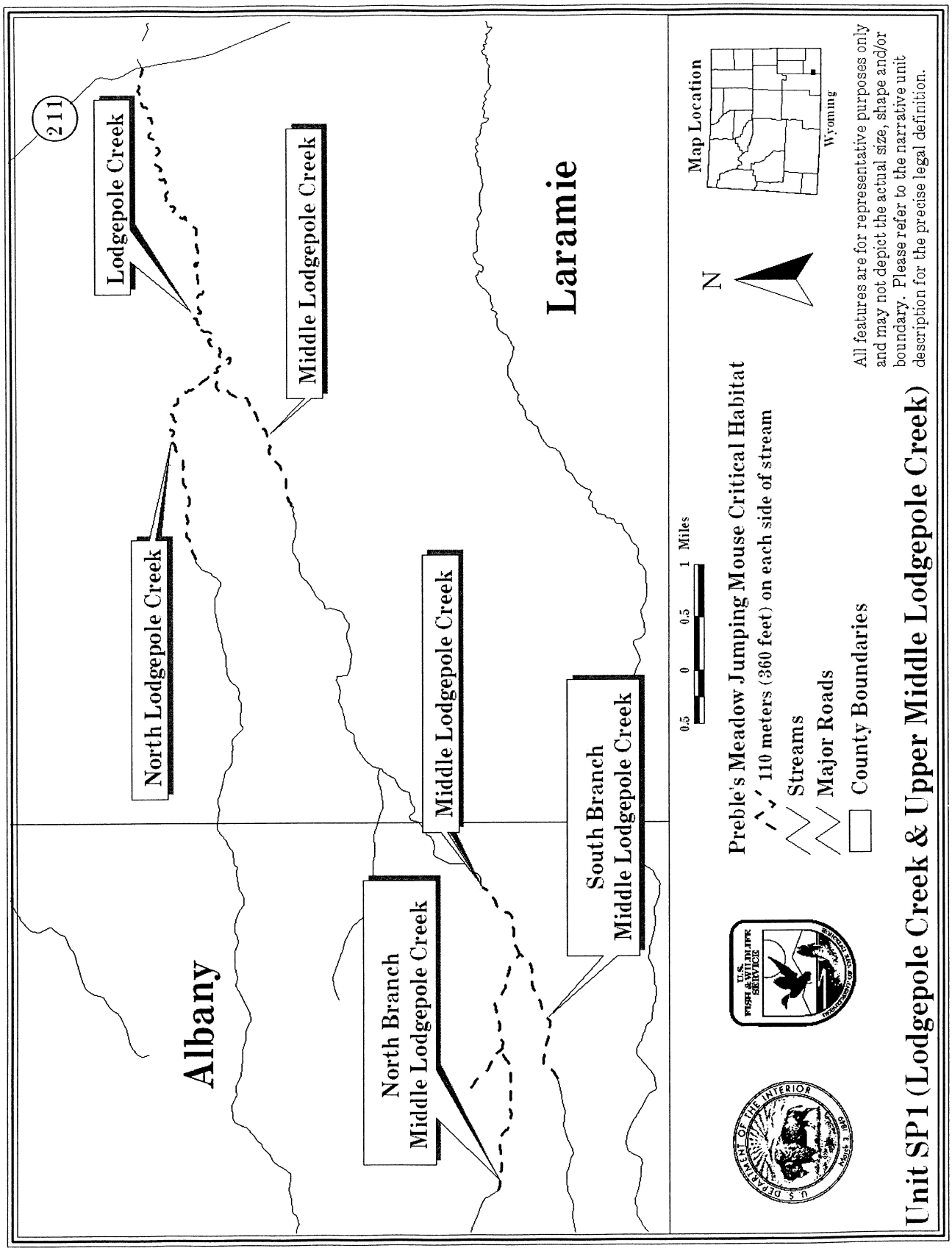
(7) Map Unit SP1: Lodgepole Creek and Upper Middle Lodgepole Creek, Laramie County, Wyoming.

(i) This unit consists of the following: 20.8 km (13 mi) of streams. Consists of 2 subunits. Subunit Lodgepole Creek, Laramie County, from Highway 211 (41 19 53N 105 08 35W, T.16N., R.69W., Sec. 29) upstream to the confluence of North Lodgepole Creek and Middle Lodgepole Creek (41 19 17N 105 11 52W, T16N., R.70W., Sec. 26). Includes North Lodgepole Creek from the aforementioned confluence (41 19 17N 105 11 52W, T16N., R.70W., Sec. 26) upstream to (41 19 27N 105 13 54W, T.16N., R.70W., west boundary Sec. 27). Also includes Middle Lodgepole Creek from (41 19 17N 105 11 52W, T16N., R.70W., Sec. 26) upstream to (41 18 40N 105 13 19W, T.16N., R.70W., Sec. 34).

(ii) Subunit Middle Lodgepole Creek, Albany County, includes Middle Lodgepole Creek from the boundary of Medicine Bow National Forest (41 17 06N 105 17 27W, T15N., R.71W., east boundary Sec. 12) upstream to the confluence of North Branch Middle Lodgepole Creek and Middle Branch Middle Lodgepole Creek (41 16 48N 105 18 10W, T.15N., R.71W., Sec. 12). Includes Middle Branch Middle Lodgepole Creek from the aforementioned confluence (41 16 48N 105 18 10W, T.15N., R.71W., Sec. 12) upstream to (41 16 29N 105 19 31W, T.15N., R.71W., Sec. 14). Also includes North Branch Middle Lodgepole Creek from the aforementioned confluence (41 16 48N 105 18 10W, T.15N., R.71W., Sec. 12) upstream to (41 16 58N 105 20 43W, T.15N., R.71W., Sec. 10). Which includes an unnamed tributary from its confluence with North Branch Middle Lodgepole Creek (41 16 56N 105 19 11W, T.15N., R.71W., Sec. 11) upstream to (41 17 12N 105 19 36W, T.15N., R.71W., Sec. 11).

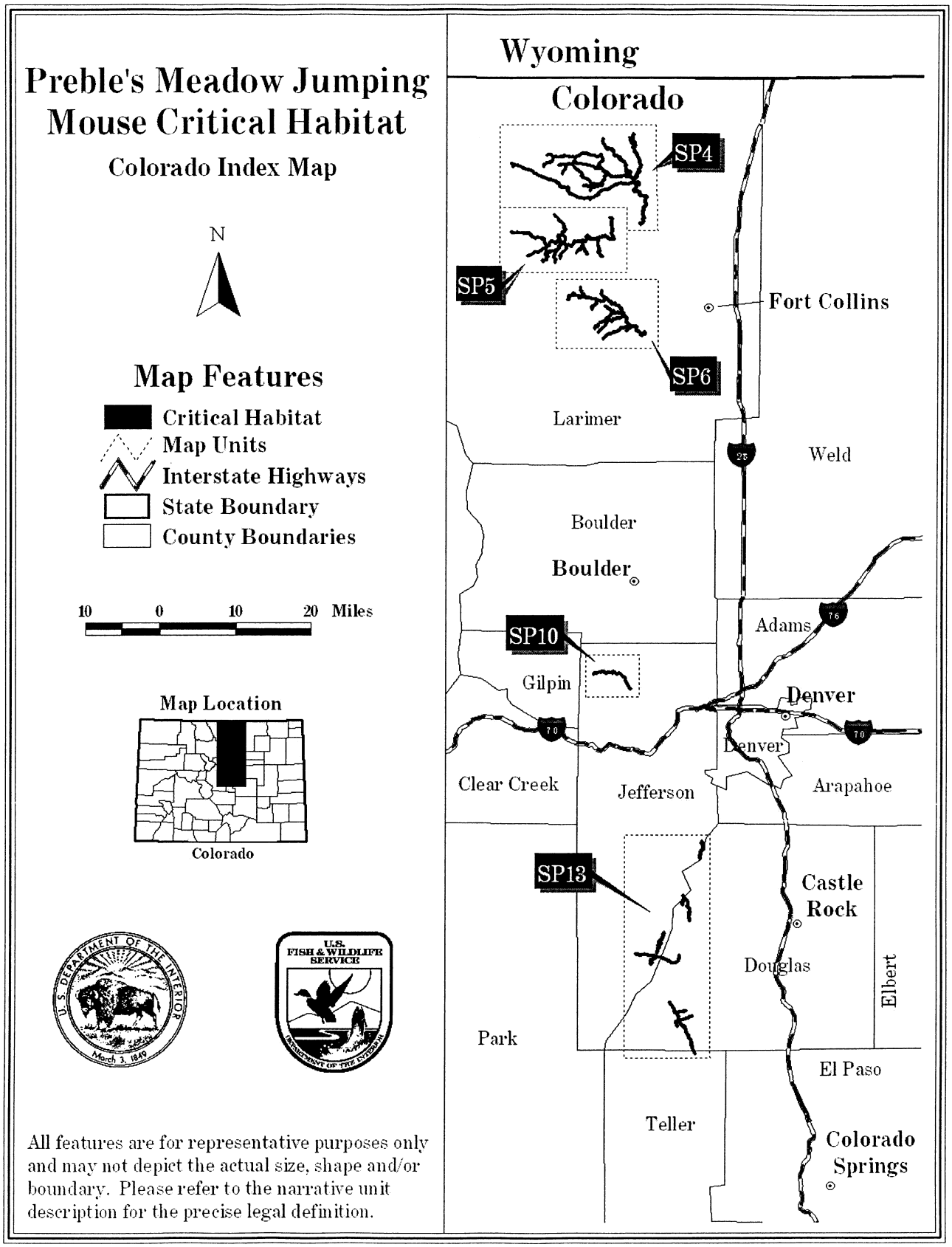
(iii) Map of Unit SP1 follows:

BILLING CODE 4310–55–P



(8) Critical Habitat Units—Colorado

Index Map Follows:

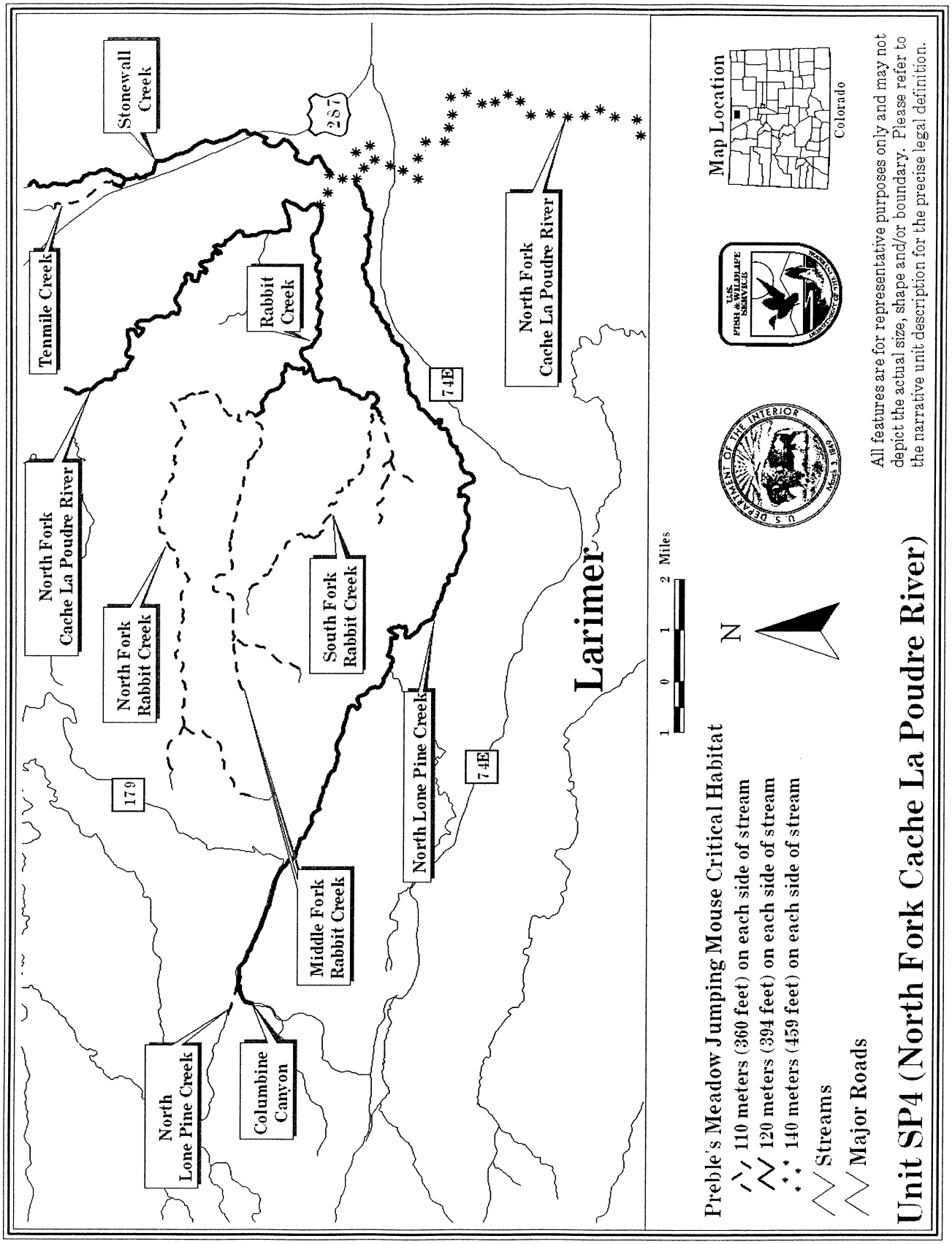

Preble's Meadow Jumping Mouse Critical Habitat
Colorado Index Map
N
Map Features
Critical Habitat
Map Units
Interstate Highways
State Boundary
County Boundaries
10 0 10 20 Miles
Map Location
Colorado
All features are for representative purposes only and may not depict the actual size, shape and/or boundary. Please refer to the narrative unit description for the precise legal definition.
Wyoming
Colorado
SP4
SP5
SP6
SP10
SP13
Fort Collins
Larimer
Weld
Boulder
Boulder
Adams
Gilpin
Denver
Denver
Clear Creek
Jefferson
Arapahoe
Castle Rock
Douglas
Elbert
Park
El Paso
Teller
Colorado Springs

(9) Map Unit SP4: North Fork Cache La Poudre River, Larimer County, Colorado.

(i) This unit consists of the following: 141.8 km (88.1 mi) of streams and rivers. North Fork Cache La Poudre River from Seaman Reservoir (40 43 03N 105 14 27W, T.9N., R.70W., Sec. 28) upstream to Halligan Reservoir spillway (40 52 49N 105 20 12W, T.11N., R.71W., Sec. 34). On property owned by The Nature Conservancy in T.10N., R.71W., Sec. 2, 3, and 4, the outward boundary extends to 325 ft (99m) from the centerline of the North Fork Cache La Poudre River. Includes Lone Pine Creek from its confluence North Fork Cache La Poudre River (40 47 53N 105 15 28W, T.10N., R.70W., Sec. 32) upstream and continuing upstream into North Lone Pine Creek to 2,300m (7,600 ft) elevation (40 49 58N 105 34 09W, T.01N., R.73W., Sec. 15). Which includes Columbine Canyon from its confluence with North Lone Pine Creek (40 49 48N 105 33 28W, T.10N., R.73W., Sec. 15) upstream to 2,300m (7,600 ft) elevation (40 49 33N 105 33 54W, T.10N., R.73W., Sec. 15). Also includes Stonewall Creek from its confluence with North Fork Cache La Poudre River (40 48 19N 105 15 21W, T.10N., R.70W., Sec. 29) upstream to (40 53 26N 105 15 38W, T.11N., R.70W., Sec. 29). Which includes Tenmile Creek from its confluence with Stonewall Creek (40 51 48N 105 15 30W, T.10N., R.70W., Sec. 5) upstream to Red Mountain Road (40 53 00N 105 16 09W, T.11N., R.70W., Sec. 31). Also includes Rabbit Creek from its confluence with North Fork Cache La Poudre River (40 48 30N 105 16 04W, T.10N., R.70W., Sec. 30) upstream to the confluence with North and Middle Forks of Rabbit Creek (40 49 34N 105 20 47W, T.10N., R 71W., Sec. 21). Also includes South Fork Rabbit Creek from its confluence with Rabbit Creek (40 48 40N 105 19 43W, T.10N., R.71W., Sec. 27) upstream to (40 49 39N 105 24 40W, T.10N., R.72W., north boundary Sec. 24). Which includes an unnamed tributary from its confluence with South Fork Rabbit Creek (40 47 28N 105 20 45W, T.10N., R.71W., Sec. 33) upstream to (40 47 28N 105 23 10W, T.10N., R.71W., Sec. 31). Which in turn has an unnamed tributary from their confluence at (40 47 16N 105 21 45W, T.10N., R.71W., east boundary Sec. 32) upstream to (40 46 54N 105 22 14W, T.9N., R.71W., Sec. 5). Also includes Middle Fork Rabbit Creek from its confluence with Rabbit Creek (40 49 34N 105 20 47W, T.10N., R 71W., Sec. 21) upstream to 2,300m (7,600 ft) elevation (40 49 46N 105 26 55W, T.10N., R.72W., Sec. 15). This includes an unnamed tributary from its confluence with Middle Fork Rabbit Creek (40 49 56N 105 25 49W, T.10N., R.72W., Sec. 14) upstream to 2,300m (7,600 ft) elevation (40 48 48N 105 26 26W, T.10N., R.72W., Sec. 23). This unit includes North Fork Rabbit Creek from its confluence with Rabbit Creek (40 49 34N 105 20 47W, T.10N., R.71W., Sec. 21) upstream to 2,300m (7,600 ft) elevation (40 49 38N 105 29 17W, T.10N., R.72W., Sec. 17). Which includes an unnamed tributary from its confluence with North Fork Rabbit Creek (40 50 45N 105 27 23W, T.10N., R.72W., Sec. 9) upstream to 2,300m (7,600 ft) elevation (40 50 57N 105 28 42W, T.10N., R.72W., Sec. 9). On property owned by Al Johnson in T.10N., R.70W., Sec. 29, 30, 31, and 32, the outward boundary extends to 325 ft (99m) from the centerline of the North Fork Cache La Poudre River, Rabbit Creek, and Lone Pine Creek.

(ii) Map of Unit SP4 follows:

BILLING CODE 4310–55–P



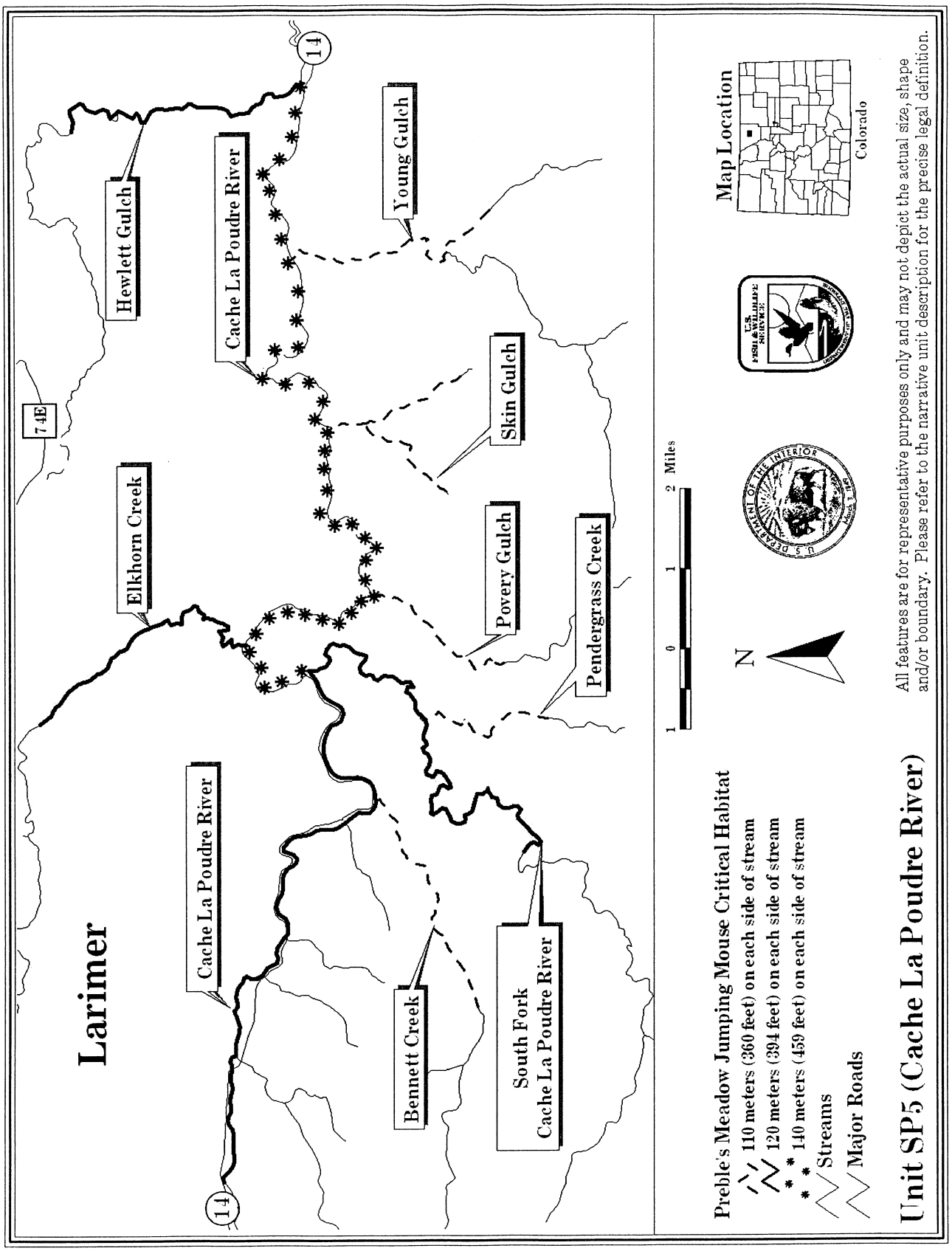
(10) Map Unit SP5: Cache La Poudre River, Larimer County, Colorado.

(i) This unit consists of the following: 82.4 km (51.2 mi) of streams and rivers. Cache La Poudre River from Poudre Park (40 41 16N 105 18 25W, T.8N.,

R.71W., Sec. 2) upstream to (40 42 02N 105 34 01W, T.9N., R.73W., west boundary Sec. 34). Includes Hewlett Gulch from its confluence with Cache La Poudre River (40 41 16N 105 18 25W, T.8N., R.71W., Sec. 2) upstream to the boundary of Arapahoe—Roosevelt National Forest (40 43 45N 105 19 06W, T.9N., R.71W., Sec. 23). Also includes Young Gulch from its confluence with Cache La Poudre River (40 41 25N 105 20 56W, T.8N., R.71W., Sec. 4) upstream to (40 39 13N 105 20 12W, T.8N., R.71W., south boundary Sec. 15). Also includes an unnamed tributary from its confluence with Cache La Poudre River at Stove Prairie Landing (40 40 58N 105 23 21W, T.8N., R.71W., Sec. 6) upstream to (40 39 32N 105 22 34W, T.8N., R.71W., Sec. 17). Which includes Skin Gulch from its confluence with the aforementioned unnamed tributary at (40 40 33N 105 23 15W, T.8N., R.71W., Sec. 7) upstream to (40 39 41N 105 24 13W, T.8N., R.72W., Sec. 13). Unit SP5 also includes Poverty Gulch from its confluence with Cache La Poudre River (40 40 28N 105 25 42W, T.8N., R.72W., Sec. 11) upstream to 2,300 m (7,600 ft) elevation (40 39 02N 105 26 38W, T.8N., R.72W., Sec. 22). Also includes Elkhorn Creek from its confluence with Cache La Poudre River (40 41 50N 105 26 24W, T.9N., R.72W., Sec. 34) upstream to (40 44 04N 105 27 32W, T.9N., R.72W., Sec. 21). Also includes South Fork Cache La Poudre River from its confluence with Cache La Poudre River (40 41 10N 105 26 46W, T.8N., R.72W., Sec. 3) upstream to 2,300 m (7,600 ft) elevation (40 38 49N 105 29 20W, T.8N., R.72W., Sec. 20). Which includes Pendergrass Creek from its confluence with South Fork Cache La Poudre River (40 39 54N 105 27 27W, T.8N., R.72W., Sec. 15) upstream to 2,300 m (7,600 ft) elevation (40 38 34N 105 27 26W, T.8N., R.72W., Sec. 22). Also included in the unit is Bennett Creek from its confluence with Cache La Poudre River (40 40 26N 105 28 37W, T.8N., R.72W., Sec. 9) upstream to 2,300 m (7,600 ft) elevation (40 39 18N 105 31 31W, T.8N., R.73W., Sec. 13).

(ii) Map Unit SP5 follows:

BILLING CODE 4310–55–P



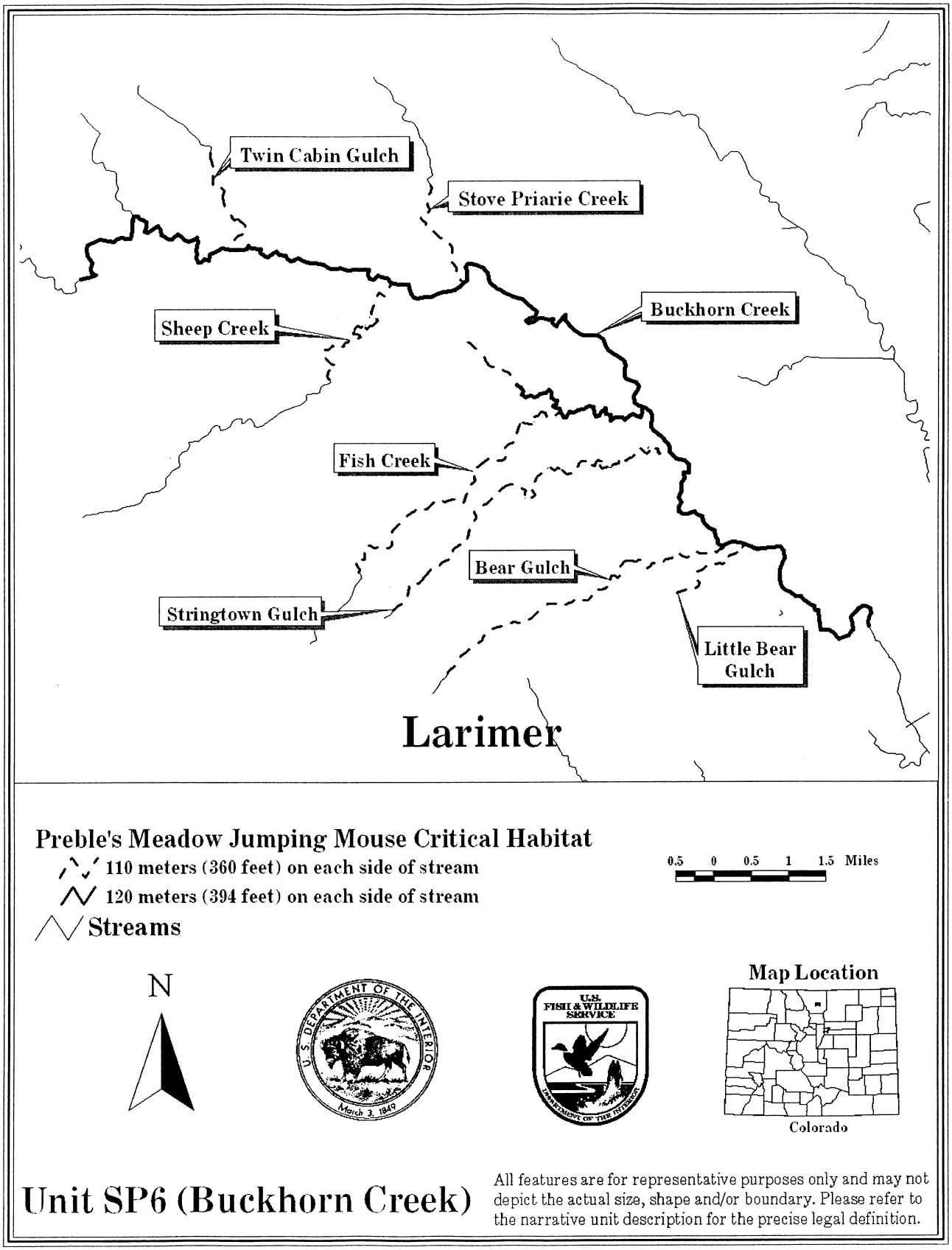
(11) Map Unit SP6: Buckhorn Creek, Larimer County, Colorado.

(i) This unit consists of the following: 69.1 km (43 mi) of streams. Buckhorn Creek from (40 30 20N 105 13 39W, T.6N., R.70W., east boundary Sec. 9)

upstream to 2,300 m (7,600 ft) elevation (40 34 17N 105 25 28W, T.7N., R.72W., Sec. 14). Includes Little Bear Gulch from its confluence with Buckhorn Creek (40 31 16N 105 15 32W, T.6N., R.70W., Sec. 5) upstream to (40 30 43N 105 16 33W, T.6N., R.70W., Sec. 6). Also includes Bear Gulch from its confluence with Buckhorn Creek (40 31 15N 105 15 51W, T.6N., R.70W., Sec. 5) upstream to 2,300 m (7,600 ft) elevation (40 29 47N 105 19 59W, T.6N., R.71W., Sec. 10). Also includes Stringtown Gulch from its confluence with Buckhorn Creek (40 32 19N 105 16 40W, T.7N., R.70W., Sec. 30) upstream to 2,300 m (7,600 ft) elevation (40 30 30N 105 20 48W, T.6N., R.71W., Sec. 4). Also includes Fish Creek from its confluence with Buckhorn Creek (40 32 50N 105 17 05W, T.7N., R.70W., Sec. 30) upstream to 2,300 m (7,600 ft) elevation (40 30 56N 105 21 19W, T.6N., R.71W., Sec. 4). Which includes North Fork Fish Creek from its confluence with Fish Creek (40 32 47N 105 18 18W, T.7N., R.71W., west boundary Sec. 25) upstream and following the first unnamed tributary northwest to (40 33 35N 105 19 42W, T.7N., R.71W., Sec. 22). Also includes Stove Prairie Creek from its confluence with Buckhorn Creek (40 34 15N 105 19 45W, T.7N., R.71W., Sec. 15) upstream to the dirt road crossing at (40 35 22N 105 20 16W, T.7N., R.71W., Sec. 10). Also includes Sheep Creek from its confluence with Buckhorn Creek (40 34 15N 105 20 51W, T.7N., R.71W., Sec. 16) upstream to 2,300 m (7,600 ft) elevation (40 33 09N 105 21 46W, T.7N., R.71W., Sec. 20). Also includes Twin Cabin Gulch from its confluence with Buckhorn Creek (40 34 38N 105 23 11W, T.7N., R.71W., Sec. 18) upstream to 2,300 m (7,600 ft) elevation (40 35 44N 105 23 33W, T.7N., R.71W., Sec. 6).

(ii) Map of Unit SP6 follows:

BILLING CODE 4310–55–P



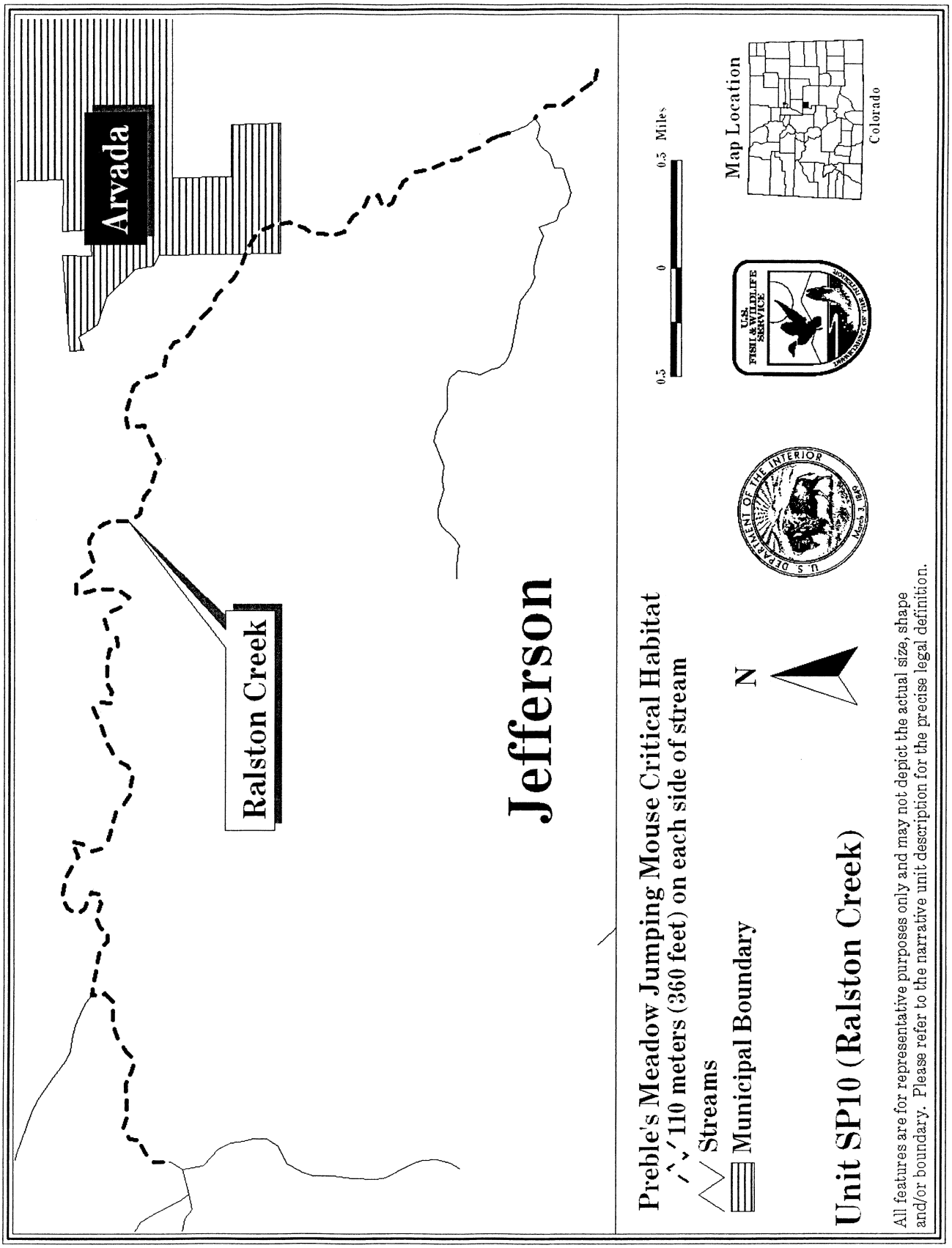
(12) Map Unit SP10: Ralston Creek, Jefferson County, Colorado.

(i) This unit consists of the following: 12.9 km (8.0 mi) of streams. Ralston Creek from Ralston Reservoir (39 49 12N 105 15 32W, T.3S., R.70W. Sec. 6)

upstream into Golden Gate Canyon State Park to 2,300 m (7,600 ft) elevation (39 50 54N 105 21 12W, T.2S., R.71W. Sec. 29) excluding 5 ha (12 ac) of property owned by Denver Water just upstream of the reservoir.

(ii) Map of Unit SP10 follows:

BILLING CODE 4310–55–P


Arvada
Ralston Creek
Jefferson
Preble's Meadow Jumping Mouse Critical Habitat
110 meters (360 feet) on each side of stream
Streams
Municipal Boundary
Unit SP10 (Ralston Creek)
N
0.5
0
0.5 Miles
Map Location
Colorado
U.S. FISH & WILDLIFE SERVICE
U.S. DEPARTMENT OF THE INTERIOR
All features are for representative purposes only and may not depict the actual size, shape and/or boundary. Please refer to the narrative unit description for the precise legal definition.

(13) Map Unit SP13: Upper South Platte River, Jefferson and Douglas Counties, Colorado.

(i) This unit consists of the following: 70.5 km (43.8 mi) of rivers and streams. Consists of 4 subunits. Non-Federal lands in Douglas County are not included in the designation. Subunit South Platte River north segment, on the border of Jefferson County and Douglas County from Chatfield Lake (39 31 35N 105 04 49W, T.6S., R.69W., Sec. 14) upstream to the boundary of U.S. Army Corps of Engineers property (39 29 33N 105 05 15W, T.6S., R.69W., south boundary Sec. 26), excluding 9 ha (22 ac) owned by Denver.

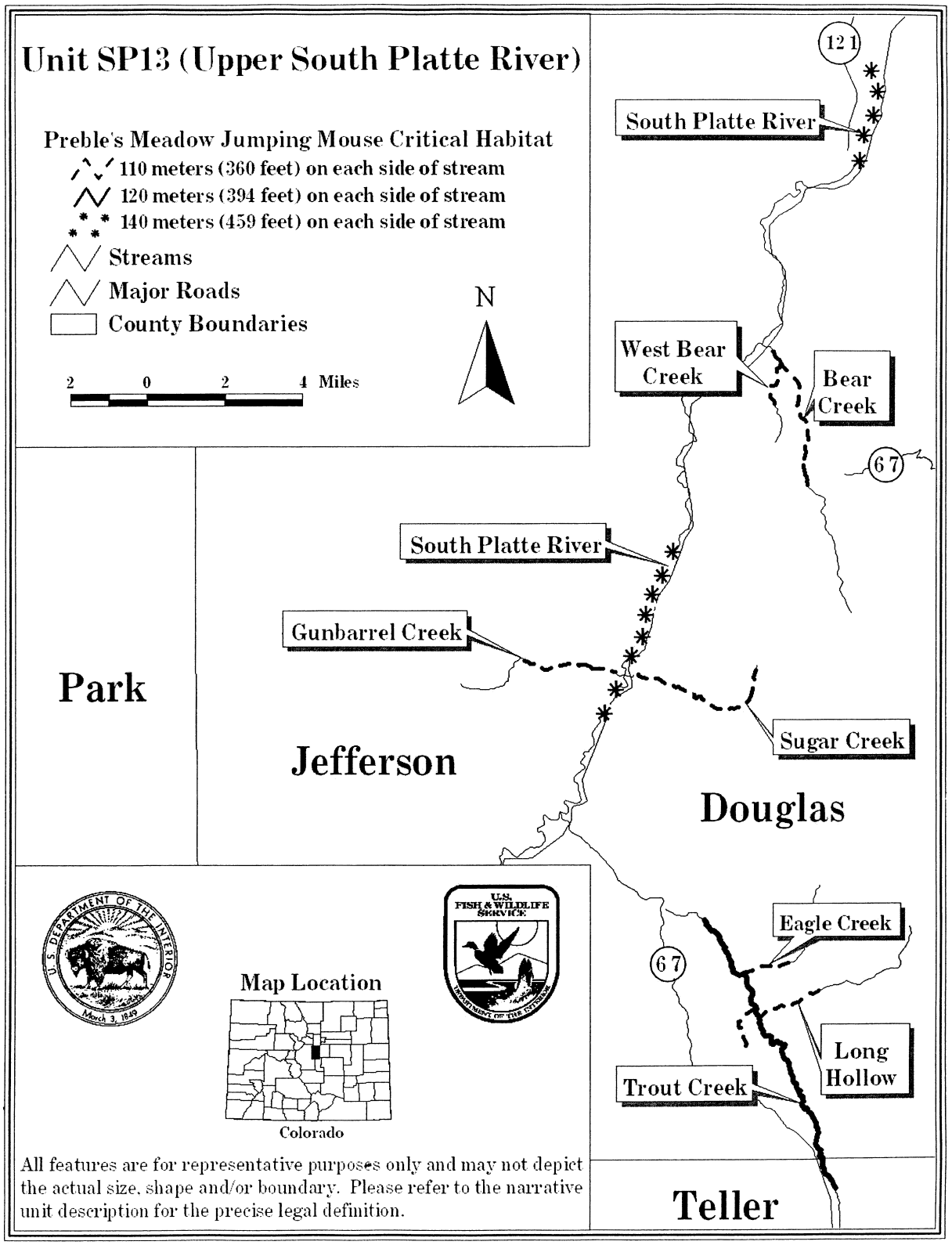
(ii) Subunit Bear Creek, Douglas County from Pike—San Isabel National Forest boundary (39 25 27N 105 07 40W, T.7S., R.69W., west boundary Sec. 21) upstream to (39 22 32N 105 06 40W, T.8S., R.69W., south boundary Sec. 4). Includes West Bear Creek from its confluence with Bear Creek (39 25 15N 105 07 30W, T.7S., R.69W., Sec. 21) upstream to a confluence with an unnamed tributary (39 24 17N 105 07 38W, T.7S., R.69W., Sec. 33).

(iii) Subunit South Platte River south segment, on the border of Jefferson County and Douglas County from the southern boundary of Denver Water property near Nighthawk (39 21 05N 105 10 23W, T.8S., R.70W., Sec. 13) upstream to the northern boundary of Denver Water property at (39 18 50N 105 11 28W, T.8S., R.70W., Sec. 35) and from the southern boundary of Denver Water property at (39 18 02N 105 12 09W, T.9S., R.70W., Sec. 2) to the northern boundary of Denver Water Property at (39 17 27N 105 12 24W, T.9S., R.70W., Sec. 3). Includes Sugar Creek, Douglas County from the eastern boundary of Denver Water lands near Oxyoke (39 18 22N 105 11 32W, T.8S., R.70W., Sec. 35) upstream to 2,300 m (7,600 ft) elevation (39 18 28N 105 08 07W, T.8S., R.69W., Sec. 32). Includes Gunbarrel Creek, Jefferson County from the western boundary of Denver Water lands near Oxyoke (39 18 37N 105 12 02W, T.8S., R.70W., Sec. 34) upstream to (39 18 41N 105 14 34W, T.8S., R.70W., Sec. 32).

(iv) Subunit Trout Creek, Douglas County upstream into Teller County from (39 13 02N 105 09 31W, T.9S., R.69W., Sec. 31) upstream to 2,300 m (7,600 ft) elevation which is 1.3 km (0.8 mi) into Teller County (39 07 13N 105 05 49W, T.11S., R.69W., Sec. 3). Includes Eagle Creek from its confluence with Trout Creek (39 11 52N 105 08 27W, T.10S., R.69W., Sec. 8) upstream to 2,300 m (7,600 ft) elevation (39 12 06N 105 07 12W, T.10S., R.69W., Sec. 9). Also including an unnamed tributary from its confluence with Trout Creek (39 11 07N 105 08 05W, T.10S., R.69W., Sec. 17) upstream to (39 10 18N 105 08 23W, T.10S., R.69W., Sec. 20). Also including Long Hollow from its confluence with Trout Creek (39 10 56N 105 08 01W, T.10S., R.69W., Sec. 17) upstream to 2,300 m (7,600 ft) elevation (39 11 30N 105 06 19W, T.10S., R.69W., Sec. 10).

(v) Map of Unit SP13 follows:

BILLING CODE 4310–55–P



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Dated: June 4, 2003.

Paul Hoffman,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 03–14490 Filed 6–20–03; 8:45 am]

BILLING CODE 4310–55–C