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**Endangered and Threatened Wildlife and
Plants; Designation of Critical Habitat for
the Arizona Distinct Population Segment
of the Cactus Ferruginous Pygmy-owl
(*Glaucidium brasilianum cactorum*);
Proposed Rule**

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-A148

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Arizona Distinct Population Segment of the Cactus Ferruginous Pygmy-owl (*Glaucidium brasilianum cactorum*)**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule; notice of availability.

SUMMARY: We, the U.S. Fish and Wildlife Service, propose designation of critical habitat pursuant to the Endangered Species Act of 1973, as amended (Act), for the cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*) (pygmy-owl). Information on the biological needs of the pygmy-owl that would help us define areas essential to its conservation is limited. However, we must respond to a court order issued on September 21, 2001, vacating critical habitat established for the pygmy-owl and remanding the previous designation of critical habitat for preparation of a new analysis of the economic and other effects of the designation (*National Association of Home Builders et al. v. Norton*, Civ. 00-903-PHX-SRB). This proposed designation, totaling approximately 488,863 hectares (ha) (1,208,001 acres (ac)), includes portions of Pima and Pinal Counties, Arizona, and includes approximately 9 percent of the recognized historical range of the pygmy-owl in Arizona. If this proposal is made final, section 7 of the Act would prohibit destruction or adverse modification of critical habitat by any activity funded, authorized, or carried out by any Federal agency. As required by section 4 of the Act, we will consider economic and other relevant impacts prior to making a final decision on the size and configuration of critical habitat. We also announce the availability of the draft economic analysis conducted on the proposed designation of critical habitat for the pygmy-owl. We solicit data and comments from the public on all aspects of this proposal, including data on economic and other impacts of the designation. We may revise this proposal to incorporate or address new information received during the comment period. We expect to publish a notice making the draft pygmy-owl recovery plan available for public comment in November 2002.

DATES: We will accept comments until February 25, 2003. We will hold one public hearing on this proposed rule; we have scheduled the hearing for January 23, 2003, from 6:30 p.m. to 9:00 p.m. in the Leo Rich Theatre at the Tucson Convention Center in Tucson, AZ.

ADDRESSES: Send comments and information to the Field Supervisor, Arizona Ecological Services Office, 2321 West Royal Palm Road, Suite 103, Phoenix, AZ 85021. Written comments may also be sent by facsimile to 602/242-2513 or by electronic mail (email) to cfpo_habitat@fws.gov. Copies of the draft economic analysis are available on the Internet at <http://ifw2irm2.irml.r2.fws.gov/>, by writing the Field Supervisor at the above address, or by calling 602/242-0210 to have a copy mailed to you or that you may pick up at the address above. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address. The public hearing will be held in the Leo Rich Theatre at the Tucson Convention Center at 206 South Church Avenue, Tucson, AZ, 85701.

FOR FURTHER INFORMATION CONTACT: Steve Spangle, Field Supervisor (see **ADDRESSES**) (telephone 602/242-0210; facsimile 602/242-2513).

SUPPLEMENTARY INFORMATION:**Background**

The cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*) (pygmy-owl) is in the order Strigiformes and the family Strigidae. It is a small bird, approximately 17 centimeters (cm) (6.75 inches (in)) long. Males average 62 grams (g) (2.2 ounces (oz)), and females average 75 g (2.6 oz). The pygmy-owl is reddish brown overall, with a cream-colored belly streaked with reddish brown. Color may vary, with some individuals being more grayish brown. The crown is lightly streaked, and a pair of black/dark brown spots outlined in white occur on the nape suggesting "eyes." This species lacks ear tufts, and the eyes are yellow. The tail is relatively long for an owl and is colored reddish brown with darker brown bars. The pygmy-owl is primarily diurnal (active during daylight) with crepuscular (active at dawn and dusk) tendencies. They can be heard making a long, monotonous series of short, repetitive notes, mostly during the breeding season.

The pygmy-owl is one of four subspecies of the ferruginous pygmy-owl. It occurs from lowland central Arizona south through western Mexico to the States of Colima and Michoacan, and from southern Texas south through

the Mexican States of Tamaulipas and Nuevo Leon. Only the Arizona population of the pygmy-owl is listed as an endangered species (62 FR 10730; March 10, 1997).

The total number of pygmy-owls and their distribution in Arizona are unknown. Survey and monitoring work in Arizona resulted in documenting 41 adult pygmy-owls in 1999, 34 in 2000, 36 in 2001, and, most recently, 18 in 2002. A cumulative total of 85 occupied sites (includes both single or paired birds) were recorded during these 4 years (Abbate *et al.* 1999, 2000, AGFD unpubl. data). Most of these pygmy-owls were distributed in four general areas: northwest Tucson, southern Pinal County, Organ Pipe Cactus National Monument, and the Altar Valley. We believe that more pygmy-owls exist in Arizona, but systematic surveys have not been conducted in all areas of potential habitat.

In addition, recent survey information has shown pygmy-owls to be more numerous adjacent to and near the Arizona border in Mexico (Flesch and Steidl 2000). There also exists considerable unsurveyed habitat on the Tohono O'odham Nation, and, although we have no means of quantifying this habitat, the distribution of recent sightings on non-Tribal areas east, west, and south of the U.S. portion of the Tohono O'odham Nation lead us to reasonably conclude that these Tribal lands may support meaningful numbers of pygmy-owls. Consequently, we believe that it is highly likely that the overall pygmy-owl population in Arizona is maintained by the movement and dispersal of owls among groups of pygmy-owls in southern Arizona and northern Mexico resulting from the connectivity of suitable habitat. The extent to which pygmy-owls disperse across the U.S./Mexico border is unknown. Therefore, addressing habitat connectivity and the movements of pygmy-owls within Arizona is the primary consideration of this proposal due to the importance of maintaining dispersal and movement among pygmy-owl groups.

Given recent data, it is probable that conservation of the pygmy-owl in Arizona requires both sufficient numbers and productivity of pygmy-owls north of the border and immigration of pygmy-owls from Mexico into Arizona, although we do not know at this time to what extent immigration does or needs to occur.

The patchy, dispersed nature of the pygmy-owl population in Arizona suggests that the overall population may function as a metapopulation. A metapopulation is a set of

subpopulations within an area, where movement and exchange of individuals among population segments is possible, but not routine. A metapopulation's persistence depends on the combined dynamics of the productivity of subpopulations, the maintenance of genetic diversity, the availability of suitable habitat for maintenance and expansion of subpopulations, and the "rescue" of subpopulations that have experienced local extinctions by the subsequent recolonization of these areas by dispersal from adjacent population segments (Hanski 1999, Hanski and Gilpin 1991, 1997). The local groups of pygmy-owls within Arizona may function as subpopulations within the context of metapopulation theory. However, more information is needed regarding the population dynamics of pygmy-owls in Arizona.

Historically, pygmy-owls were recorded in association with riparian woodlands in central and southern Arizona (Bendire 1892, Gilman 1909, Johnson *et al.* 1987). Plants present in these riparian communities included cottonwood (*Populus fremontii*), willow (*Salix* spp.), ash (*Fraxinus velutina*), and hackberry (*Celtis* spp.). However, recent records have documented pygmy-owls in a variety of vegetation communities such as riparian woodlands, mesquite (*Prosopis velutina*, and *P. glandulosa*) bosques (Spanish for woodlands), Sonoran desertscrub, semidesert grassland, and Sonoran savanna grassland communities (see Brown 1994 for a description of these vegetation communities). While native and nonnative plant species composition differs among these communities, there are certain unifying characteristics such as the presence of vegetation in fairly dense thickets or woodlands, the presence of trees, saguaros (*Carnegiea giganteus*), or organ pipe cactus (*Stenocereus thurberi*) large enough to support cavities for nesting, and elevations below 1,200 meters (m) (4,000 feet (ft)) (Swarth 1914, Karalus and Eckert 1974, Monson and Phillips 1981, Johnsgard 1988, Enriquez-Rocha *et al.* 1993, Proudfoot and Johnson 2000). Large trees provide canopy cover and cavities used for nesting, while the density of mid- and lower-story vegetation provides foraging habitat and protection from predators, and it contributes to the occurrence of prey items (Wilcox *et al.* 2000).

The density of trees and the amount of canopy cover preferred by pygmy-owls in Arizona has not been fully defined. However, preliminary results from a habitat selection study indicate that nest sites tend to have a higher degree of canopy cover and higher

vegetation diversity than random sites (Wilcox *et al.* 2000). Overall vegetation density may not be as important as patches of dense vegetation with a developed canopy layer interspersed with open areas. Vegetation structure may be more important than species composition (Wilcox *et al.* 1999, Cartron *et al.* 2000). This is related to the fact that canopy cover and layers of vegetation provide hunting perches, thermal cover, and promote predator avoidance regardless of species. Larger trees with greater canopy also have a greater potential to support cavities needed for nesting. Flesch (1999) indicated that areas with large trees and canopy coverage are likely important areas for pygmy-owls in the Altar Valley. Riparian and xeroriparian (dry washes) areas, which are often used by pygmy-owls, are generally characterized by increased vegetation layers, higher plant diversity and larger tree sizes because of increased moisture availability.

Background information on the ecology and life history of pygmy-owls relied on many of the documents reviewed during the proposed listing (59 FR 63975; December 12, 1994) and final listing (62 FR 10730; March 10, 1997) and our previous designation of critical habitat (64 FR 37419; July 12, 1999). We have also reviewed biological data from pygmy-owl studies made available since the previous designation (Abbate *et al.* 1999, 2000, Cartron and Finch 2000, Proudfoot and Johnson 2000, Wilcox, *et al.* 2000). Since the previous designation of critical habitat, there were very few new references that provided additional information on characteristics of pygmy-owl habitat. None of the new biological data contradicted previous studies on the ecology of the subspecies; however, these studies have refined our understanding of the pygmy-owl's ecology. The information above summarizes the key elements of the pygmy-owl's habitat that are pertinent to the designation of critical habitat. Additional information on the biology of the pygmy-owl is contained in the "Primary Constituent Elements" section of this rule.

Previous Federal Actions

We included the pygmy-owl in our Animal Notice of Review as a category 2 candidate species throughout its range on January 6, 1989 (54 FR 554). Category 2 candidates were defined as those taxa for which we had data indicating that listing was possibly appropriate but for which we lacked substantial information on vulnerability and threats to support proposed listing rules. After

soliciting and reviewing additional information, we elevated the pygmy-owl to category 1 status throughout its range in our November 21, 1991, Notice of Review (56 FR 58804). Category 1 candidates were defined as those taxa for which we had sufficient information on biological vulnerability and threats to support proposed listing rules but for which issuance of proposals to list were precluded by other higher-priority listing activities. Beginning with our combined plant and animal Notice of Review of February 28, 1996 (61 FR 7596), we discontinued the designation of multiple categories of candidates, and only taxa meeting the definition of former category 1 candidates are now recognized as candidates for listing purposes.

On May 26, 1992, a coalition of conservation organizations (Galvin *et al.* 1992) petitioned us to list the pygmy-owl as an endangered species under the Act. In accordance with section 4(b)(3)(A) of the Act, on March 9, 1993, we published a finding that the petition presented substantial scientific or commercial information indicating that listing of the pygmy-owl may be warranted and commenced a status review of the subspecies (58 FR 13045). As a result of information collected and evaluated during the status review, including information collected during a public comment period, we proposed to list the pygmy-owl as endangered with critical habitat in Arizona and threatened in Texas (59 FR 63975; December 12, 1994). After a review of all comments received in response to the proposed rule, we published a final rule listing the pygmy-owl as endangered in Arizona (62 FR 10730; March 10, 1997). In that final rule we determined that listing in Texas was not warranted and that critical habitat designation for the Arizona population was not prudent.

On October 31, 1997, the Southwest Center for Biological Diversity filed a lawsuit in Federal District Court in Arizona against the Secretary of the Department of the Interior for failure to designate critical habitat for the pygmy-owl and a plant, *Lilaeopsis schaffneriana* var. *recurva*, (Huachuca water umbel) (*Southwest Center for Biological Diversity v. Babbitt*, CIV 97-704 TUC ACM). On October 7, 1998, Alfredo C. Marquez, Senior U.S. District Judge, issued an order that, along with subsequent clarification from the Court, required proposal of critical habitat by December 25, 1998, followed by a final determination 6 months later.

In September 1998, we appointed the Cactus Ferruginous Pygmy-owl Recovery Team (Recovery Team),

comprised of biologists (pygmy-owl experts and raptor ecologists) and representatives from affected and interested parties (*i.e.*, Federal and State agencies, local governments, the Tohono O'odham Nation, and private groups).

On December 30, 1998, we proposed to designate critical habitat in Arizona for the pygmy-owl (63 FR 71820). On April 15, 1999, we released the draft economic analysis on proposed critical habitat and reopened the public comment period for 30 days (64 FR 18596). On July 12, 1999, we published our final critical habitat determination (64 FR 37419), essentially designating the same areas as were proposed.

On January 9, 2001, a coalition of plaintiffs filed a lawsuit with the District Court of Arizona challenging the validity of the Service's listing of the Arizona population of the pygmy-owl as an endangered species and the designation of its critical habitat. On September 21, 2001, the Court upheld the listing of the pygmy-owl in Arizona but, at our request, and without otherwise ruling on the critical habitat issues, remanded the designation of critical habitat for preparation of a new analysis of the economic and other effects of the designation (*National Association of Home Builders et al. v. Norton*, Civ.-00-0903-PHX-SRB). The Court also vacated the critical habitat designation during the remand. Subsequently the court ordered that we submit the proposed rule to the **Federal Register** on or before November 15, 2002, and that we must issue a final rule by July 31, 2003. The plaintiff's appeal of the listing decision is still pending.

Draft 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 them, and estimate time and cost for implementing the recovery measures needed. A final recovery plan formalizes the recovery strategy for a species, but 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 based solely on a recovery plan).

In September 2002, the Recovery Team developed a proposal for the current draft of the recovery plan which outlines a recommended recovery

strategy for the pygmy-owl. We reviewed and considered the pertinent information contained in the current draft recovery plan in developing this proposed critical habitat designation because it represents the best scientific data available to us. We are required to base listing and critical habitat decisions on the best scientific and commercial data available at the time (16 U.S.C. § 1533(b)(1)(A)). We may not delay making our determinations until more information is available, nor can we be required to gather more information before making our determination (*Southwest Center for Biological Diversity v. Babbitt*, 215 F. 3d 58 (D.C. Cir. 2000)). This proposal relies upon the best scientific and commercial data available to us including the biological and habitat information described in the draft recovery plan, and recognized principles of conservation biology. However, the proposed designation does not include all areas which are identified in the draft recovery plan. Instead this proposed critical habitat designation includes only those areas that we consider essential to the conservation of the species.

Critical Habitat

Critical habitat is defined in section 3 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 the conservation of the species and (II) that may require special management consideration 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 for the conservation of the species. Regulations at 50 CFR 424.12(e) further state that areas outside the geographical area presently occupied by the species will only be designated if presently occupied areas are insufficient to ensure the conservation of the species. The term “conservation,” as defined in section 3(3) of the Act and in 50 CFR 424.02(c), means “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary” (*i.e.*, the species is recovered and removed from the list of endangered and threatened species).

Section 4(b)(2) of the Act requires that we base critical habitat proposals upon the best scientific and commercial data available, after taking into consideration

the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in the extinction of the species.

Critical habitat receives protection from the prohibition against destruction or adverse modification through required consultation under section 7 of the Act with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 also requires conferences on Federal actions that are likely to result in the adverse modification or destruction of proposed critical habitat. Where Federal agency action is involved, such as in permitting or funding, critical habitat designation can affect private landowners, State, or Tribal activities. Aside from the added protection provided under section 7, the Act does not provide other forms of protection to lands designated as critical habitat.

Areas outside the critical habitat designation have been, and will continue to be, subject to conservation actions that may be implemented under section 7(a)(1), the species' regulatory protections afforded by the section 7(a)(2) jeopardy standard (see “Effects of Critical Habitat Designation” section below), and the section 9 take prohibition. Federally funded, permitted or implemented projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs) under section 10 of the Act, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Methods

In determining areas that are essential for the conservation of the pygmy-owl in Arizona, we used the best scientific information available. This information includes habitat descriptions and pygmy-owl life history information including: Abbate *et al.* 1999, 2000, Cartron and Finch 2000, Proudfoot and Johnson 2000, Wilcox, *et al.* 2000. Additional information to identify and define specific habitat needs of pygmy-owls in Arizona has been gathered since our initial critical habitat designation in 1999, including surveys and research by

the Arizona Game and Fish Department (AGFD). Data from project clearance surveys conducted by private consultants were also used to help in our understanding of pygmy-owl distribution. We also considered preliminary habitat assessment work which has been initiated in limited areas of the State, primarily on Bureau of Land Management (BLM) and U.S. Forest Service (FS) lands, and initial micro-habitat research studies have been conducted by the AGFD. Unpublished data gathered by the AGFD with regard to dispersal, numbers, and distribution of pygmy-owls were also considered.

The number of known pygmy-owls in the State remains relatively few, and the information base regarding the needs of this species is still small. This necessitated our reliance on limited information as we developed this critical habitat proposal. Recent survey data indicate that the majority of known pygmy-owls in Arizona are found in the southern portion of its historical range in the State (Abbate *et al.* 1996, 1999, 2000, AGFD unpubl. data). Specifically, surveys that have been conducted have produced no recent (since 1997) records of pygmy-owls in the northern and eastern periphery of the historical range, such as the riparian habitats along the Gila, San Pedro, and Salt Rivers, although the survey effort in these areas has not been extensive nor systematic in nature. Most surveys are conducted for project-related purposes; therefore, the vast majority of surveys have occurred in the NW Tucson area where the greatest amount of development is occurring within the current range of the pygmy-owl.

We reviewed survey information from Arizona and have emphasized those areas that contain recent (since 1997), verified (per AGFD recommended criteria) records of pygmy-owls in Arizona. Thus, when we refer generally to verified sites within the text of this rule, we are referring to sites documented since 1997. We determined that using sites documented since 1997 would ensure that this proposed designation of critical habitat is based on the most recent data that most closely represents the current status of the pygmy-owl. Survey effort has been the most consistent and extensive since the listing of the pygmy-owl in 1997. As noted below, a priority action within the draft Recovery Plan is to provide protection for all verified sites of pygmy-owls in Arizona since 1993. Our emphasis in protecting recent (since 1997) verified sites of pygmy-owls is, nonetheless, consistent with the draft Recovery Plan in that the areas we have

proposed for designation also include those sites where pygmy-owls were documented between 1993 and 1997. In order to maintain genetic and demographic interchange that will help maintain the viability of what may be a regional metapopulation of pygmy-owls, we included habitat linkages that allow movement and dispersal among the areas supporting pygmy-owls. Dispersal is the straight line distance a juvenile pygmy-owl travels from its nest to the site where it becomes resident. Finally, we recognize that maintenance of a viable pygmy-owl population in Arizona is likely dependent upon immigration from the population in Sonora, Mexico, and that maintaining habitat through which pygmy-owls can move between Mexico and the northern portion of the Arizona range is essential to the Arizona population's conservation.

This critical habitat proposal includes four of the five areas recommended by the Recovery Team as Special Management Areas (SMAs). The fifth SMA was not included based on the lack of recent verified pygmy-owl locations in that area, our inability to determine if the SMA included the primary constituent elements described in this rule, and the Recovery Team's description of this area as needing further investigation to confirm its role in recovery. SMAs are those portions of certain Recovery Areas (Recovery Areas 1, 2, and 3) that the Recovery Team recommended, and we concur, as needing special management based primarily on imminent and significant threats, but also on occupancy by owls and habitat function (nesting, dispersal, *etc.*). The defining characteristics of the SMAs, *i.e.*, they provide some necessary function for pygmy-owls and are under imminent and significant threats, indicate that regulation may play an important role in the conservation of these areas. Any portion of an SMA that is included in this proposal, but does not contain the primary constituent elements, is excluded from critical habitat by definition.

Generally, the proposed system of critical habitat was developed based on recent, verified owl sites, the presence of areas that are below 1,200 m (4,000 ft) and include one or more of the primary constituent elements related to vegetation (see discussion below), the average straight-line dispersal distance (8 km (5 mi)) from nest sites (AGFD unpubl. data), and the SMAs described above. The average dispersal distance was used to define the area that is likely to be necessary for the maintenance of existing breeding locations through mate replacement and reoccupation of

sites through dispersal. The average dispersal distance is a measure of central tendency which increases the likelihood that the area will actually be used by dispersing juvenile pygmy-owls, unlike the maximum or minimum distances which are extremes and more likely to be chance events. In addition, most (10 out of 16) measured dispersal distances were below the average, indicating that using the average dispersal distance accounts for the distance documented as typically being used by dispersing pygmy-owls (AGFD unpubl. data). Areas proposed for connectivity that fall outside the average dispersal distance are still essential for pygmy-owls and could potentially be used for dispersal as all proposed areas of critical habitat also fall within the maximum dispersal distance 34.8 km (21.8 mi) from recent, verified owl locations and are considered occupied as described below.

We have proposed an interconnected system of habitat linkages. All proposed Critical Habitat Units (CHUs) support nesting and dispersal habitat or are within documented pygmy-owl dispersal distances, and thus are likely to be used by dispersing pygmy-owls during certain seasons or years. Because the areas included in this proposal are likely to be used by pygmy-owls for breeding, feeding, sheltering, or dispersing, we considered them to be within the geographic area occupied by the species. As with other raptor species (Call 1979), pygmy-owl nest sites and occupied territories can vary from year to year over the landscape, as well as within a pygmy-owl's home range (Abbate 1999, 2000, AGFD unpubl. data). Information on raptors indicates that it is not uncommon for sites to be occupied, become vacant, and then be reoccupied over time (Woodbridge and Detrich 1994, Reynolds *et al.* 1994). Therefore, although a specific site may be unoccupied at one point in time, it may be occupied at a different point in time, particularly given that all the areas proposed as critical habitat are below 1,200 m (4,000 ft) and include one or more of the primary constituent elements related to vegetation, except for the few locations without primary constituent elements that we were unable to exclude explicitly due to mapping constraints.

Habitat linkages within the historical range of the pygmy-owl in Arizona can play a pivotal role in maintaining this potential Arizona metapopulation, especially since the pygmy-owl is capable of dispersal up to 34.8 km (21.8 mi) (AGFD unpubl. data). We believe that habitat linkages will provide connections for the movement of

dispersing pygmy-owls among local groups of pygmy-owls on the Tohono O'odham Nation, in the Altar Valley, on Organ Pipe Cactus National Monument, in northwest Tucson, and in Pinal County. We also believe that this interconnected matrix will allow the potential immigration of pygmy-owls from Mexico to help maintain the Arizona population. Although habitat that allows for dispersal may be marginal for nesting, we believe it can provide roosting, perching, foraging, and predator avoidance habitat and maintains an important linkage function among blocks of nesting habitat both within local groups of pygmy-owls and throughout the overall range of the pygmy-owl in Arizona.

Without habitat linkages, the overall population of pygmy-owls in Arizona has is likely to become fragmented to the extent that individuals may be unable to disperse and find mates and suitable blocks of nesting habitat. Additionally, adequate habitat must be available to allow survival of juvenile pygmy-owls and their recruitment as breeding adults. We believe this is essential for maintaining the current population and hope that this approach will facilitate expansion of local populations. In particular, enlargement of small, local groups of pygmy-owls by expansion onto adjacent lands would not only increase the chances of their long-term survival, but would also improve connectivity among local populations by enhancing their value as "stepping stones" within the distribution of the overall population. Low population numbers and fragmented habitat reduce the probability that local groups of pygmy-owls will recolonize naturally in order to offset population fluctuations and local population losses, resulting in the extirpation of this distinct population segment.

As discussed above, the need to connect known pygmy-owl sites and local populations with each other is necessary to the maintenance of the overall pygmy-owl population in Arizona. All known recent pygmy-owl sites and recommended SMAs are included in our proposed critical habitat designation. We selected connections for these areas based on our knowledge of the existing habitat and on aerial photography. Some areas proposed for connectivity fall outside of the 5-mile average dispersal distance around known pygmy-owl locations. However, these areas are still likely to be occupied because all areas proposed also fall within the maximum dispersal distance documented for pygmy-owls in Arizona (34.8 km (21.8 mi)) (AGFD unpubl.

data), substantiating their potential use by dispersing young from known pygmy-owl sites.

This proposed designation does not include all lands identified as Recovery Areas in the draft Recovery Plan, nor does it include all areas previously designated as critical habitat (64 FR 37419; July 12, 1999). Some areas have been added based on pygmy-owl locations documented since the previous designation. Areas not being proposed for designation that are identified within the draft recovery plan or that were included in the previous designation have been excluded based on the lack of survey and research information sufficient to allow our determination that they are essential to the conservation of the species in Arizona. Changes reflected in this proposal as compared to the previous designation resulted from a refinement of our understanding of the current numbers and distribution of pygmy-owls. We are not proposing to include all draft recovery areas nor all areas from the previous designation because (1) they do not include any recent, verified locations of pygmy-owls; (2) they do not fall within the average dispersal distance (8 km (5 mi)) from recent, verified pygmy-owl locations; (3) the draft recovery plan indicates that some of these areas are in need of further research (*i.e.*, surveys, habitat assessment, *etc.*) and may be used for possible augmentation activities, not to protect known pygmy-owl sites; (4) they do not provide connectivity proximate to known pygmy-owl sites or SMAs; and (5) some of these areas have not been evaluated with regard to current habitat suitability (*i.e.*, they are not known to contain the primary constituent elements). This does not mean that these areas are not possibly beneficial to the species, simply that we could not yet determine, based on the best available scientific data, that they are essential for the conservation of the species or in need of special management and protection. We intend to promote conservation and recovery of the pygmy-owl in these areas through the use of other tools which may include the reestablishment of pygmy-owls through a section 10(j) experimental population rule, HCPs, Safe Harbor agreements, and section 7 consultations under the jeopardy standard, if applicable.

In developing this critical habitat proposal we made an effort to avoid developed areas such as towns, agricultural lands, and other areas unlikely to contribute to pygmy-owl conservation. However, limitations on spatial data (*e.g.*, vegetative and other

land-cover information), plus the difficulty in legally describing particular patterns of vegetation, precluded us from mapping critical habitat in sufficient detail to exclude all such areas. Therefore, the 1,208,001 acres within the boundaries does not represent critical habitat acreage; only areas within the geographic boundaries that are below 1,200 m (4,000 ft) and include one or more of the primary constituent elements related to vegetation are actually critical habitat. Thus, lands without the primary constituent elements are excluded from proposed critical habitat by definition. However, these lands account for a very small proportion of the total proposed designated area. We request that peer reviewers who are familiar with this species review the proposed rule (see "Peer Review" section below) in order to ensure that we have identified those areas that are essential for the conservation of the pygmy-owl, and avoided designating unsuitable habitat inappropriately.

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 propose as critical habitat, we consider those physical and biological features that are essential to the conservation of the species and, within areas currently occupied by the species, that may require special management considerations or protection. These generally include, but are not limited to, the following: space for individual and population growth, and for normal behavior; food, water, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing of offspring; and habitats that are protected from disturbance or are representative of the historical geographical and ecological distributions of a species.

The specific primary constituent elements required for pygmy-owl habitat are derived from the biological needs of the pygmy-owl as described below.

Space for Individual and Population Growth and Normal Behavior

As described previously, pygmy-owls were recorded in association with riparian woodlands in central and southern Arizona (Bendire 1892, Gilman 1909, Johnson *et al.* 1987) and are currently found in a variety of vegetation communities such as riparian woodlands, mesquite bosques, Sonoran desertscrub, semidesert grassland, mesquite grasslands and Sonoran savanna grassland communities (see

Brown 1994 for vegetation community descriptions).

During the 1990s, nesting pygmy-owls were recorded in the Arizona upland subdivision of the Sonoran desert, particularly Sonoran desertscrub, and semidesert grasslands (Brown 1994), primarily below 1,220 m (4,000 ft.) elevation (Wilcox *et al.* 2000). While pygmy-owls will use the upland areas, xeroriparian areas (dry washes) within these vegetative communities appear to be especially important (Wilcox *et al.* 2000). Sonoran desertscrub communities are characterized by the presence of a variety of cacti, large trees, shrubs, and a diversity of plant species and vegetation layers. This community includes, but is not limited to, palo verde (*Cercidium* spp.), ironwood (*Olneya tesota*), mesquite, acacia (*Acacia* spp.), bursage (*Ambrosia* spp.), desert hackberry (*Celtis pallida*), gray thorn (*Zizyphus obtusifolia*), and columnar cacti such as saguaro and organ pipe (Gilman 1909, Bent 1938, van Rossem 1945, Phillips *et al.* 1964, Monson and Phillips 1981, Davis and Russell 1984, Johnson and Haight 1985, Johnson-Duncan *et al.* 1988, Johnsgard 1988, Millsap and Johnson 1988).

Certain areas within the Altar Valley were historically Sonoran savanna grassland; however, with the invasion of mesquite, these areas are now more properly classified as Sonoran desertscrub (Brown 1994). The Altar Valley has also been described as semidesert grassland and/or a mesquite grassland biotic community with Sonoran desertscrub in the foothill areas (Abbate *et al.* 1999, Wilcox *et al.* 2000). We, therefore, include all three of these grassland communities in our description of pygmy-owl habitat because they now contain the apparent habitat requirements needed by pygmy-owls.

Xeroriparian areas are utilized by pygmy-owls in desertscrub and grassland vegetation communities. Pygmy-owls have been documented using xeroriparian drainages for nesting and dispersal (Wilcox *et al.* 2000). Drainages throughout these areas concentrate available moisture influencing the diversity and structure of the vegetation. Grasslands have experienced the invasion of velvet mesquite in the uplands, and there are linear woodlands of various tree species (ash, hackberry, mesquite, *etc.*) along lowland areas and washes. In desertscrub communities, xeroriparian sites are characterized by species found in the uplands (palo verde, mesquite, acacia, ironwood, *etc.*) but typically grow bigger and occur in higher densities within the drainages.

Pygmy-owls are considered non-migratory throughout their range. There are winter (November through January) pygmy-owl location records in Organ Pipe Cactus National Monument (R. Johnson unpubl. data 1976, 1980; Tibbitts, pers. comm. 1997). Major Bendire collected pygmy-owls along Rillito Creek near Camp Lowell at present-day Tucson on January 24, 1872. The University of Arizona Bird Collection contains a female pygmy-owl collected in the Tucson area on January 8, 1953 (University of Arizona 1995). Similarly, records exist from Sabino Canyon on December 3, 1941, and December 25, 1950 (U.S. Forest Service, unpubl. data). Research and monitoring conducted by AGFD has documented year-round occupancy of known home ranges (the area used by pygmy-owls throughout the year) (Abbate *et al.* 1999, 2000). These winter records demonstrate that pygmy-owls are found within Arizona throughout the year and do not appear to migrate southward to warmer climates during the winter months. Therefore, it is important that pygmy-owls have home ranges of adequate size to provide for their life history requirements throughout the entire year.

Pygmy-owl dispersal patterns are just beginning to be documented. One banded juvenile in Arizona was observed in 1998 approximately 3.9 km (2.4 mi) from its nest site following dispersal. Five young monitored with radio telemetry during 1998 were recorded dispersing from 3.5 km (2.17 mi) to 10.4 km (6.5 mi) for an average of 5.9 km (3.6 mi) (Abbate *et al.* 1999). In 1999, 6 juveniles in Arizona dispersed from 2.3 km (1.4 mi) to 20.7 km (12.9 mi) for an average of 10 km (6.2 mi) (Abbate *et al.* 2000). In Arizona, the maximum documented dispersal distance is 34.8 km (21.8 mi) (AGFD unpubl. data). Juveniles typically disperse from natal areas in July and August and do not appear to defend a territory until September. They appear to fly from tree to tree instead of long flights and may move up to 1.6 km (1 mi) or more in a night (Abbate *et al.* 1999). Trees of appropriate size and spacing appear to be necessary for successful dispersal, but specific data describing this pattern are currently unavailable. Once dispersing male pygmy-owls settle in a territory (the area defended by a pygmy-owl), they rarely make additional movements outside of their home range. For example, spring surveys have found male juveniles in the same general location as observed the preceding autumn (Abbate *et al.* 2000). However, unpaired female

dispersers may make additional movements into the subsequent breeding season (AGFD unpubl. data).

Pygmy-owls typically make short, rapid flights. Observations indicate that pygmy-owls rarely fly longer distances than what is needed to travel from one tree to an adjacent tree (Abbate *et al.* 1999, 2000, AGFD unpubl. data). Pygmy-owls will avoid flying across large open areas such as golf courses (Abbate *et al.* 1999, 2000). Pygmy-owls have rarely been observed using areas of high human activity, such as high-density (4–5 houses/ac) housing, for normal day-to-day activities within a home range, nor during dispersal (AGFD unpubl. data). Successful dispersal is dependent on habitats in an appropriate configuration that are protected from disturbance.

Sufficient space must occur within pygmy-owl home ranges to provide vegetation of appropriate size and cover for roosting, sheltering, and foraging. The area must be adequate to provide for the needs of the pygmy-owl on a year-round basis. Population growth can only occur if there is adequate habitat in an appropriate configuration to allow for the dispersal of pygmy-owls across the landscape. Dispersal habitat should provide sufficient cover in an appropriate configuration to facilitate movement and reduce mortality factors (predators, prey availability, human-related factors, *etc.*).

Food

Pygmy-owls typically hunt from perches in trees with dense foliage using a perch-and-wait strategy; therefore, sufficient cover must be present within their home range for them to successfully hunt and survive. Pygmy-owls also hunt by inspecting tree and saguaro cavities for other nesting birds, and possibly bats. Their diverse diet includes birds, lizards, insects, and small mammals (Bendire 1888, Sutton 1951, Sprunt 1955, Earhart and Johnson 1970, Oberholser 1974, Proudfoot 1996, Abbate *et al.* 1996, 1999). Observations in Arizona from 1996 through 1998 indicate that reptiles, birds, mammals, and insects were 44, 23, 6, and 3 percent, respectively, of pygmy-owl prey deliveries recorded; 24 percent were unidentified (Abbate *et al.* 1999). It is likely that use of insects was underestimated in these observations because of the speed at which they are consumed and the difficulty in observing such small prey items. The density of annual plants and grasses, as well as shrubs, may be important to enhancing the pygmy-owl's prey base.

Vegetation communities which provide a diversity of structural layers

and plant species likely contribute to the availability of prey for pygmy-owls (Wilcox *et al.* 2000). Pygmy-owls also utilize different groups of prey species on a seasonal basis. For example, lizards, small mammals, and insects are utilized as available during the spring and summer during periods of warm temperatures (Abbate *et al.* 1999). However, during winter months, when low temperatures reduce the activity by these prey groups, pygmy-owls likely turn to birds as their primary source of food and appear to expand their use area in response to reduced prey availability (Proudfoot 1996). Therefore, conservation of the pygmy-owl should include consideration of the habitat needs of prey species, including structural and species diversity and seasonal availability. Pygmy-owl habitat must provide sufficient prey base and cover from which to hunt in an appropriate configuration and proximity to nest and roost sites.

Water

Free-standing water does not appear to be necessary for the survival of pygmy-owls. During many hours of research monitoring, pygmy-owls have never been observed directly drinking water (Abbate *et al.* 1999, AGFD unpubl. data). It is likely that pygmy-owls meet much of their biological water requirements through the prey they consume. However, the presence of water may provide related benefits to pygmy-owls. The availability of water may contribute to improved vegetation structure and diversity which improves cover availability. The presence of water also likely attracts potential prey species improving prey availability.

Reproduction and Rearing of Offspring

Male pygmy-owls establish territories using territorial-advertisement calls to repel neighboring males and attract females. Usually, pygmy-owls nest as yearlings (Abbate *et al.* 1999, Gryimek 1972), and both sexes breed annually thereafter. Territories normally contain several potential nest-roost cavities from which responding females select a nest. Hence, cavities/acre may be a fundamental criteria for habitat selection. Historically, pygmy-owls in Arizona used cavities in cottonwood, mesquite, ash trees, and saguaro cacti for nest sites (Millsap and Johnson 1988). Recent information from Arizona indicates nests were located in cavities in saguaro cacti for all but two of the known nests documented from 1996 to 2002 (Abbate *et al.* 1996, 1999, 2000, AGFD unpubl. data). One nest in an ash tree and one in a eucalyptus tree were

the only non-saguaro nest sites (Abbate *et al.* 2000).

Pygmy-owls exhibit a high degree of site fidelity once territories (the area defended) and home ranges (the area used throughout the year) have been established (AGFD unpubl. data). Therefore, it is important that habitat characteristics within territories and home ranges be maintained over time in order for them to remain suitable. This is important for established owl sites, as well as new sites established by dispersing pygmy-owls.

Shrubs and large trees also provide protection against predators for juvenile and adult pygmy-owls and cover from which they may capture prey (Wilcox *et al.* 2000). Little is known about the rate or causes of mortality in pygmy-owls; however, they are susceptible to predation from a wide variety of species. Documented and suspected pygmy-owl predators include great horned owls (*Bubo virginianus*), Harris' hawks (*Parabuteo unicinctus*), Cooper's hawks (*Accipiter cooperii*), screech-owls (*Otus kennicottii*), and domestic cats (*Felis catus*) (Abbate *et al.* 2000, AGFD unpubl. data). Pygmy-owls may be particularly vulnerable to predation and other threats during and shortly after fledging (Abbate *et al.* 1999). Arizona Game and Fish Department (AGFD) telemetry monitoring in 2002 indicated at least three of the nine young were killed by predators prior to dispersal during a year when tree species failed to leaf out due to drought conditions (AGFD unpubl. data). Therefore, cover near nest sites may be important for young to fledge successfully (Wilcox *et al.* 1999, Wilcox *et al.* 2000). A number of fledgling pygmy-owls have perished after being impaled on cholla cactus, probably due to undeveloped flight skills (Abbate *et al.* 1999). Conditions which promote the proliferation of cholla (overgrazing, vegetation disturbance, *etc.*) may contribute to this mortality factor. Habitat that provides for successful reproduction and rearing of young provides trees and cacti that are of adequate size to provide cavities in proximity to foraging, roosting, sheltering and dispersal habitats, in addition to adequate cover for protection from climatic elements and predators in an appropriate configuration in relation to the nest site.

The primary constituent elements determined necessary for the conservation of the pygmy-owl include: (1) Elevations below 1,200 m (4,000 ft) within the biotic communities of Sonoran riparian deciduous woodlands; Sonoran riparian scrubland; mesquite bosques; xeroriparian communities; tree-lined drainages in semidesert,

Sonoran savanna, and mesquite grasslands; and the Arizona Upland and Lower Colorado River subdivisions of Sonoran deserts scrub (see Brown 1994 for a description of vegetation communities); (2) nesting cavities located in trees including, but not limited to cottonwood, willow, ash, mesquite, palo verde, ironwood, and hackberry with a trunk diameter of 15 cm (6 in) or greater measured 1.4 m (4.5 ft) from the ground, or large columnar cactus such as saguaro or organ pipe greater than 2.4 m (8 ft); (3) multilayered vegetation (presence of canopy, mid-story, and ground cover) provided by trees and cacti in association with shrubs such as acacia, prickly pear, desert hackberry, graythorn, *etc.*, and ground cover such as triangle-leaf bursage, burro weed, grasses, or annual plants. By way of description, preliminary data gathered by AGFD indicates 35 percent ground cover at perch sites and 48 percent ground cover at nest sites; mid-story cover of 65 percent at perch sites and 65 percent at nest sites; and 73 percent canopy cover at perch sites and 87 percent canopy cover at nest sites (Wilcox *et al.* 1999) (This AGFD information is based on a limited study area, a small sample size, and methods used to describe microhabitat characteristics and may have only limited applicability in project evaluation); (4) vegetation providing mid-story and canopy level cover (this is provided primarily by trees greater than 2 m (6 ft) in height) in a configuration and density compatible with pygmy-owl flight and dispersal behaviors. Within 15-m radius plots centered on nests and perch sites, AGFD has documented the mean number of trees and average height of trees for Sonoran deserts scrub and semidesert grassland areas. The mean number of trees per plot in Sonoran deserts scrub plots was 12.5 with a mean height of 3.95 m. The mean number of trees in semidesert grassland was 28.5 with a mean height of 8.1 m (Wilcox *et al.* 2000) (This AGFD information is based on a small sample size using a method designed to describe microhabitat characteristics. These numbers may have only limited applicability in project evaluations); and (5) habitat elements configured and human activity levels minimized so that unimpeded use, based on pygmy-owl behavioral patterns (typical flight distances, activity level tolerance, *etc.*), can occur during dispersal and within home ranges (the total area used on an annual basis).

We determined that these proposed primary constituent elements of critical

habitat provide for the physiological, behavioral, and ecological requirements of the pygmy-owl. The first primary constituent element provides the general biotic communities which are known to support pygmy-owl habitat in Arizona. We conclude that this element is essential to the conservation of the pygmy-owl because the species is not known to occur outside of these biotic communities.

The second primary constituent element provides the components necessary for nesting, such as cavity availability and cover. The third primary constituent element describes the structural makeup of habitat necessary to meet the biological needs of the pygmy-owl such as breeding, nesting, roosting, perching, foraging, predator avoidance, and thermal cover, and also promotes prey diversity and availability.

The fourth primary constituent element describes the structural makeup of vegetation necessary to meet the biological needs of the pygmy-owl related to movements and dispersal. This includes small-scale movements for foraging, defense, predator avoidance, pair formation, nest site selection, *etc.*, as well as landscape level movements needed to promote genetic diversity and expansion of the population.

The fifth constituent element describes landscape conditions which may affect pygmy-owl behavioral patterns and relates to the need to protect habitats from various disturbances. Pygmy-owl behavior is not typically affected by low levels of human activity or activities which are predictable (Abbate et al. 1999, 2000, AGFD unpubl. data). Low-density (< 3 houses per acre) residential areas and roads with low traffic volumes are examples of this type of activity. However, high levels of human activities, high-intensity activities, or activities which cannot be predicted may affect the areas pygmy-owls will use for nesting, foraging and dispersal (AGFD unpubl. data). High-density (> 3 houses per acre) residential, commercial areas with lights and constant high levels of activity or unpredictable activities of any level, ball fields, and

roads with high traffic volumes are some examples of activity levels that could potentially affect pygmy-owl behavior and habitat use. Habitat elements should be configured, and human activities should be minimized, so dispersal and pygmy-owl activities within its home range are not impeded.

We did not map critical habitat in sufficient detail to exclude all developed areas and other lands unlikely to contain primary constituent elements essential for pygmy-owl conservation. Within the proposed critical habitat boundaries, only lands containing some or all of the primary constituent elements (defined above) are proposed as critical habitat. Existing features and structures within proposed critical habitat, such as buildings; roads; residential landscaping (*e.g.*, mowed nonnative ornamental grasses); residential, commercial, and industrial developments; and lands above 1,200 m (4,000 ft) do not contain some or all of the primary constituent elements. Therefore, these areas are not considered critical habitat and are specifically excluded by definition.

Facilitating the movement of juvenile pygmy-owls to establish breeding sites, as well as movements among currently known local populations of pygmy-owls, is important for dispersal and gene flow, and providing such connectivity is a widely accepted principle of conservation biology. Thus, portions of CHUs may function primarily to provide such connectivity within and among CHUs and may contain only the primary constituent elements required for dispersal, but we recognize the essential nature of such connectivity to the persistence of pygmy-owls in Arizona.

We are soliciting public comments, information, or data which will help us evaluate whether the areas we have proposed are essential for the conservation of the pygmy-owl. We seek public comment on all areas within the pygmy-owl's current and historical range in Arizona, including whether any of these or other areas should be included or excluded from the final designation. As stated previously, if new information indicates that proposed CHUs are inappropriate or

that there are additional areas that are essential for the conservation of the species in Arizona, we could revise the designation of critical habitat as appropriate (50 CFR 424.12(g)). The addition of any new areas to the current proposal will require us to start the proposal process again by publishing a new proposed rule and obtaining public comment before making a final determination.

Proposed Critical Habitat

The proposed CHUs encompass all of the verified, recent sites occupied by pygmy-owls in Arizona, with the exception of pygmy-owls located on the Tohono O'odham Nation (see "Exclusions Under Section 4(b)(2)" section of this rule). Each CHU contains recent documented occurrences of pygmy-owls. The CHUs were configured by evaluating topography, vegetation, and our current understanding of pygmy-owl habitat suitability and dispersal capabilities to select areas that form an interconnected system of habitat supported by the principles of conservation biology. New pygmy-owls continue to be found each year within the proposed CHUs. Consequently, we believe that continued surveys will detect additional sites occupied by pygmy-owls within these proposed CHUs.

Table 1 presents a comparison of the 1999 designation of pygmy-owl critical habitat and our current proposal. A brief summary of changes to the initial designation are included. Table 2 shows the approximate acreage of proposed critical habitat by land ownership and county. Areas in Pima and Pinal Counties, Arizona, that are proposed as critical habitat have been divided into CHUs (see maps in the "Rule Promulgation" section). Critical habitat for the pygmy-owl includes habitat within the CHUs which contain areas that are below 1,200 m (4,000 ft) and include one or more of the primary constituent elements related to vegetation, as described above. A brief description of each CHU and our reasons for proposing those areas as critical habitat are presented below.

TABLE 1.—COMPARISON OF THE 1999 CRITICAL HABITAT DESIGNATION WITH THE CURRENT PROPOSAL

Former designation (64 FR 37419)			Current proposal		
Unit	Acres	Description	Unit	Acres	Description
1	159,811	Extended from the Mexican border northward between the Buenos Aires National Wildlife Refuge (NWR) and the Tohono O'odham Nation, but did not include the Buenos Aires NWR.	1	435,464	Extends eastward to include the Buenos Aires NWR and recent owl locations; northward to include recent owl sites and habitat for dispersal
2, 3	47,678	Strip of potential habitat that connected the Tohono O'odham Nation to Saguaro National Park-West and Tucson Mountain County Park. Unit 3 was a very small unit designed to provide connectivity across I-10.	2	179,805	Includes the former Unit 3 and extends northward to provide for enhanced connectivity facilitating movement between southern Pinal Co., the Tucson area, and occupied areas to the south and west. Saguaro National Park-West was added.
4	87,352	Unit 4 included occupied habitat in the Tucson area, which was then the most dense pygmy-owl concentration known in the State.	3	73,958	This unit is based on recent owl locations, average dispersal distance, and the Northwest Tucson and Tortolita Fan SMAs proposed in the draft Recovery Plan.
5a, 5b	211,354	Designated to provide connectivity to the riparian habitat of the Gila and San Pedro Rivers north and northeast of Tucson.	4	76,161	Much of this unit is not being proposed. The remaining portions are designated around recent pygmy-owl locations to provide for the expansion of this subpopulation (see "Methods" section).
6	133,351	Encompassed the riparian habitats of the Gila and San Pedro Rivers.	None .....	.....	This unit is not being proposed for designation based on the lack of recent, verified locations and our inability to determine the presence of the primary constituent elements (see "Methods" section).
7	99,542	Connected from unit 5a northward to and including the riparian habitat of the Salt River.	None .....	.....	This unit is not being proposed for designation based on the lack of recent, verified locations and our inability to determine the presence of the primary constituent elements (see "Methods" section).
None .....	.....	This unit was not previously designated.	5	442,612	This unit includes habitat recently found to be occupied in Organ Pipe Cactus NM, on Cabeza Prieta NWR, and on largely BLM land around the Ajo area.
Total	739,088	.....	.....	1,208,001	.....

TABLE 2.—APPROXIMATE CRITICAL HABITAT ACREAGE BY COUNTY AND LAND OWNERSHIP ¹

Unit	County	FWS	BLM	NPS	State trust	Private	Other ²	Total
1	Pima	114,490	22,908	0	233,467	63,310	1,289	435,464
2	Pima	0	58,189	22,022	25,782	34,967	18,091	159,051
2	Pinal	0	1,494	0	12,730	6,530	0	20,754
	Total	0	59,683	22,022	38,512	41,497	18,091	179,805
3	Pima	0	0	0	12,072	21,292	60	33,424
3	Pinal	0	4,295	0	22,391	13,197	651	40,534
	Total	0	4,295	0	34,463	34,489	711	73,958
4	Pinal	0	29,594	0	41,491	5,076	0	76,161
5	Pima	99,446	84,267	255,509	2,638	752	0	442,612
	Total	213,936	200,747	277,531	350,572	145,124	20,091	1,208,001

¹ Note: acreage estimates are derived from Arizona Land Resource Information System data based on the cited legal descriptions.

² Includes other Federal (BOR, Barry M. Goldwater Range), Military (AZ National Guard), State (AZGFD) and County lands.

CHU Descriptions

The following includes general descriptions of each proposed CHU,

including general land ownership, geographical extent, dominant vegetation, general land-use information, and the reason(s) why the

areas were determined to be essential to pygmy-owl conservation in Arizona. Much of the detail in the following CHU descriptions was taken from Recovery

Team documents. Legal descriptions, a general location map, and maps of individual CHUs are in the "Regulation Promulgation" section of this rule.

CHU 1

CHU 1 extends from the Mexican border northward approximately 80 km (50 mi) through the Altar Valley along the eastern edge of the Tohono O'odham Nation. This CHU includes the Buenos Aires National Wildlife Refuge, as well as BLM, State Trust and private lands to the north. Numerous washes descend from the Baboquivari Mountains on the west and the Sierrita and San Luis Mountains to the east. The Altar and Brawley Washes are important valley wash systems. Vegetation is dominated by semidesert grassland (also described as Sonoran savanna or mesquite grassland (Brown 1994)), but also supports Arizona upland Sonoran desertscrub vegetation, particularly in the northern part of this unit. Tree species such as mesquite, ash, and hackberry are found in the drainages of this unit, while grasses, scattered mesquite, and isolated saguaros are found in the upland areas. Documented pygmy-owl use in this unit includes both breeding and dispersal. Management issues primarily relate to grazing and controlled burning, while secondary issues involve residential and commercial development. Illegal border crossings and management also impact vegetation and other resources in this unit.

We determine that this area is essential to pygmy-owl conservation in Arizona because it contains recent documentation of breeding pygmy-owl locations and a number of pygmy-owls with unknown breeding status. Since 1999, this unit has accounted for approximately 43 percent of the known pygmy-owls in Arizona (Harris Environmental Group 1998, Flesch 1999, Abbate *et al.* 2000, AGFD unpubl. data). In addition, the CHU is contiguous with the Tohono O'odham Nation, which provides important connectivity to the west and south and may support breeding pygmy-owls. Finally, the area provides connectivity between the pygmy-owls in Mexico and the Tohono O'odham Nation with those in the Tucson area (CHU 2 and 3). CHU 1 contains all of the described primary constituent elements, and its primary functions are to provide nesting opportunities and connectivity for dispersal.

CHU 2

This CHU is connected to the northern portion of CHU 1 and the Tohono O'odham Nation, providing

connectivity and dispersal corridors between populations of pygmy-owls in CHUs 1 and 3. This CHU includes the western unit of Saguaro National Park and Pima County's Tucson Mountain Park and extends westward to the Tohono O'odham Nation, then northward and eastward to Interstate 10 to join CHU 3 at points north and south. Part of this CHU is within the newly designated Ironwood Forest National Monument, which is predominantly composed of BLM land but also includes some State Trust and private lands. Vegetation is dominated by Arizona upland Sonoran desertscrub and lower Colorado River Sonoran desertscrub. This unit also includes some lands on which native trees are returning and provide the described conditions for connectivity and dispersal (primary constituent element 4). These lands were previously used for agricultural purposes and have been retired. Much of CHU 2 is under Federal administration (BLM, Ironwood National Monument, Saguaro National Park), but there is some State Trust and private lands, particularly in the northern part of the unit. No single land use dominates this CHU; mining, agriculture, grazing, development, and recreation are present. Impacts to pygmy-owl habitat are also occurring from the constant movement of individuals and groups crossing the border illegally through this unit.

An important purpose of this CHU is to allow for dispersal and other movements of pygmy-owls among CHU 1, CHU 3, CHU 4 and the Tohono O'odham Nation. Movement among these areas is necessary for the maintenance and expansion of pygmy-owl subpopulations found within these CHUs. There is a known pygmy-owl site located in the southeastern portion of this CHU; however, in general there has been a lack of survey effort in this unit.

We determine that this CHU is essential to pygmy-owl conservation in Arizona because it provides connectivity between occupied CHUs 1, 3, 4, and the Tohono O'odham Nation. This CHU provides breeding, roosting, perching, and foraging habitat (constituent elements 1, 2, and 3) and maintains an important linkage function among blocks of nesting habitat both locally and over the pygmy-owl's range (constituent element 4) that is essential to the pygmy-owl's conservation (see discussion above). Human activities and development are dispersed, and this unit also contains park lands resulting in conditions associated with primary constituent element 5. The primary function of this unit is for connectivity, but may become more important with

regard to nesting as the overall pygmy-owl's population expands.

CHU 3

This CHU lies primarily northeast of Interstate 10 and extends from northwest Tucson into southern Pinal County. The boundaries of this unit are based on the recommended Northwest Tucson and Tortolita Fan SMAs found in the draft pygmy-owl recovery plan. The dominant vegetation is Arizona upland Sonoran desertscrub, and the area contains stands of trees including ironwood, mesquite, palo verde, and other species important for pygmy-owl roosting, perching, foraging and predator avoidance (primary constituent elements 1, 3 and 4). Saguaros occur in relatively high densities and are used for nesting (primary constituent element 2). Based on our current understanding, this CHU includes the most contiguous and highest-quality pygmy-owl habitat in Arizona (Wilcox *et al.* 1999, Wilcox *et al.* 2000). The southern portion of this CHU is mostly privately owned, the central portion is primarily State Trust, while the rest of the CHU is a mixture of private, State, and BLM lands.

This CHU contains a high density of active pygmy-owl nesting territories and dispersal pathways threatened by existing and on-going land uses, affecting primary constituent element 5. It has one of the highest known densities of pygmy-owls in Arizona, and is one of only four areas in the State with documented breeding pygmy-owls. Since 1999, CHU 3 has accounted for 35 percent of the known pygmy-owls in Arizona and 40 percent of the known nests (Abbate *et al.* 1999, 2000, AGFD unpubl. data). Therefore, the primary purpose of this CHU is to provide and protect adequate breeding habitat for the maintenance and expansion of this local population. Dispersal pathways within the southern portion of this CHU are limited, and so this CHU also protects remaining areas of connectivity for movement within this CHU and among adjacent CHUs. Some of the private land within this CHU has been developed and would not be considered critical habitat if it does not contain the primary constituent elements. Development pressure continues to be the main activity affecting conservation of the species in this CHU. We determine that this CHU remains an essential component of pygmy-owl conservation because it supports one of the highest densities of breeding pygmy-owls in Arizona, contributes to recruitment in the population, contains a significant amount of high-quality habitat, and provides all of the primary constituent elements.

CHU 4

This CHU occurs in Pinal County and encompasses the northernmost extent of this critical habitat proposal, running from the north edge of CHU 3 northward to an area approximately 14.4 km (9 mi) north of Park Link Drive. The northern terminus of this CHU was defined by the average distance juvenile pygmy-owls could disperse from the most northern of recent pygmy-owl sites (see discussion in "Methods" section). Vegetation is almost entirely Arizona upland Sonoran desertscrub. Grazing, development, and mining exploration have been identified as management issues affecting the species in this area. Fires have also contributed to the current vegetation condition (increases in exotic grasses and reduction of tree canopy) and will likely remain an issue in this unit into the future. These burned areas still contain one or more primary constituent elements, but could benefit from enhancement or special management. CHU 4 is primarily State Trust and BLM lands, with some scattered private holdings.

This CHU has documented pygmy-owl occupancy (3 sites since 1999 (Abbate *et al.* 1999, 2000, AGFD unpubl. data.)), primarily within the southern portions. However, much of the unit has not been surveyed, and the surveys that have occurred have not been systematic nor regular. CHU 4 does contain breeding habitat, and we expect an increased survey effort would reveal more pygmy-owl sites. The primary purposes of this unit are to maintain and protect occupied sites, provide expanded opportunities for breeding, and provide connectivity for dispersal within the unit and to CHU 3. We determine that this area is essential to the pygmy-owl's conservation in Arizona, as it contains several known pygmy-owl locations and provides habitat for breeding as well as for pygmy-owls dispersing within this unit and from the breeding areas around Tucson. Pygmy-owls have been documented moving between CHUs 3 and 4 over the past few years (Abbate *et al.* 1999). We determine that this CHU remains an essential component of pygmy-owl conservation because it supports breeding pygmy-owls, contributes to recruitment in the population, contains a significant amount of high-quality habitat, and provides all of the primary constituent elements.

CHU 5

This CHU runs from the Mexican border northward along the western edge of the Tohono O'odham Nation.

The CHU is almost entirely under Federal ownership, including portions of Cabeza Prieta National Wildlife Refuge, Organ Pipe Cactus National Monument, and contiguous BLM land in the vicinity of the town of Ajo. This unit also contains a small amount of State Trust land. The area consists of Arizona upland Sonoran desertscrub and lower Colorado River Sonoran desertscrub. Recreation-related activities, undocumented alien traffic and management, and grazing on BLM lands are the primary management issues in this unit.

This CHU contains numerous pygmy-owl locations, including breeding sites. Since 1999, this CHU has accounted for approximately 21 percent of the known pygmy-owls in Arizona (Abbate *et al.* 1999, 2000, AGFD unpubl. data). We determine that this CHU is essential to pygmy-owl conservation, as it provides breeding habitat contiguous with known pygmy-owls in Mexico and on the Tohono O'odham Nation. The purpose of this CHU is to protect and maintain known breeding areas, provide connectivity to Mexico and the Tohono O'odham Nation, and allow for expansion of this subpopulation through dispersal. Recruitment and resulting expansion of the population in this area are necessary for the conservation of the species. CHU 5 contains all of the primary constituent elements.

Managed Lands

As part of our process of developing this critical habitat proposal, we evaluated existing management plans to determine whether they provide sufficient protection and management for the pygmy-owl and its habitat such that there is no need for additional special management considerations or protection of areas that otherwise would qualify as critical habitat. Section 3(5)(i) of the Act defines critical habitat as areas on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection. Adequate special management or protection is provided by a legally operative plan that addresses essential habitat and that provides for the long-term conservation of the species. We consider a plan adequate when it: (1) 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) provides assurances that the management plan will be implemented (*i.e.*, those responsible for implementing

the plan are capable of accomplishing the objectives, have an implementation schedule, and/or adequate funding for the management plan); and (3) provides assurances the conservation plan 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). If an area provides physical and biological features essential to the conservation of the species, and also is covered by a plan that meets these criteria, then such an area does not constitute critical habitat as defined by the Act because the primary constituent elements found there are not in need of special management.

It is possible that some of the areas proposed (*e.g.*, national parks/monuments) are already under a management plan that will provide for the long-term conservation of the pygmy-owl. We encourage landowners to develop and submit management plans and actions that are consistent with pygmy-owl conservation that we can evaluate and that may remove the necessity of critical habitat regulation. If any management plans are submitted during the open comment period, we will consider whether these plans provide adequate special management or protection for the species. We will use this information in determining which, if any, areas should not be included in the final designation of critical habitat for the pygmy-owl.

Exclusions Under Section 4(b)(2) for Tribal Lands

Section 4(b)(2) of the Act requires us to base critical habitat designations on the best scientific and commercial data available, after taking into consideration the economic and any other relevant impact of specifying any particular area as critical habitat. We may exclude areas from a critical habitat designation when the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species.

As discussed in this rule, we know that pygmy-owls occupy the Tohono O'odham Nation, but we have no specific information on the numbers or distribution. There is a considerable amount of unsurveyed habitat on the Nation and, although we have no means of quantifying this habitat, the distribution of recent sightings on non-Tribal areas east, west, and south of the U.S. portion of the Nation lead one to reasonably conclude that these Tribal lands may support meaningful numbers of pygmy-owls. Thus, we believe that Nation lands are important to the

conservation of the pygmy-owl; however, it would be difficult to determine which areas on the Nation meet the definition of critical habitat due to our lack of information on pygmy-owl numbers and distribution. Based on our analysis below we find that the benefits of excluding the Nation from the proposed designation of critical habitat outweigh the benefits of including them. Therefore, we are not proposing to include the lands of the Nation as critical habitat.

(1) *Benefits of Inclusion*

We do not believe that designating critical habitat within the Nation would provide significant additional benefits for the pygmy-owl. Projects on Nation lands with a Federal nexus (*e.g.*, funded, approved or carried out by Federal agencies, such as the Bureau of Indian Affairs, Indian Health Services, or Federal Highways Administration) will trigger section 7 consultation with us if the projects affect pygmy-owls, regardless of critical habitat. Most projects of a scale large enough to impact pygmy-owls will have a Federal nexus. In addition, we have received from the Tohono O'odham Nation a document entitled *A Conservation Strategy for the Federally Endangered Cactus Ferruginous pygmy-owl on the Tohono O'odham Nation* (Edward D. Manuel, Tohono O'odham Nation, *in litt.* 2002) which outlines the general process by which the Nation and Federal agencies will coordinate to evaluate and address potential impacts to pygmy-owls related to various activities on the Nation. While this document is not sufficient to remove the need for special management (see "Section 3(5)(A) Definition" section above), it does indicate the progress that is being made through our efforts to coordinate conservation actions on the Nation and the intent of the Nation to conserve the pygmy-owl.

Because of the extent of the lands within the Nation (approximately 1.2 million ha (3 million ac)) and the low number of people residing in this area, the scope and types of projects being implemented have had minimal impacts on the landscape, disturbing less than 300 acres since September 1999 (E. Manuel, Tohono O'odham Nation, *in litt.* 2002). We will continue Government-to-Government consultations with the Tohono O'odham Nation to address the conservation needs of the pygmy-owl on Tribal lands.

In summary, because any potential impacts to the pygmy-owl from future projects will be addressed through the Nation's Conservation Strategy or through a section 7 consultation with us

under the jeopardy standard, we do not believe a designation of critical habitat would provide significant additional benefits to the pygmy-owl.

(2) *Benefits of Exclusion*

Pursuant to Secretarial Order 3206 American Indian Tribal Rights, Federal-Tribal Trust Responsibilities and the Endangered Species Act, we recognize that we must carry out our responsibilities under the Act in a manner that harmonizes the Federal trust responsibility to Tribes and Tribal sovereignty while striving to ensure that Indian Tribes do not bear a disproportionate burden for the conservation of listed species, so as to avoid or minimize the potential for conflict and confrontation.

In accordance with the Presidential Memorandum of April 29, 1994, we believe that, to the maximum extent possible, Indian Pueblos and Tribes should be the governmental entities to manage their lands and Tribal trust resources. The designation of critical habitat would be expected to adversely impact our working relationship with the Nation, and we believe that Federal regulation through critical habitat designation would be viewed as an unwarranted and unwanted intrusion into Tribal natural resource programs and may harm our working relationship with the Nation which has been beneficial in implementing natural resource programs of mutual interest. For example, on April 28, 1999, the Chairman of the Nation accepted an invitation to partner with Pima County in developing the Sonoran Desert Conservation Plan. Representatives from the Nation have participated in the Sonoran Desert Conservation Plan planning process, including expert committees and education sessions. Moreover, during 1999, the Service's Region 2 Native American Liaison met with representatives of the Nation to discuss their relationship with Cabeza Prieta National Wildlife Refuge and to further discuss a possible joint venture to survey and manage the pygmy-owl on Nation lands. Representatives from the Nation are members of both the Implementation and Technical Groups of the Cactus Ferruginous Pygmy-Owl Recovery Team. We are now meeting with the Nation on a regular basis to develop a statement of relations and to pursue the development of a management plan for the natural resources on the Nation, which would include the pygmy-owl.

Pursuant to Secretarial Order 3206, the Service acknowledges our unique and distinctive Federal Tribal trust responsibility and obligation toward the

Nation with respect to lands owned and managed by the Nation, Tribal trust resources, and the exercise of Tribal rights. Consequently, we are sensitive to the fact that the Tohono O'odham culture, religion, and spirituality may involve or relate to animals, including the pygmy-owl. We acknowledge the cultural sensitivity of the Nation with regard to owls.

We believe the designation of critical habitat on the Tohono O'odham Nation would adversely impact our working relationship with the Nation, which has been and is currently beneficial for the conservation of the pygmy-owl and other natural resource management programs. We believe, as stated in section 4(b)(2) of the Act, that the benefits to excluding the Tohono O'odham Nation outweigh the benefits of specifying this area as critical habitat. We also do not believe this exclusion will result in extinction of the pygmy-owl because of the limited threats to pygmy-owls and their habitats, and the initiation of a conservation program.

Lands Covered Under Existing Habitat Conservation Plans (HCPs)

Section 10(a)(1)(B) of the Act authorizes the Service to issue to non-Federal entities a permit for the incidental take of endangered and threatened species. This permit allows a non-Federal landowner to proceed with an activity that is legal in all other respects, but that results in the incidental taking of a listed species (*i.e.*, take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity). The Act specifies that an application for an incidental take permit must be accompanied by a conservation plan, and specifies the content of such a plan. The purpose of such a habitat conservation plan, or HCP, is to describe and ensure that the effects of the permitted action on covered species are adequately minimized and mitigated and that the action does not appreciably reduce the survival and recovery of the species.

Within the range of the pygmy-owl, the Service has approved an HCP involving the Lazy K Bar Ranch. We evaluated this HCP to determine whether it: (1) Provides a conservation benefit to the species; (2) provides assurances that the management plan will be implemented; and (3) provides assurances the plan will be effective. Approved and permitted HCPs are designed to ensure the long-term survival of covered species within the plan area. Where we have an approved HCP, the areas we ordinarily would designate as critical habitat for the

covered species will be protected through the terms of the HCPs and their implementation agreements.

The issuance of a permit (under Section 10(a) of the Act) in association with an HCP application is subject to consultation under Section 7(a)(2) of the Act. While these consultations on permit issuance have not specifically addressed the issue of destruction or adverse modification of critical habitat for the pygmy-owl, they have addressed the very similar concept of jeopardy to pygmy-owls in the plan area. Since this HCP addresses land use within the plan boundaries, habitat issues within the plan boundaries have been thoroughly addressed in the HCP and the consultation on the permit associated with the HCP. Our experience is that, under most circumstances, consultations under the jeopardy standard will reach the same result as consultations under the adverse modification standard. Common to both approaches is an appreciable detrimental effect on both survival and recovery of a listed species, in the case of critical habitat by reducing the value of the habitat so designated. Thus, actions satisfying the standard for adverse modification are nearly always found to also jeopardize the species concerned, and the existence of a critical habitat designation does not materially affect the outcome of consultation. Therefore, additional measures to protect the habitat from adverse modification are not likely to be required.

We have reviewed the Lazy K Bar Ranch HCP. A summary of our assessment is as follows:

(1) *A current plan or agreement must be complete and provide sufficient conservation benefit to the species:* A habitat conservation plan was submitted and approved in November 1998 which provides for continued conservation of the species through the minimization of habitat destruction (a maximum of 17 percent disturbance), revegetation (approximately 21 ac), and seasonal restrictions to avoid potential noise disturbance. These efforts will maintain habitat for breeding and dispersal, as well as reduce the potential for disturbance during sensitive seasons of the year.

(2) *The plan or agreement must provide assurances that the conservation management strategies will be implemented:* The coverage provided under this HCP and related 10(a)(1)(B) permit is conditional upon the implementation of the included terms and conditions. The terms and conditions are nondiscretionary. Annual reporting is required showing the results

of surveys and cavity inspections, as well as amount of area graded, plat proposals, and the extent of revegetation completed.

(3) *The plan or agreement must provide assurances that the conservation management strategies will be effective:* Monitoring is a key component of this habitat conservation plan. Surveys to detect pygmy-owl presence or absence will be conducted on an annual basis. Cavity inspections will occur to document the status and occupancy of potential nesting cavities. The plan provides for the funding and completion of telemetry studies on any pygmy-owls detected so that the effects of the project on pygmy-owl habitat use and behavior can be determined. The success of vegetation salvage and revegetation efforts will be monitored. Photo documentation will be used to track the effects to habitat from both development activities and revegetation.

On the basis of this assessment, we have determined that the area addressed by the Lazy K Bar Ranch HCP does not require additional special management considerations to conserve the pygmy-owl. Therefore, the area covered by the existing, legally operative incidental take permit issued for pygmy-owls under section 10(a)(1)(B) of the Act is, by definition under Section 3(5)(A) of the Act, not included in this proposed designation of critical habitat.

Lands within HCPs are subject to disposal (e.g., through sale or exchange), subject to various sideboards included in each HCP. Proposed critical habitat does not include non-Federal lands covered by an incidental take permit for pygmy-owls issued under section 10(a)(1)(B) of the Act for these HCPs as long as such permit, or a conservation easement providing comparable conservation benefits, remains legally operative on such lands.

We also considered exclusion of HCPs under subsection 4(b)(2) of the Act, which allows us to exclude areas from critical habitat designation where the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. We believe that in most instances, the benefits of excluding HCPs from critical habitat designations will outweigh the benefits of including them. We believe this is the case in relation to the Lazy K Bar Ranch HCP that addresses pygmy-owls.

The benefits of including HCP lands in critical habitat are normally nonexistent. The principal benefit of any designated critical habitat is that activities in such habitat that may affect it require consultation under section 7 of the Act if such actions involve a

Federal nexus (i.e., an action authorized, funded, or carried out by a Federal agency). Such consultation would ensure that adequate protection is provided to avoid adverse modification of critical habitat. Where HCPs are in place, our experience indicates that this benefit is small or non-existent.

Further, HCPs typically provide for greater conservation benefits to a covered species than section 7 consultations because HCPs assure the long-term protection and management of a covered species and its habitat. Such assurances are typically not provided by section 7 consultations which, in contrast to HCPs, often do not commit the project proponent to long-term special management or protections.

The development and implementation of HCPs provide 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 commercial activity. The educational benefits of critical habitat, including informing the public of areas that are important 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 many regional HCPs. For these reasons, then, we believe that designation of critical habitat normally has little benefit in areas covered by HCPs.

The benefits of excluding HCPs from being designated as critical habitat include relieving landowners, communities and counties of any additional regulatory review that results from such a designation. Many HCPs, particularly large regional HCPs, take many years to develop and, upon completion, become regional conservation plans that are consistent with the recovery of covered 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 HCPs.

A related benefit of excluding HCP areas is that it would encourage the continued development of partnerships with HCP participants, including States, local governments, conservation organizations, and private landowners, that together can implement conservation actions we would be unable to accomplish alone. By excluding areas covered by HCPs from

critical habitat designation, we preserve these partnerships and, we believe, set the stage for more effective conservation actions in the future.

In general, we believe the benefits of critical habitat designation to be insignificant in areas covered by approved HCPs. We also believe that the benefits of excluding HCPs from designation are significant. Weighing the small benefits of inclusion against the benefits of exclusion, including the benefits of relieving property owners of an additional layer of approvals and regulation, together with the encouragement of conservation partnerships, would generally result in HCPs being excluded from critical habitat designation under section 4(b)(2) of the Act.

Effects of Critical Habitat Designation

Section 7(a) of the Act requires Federal agencies to evaluate their actions both with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is designated or proposed. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR § 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with us. Section 7(a)(4) of the Act and regulations at 50 CFR § 402.10 require Federal agencies to confer with us on any action that is likely to result in destruction or adverse modification of proposed critical habitat.

Activities on Federal lands that may affect pygmy-owl critical habitat will require section 7 consultation. Activities on private or State lands that are funded, permitted or carried out by a Federal agency, such as a permit from the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act, or a section 402 permit under the Clean Water Act from the Environmental Protection Agency (EPA), will be subject to the section 7 consultation process if those actions may affect critical habitat or a listed species through modification of suitable habitat. Through this consultation, we would advise agencies whether the permitted actions would likely jeopardize the continued existence of the species or adversely modify critical habitat. Federal actions not affecting critical habitat or otherwise not affecting pygmy-owls, and actions on non-Federal lands that are not federally

funded, permitted or carried out, will not require section 7 consultation.

We will conduct our analyses regarding the destruction or adverse modification of critical habitat over the entire critical habitat designation and on a unit basis, as dictated by conditions within the unit. A consultation focuses on the entire critical habitat area designated, unless the critical habitat rule identifies another basis for analysis, such as discrete units and/or groups of units necessary for different life-cycle phases, units representing distinctive habitat characteristics or gene pools, or units fulfilling essential geographic distribution requirements. In the case of the pygmy-owl, certain CHUs (e.g., CHU 1 and CHU 3) contain habitat for breeding and dispersal constrained by existing land uses. In addition, the small population size and dispersed distribution of the pygmy-owl make local populations within specific CHUs and the ability to maintain connectivity among them geographically significant for the maintenance of the overall Arizona population of pygmy-owls.

When we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.2 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that we believe would avoid the likelihood of jeopardizing the continued existence of listed species or the destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where critical habitat is subsequently designated and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation with us for actions for which formal consultation has been completed, if those actions may affect proposed or designated critical habitat.

Section 4(b)(8) of the Act requires that we describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat include those that alter the primary constituent elements to the extent that the value of critical habitat for the conservation of the species is appreciably diminished. We note that such activities may include, but are not limited to:

- (1) Activities such as clearing of vegetation that appreciably reduce the value of the critical habitat for breeding;
- (2) Activities such as clearing vegetation, road-building, or recreation that appreciably reduce the value of the critical habitat for connectivity;
- (3) Activities such as clearing of vegetation, water diversion or impoundment, or high-impact recreation that appreciably reduce the value of the critical habitat for feeding by pygmy-owls;
- (4) Activities that appreciably reduce the value of the critical habitat for other biological purposes (e.g., roosting, rearing, or other normal behavior patterns).

The following federally funded programs and actions that may be affected by the proposed designation of critical habitat include, but are not limited to:

- (1) Funding or approval of road development, realignment, widening, or maintenance by the Federal Highway Administration resulting in the significant loss or degradation of the primary constituent elements;
- (2) Funding of housing development by the Federal Housing Administration, Veteran's Administration, Small Business Administration or Department of Housing and Urban Development resulting in the significant loss or degradation of the primary constituent elements;
- (3) Approval of structures and distribution for energy, communication, and other utilities by the Federal Energy Regulatory Commission or the Federal Communications Commission resulting in the loss or degradation of the primary constituent elements;
- (4) Approval of actions related to grazing, mining, recreation, and land planning by the Bureau of Land Management, U.S. Forest Service, and National Park Service that result in a significant loss or degradation of the primary constituent elements;
- (5) Approval of structures or actions by the Bureau of Reclamation related to the management of waterways or

floodways that result in a significant loss or degradation of the primary constituent elements; and

(6) Approval of permits or actions related to the Clean Water Act by the Environmental Protection Agency or Corps that result in the significant loss or degradation of the primary constituent elements.

The Act and 50 CFR 17.22 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered animal species under certain circumstances. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities.

If you have questions regarding whether specific activities may constitute adverse modification of critical habitat, contact the Field Supervisor, Arizona Ecological Services Field Office (see **ADDRESSES** section). Requests for copies of the regulations on listed wildlife and inquiries about prohibitions and permits may be addressed to the Service, Branch of Endangered Species/Permits, P.O. Box 1306, Albuquerque, NM 87103 (telephone 505/248-6920, facsimile 505/248-6922).

Relationship to Habitat Conservation Plans and Other Planning Efforts

Section 3(5)(A) of the Act defines critical habitat, in part, as those areas requiring special management considerations or protection. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities. This permit allows a non-Federal landowner to proceed with an activity that is legal in all other respects, but that results in the incidental taking of a listed species. An incidental take permit application 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 permitted incidental take. The purpose of the HCP is to describe and ensure that the effects of the permitted action on covered species are adequately minimized and mitigated, and that the action does not appreciably reduce the survival and recovery of the species.

We began working with Pima County in 1998 to develop the Sonoran Desert Conservation Plan which identifies and provides for the regional or area-wide protection and perpetuation of plants, animals, and their habitats, while allowing compatible land-use and economic activity. This regional HCP will address the effects of urban growth

and propose conservation for 55 vulnerable species in Pima County, including the pygmy-owl. The Town of Marana is also pursuing an incidental take permit for actions within their jurisdiction that will address the pygmy-owl and other species. There is one currently operative HCP (Lazy K Bar Ranch) that specifically addresses the pygmy-owl and its habitat. Based on our evaluation of this HCP we have concluded, pursuant to section 3(5)(A) of the Act, that areas within this HCP do not require additional special management considerations or protection, and consequently we have not included areas within it as proposed critical habitat. (See the Managed Lands section, above, for a discussion of the factors considered).

In the event that future HCPs covering the pygmy-owl are developed within the boundaries of designated critical habitat, we will work with applicants to ensure that the HCPs provide for protection and management of habitat areas essential for the conservation of the pygmy-owl.

The HCP development process provides an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by pygmy-owls. The process also enables us to conduct detailed evaluations of the importance of such lands to the long-term survival of the species in the context of constructing a biologically configured system of interlinked habitat areas.

We will provide technical assistance and work closely with applicants throughout the development of future HCPs to identify lands essential for the conservation of the pygmy-owl and appropriate management for those lands. The take minimization and compensation measures provided under these HCPs are expected to protect critical habitat. Furthermore, we will complete intra-Service consultation on our issuances of section 10(a)(1)(B) permits for these HCPs to ensure permit issuance will not destroy or adversely modify critical habitat. If an HCP that addresses the pygmy-owl as a covered species is ultimately approved, we may reassess the critical habitat boundaries in light of the HCP.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial data available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions

outweigh the benefits of specifying such areas as critical habitat. We cannot exclude areas from critical habitat when such an exclusion will result in the extinction of the species. We have conducted a robust economic analysis that complies with the ruling by the Tenth Circuit Court of Appeals in *New Mexico Cattle Growers Association, et. al. v. U.S. Fish and Wildlife Service* on the effects of the proposed critical habitat designation. We are announcing the availability of the draft economic analysis with this proposed rule.

Public Comments Solicited

It is our intent that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, we solicit comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

- (1) Whether all areas proposed for designation are essential to the conservation of the species;
- (2) Whether any lands within the Tohono O'odham Nation should be included in the designation;
- (3) Whether the benefits of excluding specific areas will outweigh the benefits of including those areas as critical habitat;
- (4) Whether any areas included in the proposed designation have adequate special management and protection in place such that they do not meet the definition of critical habitat;
- (5) Whether we have looked at the right biological factors and other relevant data concerning the number and distribution of pygmy-owls in Arizona, quantity and quality of available pygmy-owl habitat, and what habitat is essential to the conservation of the species and why. Is there additional information we have not considered?;

(6) Whether the methodology utilized to delineate the proposed critical habitat boundaries is appropriate for determining areas that are essential to the conservation of the pygmy-owl (e.g., range of the owl, specific sites, and the need for habitat connectivity);

(7) If the rule accurately reflects the land use practices and current or planned activities in the subject areas and their possible impacts on proposed critical habitat;

(8) Whether there are any foreseeable economic or other impacts resulting from the proposed designation of critical habitat, including any impacts on small entities or families that are not considered in the draft economic

analysis (specifically estimated number of small businesses affected by the designation);

(9) Whether economic and other values associated with designating critical habitat for the pygmy-owl such as those derived from non-consumptive uses (e.g., hiking, camping, bird-watching, enhanced watershed protection, improved air quality, increased soil retention, "existence values," and reductions in administrative costs) were included appropriately;

(10) Whether we properly assessed the available literature regarding pygmy-owls;

(11) If the use of the preliminary SMAs described in the draft Recovery Plan is appropriate in delineating critical habitat areas;

(12) If the areas proposed for designation are essential to the conservation of the species;

(13) Whether we have sufficient information to support designation of each of the proposed units;

(14) What should the relationship be between the recovery plan and the critical habitat designations; and

(15) Have we adequately addressed uncertainty and scientific disagreement with respect to all aspects of the proposed designation?

Prior to making a final determination on this proposed rule, we will take into consideration all relevant comments and additional information received during the comment period.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to promote listing decisions that are based on scientifically sound data, assumptions, and analyses, including input from appropriate experts and specialists. We will send these peer reviewers copies of this proposed rule immediately following its publication in the **Federal Register**. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

We will consider all comments and information received during the 90-day comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal. Depending on public comments, information, or data received, we will evaluate and make a final determination

on the areas that are essential to the conservation of pygmy-owl, and critical habitat could be revised as appropriate.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. We are scheduling one public hearing on this proposal. We will hold this public hearing in the Leo Rich Theater at the Tucson Convention Center in Tucson, AZ, on January 23, 2002, from 6:30 p.m. to 9 p.m. For more information on this hearing, contact the Field Supervisor of the Arizona Ecological Services Field office (see **ADDRESSES** section).

Executive Order 12866

Executive Order 12866 requires each agency to write regulations/notices that are easy to understand. We invite your comments on how to make this notice easier to understand including answers to questions such as the following: (1) Are the requirements in the notice clearly stated? (2) Does the notice contain technical language or jargon that interferes with the clarity? (3) Does the format of the notice (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? (4) Is the description of the notice in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the notice? What else could we do to make the notice easier to understand?

Send a copy of any comments that concern how we could make this notice easier to understand to: Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW., Washington, DC 20240. You may e-mail your comments to this address: Execsec@ios.doi.gov.

Our practice is to make comments that we receive on this rulemaking, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the rulemaking record, which we will honor to the extent allowable by Federal law. In some circumstances, we would withhold from the rulemaking record a respondent's identity, as allowable by Federal law. If you wish for us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, including individuals identifying themselves as representatives or officials of

organizations or businesses, available for public inspection in their entirety.

Required Determinations

Regulatory Planning and Review

For the purposes of Executive Order 12866, this document is a significant rule and has been reviewed by the Office of Management and Budget (OMB). A separate consideration of the economic and other relevant impacts will be conducted under section 4(b)(2) of the Act.

We have prepared a draft economic analysis to assist us in compliance with section 4(b)(2) as well as Executive Order 12866 and other regulatory requirements. Concerning Executive Order 12866, 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.

As discussed above, Federal agencies would be required to ensure that their actions do not destroy or adversely modify designated critical habitat of the pygmy-owl. Because of the potential for impacts on other Federal agencies' activities, we will review this proposed action for any inconsistencies with other Federal agency actions.

If this rule is finalized we will determine whether it materially affects 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 have conducted an economic analysis and determined that this rule will not 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, as a result, this rule has undergone OMB review. The proposed rule follows the requirements for proposing critical habitat contained in the Act.

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

Under the Regulatory Flexibility Act (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 an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act 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. Based on the information available to us at this time, we are certifying that the rule will not have a significant effect on a substantial number of small entities. However, we intend to consider the information from the addendum to the economic analysis prior to our final designation. The following discussion explains our rationale and is based upon the information contained in the draft Economic Analysis that we are providing for comment concurrently with this proposed rule.

This analysis first determines whether critical habitat potentially affects a "substantial number" of small entities in counties supporting critical habitat areas. While SBREFA does not explicitly define "substantial number," the Small Business Administration, as well as other Federal agencies, have interpreted this to represent an impact on 20 percent or greater of the number of small entities in any industry.¹

Estimated Number of Small Businesses Affected: The "Substantial Number" Test

To be conservative, (*i.e.*, more likely to overstate impacts than understate them), this 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).²

¹ See U.S. Small Business Administration, *The Regulatory Flexibility Act: An Implementation Guide for Federal Agencies*, 1998. Accessed at: www.sba.gov/advo/laws/rfaguide.pdf on December 3, 2001.

² While it is possible that the same business could consult with the Service more than once, it is unlikely to do so during the one-year timeframe addressed in this analysis. However, should such multiple consultations occur, they would concentrate effects of the designation on fewer entities. In such a case, the approach outlined here

First, the number of small businesses affected is estimated;³

- Estimate the number of businesses within the study area affected by section 7 implementation annually (assumed to be equal to the number of annual consultations);
- Calculate the percent of businesses in the affected industry that are likely to be small;
- Calculate the number of affected small businesses in the affected industry;
- Calculate the percent of small businesses likely to be affected by critical habitat.

This calculation reflects conservative assumptions and nonetheless yields an estimate that is still far less than the 20 percent threshold that would be considered "substantial." As a result, this analysis concludes that a significant economic impact on a substantial number of small entities will not result from the designation of critical habitat for the pygmy-owl. Nevertheless, an estimate of the number of small businesses that will experience effects at a significant level is provided below.

Small businesses in the construction and development industry could potentially be affected by the designation of critical habitat for the pygmy-owl if the designation leads to significant project modifications or delays associated with development. To be conservative, this analysis assumes that a unique company will undertake each of the projected consultations in a single year and that each of these companies will be a small business. Thus, this analysis assumes that 27 unique companies will consult with the Service on development projects over ten years, or approximately 2.7 businesses per year. There are approximately 161 residential development companies in the counties in which critical habitat units are located.⁴ Thus, approximately 1.7 percent of small residential development companies in Pima and Pinal Counties may be affected by the designation of critical habitat for the pygmy-owl annually. Because 1.7 percent reflects conservative assumptions and is far less than the 20 percent threshold that would be

likely would overstate the number of affected businesses.

³ Note that because these values represent the probability that small businesses will be affected during a one-year time period, calculations may result in fractions of businesses. This is an acceptable result, as these values represent the probability that small businesses will be affected by section 7 implementation of the Act.

⁴ Census Bureau, County Business Patterns, Accessed at: <http://www.census.gov/epcd/cbp/view/cbpview.html> on August 26, 2002.

considered "substantial", this analysis concludes that a significant economic impact on a substantial number of small entities will not result from the designation of critical habitat for the pygmy-owl.

To the extent that the designation of critical habitat for the pygmy-owl may lead to an increase in the number of formal consultations and project modifications, some mining operations, particularly the smaller operators in Pinal County, may be affected by the designation. The Service estimates that approximately six consultations are likely to occur within pygmy-owl critical habitat areas in the next ten years, or approximately 0.6 per year. There are approximately 66 mining companies in the counties in which critical habitat units are located.⁵ Therefore approximately 0.9 percent of small mining companies in Pima and Pinal Counties may be affected by the designation of critical habitat for the pygmy-owl annually. Because 0.9 percent reflects conservative assumptions and is still less than the 20 percent threshold that would be considered "substantial," this analysis concludes that a significant economic impact on a substantial number of small entities will not result from the designation of critical habitat for the pygmy-owl.

Estimated Effects on Small Businesses: The "Significant Effect" Test

Costs of critical habitat designation to small businesses consist primarily of the cost of participating in section 7 consultations and the cost of project modifications. To calculate the likelihood that a small business will experience a significant effect from critical habitat designation for the pygmy-owl, the following calculations were made:

- Calculate the per-business cost. This consists of the unit cost to a third party of participating in a section 7 consultation (formal or informal) and the unit cost of associated project modifications. To be conservative, this analysis uses the high-end estimate for each cost.
- Determine the amount of annual sales that a company would need to have for this per-business cost to constitute a "significant effect." This is calculated by dividing the per-business cost by the three percent "significance" threshold value.
- Estimate the likelihood that small businesses in the study area will have

⁵ Census Bureau, County Business Patterns, Accessed at: <http://www.census.gov/epcd/cbp/view/cbpview.html> on August 26, 2002.

annual sales equal to or less than the threshold amount calculated above. This is estimated using national statistics on the distribution of sales within industries.⁶

- Based on the probability that a single business may experience significant effects, calculate the expected value of the number of businesses likely to experience a significant effect.
- Calculate the percent of businesses in the study area within the affected industry that are likely to be affected significantly.

Small businesses in the construction and development industries per-business cost could potentially be \$4.3 million. The annual sales that a company would need to have for this per-business cost to constitute a "significant effect" would be \$120 million. Based on national statistics 11 percent of small businesses in Pima and Pinal Counties will have sales in this range. Thus, the expected number of small businesses likely to experience a significant effect is 89 percent of 2.7, or 2.4 businesses annually. This number represents approximately 1.4 percent of construction and development companies in Pima and Pinal Counties. Because 1.4 percent reflects conservative assumptions and is still less than the 20 percent threshold that would be considered "significant," this analysis concludes that a significant economic impact on a substantial number of small entities will not result from the designation of critical habitat for the pygmy-owl.

The mining industry's per-business cost could potentially be \$45,700. The annual sales that a company would need to have for this per-business cost to constitute a "significant effect" would be \$1.5 million. Based on national statistics 22 percent of small businesses in Pima and Pinal Counties will have sales in this range. The expected number of small businesses likely to experience a significant effect is 88 percent of 0.6, or 0.5 businesses annually. This number represents approximately 0.9 percent of mining companies in Pima and Pinal Counties. Because 0.9 percent reflects conservative assumptions and is still less than the 20 percent threshold that would be considered "significant," this analysis concludes that a significant economic impact on a substantial number of small entities will not result

⁶This probability is calculated based on national industry statistics obtained from the Robert Morris Associated Annual Statement of Studies: 2001–2002 and from comparison with the SBA definitions of small businesses.

from the designation of critical habitat for the pygmy-owl.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order (E.O. 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We have a very good consultation history for the pygmy-owl; thus, we can describe the kinds of actions that have undergone consultations. Within the areas proposed as critical habitat units, the BLM, Department of Energy (DOE), and the Federal Energy Regulatory Commission (FERC) are likely to undergo section 7 consultation for actions relating to energy supply, distribution, or use.

Since the species was listed in 1997, the BLM has consulted on the Safford Resource Management Plan (RMP) and the Phoenix RMP, which address utility corridors. There are several other proposed energy distribution lines (*e.g.*, the Sonora-Arizona Interconnection Project) in the planning phases that involve Federal agencies, including DOE, FERC, BLM and the Forest Service, depending on the alternative selected and the lands that will be affected. These distribution lines are likely to require section 7 consultation for one or several listed species that occur along their routes. Measures, including adjustments to routes, should be available to minimize and mitigate adverse effects.

While this rule is a significant regulatory action under Executive Order 12866, it is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

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

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), based upon the information available to us through the draft Economic Analysis and as described in the "Regulatory Flexibility Act" section above:

(1) 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.

(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, we have considered whether this rule has significant takings implications.

I. Summary of the Action

We are proposing to designate approximately 1.2 million acres of critical habitat for the pygmy-owl. On September 21, 2001, the United States District Court for the District of Arizona, in *National Association of Home Builders et al. v. Norton*, Civ.–00–0903–PHX–SRB vacated the previous designation of critical habitat for the pygmy-owl and ordered us to issue a new proposed rule designating critical habitat for the pygmy-owl. This proposed rule is being issued pursuant to that order.

II. Assessment of Takings Implications

The mere promulgation of a regulation, like the enactment of a statute, is rarely sufficient to establish that private property has been taken unless the regulation on its face denies the property owners economically viable use of their land (*Agins v. City of Tiburon*, 447 U.S. 255, 260–263 (1980); *Hodel v. Virginia Surface Mining and Reclamation Ass'n*, 452 U.S. 264, 195 (1981)). The designation of critical habitat alone does not deny anyone economically viable use of their property. The Act does not automatically restrict all uses of critical habitat, but only imposes restrictions under section 7(a)(2) on Federal agency actions that may result in destruction or adverse modification of designated critical habitat. This is not the very rare case such as that found in *Whitney Benefits, Inc. v. United States*, 926 F.2d 1169 (Fed. Cir. 1991), in which a statute explicitly prohibits the only economically useful activity possible on certain lands and a court is able to discern without administrative action that no permit could possibly be granted.

Recognizing that governmental regulation involves adjustment of rights for the public good, the court has found that a regulation which curtails the most profitable use of property, resulting in a reduction in value or limitations on use, likewise does not necessarily result in a taking (*Andrus v. Allard*, 444 U.S. 51, 66 (1979); *Agins*, 447 U.S. at 262; *Hodel*, 452 U.S. at 296). Where a regulation denies property owners all economically viable use of their property, then a taking will likely occur (*Agins*, 447 U.S. at 260). However, where regulation does not categorically

prohibit use but merely regulates the conditions under which such use may occur, and does not regulate alternative uses, then no taking occurs (*Hodel*, 452 U.S. at 296). With the designation of critical habitat, property owners are not denied the economically viable use of their land. Use of land is not categorically prohibited but rather certain restrictions are imposed upon Federal agency actions which may result in the destruction or adverse modification of critical habitat. As such, it is not likely that taking occurs.

Even beyond the above, however, a property owner must establish that a "concrete controversy" exists before the court may even reach the merits of a takings claim (*Hodel*, 452 U.S. at 294; *Agins*, 447 U.S. at 260). The property owner must show a specific and real impact to specific properties before judicial resolution of a takings claim is made (*MacDonald, Sommer, and Frates v. Yolo County*, 447 U.S. 340, 348–349; *Agins*, 447 U.S. at 260). The issue is not yet ripe for judicial resolution until administrative action is pursued to a final determination (*Hodel*, 452 U.S. at 297; *MacDonald*, 447 U.S. at 348–349). It is likely that, prior to judicial intervention, a solution will be reached at the administrative level (*Hodel*, 452 U.S. at 297). The Act provides mechanisms, through section 7 consultation, to resolve apparent conflicts between proposed Federal actions, including Federal funding or permitting of actions on private land, and the conservation of the species, including avoiding the destruction or adverse modification of designated critical habitat. Based on our experience with section 7 consultations for all listed species, virtually all projects—including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7 consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures must be economically feasible and within the scope of authority of the Federal agency involved in the consultation.

We believe that the takings implications associated with this critical habitat designation will be insignificant, even though private, State, and Federal lands are included. Impacts of critical habitat designation may occur on private lands where there is Federal involvement (*e.g.*, Federal funding or permitting) subject to section 7 of the Act. Impacts on private entities may also result if the decision on a proposed action on Federally owned critical habitat could affect economic activity on adjoining non-Federal land. Each

action would be evaluated by the involved Federal agency, in consultation with us, in relation to its impact on the pygmy-owl and its designated critical habitat. In the unexpected event that extensive modifications would be required to a project on private property, it is not likely that the economic impacts to the property owner would be of sufficient magnitude to support a takings action. We do not anticipate that property values will be affected by critical habitat designation, but this will be analyzed in our economic analysis. Therefore, we anticipate that this critical habitat designation will result in insignificant takings implications on these lands.

III. Alternatives to Designating Critical Habitat

Under the Act, there is no alternative to designation of critical habitat. Critical habitat must be designated unless we determine that it is not prudent or determinable to do so (16 U.S.C. 1533(b)(6)(C)). As described above, we are under court order to complete a rulemaking to designate critical habitat for the pygmy-owl. We will further consider the economic and other relevant impacts of the designation in deciding whether to exclude areas for the designation in the final rule.

IV. Financial Exposure

The designation of critical habitat for the pygmy-owl will not on its face cause a taking of private property. Because the Act's critical habitat protection requirements apply only to Federal agency actions, few, if any, conflicts between critical habitat and private property rights should result. No approximation of the financial exposure of the Federal government is possible, but it is expected to be insignificant.

Based on the above assessment, we find that this proposed rule designating critical habitat for the pygmy-owl does not pose significant takings implications.

Federalism

In accordance with Executive Order 13132, we have considered whether this rule has significant Federalism effects and have determined that a Federalism assessment is not required. In keeping with Department of the Interior policy, we requested information from and coordinated development of this proposed rule with appropriate resource agencies in Arizona. We will continue to coordinate any future designation of critical habitat for the pygmy-owl with the appropriate agencies.

We do not anticipate that this regulation will intrude on State policy

or administration, change the role of the Federal or State government, or affect fiscal capacity. For example, we have conducted many formal consultations with the Corps and EPA over actions related to their issuance of permits pursuant to sections 404 and 402, respectively, under the Clean Water Act. Because these consultations were conducted prior to the original designation of critical habitat, while critical habitat was in place, and after critical habitat designation for the pygmy-owl was vacated pursuant to court order, we do not believe that this designation of critical habitat will have significant Federalism effects. If this critical habitat designation is finalized, Federal agencies also must ensure, through section 7 consultation with us, that their activities do not destroy or adversely modify designated critical habitat. Nevertheless, we do not anticipate that the types of measures, provided by past consultations (*e.g.*, those issued from 1997 through 2002), will increase because an area is designated as critical habitat. This rule also will not change the private property rights within the area proposed to be designated as critical habitat. For these reasons, we do not anticipate that the designation of critical habitat will change State policy or administration, change the role of the Federal or State government, or affect fiscal capacity.

Within some areas the designation of critical habitat could trigger additional review of Federal activities under section 7 of the Act, and may result in additional requirements on Federal activities to avoid destroying or adversely modifying critical habitat. Any action that lacked Federal involvement would not be affected by the critical habitat designation. Should a federally funded, permitted, or implemented project be proposed that may affect designated critical habitat, we will work with the Federal action agency and any applicant, through section 7 consultation, to identify ways to implement the proposed project while minimizing or avoiding any adverse effect to the species or critical habitat. In our experience, the majority of such projects can be successfully implemented with modifications that avoid significant economic impacts to project proponents.

The designation may have some benefit to these governments in that the areas essential to the conservation of the species would be clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species would be identified. While this definition and identification do not alter where and what federally sponsored

activities may occur, it 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 this rule would not unduly burden the judicial system and would meet the requirements of sections 3(a) and 3(b)(2) of the Order. We propose to 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 pygmy-owl.

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

This rule does not contain any new collections of information that require approval by the Office of Management and Budget (OMB) under 44 U.S.C. 3501 et seq. This rule will not impose new record-keeping or reporting requirements on State or local governments, individuals, businesses, or organizations.

National Environmental Policy Act

It is our position 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 Ninth Circuit *Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied, 116 S. Ct. 698 (1996).

Government-to-Government Relationship With Indian Pueblos and Tribes

In accordance with the Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997), the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), E.O. 13175, and the Department of the Interior's requirement at 512 DM 2, we understand that recognized Federal Indian Pueblos and Tribes must be related to on a Government-to-Government basis. Therefore, we are soliciting information from the Indian

Pueblos and Tribes and will arrange meetings with them during the comment period on potential effects to them or their resources that may result from critical habitat designation.

We have met with representatives of the Tohono O'odham Nation and, based on the Section 4(b)(2) of the Act, we have determined that the benefits of designating the Nation as critical habitat do not outweigh the benefits of excluding them. We also believe that this exclusion will not result in the extinction of the pygmy-owl because of the limited threats to pygmy-owls and their habitat within the Nation and the Nation's initiation of a conservation program. In addition, the Recovery Team has not recommended inclusion of the Tohono O'odham Nation as a Recovery Area. Consequently, we are not proposing critical habitat on the Tohono O'odham Nation.

Pygmy-owls were recently located on a grazing allotment held by the Pascua Yaqui Tribe. These grazing leases include State Trust and Federal lands, but are adjacent to lands held in title by the Tribe. It will be important to coordinate conservation efforts for the pygmy-owl in this area with the Pascua Yaqui Tribe.

We will continue to work with the Tohono O'odham Nation and the Pascua Yaqui Tribe regarding the development of management and conservation plans, conservation agreements, grants, and other cooperative projects that could contribute to the recovery of pygmy-owls in Arizona.

References Cited

A complete list of all references cited in this final rule is available upon request from the Arizona Ecological Services Field Office (see "Addresses" section).

Author

The primary authors of this notice are the staff at the Arizona Ecological Services Field Office (see "Addresses" section).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—[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. Amend § 17.95(b) by revising critical habitat for the Pygmy-owl, cactus ferruginous (*Glaucidium brasilianum cactorum*), to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(b) *Birds.* * * *
CACTUS FERRUGINOUS PYGMY-
OWL (*Glaucidium brasilianum*
cactorum)

(1) Critical habitat units are depicted for Pima and Pinal Counties, Arizona, on the maps below. These maps are a graphical representation of the geographic boundaries that encompass the proposed pygmy-owl critical habitat and are provided for illustrative purposes only. The map and GIS files used to create these maps are not the definitive source for determining critical habitat boundaries. While we make every effort to represent the proposed critical habitat shown on these maps as completely and accurately as possible (given existing time, resource, data, and display constraints), the maps are for reference only; the areas that geographically contain the proposed critical habitat are legally described below.

(2) Within these areas, the primary constituent elements for the pygmy-owl are those habitat components that are essential for the primary biological needs of foraging (provide sufficient prey base and cover from which to hunt in an appropriate configuration and proximity to nest and roost sites), nesting (trees and cacti of adequate size to support cavities in proximity to foraging, roosting, sheltering and dispersal habitats), rearing of young (adequate cover for protection from climatic elements and predators in an appropriate configuration in relation to the nest site), roosting (provides substrates of adequate size and cover), sheltering (provides substrates of adequate size and cover), and dispersal (provides adequate cover and configuration to facilitate movement and reduce mortality factors, *i.e.*, predators, prey availability, human-related factors, *etc.*). Only areas within these geographic boundaries that are below 1,200 m (4,000 ft) and include one or more of the primary constituent elements related to vegetation are proposed as critical habitat.

(3) The primary constituent elements include:

(i) Elevations below 1,200 m (4,000 ft) within the biotic communities of Sonoran riparian deciduous woodlands;

Sonoran riparian scrubland; mesquite bosques; xeroriparian communities; tree-lined drainages in semidesert, Sonoran savanna, and mesquite grasslands; and the Arizona Upland and Lower Colorado River subdivisions of Sonoran desertscrub (see Brown 1994 for a description of these vegetation communities);

(ii) Nesting cavities located in trees including, but not limited to, cottonwood, willow, ash, mesquite, palo verde, ironwood, and hackberry with a trunk diameter of 15 cm (6 in) or greater measured 1.4 m (4.5 ft) from the ground, or large columnar cactus such as saguaro or organ pipe greater than 2.4 m (8 ft);

(iii) Multilayered vegetation (presence of canopy, mid-story, and ground cover) provided by trees and cacti in association with shrubs such as acacia, prickly pear, desert hackberry, graythorn, *etc.*, and ground cover such as triangle-leaf bursage, burro weed, grasses, or annual plants. By way of description, preliminary data gathered by the Arizona Game and Fish Department (AGFD) indicates 35 percent ground cover at perch sites and 48 percent ground cover at nest sites;

mid-story cover of 65 percent at perch sites and 65 percent at nest sites; and 73 percent canopy cover at perch sites and 87 percent canopy cover at nest sites (Wilcox *et al.* 1999). This AGFD information is based on a limited study area, a small sample size, and methods used to describe microhabitat characteristics and may have only limited applicability in project evaluation;

(iv) Vegetation providing mid-story and canopy level cover (this is provided primarily by trees greater than 2 m (6 ft) in height) in a configuration and density compatible with pygmy-owl flight and dispersal behaviors. Within 15-m radius plots centered on nests and perch sites, AGFD has documented the mean number of trees and average height of trees for Sonoran desertscrub and semidesert grassland areas. The mean number of trees per plot in Sonoran desertscrub plots was 12.5 with a mean height of 3.95 m. The mean number of trees in semidesert grassland was 28.5 with a mean height of 8.1 m (Wilcox *et al.* 2000). This AGFD information is based on a small sample size using a method designed to describe

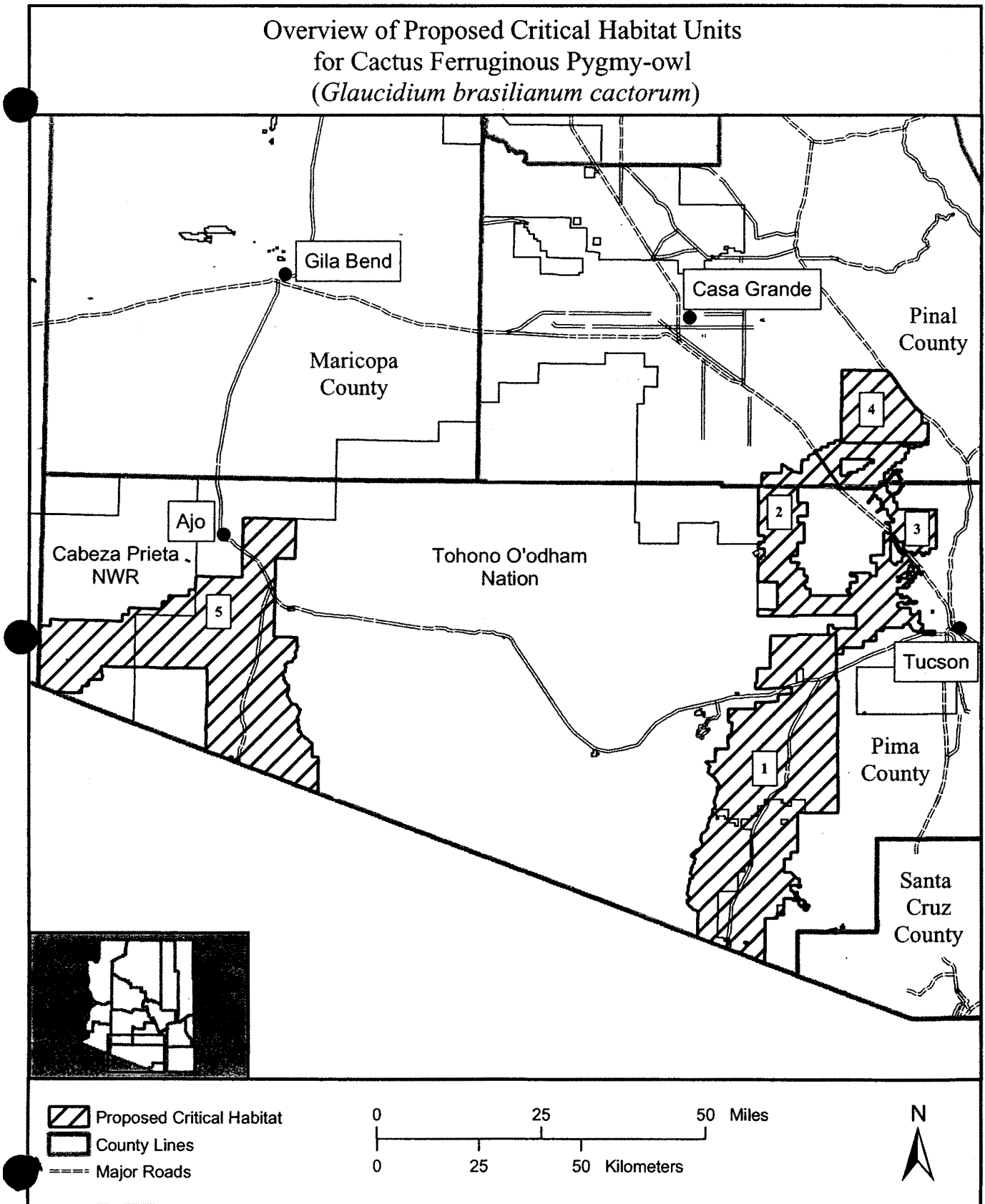
microhabitat characteristics. These numbers may have only limited applicability in project evaluations; and

(v) Habitat elements configured and human activity levels minimized so that unimpeded use, based on pygmy-owl behavioral patterns (typical flight distances, activity level tolerance, *etc.*), can occur during dispersal and within home ranges (the total area used on an annual basis).

(4) Critical habitat does not include non-Federal lands covered under the existing legally operative incidental take permit (Lazy K Bar Ranch) for the pygmy-owl issued under section 10(a) of the Act.

(5) Areas above 1,200 m (4,000 ft) and existing features and structures within proposed critical habitat, such as buildings; roads; cultivated agricultural land; residential landscaping (*e.g.*, mowed nonnative ornamental grasses); residential, commercial, and industrial developments; and other features, do not contain the primary constituent elements. Therefore, these areas are not considered critical habitat and are specifically excluded by definition.

(6) **Note:** Index map follows:



(7) Unit 1. Pima County, Arizona.
From USGS Sells, Ariz. 1979; Atascosa

Mts., Ariz. 1979.; and Silver Bell Mtns.,
1994.

(i) Unit 1: Gila and Salt Principal
Meridian, Arizona: T. 14 S., R. 9 E.,

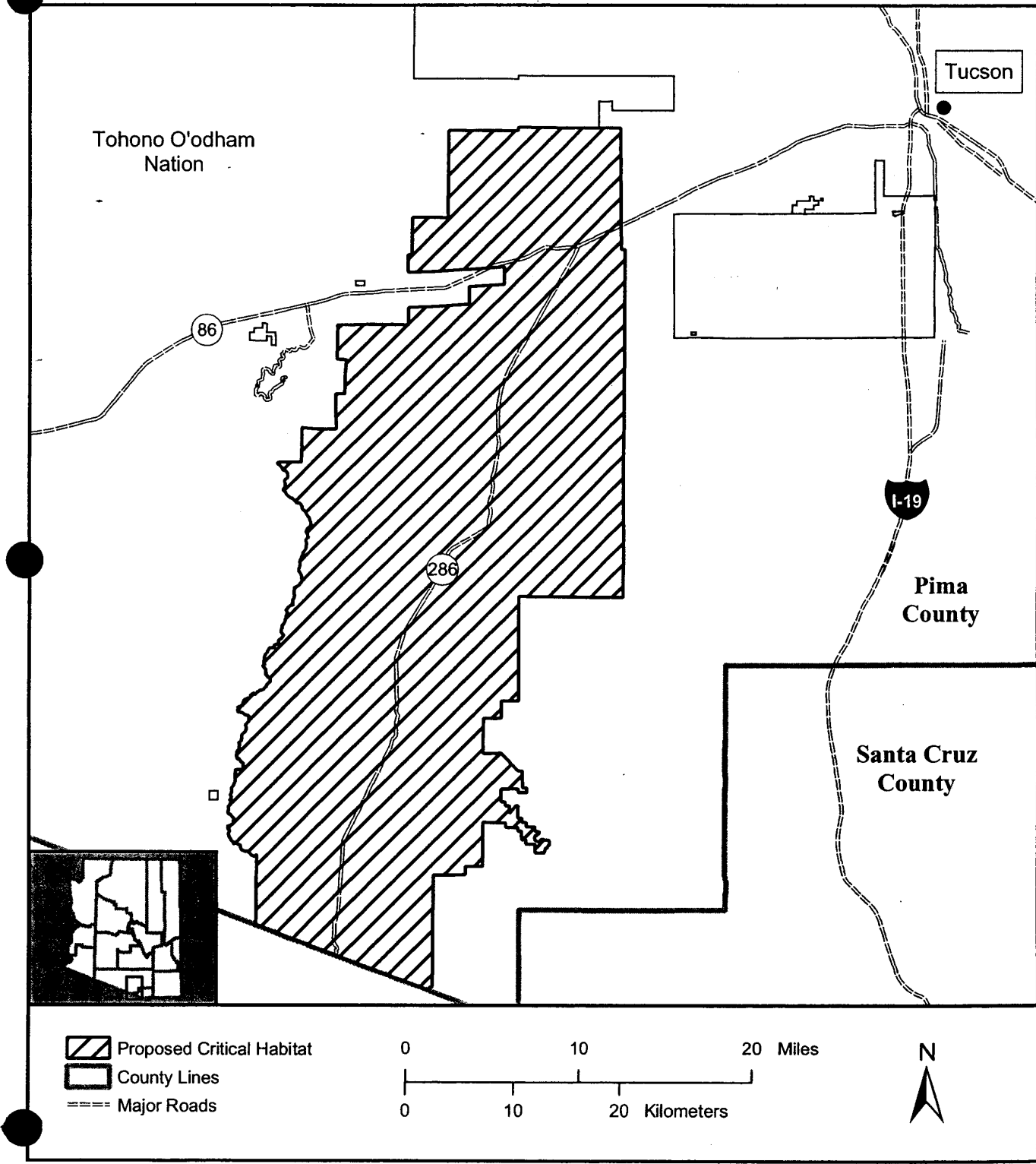
secs. 33 to 36; T. 14 S., R. 10 E., secs. 31 to 36; T. 15 S., R. 9 E., secs. 1 to 4, 9 to 16, 21 to 36; T. 15 S., R. 10 E., secs. 1 to 36; T. 16 S., R. 8 E., secs. 25 to 28 and 33 to 36; T. 16 S., R. 9 E., secs. 1 to 6, 12 to 15 and 19 to 36; T. 16 S., R. 10 E., secs. 1 to 36; T. 17 S., R. 8 E., secs. 1 to 3, 10 to 16, 21 to 36, and E. ½ of secs. 4 and 9; T. 17 S., R. 9 E., secs. 1 to 36; T. 17 S., R. 10 E., secs. 1 to 36; T. 18 S., R. 7 E., secs. 1, 12, and those portions of 2, 11, 13 to 14, 24, 25 and 36 east of the Tohono O'odham Nation boundary; T. 18 S., R. 8 E., secs. 1 to 18, 20 to 36, and those portions of sec. 19 east of the Tohono O'odham Nation boundary; T. 18 S., R. 9 E., secs. 1 to 36; T. 18 S., R. 10 E., secs. 1 to 36; T. 19 S., R. 7 E., secs. 24, 25, 35, 36, and those

portions of secs. 1, 12, 14, 23, 26, 33 and 34 east of the Tohono O'odham Nation boundary; T. 19 S., R. 8 E., secs. 1 to 36; T. 19 S., R. 9 E., secs. 1 to 36; T. 19 S., R. 10 E., secs. 1 to 12; T. 20 S., R. 7 E., secs. 1 to 2, 11 to 15, 22 to 27, 34 to 36, and those portions of secs. 3, 9 to 10, 16 to 17, 21, 28 to 29, 32 to 33 east of the Tohono O'odham Nation; T. 20 S., R. 8 E., secs. 1 to 36; T. 20 S., R. 9 E., secs. 1 to 12, 14 to 22, 27 to 34 and those portions of 13, 23 to 26, 36 within the boundary of the Buenos Aires N.W.R.; T. 21 S., R. 7 E., secs. 1 to 4, 9 to 16, 21 to 27, 34 to 36 and those portions of secs. 5, 8, 17, 20, 28, 29 east of the Tohono O'odham Nation boundary and the portion of sec. 33 north of the Tohono O'odham Nation boundary; T.

21 S., R. 8 E., secs. 1 to 36; T. 21 S., R. 9 E., secs. 1 to 11, 14 to 22, 27 to 33, N ½ of sec. 34, and those portions of 12, 13, and 24 within the boundary of the Buenos Aires N.W.R.; T. 21 S., R. 10 E., those portions of secs. 6, 7, 18 to 20, 29, 30 within the boundary of the Buenos Aires N.W.R.; T. 22 S., R. 7 E., secs. 1 to 3, 10 to 15, and those portions of secs. 22 to 24 north of Mexico; T. 22 S., R. 8 E., secs. 1 to 27 and those portions of secs. 28 to 30, 33 to 36 north of Mexico; T. 22 S., R. 9 E., secs. 6 to 7, 18 to 19, 30 to 31; T. 23 S., R. 8 E., the portion of sec. 1 north of Mexico; T. 23 S., R. 9 E., the portion of sec. 6 north of Mexico and within the boundary of the Buenos Aires N.W.R.

(ii) **Note:** Map of Unit 1 follows:

Proposed Critical Habitat for Cactus Ferruginous Pygmy-owl
(*Glaucidium brasilianum cactorum*)
Unit 1



(8) Unit 2. Pima and Pinal counties, Arizona. From USGS Casa Grande, Ariz.,

1994 and Silver Bell Mountains, Ariz., 1994 maps.

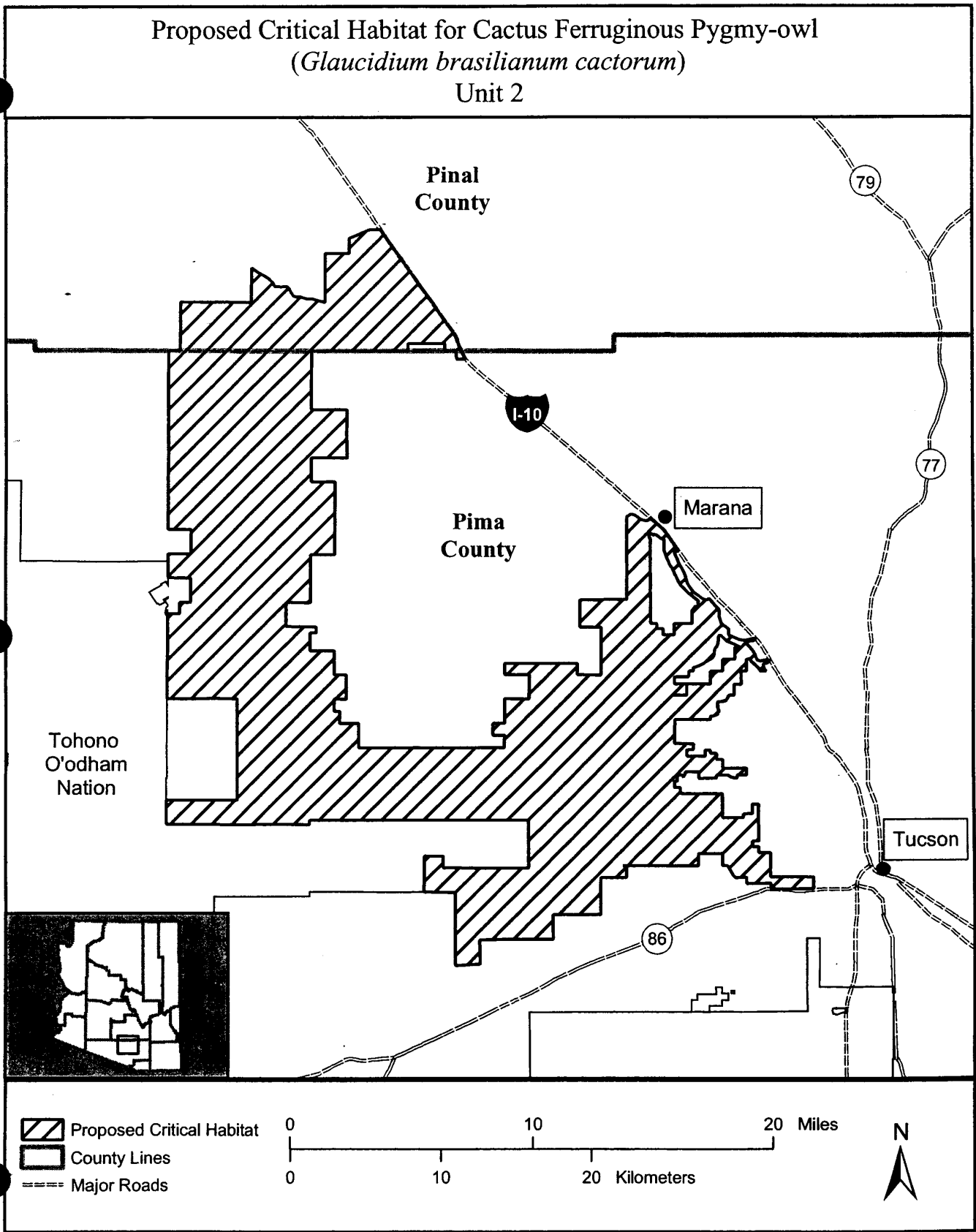
(i) Unit 2: Gila and Salt Principal Meridian, Arizona: T. 10 S., R. 9 E.,

secs. 25 to 36 and those portions of secs. 15 and 22 to 24 south and west of the Santa Cruz River's east channel and associated diversion; T. 10 S., R. 10 E., secs. 17 to 21, 27 to 33, the portions of sec. 8 south of Sasco Road, those portions of secs. 34 and 35 north of Pinal Air Park Road, and those portions of secs. 9, 15, 16, 22, 23, 25, 26, 36 west of west edge of pavement of I-10; T. 11 S., R. 9 E., secs. 1 to 36; T. 11 S., R. 10 E., secs. 19 and 30, W. 1/2 of sec. 20, and W. 1/2 of sec. 29; T. 11 S., R. 11 E. that portion of sec. 6 west of west edge of pavement of I-10; T. 12 S., R. 9 E., secs. 1 to 17, 19 to 29, 32 to 35, and W 1/2 and SW 1/4 of sec 32; T. 12 S., R. 10 E., secs. 6 to 7 and 18; T. 12 S., R. 11 E., sec. 36; T. 12 S., R. 12 E., sec. 17, 20, 29, 31 to 32, and those portions of sec. 8 south of the edge of pavement of Avra Valley Road, that portion of sec. 9 west of edge of pavement of I-10 and south of the edge of pavement of Avra Valley Road, that portion of sec 15 east of the edge of pavement of Interstate 10, those portions of sec. 16 east of the west levee/bank of the Santa Cruz River, those portions of secs. 21 and 22 within the east and west levies of the Santa

Cruz River, the portions of secs. 26 and 27 within the levees of the Santa Cruz River, E 1/2 of the SE 1/4 of sec 34 and that portion of sec. 34 south and east of the south edge of pavement of Cortaro Road and the portion of sec. 34 within the levees of the Santa Cruz River, that portion of sec. 35 west of the east levee of the Santa Cruz River, and the portion of sec. 36 within the levees of the Santa Cruz River; T.13 S., R. 9 E., secs. 1 to 18, 22 to 27, and 34 to 36; T. 13 S., R.10 E., secs. 7, 18 to 19, 29 to 36, and NW 1/4 of NW 1/4 of sec. 6, W. 1/2 of sec. 17, W. 1/2 of the SW 1/4 of sec. 20; T. 13 S., R. 11 E., secs. 13 to 15, 21 to 28, 31 to 36, S. 1/2 of sec. 9, S. 1/2 of sec. 10, and S. 1/2 of sec. 11, and N.E. 1/4 of sec. 29; T. 13 S., R. 12 E., sec.1 north of the edge of pavement of Silverbell Road and west of the east levee of the Santa Cruz River, sec. 2 except that portion south and east of Abington Road., sec. 3, SE 1/4 of sec. 4 and the portions of sec. 4 within Saguaro N.P., secs. 5 to 9, those portions of secs. 10 to 11 north and west of Abington Road, NE 1/4 and S 1/2 of sec. 12, W 1/2 of the NE 1/4 and W 1/2 of sec. 13, E 1/2 and SW 1/4 of sec. 14, N 1/2 of the NW 1/4 and NW 1/4 of the NE 1/4 and

S 1/2 of sec. 15, secs. 16 to 22, W 1/2 of sec. 23 and that portion of sec. 23 north and west of W. Paseo de las Estrallas to N. Calle del Risco to W. Placita del Risco to N. Paseo del Barranco to W. Calle de la Busca, and the portion of sec 24 north and west of W. Calle de la Busca and Tortolita Road, secs. 28 to 33, and that portion of secs. 34 and 35 within saguaro N.P. administrative boundary; T. 13 S., R. 13 E., sec. 6 within the channel of the Santa Cruz River and Canada del Oro and sec. 7 within the channel of the Santa Cruz River and the Rillito River; T. 14 S., R. 9 E., secs. 1 to 3 and 6 to 12; T. 14 S., R. 10 E., secs. 1 to 12, 25, and those portions of secs. 23, 24 and 26 outside the boundary of Tohono O'odham Nation; T. 14 S., R. 11 E., secs. 1 to 15, 22 to 36; T. 14 S., R. 12 E., secs. 4 to 11, 13 to 22, 24, N. 1/2 of 23, N. 1/2 of 30, and those portions of secs. 1 to 3, 12, and 25 within Tucson Mountain County Park; T. 14 S., R. 13 E., those portions of secs. 7, 18, 19, and 28 to 30 within Tucson Mountain County Park; T. 15 S., R. 11 E., sec. 3 to 7.

(ii) **Note:** Map of Unit 2 follows:



(9) Unit 3. Pima and Pinal counties, Arizona. From USGS Silverbell

Mountains, Ariz., 1994; Casa Grande, Ariz., 1994 maps.

(i) Unit 3: Gila and Salt Principal Meridian, Arizona: T. 9 S., R. 10 E., sec.

36 and S $\frac{1}{2}$ of sec. 35; T. 10 S., R. 10 E., secs. 1 to 3, 10 to 14, 24, those portions of secs. 9, 15, 22, 23, 25, 26, 36 east of east edge of pavement of I-10, and S $\frac{1}{2}$ of sec. 4 east of the east edge of pavement of I-10; T.10 S., R.11 E., secs. 1 to 13, 23 to 27, 31 to 36, N $\frac{1}{2}$ of sec. 14, N $\frac{1}{2}$ of sec. 15., N $\frac{1}{2}$ of sec. 16, N $\frac{1}{2}$ of sec. 17, N $\frac{1}{2}$ of sec. 18, SE $\frac{1}{4}$ of sec. 22, S $\frac{1}{2}$ and NE $\frac{1}{4}$ of sec. 28, and S $\frac{1}{4}$ of sec. 29; T.10 S., R.12 E., Sec. 4 to 9, 16 to 19, N $\frac{1}{2}$ of sec. 1, S $\frac{1}{2}$ of N $\frac{1}{2}$ of sec. 2 and the N $\frac{1}{2}$ of S $\frac{1}{2}$ of sec. 2, S $\frac{1}{2}$ of sec. 3, N $\frac{1}{2}$ and SW $\frac{1}{4}$ of sec 10, NW $\frac{1}{4}$ of sec. 15, N $\frac{1}{2}$ and SW $\frac{1}{4}$ of sec 20, N $\frac{1}{2}$ and SW $\frac{1}{4}$ of sec 30, W $\frac{1}{2}$ of sec 31, and those portions of secs. 28, 29, 31, 32, and 33 within 150

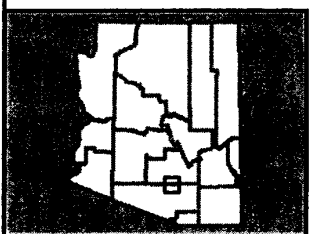
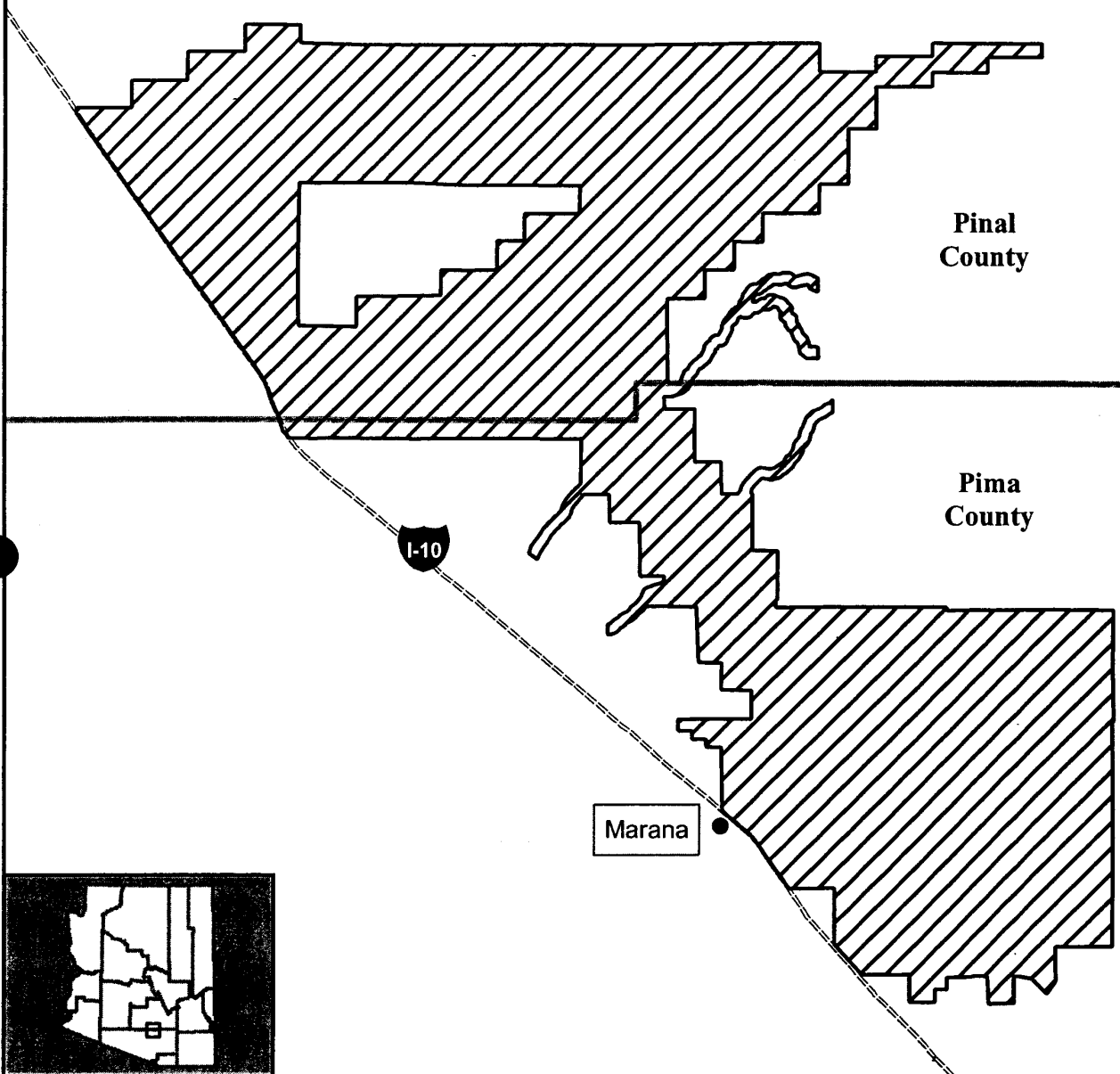
m (495 ft.) of the center of Cottonwood Wash and its southern branch; T.11 S., R.11 E., secs. 1 to 5, the portion of sec. 6 east of the eastern edge of pavement of I-10, E $\frac{1}{2}$ of sec. 12, and those portions of secs. 12, 13, 14 and 23 that are east of the Central Arizona Project Canal property and within 150 m (495 ft.) of the center of Cottonwood Wash; T.11 S., R.12 E., secs. 6, 7, 17, 20, 21, 25 to 28, 34 to 36, SW $\frac{1}{4}$ of sec. 5, W $\frac{1}{2}$ and SE $\frac{1}{4}$ of sec. 8, W $\frac{1}{2}$ of sec 16, E $\frac{1}{2}$ and NW $\frac{1}{4}$ of sec. 18, NE $\frac{1}{4}$ of sec. 19, E $\frac{1}{2}$ of Sec 29, E $\frac{1}{2}$ and NW $\frac{1}{4}$ of sec. 33, that portion of sec. 5 within 150 m (495 ft.) of the center of Cottonwood Wash, and those portions of secs. 3, 9, 10, 19, and 30 within 150 m (495 ft) of




the center of Cochie Wash; T.11 S., R.13 E., secs. 28 to 33; T.12 S., R.12 E., secs. 1 to 4, 10 to 14, 24, the E $\frac{1}{2}$ of NE $\frac{1}{4}$ and the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of sec 5, those portions of secs. 9, 15 to 16, 23 east of the east edge of pavement of I-10, N $\frac{1}{2}$ of sec. 25 and the E $\frac{3}{4}$ of the S $\frac{1}{2}$ of sec 25 excluding the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$, and the portions of sec. 26 north of the north edge of pavement of Cortaro Farms Road and east of the east edge of pavement of I-10; T12S, R13E, secs. 4 to 9, 16 to 21, N $\frac{1}{2}$ and E $\frac{1}{2}$ of the SE $\frac{1}{4}$ of sec 30, W $\frac{1}{2}$ of the SW $\frac{1}{4}$ of sec. 29 and that portion of sec 29 north of Cortaro Farm Road and west of Shannon Road.

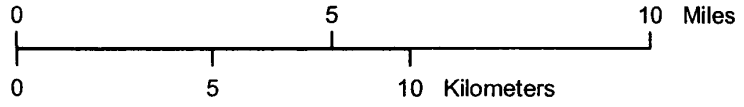
(ii) **Note:** Map of Unit 3 follows:

Proposed Critical Habitat for Cactus Ferruginous Pygmy-owl
(*Glaucidium brasilianum cactorum*)
Unit 3

79



-  Proposed Critical Habitat
-  County Lines
-  Major Roads



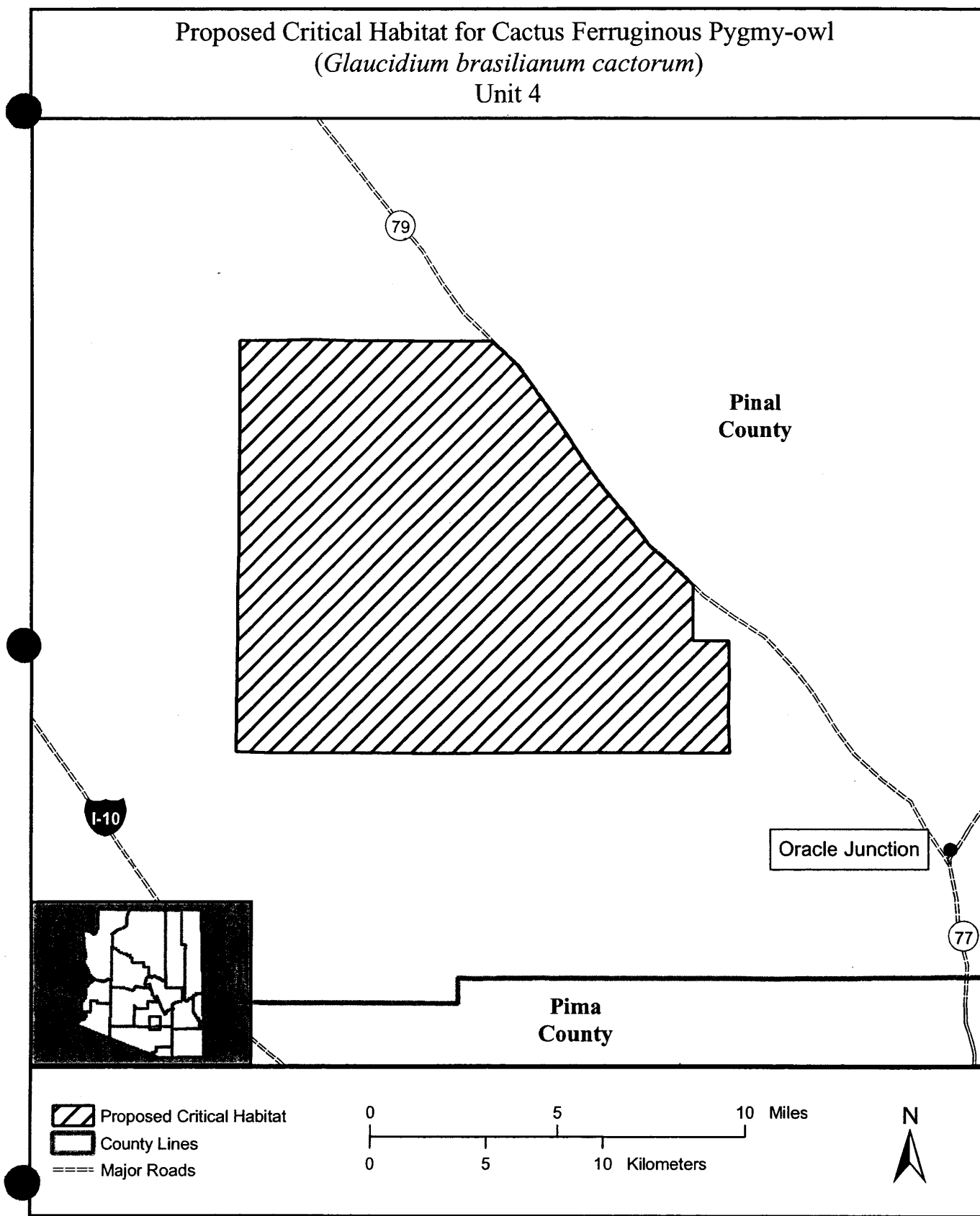
(10) Unit 4, Pinal County, Arizona. From USGS Casa Grande, Ariz., 1994 and Mammoth, Ariz., 1986 maps.

(i) Unit 4: Gila and Salt Principal Meridian, Arizona: T. 8 S., R. 11 E.,

secs. 7 to 36; T. 8 S., R. 12 E., secs. 18 to 20, 29 to 33, and those portions of secs. 7, 8, 16, 17, 21, 22, 27, 28, 34 and 35 west of edge of pavement of State Route 79; T. 9 S., R. 11 E., secs. 1 to 36;

T. 9 S., R. 12 E., secs. 3 to 11, 13 to 36, and those portions of secs. 1, 2, and 12 west of edge of pavement of State Route 79; T. 9 S., R. 13 E., secs. 19, 32 and 33.

(ii) **Note:** Map of Unit 4 follows:



(11) Unit 5. Pima County, Arizona.
 From BLM Gila Bend, Ariz., 1981; Ajo,

Ariz., 1980; Dateland, Ariz., 1980;
 Cabeza Prieta Mountains, Ariz., 1980;

and USGS Lukeville, Ariz.—Sonona,

1994 and Quitobaquito Hills, Ariz.—
Sonora, 1994 maps.

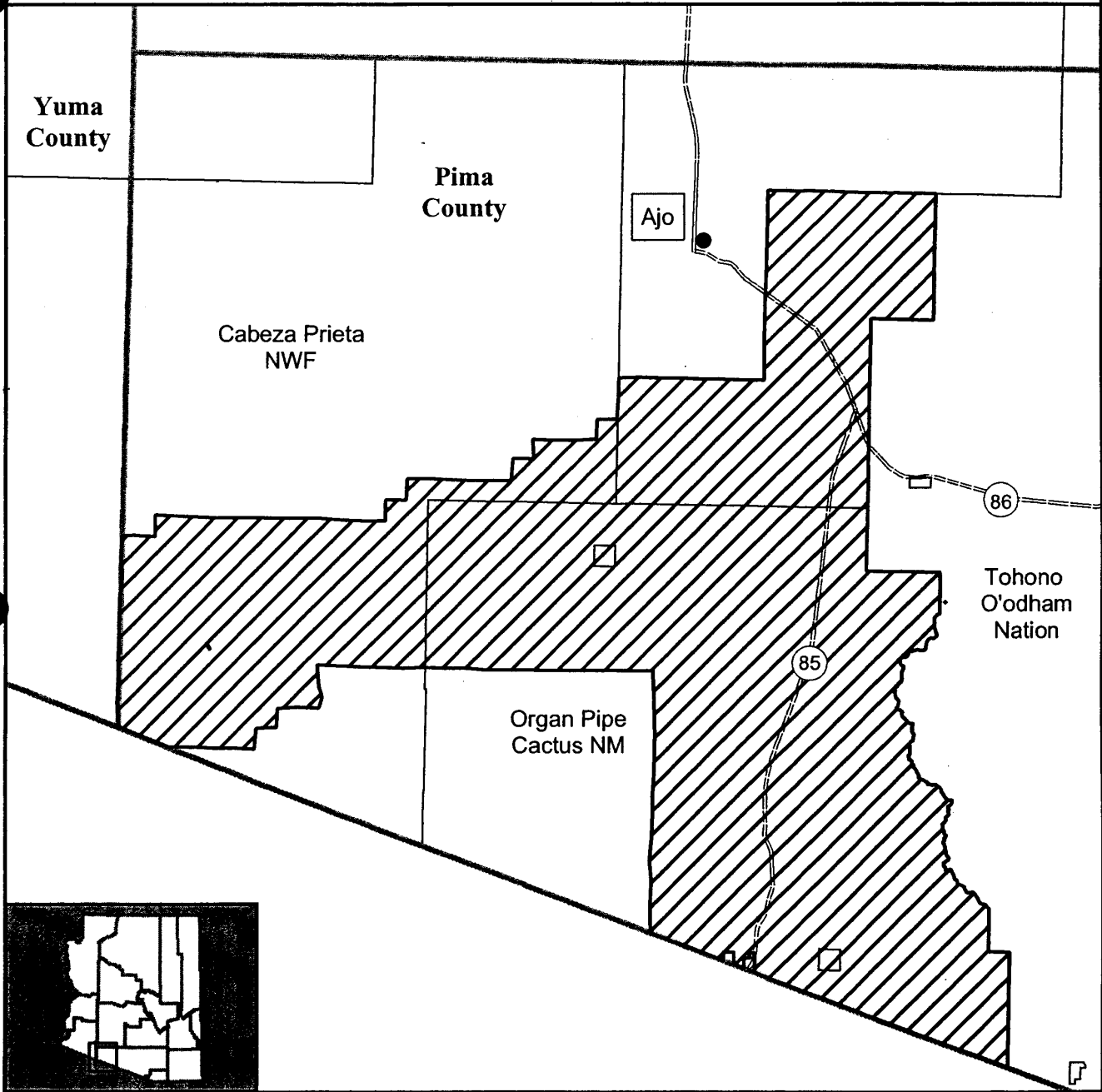
(i) Unit 5: Gila and Salt Principal Meridian, Arizona: T. 12 S., R. 5 W., secs. 1 to 5, 8 to 17, 20 to 29, 32 to 36; T. 12 S., R. 4 W., secs. 4 to 9, 16 to 21, 28 to 33; T. 13 S. R. 7 W. sec. 36; T. 13 S., R. 6 W., secs. 19 to 36; T. 13 S., R. 5 W., secs. 1 to 5, 8 to 17, and 19 to 36; T. 14 S., R. 10 W., secs. 25 to 28, 32 to 36, and the portions of sec. 31 within Pima County, Arizona; T. 14 S., R. 9 W., secs. 25 to 36; T. 14 S., R. 8 W., secs. 13 to 16 and 20 to 36; T. 14 S., R. 7 W., secs. 1 to 4, and 8 to 36; T. 14 S., R. 6 W., secs. 1 to 36; T. 14 S., R. 5 W., secs. 1 to 36; T. 15 S., R. 10 W., secs. 1 to 5, 8 to 17, 20 to 29, 32 to 36, and those portions of secs. 6, 7, 18, 19, 30, and 31 within Pima County, Arizona; T. 15 S.,




R. 9 W., secs. 1 to 34; T. 15 S., R. 8 W., secs. 1 to 30; T. 15 S., R. 7 W., secs. 1 to 30; T. 15 S., R. 6 W., secs. 1 to 30 and 33 to 36; T. 15 S., R. 5 W., secs. 1 to 36; T. 15 S., R. 4 W., secs. 4 to 9, 16 to 19, 30 to 31 and those portions of 3, 10, 15, 20 to 22, 29, 32 west of the Tohono O'odham Nation boundary; T. 16 S., R. 10 W., secs. 1 to 5, 8 to 14, those portions of 15 to 18 north of Mexico, and those portions of secs. 6, 7 and 18 within Pima County, Arizona; T. 16 S., R. 9 W., secs. 3 to 8, and sec. 18; T. 16 S., R. 6 W., secs. 1 to 4, 9 to 16, 21 to 28, and 33 to 36; T. 16 S., R. 5 W., secs. 1 to 36; T. 16 S., R. 4 W., secs. 6 to 7, 17 to 20, 29 to 33, and those portions of 5, 8 to 9, 16, 21, 26 to 28, 34, 35 west of Tohono O'odham Nation boundary; T. 17 S., R. 6 W., secs. 1 to

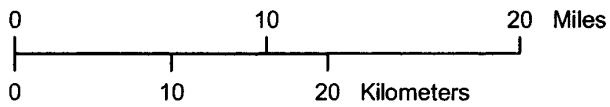
4, 9 to 16, 21 to 28, and 35, 36, those portions of secs. 33 and 34 north of Mexico.; T. 17 S., R. 5 W., secs. 1 to 36; T. 17 S., R. 4 W., secs. 4 to 9, 16 to 22, 25 to 36, and those portions of secs. 3, 10, 11, 14, 15, 23, 24 west of Tohono O'odham Nation; T. 18 S., R. 6 W., those portions of secs. 1 to 3 within Organ Pipe Cactus N.P. and north of Mexico; T. 18 S., R. 5 W., secs. 1 to 5, 11, 12 and those portions of 6 to 10, 13 to 15 within Organ Pipe Cactus N.P. and north of Mexico; T. 18 S., R. 4 W., secs. 1 to 17, 23, 24 and those portions of secs. 18 to 22, and 25 to 28 north of Mexico; T. 18 S., R. 3 W., secs. 6, 7, 18, 19, and 30, and the portions of sec. 31 north of Mexico.

(ii) **Note:** Map of Unit 5 follows:

Proposed Critical Habitat for Cactus Ferruginous Pygmy-owl
(*Glaucidium brasilianum cactorum*)
Unit 5



-  Proposed Critical Habitat
-  County Lines
-  Major Roads



* * * * *

Dated: November 15, 2002.

Paul Hoffman,

*Assistant Secretary for Fish and Wildlife and
Parks.*

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BILLING CODE 4310-55-P